PES Environmental, Inc.
Engineering & Environmental Services

A Report Prepared for:

BMR-Dexter LLC
17190 Bernardo Center Drive
San Diego, CA 92128

FINAL CONTAMINATED MEDIA MANAGEMENT PLAN
AMERICAN LINEN SUPPLY CO-DEXTER AVENUE SITE
700 DEXTER AVENUE NORTH
SEATTLE, WASHINGTON

Facility Site Identification Number: 3573
Cleanup Site Identification Number: 12004

MARCH 12, 2019

By:

Brian L. O'Neal, P.E.
Associate Engineer

Daniel A. Balbiani, P.E.
Principal Engineer

1413.001.05

TABLE OF CONTENTS

LIST OF TABLES iv
LIST OF ILLUSTRATIONS v
1.0 Introduction 1
1.1 CMMP Purpose 1
1.2 CMMP Organization 2
2.0 Background 4
2.1 Property Description 4
2.2 Redevelopment Description 4
2.3 Construction Schedule 5
2.4 Existing Environmental Conditions 6
2.4.1 Soil 6
2.4.1.1 Soil Data Collected During Additional Injection Well Installation 6
2.4.1.2 Soil Data Collected During IW-54A/IW-54B Investigation 7
2.4.2 Groundwater 7
2.5 IAWP Implementation and Construction Activities Generating Contaminated Media 8
3.0 Contaminated Soil Management Methods 9
3.1 Construction Sequencing 9
3.2 Soil Data and Soil Disposal Classification 9
3.2.1 Soil Data Associated with Construction Activities 9
3.2.2 Soil Disposal Classifications 10
3.3 Soil Management Areas 11
3.4 Soil Management Approach by Construction Activity 13
3.4.1 Shoring Installation 13
3.4.2 Dewatering System Installation 16
3.4.3 Mass Excavation 17
3.4.4 Contingent Action Injection and Monitoring Wells 19
3.5 In Situ Treatment Method for Soil Exceeding Contained-in Criteria 20
3.5.1 Overview of Treatment Methodology 20
3.5.2 Bench Scale Testing 20
3.5.3 In Situ Treatment Methodology 21
3.5.4 Disposal Contingency 23
3.6 Soil Stockpiles 23
3.7 Contaminated Soil Load-Out, Transport, and Manifesting 23
3.8 Odor Control 24
3.9 Equipment Decontamination Procedures 25
3.10 Contingency Plan for Unexpected Conditions 25
4.0 Contaminated Stormwater and Groundwater Management Methods 27
4.1 Permitting 27
4.2 Stormwater Management 27
4.3 Groundwater/ Dewatering Water Management 28
5.0 Health And Safety 29
5.1 Site-Specific Health and Safety Plan 29
5.2 Air Monitoring Plan 29
6.0 Reporting and communications 32

6.1 Progress Reports 32
6.2 Data Uploading to the Environmental Information Management Database..... 32
6.3 Project Roles and Responsibilities..... 32
6.4 Interim Action Implementation Report..... 34

TABLES
FIGURES
APPENDICES
Appendix A – Temporary Shoring Wall Plans
Appendix B – Groundwater Control Plan
Appendix C – IAWP Figures 21-24; IAWP Figures 27-30; Drawing 2 from CAA;
Appendix D – Soil Laboratory Reports and Data Validation Memoranda
Appendix E – Excavation Sequencing Diagrams
Appendix F – Final Contained-In Determination
Appendix G – CSWGP/NOI Application and SWPPP; KCIW Discharge Application
Appendix H – Site-Specific Health and Safety Plan
Appendix I – Air Monitoring Plan

LIST OF TABLES

Table 1 700 Dexter Building Construction Milestone Schedule

Table 2 Soil Analytical Results for Injection Well and Soil Boring Installation – August through October 2018

Table 3 Soil Analytical Results for Petroleum Hydrocarbons and CVOCs - Soil Management Areas

LIST OF ILLUSTRATIONS

Figure 1 Site Location Map

Figure 2 Existing Property Conditions

Figure 3 Site Plan and Excavation Limits

Figure 4 Soil Management Areas

Figure 5a Soil Management Area 2 – Elevation Interval 28.5 to 15 feet

Figure 5b Soil Management Area 2 – Elevation Interval 15 to 5 feet

Figure 6a Soil Management Area 3 – Elevation Interval 35 to 25 feet

Figure 6b Soil Management Area 3 – Elevation Interval 25 to 12.5 feet

Figure 7a Soil Management Area 4 – Elevation Interval 27.5 to 22.5 feet

Figure 7b Soil Management Area 4 – Elevation Interval 12.5 to 5 feet

1.0 INTRODUCTION

PES Environmental, Inc. ("PES") has prepared this Final Contaminated Media Management Plan ("CMMP") on behalf of BMR-Dexter LLC ("BMRD") to supplement the Final Interim Action Work Plan ("IAWP")[1] for the Former American Linen Supply Co – Dexter Ave Site ("Site") located at 700 Dexter Avenue North, Seattle, Washington ("Property"). The IAWP describes the cleanup actions that will be performed on and immediately adjacent to the Property to treat soil and groundwater contaminated by chlorinated volatile organic compounds ("CVOCs"), including tetrachloroethene ("PCE") and its daughter products, and petroleum hydrocarbons. The interim actions described in the IAWP are integrated into the Property redevelopment (two 14-story office towers over three levels of subgrade parking), and are being performed prior to, during, and after the redevelopment construction. As described in the IAWP, the CMMP identifies the type of contaminated media (i.e., soil, groundwater, and stormwater) that will be encountered during the redevelopment construction on the Property, and how that media will be managed consistent with the applicable environmental regulations and requirements.

This CMMP was prepared consistent with the IAWP and in accordance with the requirements of Agreed Order No. DE 14302 ("AO") between the State of Washington Department of Ecology ("Ecology") and BMRD, and specifically to fulfill the requirements in AO Sections VI.G and VII.K. For the purpose of this CMMP, the word "Site" refers to an area where contamination released at the property located at 700 Dexter Avenue North has come to be located, consistent with the definition of "site" or "facility" in the Washington Model Toxics Control Act ("MTCA", Chapter 173-340 of the Washington Administrative Code ("WAC")). The word "Property" refers to the area within the 700 Dexter Avenue North property boundary (Figure 1).

1.1 CMMP Purpose

The purpose of this CMMP is to provide information regarding the location, source, depth, and disposal classification type of contaminated soil and other media (groundwater and stormwater) present at the Property to ensure its proper management and disposal. The CMMP also provides procedures for distinguishing soils with different levels of contamination to facilitate efficient excavation and transport and minimize stockpiling and double-handling. The CMMP includes the following specific components:

- Descriptions of the various interim action and construction activities that will generate contaminated media, including the mass soil excavation;
- Definitions of the various categories of contaminated media that will require management and the specific criteria that define each category;
- Delineation of where contaminants have been detected in soil and where concentrations may exceed applicable waste management criteria (e.g., hazardous waste suitable for direct landfilling, and hazardous waste requiring treatment prior to disposal);

[1] PES Environmental, Inc. 2018. *Final Interim Action Work Plan, American Linen Supply Co-Dexter Avenue Site, 700 Dexter Avenue North, Seattle, Washington.* August.

- Specific procedures for managing the contaminated media, including procedures used to segregate different categories of waste, soil handling and loading procedures, and manifesting requirements;

- Procedures used to pre-treat soil with contaminant concentrations exceeding the applicable Universal Treatment Standards prior to transporting the soil offsite. These soils would otherwise require treatment (incineration) by the waste management company prior to disposal;

- Procedures for dust and odor control;

- Procedures for managing both stormwater and groundwater extracted by the dewatering systems. These water management procedures will include those defined in the Stormwater Pollution Prevention Plan and discharge permit related plans;

- Contingencies for unanticipated contamination that may be encountered;

- Decontamination procedures; and

- Health and safety protocols, including the plan for monitoring ambient air on and adjacent to the Property during active construction.

1.2 CMMP Organization

The work plan is organized as follows:

Section 1 – Introduction: Describes the purpose and organization of this report.

Section 2 –Background: Describes the Property and planned redevelopment, summarizes existing soil and groundwater conditions, and identifies construction activities that will generate contaminated media.

Section 3 – Contaminated Soil Management Methods: Describes the construction sequencing for the excavation work, defines the different waste classifications applicable to the project, defines soil management areas, describes the specific contaminated soil management approach to be used for each major construction activity, including the soil pre-treatment approach, defines soil stockpiling and load out procedures, and defines odor control, confirmation soil sampling, and decontamination procedures.

Section 4 – Contaminated Stormwater and Groundwater Management Methods: Describes the permitting required to discharge treated stormwater and groundwater, and the approach for treating both stormwater and groundwater to meet discharge limitations.

Section 5 – Health and Safety: Summarizes the site-specific health and safety and air monitoring plans to be implemented during construction.

Section 6 – Reporting and Communications: Describes the reporting requirements associated with the CMMP activities, and defines the roles and responsibilities related to project communications and notifications.

2.0 BACKGROUND

This section describes the Property condition and the redevelopment construction, provides an overview of the extent of soil and groundwater contamination on and immediately adjacent to the Property, and identifies the construction related activities that will generate contaminated media.

2.1 Property Description

The Property consists of a single tax parcel (King County Assessor Parcel Number 224900-0285-03) that encompasses 59,822 square feet, or approximately 1.4 acres. Dexter Avenue North bounds the Property to the west, Valley Street bounds the Property to the north, 8th Avenue North bounds the Property to the east, and Roy Street bounds the Property to the south (Figure 1).

No buildings are currently present at the Property. The Property is almost entirely covered by concrete or asphalt, with small patches of vegetation or exposed soil (Figure 2). Concrete building foundations or slabs cover the surface of the northwest quarter of the Property, the southern half of the Property, and the southeast portion of the northeast quarter of the Property. Most of the northeast quarter of the Property is covered by asphalt. Except for the northeast and southwest corners, the Property surface (the now-exposed basements of the former buildings) is from 3 to approximately 15 feet below the surrounding streets. The building formerly in the southwest quarter of the Property did not have a basement under its southern half, so that portion of the Property is approximately at the same grade as Roy Street, as is the part of the Property along the northern and eastern Property lines in the northeast quarter (near the intersection of 8th Avenue North and Valley Street). The Property surface is relatively flat, with an elevation of generally 40 feet (ranges from 36 to 42 feet) above the North American Vertical Datum of 1988 ("NAVD88") across most of the Property. The greatest variance in the surface elevation occurs in the southwest corner, where the surface elevation is approximately 52 feet.

2.2 Redevelopment Description

The Property is scheduled to be redeveloped, with the start of construction beginning in the first quarter of 2019. The redevelopment design calls for three levels of underground parking (below the elevation of 8th Avenue), a partial subgrade level for parking and support facilities located between the elevation of Dexter Avenue North and 8th Avenue North, on-street retail, and two adjacent 14-story office towers. The parking garage and foundations will require excavations to extend to elevations ranging from 10.7 to 0.7 feet across the entire Property; these elevations include approximately 8 inches (0.67 ft.) of over-excavation beneath the bottom of the foundations to create a working surface (referred to as a "rat slab") for installing and protecting a waterproofing and vapor intrusion barrier membrane. Figure 3 depicts the foundation plan for the bottom floor of the parking garage and shows the excavation elevations beneath the parking garage floor slab. The un-thickened portions of the floor slab (white areas on Figure 3 excavated to elevation 10.7) are 2.5 feet thick, while other portions of the floor slab (shaded areas on Figure 3) are thickened by an additional 0.5 to 10 feet to accommodate foundations and footings beneath the building cores, structural columns, exterior garage perimeter walls, and elevators. The depth of the excavations below existing ground surface will vary with location on the Property based on variability in the ground surface elevations. For a large portion of the

Property where the ground surface elevation is approximately 40 feet (NAVD88), the excavation depth for construction of the garage and foundations will range from approximately 29.3 to 39.3 feet below existing ground surface. The deepest foundation excavation is in the northwest quadrant of the Property, beneath the elevators (Figure 3).

Constructing the underground parking garage will require temporary shoring to be installed around the Property's perimeter. Shoring for the excavation consists of soldier piles with wood lagging and a combination of tie backs and soil nails to provide additional support. Figure 3 shows the soldier pile locations. The soldier pile borings will be 2.5 feet in diameter along the north, east, and south property boundaries, and 2 feet in diameter along the west Property boundary. The soldier pile borings extend to elevations ranging from 0 to -4 feet along the north shoring wall, -4 feet along the east shoring wall, 0 ft to -7.5 feet along the southern shoring wall, and 0 to -14.5 feet along the west shoring wall. Additional details can be found in the Temporary Shoring Wall Plans prepared by Ground Support PLLC and included in Appendix A.

Dewatering will be required to construct the parking garage and will continue until the foundation and parking garage structure are completed to above the adjacent ground surface. The groundwater dewatering system is described in the Groundwater Control Plan prepared by Middour Consulting LLC and included as Appendix B. The dewatering system consists of four vertical extraction wells installed in each quadrant of the Property and a vacuum wellpoint system installed around the Property perimeter through the shoring walls. The four groundwater extraction wells will be 12-inch diameter PVC wells installed to a depth equal to approximately elevation 0 feet. The 12-inch wells will be installed concurrent with the installation of the soldier piles and will be used in conjunction with shallow trenches/sumps to manage the shallow groundwater encountered in the upper 16 to 20 feet of the Property excavation. The wellpoint system will be installed once the excavation floor has reached approximately elevation 20 feet. Vacuum well points will consist of 1.5 to 2.0-inch diameter PVC wells that will be installed at intervals of approximately 8 feet through the shoring walls at an angle of 20 to 30 degrees to an elevation of approximately 0 ft. The wellpoints will be connected to a vacuum pump through a header pipe, and the collected water will be conveyed to a water treatment system (see Section 4) prior to being discharged to either the sanitary sewer or storm sewer, as permitted. The Groundwater Control Plan estimates a dewatering flow rate on the order of 75 gallons per minute ("gpm"). As designed, the dewatering system will collect groundwater primarily from the Shallow Zone and the Intermediate A Zone as defined in the IAWP.

2.3 Construction Schedule

The schedule for the major milestones related to implementing the interim action and constructing the building are summarized in Table 1. Once the installation of the soldier piles has begun, it will take approximately 4 to 5 months to complete the shoring and mass excavation work to an elevation of approximately 18 to 20 feet after which the perimeter vacuum dewatering wells will be installed and the dewatering system started. Completing the mass excavation will take approximately two more months, and approximately 3 to 4 months for the installation of the contingent action injection wells and the long-term on-Property monitoring wells. Once these wells have been installed, the vapor barrier will be installed followed by the start of construction of the building foundation. From that point, construction will proceed and, once the building reaches approximately the third above-grade level (third quarter 2020), the

dewatering system will be shut down. The building is expected to be completed in the third quarter of 2021.

2.4 Existing Environmental Conditions

This section summarizes the existing soil and groundwater conditions based on the information presented in the IAWP and also presents additional soil data collected during the installation of injection wells after the IAWP was approved by Ecology.

2.4.1 Soil

As described in the IAWP, the contaminants of concern present in soil at the Property are CVOCs including PCE, trichloroethene ("TCE"), cis-1,2-dichloroethene ("cDCE"), trans-1,2-dichloroethene ("tDCE"), and vinyl chloride ("VC"), and petroleum hydrocarbons including gasoline range organics ("GRO"), and benzene, ethylbenzene, toluene, and xylenes (collectively "BTEX"). Petroleum hydrocarbons are not as widely distributed at the Property as CVOCs, and the extent of petroleum hydrocarbons was included within the limits of the CVOCs. Therefore, the distribution of CVOCs in soil is inclusive of petroleum hydrocarbons. IAWP Figures 21 through 24 (included in Appendix C for reference) depict the extent of CVOCs in soil laterally and at multiple depth intervals across the Property. The extent of CVOCs in the Shallow Zone and Intermediate A Zone (IAWP Figures 21 and 22) provides an indication of the extent of CVOCs within the planned excavation. These figures indicate that CVOCs above screening levels are present across the majority of the Property and will be encountered during the development excavation. In addition, CVOCs are present in detectable concentrations that are below the screening levels in some areas, which will require the soil to be properly managed as contaminated.

Subsequent to the approval of the IAWP, soil data were collected during: (1) the installation of the 22 additional injection wells and (2) during a focused investigation conducted around two of the new injection wells (IW-54A and IW-54B). These activities are described below, and the additional soil data are summarized.

2.4.1.1 Soil Data Collected During Additional Injection Well Installation

During the installation of injection wells in accordance with the IAWP, PES collected and analyzed soil samples from the well borings based on field screening results for soil cuttings disposal characterization. Soil samples were collected from the borings of injection wells IW-54A, IW-58A, IW-53B, IW-54B, IW-55B, IW-22C, IW-23C, IW-24C, IW-27C, IW-28C, and IW-12D through IW-16D and analyzed for CVOCs using EPA Method 8260C. The injection well locations are shown on Figure 4, the soil sample results are summarized in Table 2, and copies of the laboratory reports and data validation memoranda are included in Appendix D. The soil data obtained from these locations were generally consistent the soil results presented in the IAWP, except for injection well locations IW-54A and IW-54B that are discussed in detail in the next section.

2.4.1.2 Soil Data Collected During IW-54A/IW-54B Investigation

The results for soil samples collected during installation of IW-54A and IW-54B indicated that PCE was detected at concentrations greater than 14 mg/kg (48.1 and 937 mg/kg, respectively) in the samples collected at 8 feet below ground surface ("bgs"). These samples represent soil that will be excavated during the interim action; understanding the lateral and vertical extent of soil containing PCE greater than 14 mg/kg was required to determine the appropriate method for managing this soil. Based on the soil sample results from IW-54A/IW-54B, PES submitted an investigation plan[2] to characterize the extent of PCE and related CVOCs in the vicinity of IW-54A/IW-54B.

In October 2018, PES oversaw the drilling and sampling of borings B-249 through B-267 (Figure 4) using direct-push drilling equipment. Boring B-253 encountered an obstacle near the ground surface and was relocated and replaced by B-253A. Boring B-255 encountered refusal at 16 feet bgs; boring B-255A was drilled adjacent to it, and a sample collected from 21 feet bgs. Boring B-254 was drilled to a total depth of 25 feet. Based on preliminary laboratory data indicating that the sample collected at 25 feet contained PCE at a concentration greater than 14 mg/kg, boring B-254A was drilled at the same location using Sonic drilling equipment to a depth of 35 feet, and soil samples were collected from depths of 27, 30, and 35 feet. The IW-54A/IW-54B soil sample results are summarized in Table 2, and copies of the laboratory reports and data validation memoranda are included in Appendix D.

The results of the IW-54A/IW-54B investigations bounded the lateral extent of soil containing PCE at concentrations greater than 14 mg/kg in this area. The results from boring B-254A indicate that the vertical extent of soil containing PCE greater than 14 mg/kg in this area is approximately 27 feet bgs (elevation 12.5 feet), which is within the planned excavation limits. Section 3 provides further information on the distribution of CVOCs in soil as it relates to the soil disposal classification and identifies the areas where each type of soil classification is present on the Property.

2.4.2 Groundwater

The contaminants of concern present in groundwater beneath the Property are also CVOCs and petroleum hydrocarbons, and similar to soil, CVOCs are the predominant contaminants. IAWP Figures 27 through 30 (included in Appendix C for reference) present the concentrations of PCE, TCE, cDCE, and VC in groundwater on and adjacent to the Property in the Shallow, Intermediate A, Intermediate B, and Deep water-bearing units. As shown in the figures, CVOCs are present in groundwater beneath most of the Property at concentrations exceeding the screening levels. As described above, dewatering system will collect groundwater from the Shallow Zone and Intermediate A Zone.

[2] PES Environmental, Inc. 2018. *Proposed IW-54A/IW-54B Soil Investigation and CMMP Schedule Extension Request, Former American Linen Supply Co., Agreed Order No. De 14302.* October 5.

2.5 IAWP Implementation and Construction Activities Generating Contaminated Media

As described previously, the IAWP will be implemented during redevelopment construction. During this work there are several IAWP and construction activities that will generate contaminated media that will require proper management and disposal. The IAWP and redevelopment construction activities generating contaminated media are listed below by contaminated media type.

Contaminated Soil

IAWP implementation and construction activities that will generate contaminated soil include the following:

- Shoring installation including drilling of soldier pile borings, tiebacks, and soil nails;
- Garage and foundation excavation;
- Dewatering system installation; and
- Installation of injection and monitoring wells in the base of the excavation in accordance with the Draft Contingent Action Addendum[3].

Contaminated Stormwater and Groundwater

IAWP implementation and construction activities that will generate contaminated stormwater and/or groundwater include the following:

- Development of dewatering extraction wells and vacuum wellpoints;
- Operation of the dewatering system;
- Management of stormwater from incidental precipitation contacting contaminated soil during excavation; and
- Development of injection and monitoring wells installed in the base of the excavation.

The specific methods that will be used to manage the identified contaminated soil and water are described in CMMP Sections 3 and 4, respectively.

[3] PES Environmental, Inc. 2018. *Draft Contingent Action Addendum to the Final Interim Action Work Plan, Former American Linen Supply Co – Dexter Ave Site, Agreed Order No. DE 14302.* October 30.

3.0 CONTAMINATED SOIL MANAGEMENT METHODS

This section summarizes the various redevelopment construction activities that will generate contaminated soil requiring proper management and disposal. Specifically, this section defines the construction sequencing, applicable soil disposal classifications, soil management areas, and procedures for excavating, stockpiling, loading, and transporting the contaminated soil generated by each of the relevant construction activities. This section also discusses procedures for conducting *in situ* treatment of select soils prior to excavation. Finally, this section discusses odor and dust control, collecting and analyzing confirmation soil samples, equipment decontamination, and a contingency plan if unexpected conditions are encountered.

Management of groundwater generated during dewatering activities and construction related stormwater is described in Section 4.

3.1 Construction Sequencing

The sequence of construction activities that will generate contaminated soil and be managed consistent with this CMMP is as follows:

- Shoring system installation;
- Soil excavation;
- Dewatering system installation; and
- Contingent action injection and monitoring well installation.

The first three activities are associated with the mass excavation of soil down to the design depth to allow for construction of the building foundation. As a result, they will often be conducted concurrently. For example, while the shoring system installation will be the first activity started, it will continue throughout the soil excavation process until the bottom of the excavation is reached, at which time the contingent action wells will be installed. The last activity, installation of the contingent action injection wells, will occur near the end of the soil excavation process.

The excavation sequencing diagrams included in Appendix E show the general progression of the work from the initial shoring system installation, the soil excavation process, and the installation of the contingent action wells in the bottom of the excavation. The specific soil management approach associated with each of these activities is described in Section 3.4.

3.2 Soil Data and Soil Disposal Classification

3.2.1 Soil Data Associated with Construction Activities

As described in detail in the IAWP, previous investigations have collected approximately 1,027 soil samples on and adjacent to the Property (from the borings and wells shown on Figure 4), including 583 samples collected from at or above elevation 0 feet[4]. The samples collected from above elevation 0 feet characterize the distribution of CVOCs within soils that will be encountered during construction, including all soils to be removed during the mass excavation.

[4] For purposes of evaluating the construction activities, all data at or above elevation 0 feet was considered, which encompasses all data within and immediately below the planned minimum excavation elevation of 0.7 feet.

The PCE, TCE, cDCE, tDCE, VC, and petroleum hydrocarbon analytical results for boring and well locations with at least one soil sample above elevation 0 feet are shown in Table 3.

3.2.2 Soil Disposal Classifications

Based on the source of the CVOCs (former dry cleaning operations), the CVOCs meet the definition of listed dangerous waste F002 (i.e., spent halogenated solvent). Soil containing these CVOCs is considered to contain F002-listed dangerous waste unless Ecology issues a "contained-in policy" determination indicating that the contaminated soil can be managed as a solid waste because it no longer contains the dangerous waste. Ecology issues its determination based on the contaminant concentrations and how the contaminated soil will be disposed of once the determination has been provided.

As shown in Table 3, a portion of the soils on the Property contain petroleum hydrocarbons and related compounds (e.g., BTEX) in addition to CVOCs. The concentration of the petroleum hydrocarbons and related compounds are such that they would require management as a solid waste at an approved facility. As described below, the presence of CVOCs requires, at a minimum, management of the soil as a solid waste. Therefore, the CVOC concentrations will govern soil management and disposal, ensuring that petroleum-related soil contamination, where present, will also be managed appropriately.

Ecology issues a contained-in determination based on the CVOC concentrations and how the contaminated soil will be disposed of once the determination has been provided. The applicable concentrations that Ecology uses to determine if a soil meets the contained-in criteria are as follows:

PCE:	14 mg/kg
TCE:	10 mg/kg
cis-1,2-DCE:	160 mg/kg
vinyl chloride:	0.67 mg/kg

Sample results in Table 3 with CVOCs exceeding these contain-in criteria are shaded, and borings/wells on Figure 4 with at least one sample result above elevation 0 feet that exceeds the contained-in criteria are highlighted.

The three contaminated soil disposal classifications and the acceptable disposal facilities are:

- **CVOC Contaminated Soil Subject to a Contained-In Determination (Contained-In Soil).** Ecology can determine that soil containing PCE and related CVOCs at concentrations below the contained-in criteria are no longer classified as dangerous waste and can be disposed of at a permitted solid waste landfill. Facilities that will be used for disposal of contained-in soil include:

    - Waste Management's solid waste landfill in East Wenatchee; and
    - Republic Services transfer station in Seattle.

- **Dangerous Waste CVOC-Contaminated Soil Meeting the Treatment Standard**. Soil with concentrations of PCE and related CVOCs greater than the contained-in criteria

must be managed as a dangerous waste. Soil with CVOC concentrations above the contained-out criteria but below the treatment standard (10 times the Universal Treatment Standard [UTS]) can be disposed of directly in a Resource Conservation and Recovery Act (RCRA) Subtitle C permitted landfill. The UTS for PCE, TCE, and/or vinyl chloride is 6 mg/kg, meaning soil with concentrations less than 60 mg/kg dangerous waste CVOC can be transported in lined and covered trucks to an appropriate landfill for direct disposal (i.e., no additional treatment required). Soil meeting the treatment standard removed from the Property during construction activities will be disposed of at the Chemical Waste Management Facility in Arlington, Oregon.

- **Dangerous Waste CVOC Contaminated Soil Exceeding the Treatment Standard.** Soil containing PCE, TCE, and/or vinyl chloride at concentrations exceeding the treatment standard (10 times the UTS or 60 mg/kg) must be treated prior to landfill disposal at a RCRA Subtitle C landfill. The type of treatment required is dependent on the concentration of CVOCs as follows:

    - Soil with CVOC concentrations above 60 mg/kg and below 500 mg/kg can be treated using chemical oxidation prior to disposal in a landfill. Soils in this category removed from the Property during construction activities will be sent to the US Ecology facility in Grand View, Idaho for treatment and subsequent disposal; and

    - Soil with total CVOC concentrations exceeding 500 mg/kg must be incinerated prior to disposal in a Subtitle C landfill. Soils in this category removed from the Property during construction activities will be sent to the Clean Harbors incinerator facility in Aragonite, Utah for treatment and subsequent disposal.

PES will be responsible for obtaining the contained-in determination from Ecology and obtaining disposal approval from each identified disposal facility for their respective soil disposal classifications. The contained-in determination request will be submitted to the Hazardous Waste and Toxics Reduction program in Ecology's northwest regional office for review, and the final determination will be inserted in Appendix F of this CMMP once it is received.

3.3 Soil Management Areas

Based on the distribution of CVOCs in soil on the Property at depths that will be encountered during construction activities (i.e., soils above elevation 0.7 feet), four soil management areas have been defined as follows:

- **Soil Management Area 1 (SMA-1).** This area is defined as the entire Property from existing ground surface to the maximum depth of the excavation (elevation 0.7 feet), except for the soils within Soil Management Areas 2, 3, and 4 (see Figure 4). SMA-1 also includes soil removed during the installation of the shoring system (i.e., soldier piles, tiebacks, and soil nails; see Section 3.4.1) and the dewatering wells (see Section 3.4.2). Based on the 583 samples collected from above elevation 0 feet from the borings and

wells shown in Figure 4, CVOC concentrations throughout SMA 1 are below the applicable contained-in criteria (e.g., PCE concentrations less than 14 mg/kg), and soils from this area will be managed as contained-in soil. The possible exceptions where CVOC concentrations may exceed contained-in criteria are soils associated with select soldier piles, tiebacks, and dewatering wells; these exceptions are discussed further in Sections 3.4.1 and 3.4.2).

- **Soil Management Areas 2, 3, and 4 (SMA-2, SMA-3, and SMA-4).** As shown by the highlighted borings and wells on Figure 4, these three soil management areas contain the only soil identified on the Property with CVOC concentrations exceeding the contained-in criteria (e.g., PCE concentrations above 14 mg/kg) within the proposed excavation limits. Within each of these three areas, the soils anticipated to exceed the contained-in criteria are shown in Figures 5a and 5b (SMA-2), Figures 6a and 6b (SMA-3), and Figures 7a and 7b (SMA-4). As described in detail in Sections 3.4.3 and 3.5, the general approach for managing soil within these three areas will be to:
    - Remove and dispose of soil meeting the contained-in criteria until soil exceeding the contained-in criteria is encountered;
    - Treat the soil exceeding the contained-in criteria *in situ* until CVOC concentrations are below the contained-in criteria; and
    - Remove and dispose of the treated soil and adjacent soil meeting contained-in criteria.

- **Over-Excavation Areas.** In addition to the soil management areas described above, there are several limited areas on the Property where soil between elevations 11 and 5 feet exceeded the remediation level of 0.5 mg/kg of PCE, and the screened intervals of certain injection wells did not extend above elevation 5 feet, leaving these soils potentially under-treated. These limited areas are shown on Figure 4. In order to address these areas, the bottom of the designed excavation will be extended to elevation 5 feet. The excavated soil will be disposed of as contained-in soil as the available data indicate that CVOC concentrations throughout these areas are below the applicable contained-in criteria (e.g., PCE concentrations less than 14 mg/kg).

- **Contingent Action Injection Well Soil.** These wells will be installed consistent with the approved Contingent Action Addendum ("CAA") near the end of the mass excavation process. Soil removed during the drilling to install the wells will include soil from approximately elevation 10 feet down to a maximum depth of -55 feet. Data that characterized this soil prior to implementing the interim action are included in the IAWP, but this soil will have received four rounds of *in situ* treatment using both *in situ* chemical oxidation ("ISCO") and emulsified vegetable oil ("EVO"), and these pre-treatment data are no longer applicable. As a result, soil generated by these drilling activities will be managed by placing the soil in drums as they are generated, a representative number of soil samples will be collected during well installation and analyzed, and the soils will be

managed consistent with the sampling results as either a contained-in soil or as a dangerous waste soil.

3.4 Soil Management Approach by Construction Activity

This section describes the detailed soil management approach for each of the four main construction activities that will generate soil requiring off-Property disposal.

3.4.1 Shoring Installation

The shoring system used to facilitate excavation for the below-grade parking structure consists of 130 soldier piles (steel H-beams) installed around the entire Property, typically with an 8-foot spacing. Wood lagging is installed between the soldier piles to support the soil outside shoring. As the excavation proceeds downward, tiebacks and soil nails are installed through the wood lagging into the surrounding soil; and the tiebacks and soil nails are used to provide lateral support to the shoring wall until the building foundation can be constructed.

Soldier Pile Installation. The soldier piles are installed using a drill rig equipped with bucket augers to advance a boring to the required depth, and then place the steel H-beam into the boring and backfill the boring with a cement grout. As established in the shoring design and summarized on Drawing 4, the borings are either 2 or 2.5 feet in diameter and generally completed to depths ranging from elevation 0 to -4 feet, with 14 of the piles in the southwest corner of the Property installed to a depth of -9.5 feet. Depending on the depth and diameter of the boring, each boring will generate between 12 and 19 tons of soil per soldier pile, for a total of approximately 1,980 tons of soil generated by all 130 piles requiring disposal (see below for discussion on soil management and disposal).

To provide the drill access to the soldier pile locations, it will be necessary to build a soil berm against the existing foundation walls. The berm work surface must be within 6 feet of the adjacent street elevation so that the drill rig can install the pile on the outside of the existing foundation wall. Building this berm will require approximately 7,000 cubic yards of soil, which will include a combination of onsite soils and imported soils. The onsite soils will be sourced from the elevated area in the southwest corner of the Property (see Figure 2). Specifically, soils above elevation 40 feet (the nominal elevation of most of the Property) in this area up to the existing ground surface (approximately elevation 52 feet) have a volume of approximately 3,100 cubic yards. CVOC concentrations in these soils are characterized by the soil sampling results from 22 borings and wells in this elevated area (see Figure 4). Sample results above elevation 40 ft for these locations show generally low concentrations of CVOCs, with maximum PCE concentration of 0.38 mg/kg.

Soldier pile installation will begin from this elevated area along both the Roy Street and Dexter Avenue sides of the Property. Once the piles in the southwest corner have been installed, the onsite soils in the elevated area will be moved north and placed adjacent to the southern portion of the west wall (i.e., adjacent to Dexter Avenue) to create the berm necessary to provide access for the piling installation on this side of the Property. Approximately 3,900 cubic yards of clean soil will be imported to construct the rest of the berm along the northern part of the west wall and along the north wall (i.e., adjacent to Valley Street). As the shoring installation continues and

deepens, these berms will be lowered and repositioned to provide access to the north and south shoring walls as shown in the excavation sequencing diagrams provided in Appendix E.

The imported soils used to build berms will be placed on clean existing concrete and asphalt paving. The imported soil will be covered with plastic sheeting to prevent cross-contamination from the soil generated by the soldier pile installation. The plastic sheeting will be covered with a geotextile and then a protective layer (e.g., steel plates, timber crane mats, or equivalent) to create a working surface for the drill rig. Throughout the soldier pile installation process, the existing onsite soils used for constructing the soil berm will be kept separated from the imported clean fill by using plastic sheeting to prevent cross-contamination.

Tieback and Soil Nail Installation. After the soldier piles have all been installed and as the excavation advances downward, tiebacks will be installed through the piles. The tie backs are installed using a boring machine to drill 6-inch diameter angled borings ranging in length from 53 to 76 feet long. The first row of tiebacks will be installed at approximately elevation 49 feet along Dexter Avenue, with subsequent rows installed at various depths down to a minimum elevation of approximately 10 feet. Depending on their length, each tieback will generate between approximately 0.7 and 1 ton of soil, for a total of approximately 220 tons of soil requiring disposal generated by all 239 tiebacks (see below for discussion on soil management and disposal).

In the southeast corner of the Property along Roy Street, soil nails will be used instead of tiebacks, since they are shorter and will avoid deep utility obstructions on the south side of Roy Street. The soil nails are installed using the same process as the tiebacks, are generally 17 to 33 feet long. A total of 42 soil nails will be used, and their installation will generate approximately 20 tons of soil requiring disposal (see below for discussion on soil management and disposal).

Soil Management and Disposal. The shoring system installation includes three processes that will generate soil requiring disposal: soldier pile installation, soil berm construction, and tieback and soil nail installation. The approach for managing the soil generated by each of these processes is as follows:

- **Soldier Pile Installation.** As noted above, each soldier pile will generate approximately 12 to 19 tons of soil. Soil removed from the boring by the bucket auger will be placed on the adjacent ground on the Property near the boring, transferred to the surge pile area located adjacent to 8th Avenue, and loaded out into containers/trucks for transport to the approved disposal facility (see Section 3.7). As shown in Table 3 and on Figure 4, nearly all of the soil to be removed during soldier pile installation is anticipated to have concentrations of CVOCs well below the contained-in criteria and will be managed as contained-in soil. The possible exceptions to this include the following two segments of the perimeter of the Property:

    - The southwestern corner of the Property along the west property line between soldier piles W3 and W14. Soils on the Property along this stretch of piles contain CVOCs above the contained-in criteria in SMA-3 and SMA-4 (see Figures 6a, 6b, 7a, and 7b) and also at depths below the bottom of the excavation

down to the bottom of the soldier piles (i.e., between elevations 5 and -14.5 feet). For these 12 piles, soil in the top 16 feet (outside the existing retaining wall above elevation 40 feet) meets the contained-in criteria and will be managed accordingly. Below elevation 40 feet to the bottom of the boring, soils will be stockpiled and tested using the procedures described below to ensure that soils meet the contained-in criteria.

- A segment along the eastern Property line near borings W-MW-01, W-MW-02, and MW107. As shown in Table 3, soil from these borings at a narrow elevation range from 8.8 to 12.9 feet contain PCE slightly above the contained-in criteria of 14 mg/kg. As a result, soils removed during the installation of soldier piles between E17 and E22 and E28 and E31 will be stockpiled and tested as described below to ensure that soils meet the contained-in criteria. Also, additional soil data are being collected during the installation of the perimeter injection wells on 8th Avenue and, when available, this data will be used to supplement this evaluation, as needed.

- **Soil Berm Construction.** As the soldier pile drilling is completed, the soil berms will be dismantled, and the material exported off the Property for disposal. Based on the data summarized in Table 3, the existing soil used in creating the soil berms would be exported as contained-in soil. PES will monitor and test the imported berm material to confirm that the protection efforts were successful. Assuming the soil sampling confirms that no CVOCs are present, the imported fill will be removed as clean material. If the testing shows contamination has occurred, then the material will be disposed of as contained-in soil subject to a separate contained-in request to Ecology. All the imported material will be exported prior to removal of the slab on grade.

- **Tieback and Soil Nail Installation.** As with the soldier piles, nearly all the soil to be removed during tieback and soil nail installation is anticipated to have concentrations of CVOCs well below the contained-in criteria and will be managed as contained-in soil. The possible exceptions are the tiebacks associated with the piles identified above (i.e., between W3 and W14 and between E17 and E22 and E28 and E31); soil generated during installation of tieback adjacent to these piles will be stockpiled and tested as described below to ensure that soils meet the contained-in criteria.

Stockpiling and Testing Procedures. For the portions of the shoring system identified above as having the potential to generate soils with CVOC concentrations above the contained-in criteria, a two-step process will be used to confirm that these soils are being managed appropriately.

- **Step 1: Field Screening.** The purpose of the field screening is to segregate soils into two categories: (1) soils anticipated to be managed as contained-in soil and (2) soils suspected of having CVOC concentration above the contained-in criteria. It is important to note that the final determination of how soils from specific soldier pile borings will be managed (i.e., whether soils are above or below the contained-in criteria) will be based on analytical testing data (see Step 2 below). The field screening process consists of

screening soil cuttings using a photoionization detector ("PID") to identify soils with elevated volatile organic compound ("VOC") concentrations.

- If this initial vapor screening detects VOCs below 10 parts per million (ppm) in the air space above the soil, the soil is likely to meet contained-in criteria and will be placed in the appropriate stockpile.

- If initial vapor screening indicates concentrations in the air space above the soil exceeds 10 ppm, a soil sample will be collected and placed in a plastic bag. After allowing the sample to equilibrate for several minutes, a PID reading will be collected from the headspace in the bag. If the VOC concentrations in the headspace are less than 100 ppm, the soil is likely to meet contained-in criteria and will be placed in the appropriate stockpile. If the VOC concentrations in the headspace exceed 100 ppm, this soil will be segregated and stockpiled separately.

- **Step 2: Laboratory Testing.** Concurrently with the field screening step described above, PES will collect a minimum of two soil samples per soldier pile boring, with additional samples collected based on the field screening results, and will submit these samples to a certified laboratory for analysis of CVOCs. Once the analytical results are available, the soil will be managed as follows:

  - If testing confirms that concentrations of CVOCs are below their respective contained-in criteria (e.g., PCE concentrations less than 14 mg/kg) for all samples from a given stockpile, a contained-in determination request will be submitted to Ecology (which will include the data) and, assuming the request is granted, the soil will be managed as contained-in soil;

  - If testing identifies one or more samples from the stockpile contain CVOCs at concentrations exceeding their respective contained-in criteria, the entire stockpile will be managed as a dangerous waste consistent with the maximum CVOC concentration.

Depending on the results of the field screening, soil from a single boring may be separated into two stockpiles (e.g., one contained-in stockpile and one suspected dangerous waste pile), or soil from more than one boring may be placed in a single stockpile. In either case, at least two discreet samples will be collected from each soldier pile borehole and, if soil from a single borehole is split into two different stockpiles, at least one sample will be collected from soil directed to each stockpile.

3.4.2 Dewatering System Installation

The dewatering system includes approximately 130 wellpoints installed through the lagging in the shoring wall and four large diameter vertical extraction wells installed on the interior of the Property. The perimeter dewatering wells will be installed using the same boring machine used for the tiebacks and will consist of wellpoints installed in an 8-inch boring between every pair of soldier piles around the entire Property. Once installed, all the wellpoints will be connected to a

vacuum extraction pump, and the extracted water pumped to the water treatment system for processing and discharge (see Section 4). The wells will be installed at approximately elevation 20 feet, drilled at an approximately 20 to 30-degree angle to an elevation of approximately 0 feet. Each well will generate approximately 0.6 tons of soil, and the 130 dewatering wells will generate approximately 80 tons of soil requiring disposal.

The four interior dewatering wells will be installed using a 30 to 36-inch bucket auger from the existing grades (nominally elevation 40 feet) down to elevation 0 feet. A 12-inch diameter well screen will be installed in the boring and each equipped with a pump to transfer the water to the treatment system for processing and discharge (see Section 4). Each of the approximately 40-foot deep wells will generate approximately 18 tons of soil, for total of 72 tons of soil requiring disposal. All four wells are located within SMA-1.

As with the soldier piles and tieback installation, nearly all the soil to be removed during the dewatering well installation is anticipated to have concentrations of CVOCs well below the contained-in criteria and will be managed as contained-in soil. The possible exceptions are along the two sections of shoring noted above; soils from dewatering wells installed in these sections of shoring will be screened, stockpiled, tested, and the soil managed as described above for the soldier piles.

3.4.3 Mass Excavation

The mass excavation for the parking garage and foundations will extend to elevations ranging from 10.7 to 0.7 feet across the entire Property, including approximately 8 inches (0.67 feet) of over-excavation beneath the bottom of the foundations to create a working surface (rat slab) for installation of a waterproofing and vapor intrusion barrier membrane, and then a second rat slab to protect the membrane and provide a working surface for construction of the building foundation. In general, the excavation will proceed as follows:

- The concrete and other paving will be removed;
- Soil will be excavated in two-foot lifts across the Property;
    - Where soil meets the contained-in criteria, the soil will be transferred to the surge pile located adjacent to 8th Avenue and then loaded into trucks and transported to the approved disposal facility (see Section 3.7);
    - Where soil does not meet the contained-in criteria (i.e., in the identified areas within soil management areas 2, 3, and 4), this soil will be treated *in situ* using the procedures described in Section 3.5;
- When the excavation reaches an elevation of approximately 11.7 feet, the installation of the contingent action injection wells will proceed consistent with the CAA (see Section 3.4.4); and
- When the contingent action injection wells have been completed in a portion of the excavation, the final excavation down to the design elevations will proceed.

As noted in Section 3.3 above, four soil management areas have been defined, as well as select areas to be over-excavated (see Figure 4).

3.4.3.1 SMA-1

SMA-1 consists approximately 87 percent of the Property, and soil in this area has CVOC concentrations below the applicable contained-in criteria (e.g., PCE concentrations less than 14 mg/kg) and will be managed as contained-in soil by transferring the soil to the surge pile located adjacent to 8th Avenue, and then loading it into trucks for transport to the approved disposal facility.

3.4.3.2 SMA-2 through SMA-4

Portions of SMA-2, SMA-3, and SMA-4 contain soil with CVOC concentrations exceeding the contained-in criteria (see Figures 5a through 7b). Excavation of soil in these three soil management areas will proceed as follows:

- Remove and dispose of soil meeting the contained-in criteria until the excavation reaches 2 feet above the elevation of the top of the soil exceeding the contained-in criteria (i.e., the "overburden" above the soil exceeding the contained-in criteria within the Soil Management Area). Once this elevation is reached, the coordinates of the lateral extent of the area with soil exceeding the contained-in criteria will be surveyed and a representative number of soil samples will be collected from each of the 1-foot-thick layers above the top of the soil exceeding the contained-in criteria. The sampling frequency will be one sample per 400 square feet of area or three samples per area, whichever is greater; preliminary sampling locations are shown on Figures 5a through 7b. Note that on Figures 5b, 6b, and 7b, locations for overburden samples are only shown where the overlying 2-foot thick layer was not treated. If this laboratory testing confirms that these last 2 feet above the treatment zone meet the contained-in criteria, those 2 feet will be removed. If this testing indicates that CVOC concentration exceeds the contained-in criteria for a portion of this soil, the treatment process described in Section 3.5 will be initiated for this soil;

- Concurrent with the testing of the 2 feet of overburden described above, test pits will be dug along the perimeter of the surveyed treatment area at approximately 25-foot intervals (Figures 5A through 7B) and two samples collected from each test pit in the overburden at depths of 0.5 feet and 1.5 feet deep from the top of the overburden. The test pits will be extended at least 4 feet below the 2-foot thick overburden layer, so that perimeter samples can be collected adjacent to the next two 2-foot thick layers of soil requiring treatment. Within each 2-foot thick layer one sample will be collected at approximately the midpoint of the layer (i.e., samples will be collected at approximately 3 feet and 5 feet deep). The purpose of these perimeter samples will be to confirm the lateral extent of soils requiring *in situ* treatment. If a perimeter sample result exceeds the contained-in criteria, the lateral extent of treatment area will be increased at that location, and new perimeter samples collected to confirm where soils meet the contained-in criteria. As soil

treatment proceeds downward, additional test pits will be dug and sampled in advance of the treatment process to collect additional confirmation samples.

- Once the top of the soil exceeding the contained-in criteria has been reached (e.g., elevation 35 feet in SMA-3), the soil in this area will be treated in 2-foot lifts following the procedure described in Section 3.5;

- After verification testing confirms that CVOC concentrations are below the contained-in criteria (see Section 3.5.3 below), the treated soil will be excavated and stockpiled, and the data submitted to Ecology for disposal approval consistent with the contained-in determination to be obtained for the project. Adjacent soil meeting the contained-in criteria in the same 2-foot lift will also be removed, and;

- The excavation will proceed downward using this process until the bottom of the excavation is reached.

Depending on the quantity of soil exceeding the contained-in criteria in a given area and the concentration of CVOCs, the contractor may elect to excavate and dispose of the soil as a dangerous waste. This is more likely to occur in relatively small areas with PCE concentrations below the 60 mg/kg level where the soil can be direct landfilled.

3.4.3.3 Over-Excavation Areas

As described above and shown on Figure 4, there are several areas that will be over-excavated down to an elevation of 5 feet to remove potentially under-treated soil. All these areas consist of and are overlain by, soil with CVOC concentrations below the applicable contained-in criteria (e.g., PCE concentrations less than 14 mg/kg). In general, these over-excavation areas will be managed similarly to the excavation of soil from SMA-1. The exception is where these over-excavation areas abut the portions of SMA-2 through SMA-4 with soil exceeding the contained-in criteria. In these cases, the treatment of soils exceeding the contained-in criteria will be conducted first, including the sampling to confirm all the above contained-in criteria soil has been treated and removed, before the soil in the over-excavation areas is removed.

3.4.4 Contingent Action Injection and Monitoring Wells

The CAA describes the installation of both injection and monitoring wells that will be completed in the foundation of the building. The monitoring wells will be used to monitor the effectiveness of pre-construction injections, and should it be determined that additional treatment is necessary, the injection wells will be used to inject additional EVO beneath the building.

The CAA currently describes installing 63 injection wells and 24 monitoring wells using a sonic drill rig inside a 6-inch diameter boring (see Drawing 2 from the CAA; included in Appendix C for reference). Well depths vary from approximately 20 feet (Treatment Zone A wells) to 65 feet (Treatment Zone D wells). A total of approximately 60 tons of soil will be generated during installation of these wells. As noted above, the soil removed during the drilling will have been previously treated using both ISCO and EVO treatment. As a result, soil generated by these drilling activities will be managed by placing the soil in drums as they are generated, collecting a

representative number of soil samples from the core barrel during drill, analyzing the sample, and managing it consistent with the sampling results as either a contained-in soil (subject to a separate contained-in determination request to Ecology) or as a dangerous waste soil. During the drilling of these wells, observations will be made to evaluate the potential presence and distribution of EVO from the pre-excavation interim actions.

Once the wells are installed, they will be developed to remove sediment from the sand pack and ensure there is good communication between the well and the surrounding formation. Water generated during the development process will be managed in the water treatment system described in Section 4.

3.5 In Situ Treatment Method for Soil Exceeding Contained-in Criteria

This section describes the method that will be used to treat soil containing CVOCs greater than the contained-in criteria found in SMA-2 through SMA-4 so that the soil can be disposed of as contained-in soil. BMRD has selected Environmental Chemical Corporation ("ECC") to perform the *in situ* soil treatment of soils exceeding 14 mg/kg.

3.5.1 Overview of Treatment Methodology

Soil containing CVOCs at concentrations greater than contained-in criteria will be treated using chemical oxidation to reduce the contaminant mass on soil to achieve a final concentration of PCE less than 14 mg/kg. This is a different application of the same technology (ISCO) that is being used during the on-Property injections currently being performed under the IAWP. The approach for treating soil in SMA-2 through SMA-4 containing PCE above 14 mg/kg includes applying a powdered oxidant, in this case potassium permanganate ("KMnO4") onto the in-place soil, thoroughly mixing/blending the soil and the dry KMnO4 together, and then wetting the blended soil with KMnO4 solution to activate the oxidation process. The KMnO4 chemically oxidizes the CVOCs (PCE, TCE, cDCE, and VC) into environmentally benign carbon dioxide and chloride. The key to timely and thorough treatment is ensuring adequate contact with the CVOCs adsorbed onto soil particles and applying sufficient oxidant to overcome the natural oxidant demand ("NOD") of the soil. The process for ensuring adequate contact time and treatment amounts is further described below.

3.5.2 Bench Scale Testing

Bench-scale jar testing will be performed by ECC to evaluate the effectiveness of KMnO4 for the treatment of on-site soils and to attempt to determine optimal application rates to reduce PCE concentrations in soil to less than 14 mg/kg. The bench-scale testing will also be used to establish the required contact time with the KMnO4 to achieve the contained-in criteria.

The bench scale testing will use previously collected soil cuttings generated during the last round of injection well installation. Approximately 10 gallons of contaminated soil from the injection well soil cuttings will be sent to ECC's treatability laboratory located in Hudson Massachusetts for the following testing:

- Untreated soil samples will be analyzed for CVOCs using EPA Method 8260C;

- KMnO4 testing will consist of dosing samples at KMnO4 concentrations of approximately 2.5 grams per kilogram ("g/kg"), 5 g/kg, 7.5 g/kg, and 10 g/kg; actual dosing concentrations will be adjusted based on NOD results and initial PCE concentrations in the untreated soil. To simulate the procedures to be used in the field, KMnO4 powder will be initially mixed into the soil, and then a KMnO4 solution will be added to activate the KMnO4. The treated sample will be re-mixed to distribute the KMn04 throughout the sample;
- After KMnO4 application, samples will be collected at elapsed intervals of approximately 6 hours, 12 hours, and 24 hours to determine minimum contact time to achieve the desired treatment;
- Testing will include "control" samples to evaluate untreated contaminant loss through volatilization only (i.e., without KMnO4); and
- Untreated soil samples will also be submitted for permanganate NOD testing ASTM Method D7262-10.

A technical memorandum will be prepared to summarize the bench scale testing results and provide the recommended KMnO4 application rates and the approximate contact time. This memorandum will be submitted for Ecology review prior to implementing the full-scale treatment.

3.5.3 In Situ Treatment Methodology

As the elevation of the excavation nears the top a given soil management area (see Figures 5a, 6a, and 7a), the boundaries of the area to be treated will be located in the field by a surveyor. The soil management area will be cordoned off from the surrounding areas using high visibility fencing around each planned treatment area (SMA-2, SMW-3 and SMA-4) to limit access to the treatment areas to only those personnel who will be conducting the *in situ* treatment. Dry KMnO4 powder will be delivered to the Property in 2,000-pound supersacks. Delivery of product will be staged during the duration of the project to limit the amount of product present on-site at any time. KMnO4 will be staged in a central area where it can be contained and protected against rain/weather.

After confirming that the site excavation has reached the target elevation in the soil management area using the procedure described above in Section 3.4.3.2, the following procedure will be used for *in situ* treatment of the soil containing PCE greater than 14 mg/kg:

Step One – Dry KMnO4 Application: Soil within the treatment area will be disturbed to a depth of approximately 2 feet using an excavator to loosen the dense material and allow more uniform mixing. A supersack of KMnO4 will be hoisted above the excavation using the excavator, and dry KMnO4 powder will be added to the soil surface in measured quantities based on the bench-scale testing results. During KMnO4 application, wind strength and direction will be monitored to avoid aerial transport of KMnO4 outside of the soil management area. If high winds are present, the application will be suspended until it is appropriate to resume.

Step Two – Soil Blending: Following dry KMnO4 application, the soil and KMnO4 will be mixed using a skid steer equipped with an auger head and/or excavator-mounted hydraulic drum cutterhead. The mixing/blending will be done in a 2-foot lift to achieve a consistent blend of powdered KMnO4 and increase contact with the contaminated soil.

Step Three – KMnO4 Activation and Soil Treatment: After the powdered KMnO4 is mixed into the soil, batches of 5-20g/L KMnO4 solution will be prepared in a 500-gallon poly tank. The KMnO4 solution will be sprayed from the poly tank onto the intermixed KMnO4/soil to activate the KMnO4. After the solution has been added, soils will be mixed again with the auger head and/or drum cutter attachment. Multiple passes of the mixing head will be performed to further pulverize the soil and maximize contaminated soil exposure to the KMnO4 solution. After the soil mixing/blending has been completed, the surface of the treated area will be covered by plastic sheeting (e.g., Visqueen) to minimize volatilization during the contact time period for the KMnO4 to complete the treatment. The plastic sheeting will remain in place until further work is performed in the area.

Step Four – Verification: To monitor treatment progress and confirm that PCE concentrations are reduced to 14 mg/kg or less, post-treatment grab samples will be collected and field screened using an AQR Color-Tec Field PCE Test Kit. Soils failing field screening will be retreated in place following Steps 1 through 3 described above. Once field screening results (AQR Color-Tec test kit) from the treatment layer indicate the PCE concentrations are expected to be below 14 mg/kg, verification soil samples will be collected consistent with EPA Method 5035 and analyzed for CVOCs by EPA Method 8260C. Four soil samples will be collected from each treated layer, two at approximately 0.5 feet below the top of the layer and two approximately 1.5 feet below the top of the layer. The locations will be spaced horizontally throughout the treated area. Analyses will be performed on a same day turnaround time to provide results for the next work day.

If the verification sample laboratory results indicate the treated soil contains PCE at concentrations exceeding 14 mg/kg, the soil will be re-treated by the methods described above and undergo all prescreening and verification sampling and analysis as described above.

If the verification sample laboratory results indicate the treated soil contains PCE at concentrations less than 14 mg/kg, the soil will be removed from the *in situ* treatment zone and stockpiled in a nearby location outside the soil management area pending disposal approval from Ecology. The exact location of the stockpile will be determined based on other excavation activities occurring at that time. The analytical results will be submitted to Ecology as an addendum to the contained-in determination, which will include a request for approval to dispose of the treated layer as contained-in soil. Once Ecology approves the soil for disposal as contained-in, the treated soil will be removed and disposed of with the other contained-in soil.

In addition to the verification testing of the treated soil, the samples collected from the perimeter potholes will be used to confirm that soil remaining outside the treatment area (as shown in Figures 5a through 7b) is below the contained-in criteria. If soils collected from these test pits exceed the contained-in criteria, they will be included in the treatment process for that depth interval.

The above process will be repeated until the entire depth interval of each soil management area has been treated and removed. For SMA-2 and SMA-4, the bottom of the treatment area is also the bottom of the planned excavation in both of those areas. When the bottom of a treatment layer is above the final design excavation elevation (i.e., additional soil excavation will be required), soil samples will be collected from the native soil beneath the last treated layer after all treated soil has been removed. The native soil samples will be analyzed for CVOCs to document that all the soil containing PCE at concentrations exceeding 14 mg/kg has been treated and removed. If PCE is present in the native soil samples exceeding 14 mg/kg, the soil treatment process described above will be repeated until the design excavation elevation has been achieved.

3.5.4 Disposal Contingency

If verification sampling indicates that additional treatment of soil is unlikely to reduce CVOC concentrations to below the contained-in criteria, the soil will be disposed of as a dangerous waste. The verification sample results will be used to determine the appropriate disposal classification disposal facility as described in Section 3.1. Treated soils that do not meet the contained-in criteria will be removed from the soil treatment area and temporarily placed in a lined stockpile outside the treatment area within the excavation pending loadout and transportation to the appropriate disposal facility. The stockpile will be constructed consistent with the requirements described in Section 3.6 and will be covered when not in use.

3.6 Soil Stockpiles

Extensive stockpiling of contaminated soil is not anticipated given the extensive characterization work completed to date and the approach for excavating the known contaminated soil. There will be occasions where stockpiling may be required including the temporary storage of contaminated soil with a different disposal classification than the surrounding area or the discovery of unknown contamination. These stockpiles will be located based on where the specific excavation is and on where other on-Property activities are occurring. Stockpiles in these circumstances shall adhere to the following:

- Stockpiles shall be lined with plastic sheeting with a minimum of 10 mils, with adjacent sheeting sections overlapping a minimum of 3 feet;
- The perimeter of the stockpiles will be surrounded by a berm to prevent run-on and/or run-off of precipitation; and
- Stockpiles shall be covered when not in use, and the cover should be anchored to prevent it from being disturbed by wind and shielded from precipitation.

3.7 Contaminated Soil Load-Out, Transport, and Manifesting

Contaminated soil load-out will occur along the eastern Property boundary adjacent to 8th Avenue North. The load-out facilities will consist of a surge pile located on the Property and a load-out containment pad located immediately east of the Property boundary (see excavation sequencing diagrams provided in Appendix E, page 3 of 12). Contaminated soil (i.e., contained-in soil) generated during construction activities will be transported to the surge pile where it will be staged until it is loaded into transport containers/trucks. Air monitoring conducted pursuant

the air monitoring plan (see Section 5.2 below), in the vicinity of the surge pile, will be used to determine whether covering the pile with plastic sheeting when not in use is necessary.

Contaminated soil that does not meet the contained-in criteria (i.e., dangerous waste soil) will not be placed in the surge pile. This soil will be temporarily staged in its own stockpile near the surge pile pending load-out and transport to the disposal facility. The stockpile for dangerous waste soil (if any) will be constructed as described in Section 3.6 and will be kept covered when not in use.

Prior to the start of soil disturbing activities, the load-out containment pad will be constructed adjacent to 8th Avenue North, immediately east of the surge pile. The load-out containment pad will consist of an asphalt pavement overlay with the perimeter of the pad raised above adjacent ground to form a containment structure. The containment pad will be designed to drain stormwater from rainfall onto the property where it will be collected by the stormwater management system and treated (Section 4). When soil load-out is occurring, transport vehicles will be positioned on the containment pad facing in a southern direction. Load-out will be done by an excavator sitting on the surge pile located within the Property that will place the contaminated soil into the transport container/truck. Containers/trucks transporting contained-in soil or dangerous waste will be lined. After each container/truck is loaded, an inspection will be made to verify that there is no free water in the load, the soil is securely covered, that the tires of the haul trucks are free of accumulated soil prior to leaving the containment pad. The containment pad will be inspected between loading container/trucks and any debris noted will be swept up and placed in the next shipment of contaminated soil.

All loads of contaminated soil shall be accompanied by the appropriate shipping papers before leaving for the disposal facility. Dangerous waste soil will be accompanied by a properly completed and signed hazardous waste manifest consistent with State and Federal Law. Contained-in soil will be accompanied by a properly completed bill of lading provided by the receiving disposal facility. The appropriate shipping documentation (hazardous waste manifest or bill of lading) will be provided to truck drivers hauling the affected soil.

3.8 Odor Control

There is the potential for nuisance odors to be emitted during contaminated soil excavation activities especially in areas with high VOC concentrations. The health and safety officer will monitor air quality and odor conditions during excavation activities and will advise the contractor if odor control measures should be implemented (see Section 5 for description of air monitoring). If nuisance odors are detected by the health and safety officer, one of more of the following odor control measures may be implemented:

- Minimize the open area where high concentrations of contaminants area present;
- Apply a mist of water over the area with a hose as needed to minimize odor;
- Cover exposed areas with elevated concentrations of contaminants with plastic sheeting at the end of each day and when excavation activities are not being performed;
- Keep stockpiles covered with plastic sheeting when not in use;

- Apply commercially available foams over exposed areas as needed if other measures are unsuccessful.

Other means of controlling odors may be applicable and the contractor should consult with the health and safety office prior to implementation.

3.9 Equipment Decontamination Procedures

This section discusses the decontamination of construction equipment that has contacted contaminated media (soil, groundwater and stormwater). Personnel decontamination procedures are discussed in the site-specific health and safety plan discussed in Section 5 and provided in Appendix H.

Equipment that contacts contaminated soil or water will require decontamination prior to leaving the Property. The current construction plans to not anticipate the movement of construction equipment off the Property once it has entered onto the Property until the end of the project. Temporary decontamination pads will be constructed within the excavation area and used as necessary to decontaminate equipment as it is demobilized from the Property. Temporary decontamination pads will consist of two layers of plastic sheeting laid over the surface of the excavation floor at the base of east shoring wall. The edges of the temporary decontamination pad will be bermed to provide containment of soil and/or water that is generated during decontamination. Steel plates will be placed over the plastic sheet to serve as the bearing surface for the equipment to rest on while being decontaminated. Soil residue on equipment and excavator tracks/tires and truck tires will be removed using a combination of dry and wet methods. During dry conditions, soil residues will be using dry brushing and compressed air; dust generation is expected to be limited and will be visually monitored during the decontamination work to prevent dust from migrating from the excavation. Soil that cannot be removed by this procedure will be removed from equipment by washing with high-pressure water. During wet conditions, high-pressure water washing will be used to remove material residues and mud from equipment. The decontaminated equipment will be removed from the base of the excavation with a mobile crane and loaded directly onto a trailer for transport away from the Property. Water and solids generated during decontamination activities will be collected and containerized for analysis and appropriate disposal.

3.10 Contingency Plan for Unexpected Conditions

Unexpected conditions may be encountered during excavation activities including (but not limited to) the following:

- Obvious staining, sheen, or colored hues in soil or standing water;
- The presence of previously unknown buried pipes, conduit, tanks, or unexplained metallic objects or debris; or
- Odors and or vapors causing eye irritation or nose tingling or identified by the air monitoring described in Section 5.

In the event the above conditions are observed/noted, work in the area will stop and the area will be cordoned off to prevent workers from entering. The construction superintendent, health and

safety officer and the environmental professional will be notified immediately. Field screening of the soil in the affected area will be performed as described in Section 3.4.1. Based on the field screening results, soil samples will be collected and analyzed to evaluate the appropriate course of action. If the excavation of the area is required prior to the receipt of the laboratory results, the excavated soil will be temporarily stored in a stockpile and covered until its final disposition has been determined.

4.0 CONTAMINATED STORMWATER AND GROUNDWATER MANAGEMENT METHODS

During the excavation of contaminated soil during implementation of the IAWP and Property redevelopment, contaminated soil will be exposed and may contaminate stormwater generated by incidental precipitation falling onto the Property. Because the Property surface elevations are below the surrounding grade and will continue to be so during the excavation activities, contaminated stormwater will be effectively contained on the Property, but will need to be removed to prevent accumulation within the Property. Additionally, construction dewatering will be required to lower the groundwater levels to complete the contaminated soil excavation to design grades. As described previously, this construction dewatering will remove CVOC-contaminated groundwater present in the Shallow Zone and Intermediate A Zone beneath the Property. This section describes the methods that will be used to manage the contaminated stormwater and groundwater collected and treated during construction activities.

4.1 Permitting

The total area of land disturbance caused by the redevelopment (greater than 1 acre) requires that BMRD obtain coverage under the Construction Stormwater General Permit ("CSWGP") administered by Ecology. BMRD filed a Notice of Intent ("NOI") application (Application ID 20262) for coverage under the CSWGP in October 2018. Copies of the application and the associated draft Stormwater Pollution Prevention Plan ("SWPPP") are provided in Appendix G. The NOI requested coverage under the CSWGP for the discharge of treated stormwater and dewatering water to surface water, specifically Lake Union. The NOI application is pending review and approval by Ecology.

As indicated in the NOI, BMRD also applied for submitted an Individual Authorization Application for Construction Dewatering to the King County Industrial Waste Program ("KCIW") for discharge to the combined sewer system. The KCIW discharge authorization will be used to discharge treated stormwater and/or groundwater until the discharge to stormwater has been approved under the CSWGP. KCIW issued BMRD Major Discharge Authorization Number 4482-01 on January 4, 2019. A copy of the KCIW discharge authorization application is included in Appendix G.

As described further in Section 4.3, the dewatering treatment system will include an air-stripper to remove CVOCs from the groundwater followed by treatment of the vapors before discharge to the air. The discharge of treated air stripper vapors will require that a Notice of Construction Application be prepared and submitted to the Puget Sound Clean Air Agency ("PSCAA"). The water treatment vendor is in the process of preparing the Notice of Construction application and a copy will be submitted to Ecology once it has been submitted to PSCAA.

4.2 Stormwater Management

The SWPPP describes the methods that will be used to protect and manage stormwater that may contact contaminated soil during the redevelopment construction. Stormwater that has contacted contaminated soil within the limits of the excavation (i.e., within the Property boundaries) will be collected via trenches and sumps as needed. The stormwater will be pumped to a water treatment system staged adjacent to the southeast corner of the Property (see construction sequence diagram page 2 of 12). Stormwater will be treated sequentially using WaveIonics

Electrocoagulation ("EC"), settling, sand filtration ("SF"), and liquid phase granular activated carbon ("GAC") in order to meet surface water discharge standards. WaveIonics EC currently holds a General Use Level Designation ("GULD") from Ecology. A copy of the GULD will be maintained as an appendix to the SWPPP, along with detailed system information. A Request for Chemical Treatment will be completed and submitted to Ecology prior to system set-up. A copy of the stormwater treatment process flow diagram is included in the SWPPP in Appendix G.

During construction, stormwater will be pumped to a pre-treatment poly settling tank. This settled water will be treated by the WaveIonics EC system. Following EC, water will be pumped to a post-treatment settling tank to enhance flocculation prior to filtration through the sand media filter. After filtration, the treated water will be returned through the WaveIonics unit, where turbidity, pH, and flow are verified by inline probes. Water not meeting requirements will be recirculated back to the pre-treatment tank for retreatment until water quality is met. Once turbidity and pH are verified, the water will be treated by carbon filtration as a final polishing step prior to discharge to the storm system and eventually to Lake Union. Sample ports will be located before and after the carbon filter to facilitate any permit-required grab sampling. Treatment, monitoring, record keeping, and discharge monitoring reporting will be conducted as required by the permit(s) once issued.

4.3 Groundwater/ Dewatering Water Management

Contaminated groundwater collected in the dewatering wells will be conveyed to the dewatering water treatment system (separate from the stormwater treatment system) located adjacent to the southeast corner of the Property. A process flow diagram of the dewatering water treatment system is provided in the SWPPP (Appendix G). During construction, groundwater will be pumped to a 6,900-gallon poly surge tank. From the surge tank, water will be pumped through an air stripper to volatilize CVOCs, followed by treatment using liquid phase GAC vessels as a final polishing step prior to discharge to the existing storm system and eventually to Lake Union. CVOC vapors from the air stripper will be collected and treated using vapor phase GAC followed by potassium permanganate impregnated zeolite (to treat VC) before air discharge. Sample ports will be located before and after the carbon vessels to facilitate discharge sampling and analysis for both air and water. Treatment, discharge monitoring, record keeping, and reporting will be conducted as required by the permit(s) once issued by Ecology and KCIW.

5.0 HEALTH AND SAFETY

This section describes the health and safety procedures that will be performed to reduce the potential for exposure to chemical contaminants present in environmental media (soil, groundwater, and stormwater) on the Property during implementation of the activities described in this CMMP.

5.1 Site-Specific Health and Safety Plan

A site-specific Health and Safety Plan ("SSHSP") for the activities described in this CMMP was prepared by EMB Consulting, Inc. ("EMB") on behalf of Turner Construction Company (BMRD's general construction contractor) and is included in Appendix H. The intent of this SSHSP is to meet the requirements of the Washington State Division of Occupational Safety and Health ("DOSH") Hazardous Waste Site Operations regulation (WAC 296-843). It is not intended to address normal safety practices on construction sites, such as those covered in the DOSH Safety Standards for Construction Work (WAC 296-155).

The SSHSP provides information for site workers that addresses the health risks and hazards for the work to be performed, site health and safety organization responsibilities, worker training requirements, personal protective equipment, medical surveillance, personnel monitoring, site control measures, and decontamination procedures. The general contractor is responsible for conducting all onsite activities in accordance with the SSHSP. The contractor will review the contents of the SSHSP with all onsite workers and will ensure adequate training for all onsite workers in accordance with the SSHSP.

5.2 Air Monitoring Plan

The implementation of the activities described in this CMMP will disturb contaminated soil, groundwater, and stormwater, which could potentially result in chemical releases to air. Air monitoring will be conducted within the Property boundaries to provide worker exposure data for site workers performing CMMP related activities, and fence line (e.g., at the edges of the Property boundaries perimeter) air monitoring will also be conducted to ensure community protection. The air monitoring plan prepared by EMB for Turner Construction Company is included in Appendix I. Although this plan was prepared for Turner Construction, the plan specifies the air monitoring for both worker protection and community protection that will be performed as a required element of this CMMP.
As described further in Appendix I, the air monitoring plan includes the following:

- Weather monitoring:
    - Weather conditions will be monitored daily using information obtained from weather station KWASESTT116 located near Valley Street and Warren Avenue North; and
    - Wind direction at the Property will be monitored by installing a windsock at a one of the property corners.
- Baseline air monitoring for CVOCs will be performed approximately one month prior to the start of soil disturbance activities to document pre-construction air concentrations of the contaminants of concern on and around the Property;

- Direct-read datalogging PIDs will be positioned at the midpoint of the north, south, east and west Property boundaries. The PIDs will be set to log the one minute average of VOCs over a typical construction day (8 to 9 hours). This monitoring will be performed for one five day work week.
- Ambient air samples will be collected using diffusion badges collocated with the perimeter PID monitoring stations. In addition, diffusion badges will be located at four locations within the Property. The diffusion badges will collect data over the same period of time as the PIDs, and will be analyzed to provide data regarding air concentrations for PCE, TCE, cis-1,2-DCE, and vinyl chloride.
- Baseline data will be used to identify non-construction contributors to ambient air and to compare PID results and diffusion badge results. Project action limits may be adjusted to account for background VOC concentrations.

- Worker protection monitoring:
  - An Air Monitoring Technician will perform real time air monitoring of workers using a PID during excavation and treatment of contaminated soils and water management. This information will guide the use of PPE and the application of other exposure controls in the field; and
  - In addition, diffusion badges will be used to provide compound-specific data for the primary CVOCs. Exposure assessment monitoring for workers involved with contaminated media management activities to ensure that exposure controls and PPE are sufficient for worker protection.
- Community air monitoring:
  - Direct-read datalogging PIDs will be positioned at the midpoint of the north, south, east and west Property boundaries. The PIDs will be set to log the one-minute average of VOCs over a typical construction day (8 to 9 hours). The PIDs will be operating whenever construction activities are occurring, and will be equipped with visual and audio alarms set to alarm if the actions levels (see Appendix I) are exceeded for a sustained period of one minute;
  - The Air Monitoring Technician will respond to all alarms and will conduct follow-up monitoring using a fifth PID. Based on the results, additional work controls will be implemented as directed by the Air Monitoring Technician to ensure timely response to potential chemical odors migrating off Property;
  - At least once per week, diffusion badges will be deployed at the locations of the perimeter PID locations and analyzed for the PCE, TCE, cis-1,2-DCE, and vinyl chloride. The diffusion badge results will be compared to perimeter PID results, and will be used to assess if changes to the action levels are appropriate; and
  - The location and number of perimeter PIDs and the frequency of diffusion badge monitoring may be increased based on the results of the worker protection and community monitoring results, weather conditions, and the construction activities being performed.

- Reporting:
    - Weekly air monitoring reports will be submitted to Ecology summarizing the prior week's air monitoring activities and results and any corrective actions taken; and
    - Ecology will be notified immediately if air monitoring results require construction activities to be stopped.

The air monitoring plan in Appendix I describes the air monitoring scope, protocols, evaluation criteria, quality control measures, and reporting.

6.0 REPORTING AND COMMUNICATIONS

Consistent with the requirements in Exhibit B of the AO and Section 12 of the IAWP, the reporting for the activities described in the CMMP will consist of: (1) information included in the monthly progress reports, and (2) the interim action implementation report prepared at the completion of the interim action. In addition, this section defines the roles and responsibilities related to project communications and notifications.

6.1 Progress Reports

Project progress reports are submitted to Ecology by the 15th of each month. Information specific to the CMMP that will be included in the progress reports will include the following:

- A general description of the progress of construction;
- A summary of the amount of soil transported off the property and the amount of water treated;
- Summaries of sampling or testing reports and other data reports received by BMRD;
- Summaries of deviations from the approved CMMP;
- Summaries of problems or anticipated problems in meeting the objectives set forth in the CMMP;
- Summaries of solutions developed and implemented or planned to address any actual or anticipated problems or delays; and
- A description of work planned for the next reporting period.

6.2 Data Uploading to the Environmental Information Management Database

Validated analytical data collected as part of the work described in the CMMP will be entered in Ecology's EIM database within 60 days after sample collection, unless otherwise approved by Ecology. All data used to support a draft document will be entered in Ecology's EIM database 30 days prior to submittal of the draft document for Ecology review. All locations will include latitude, longitude, and elevation data, and will specify the horizontal datum and vertical datum being used.

6.3 Project Roles and Responsibilities

This section defines the primary contacts of the various parties responsible for implementing this CMMP, including:

- **Owner: BMR-Dexter LLC.** Responsible for overall project coordination and implementation
    - Primary contact: John Moshy
    - Address: 17190 Bernardo Center Drive, San Diego, CA 92128
    - Phone Number: 858-485-9840

- **General Contractor: Turner Construction Company.** Turner (either directly or through its subcontractors) is responsible for all aspects of the construction including the installation of the shoring, excavation, dewatering, and construction of the building. Turner, through its subcontractor EMB Consulting, also has primary responsibility for implementing the health and safety and air monitoring aspects of the CMMP.

    - Primary contact: Jeff Smith
    - Address: 752 Aloha Street, Seattle, Washington 98109
    - Phone Number: 206-426-6666

- **Environmental Consultant: PES Environmental, Inc.** PES has primary responsibility for overseeing environmental aspects of the project, reporting, and documenting implementation of the IAWP and associated plans. PES will serve as Ecology's point of contact regarding questions or information requests. PES responsibilities relative to the CMMP include conducting the environmental oversight and assembling documentation of the excavation-related activities, conducting field screening, collecting soil samples, documenting the treatment of soil exceeding contained-in criteria and communicating with Ecology regarding waste disposal determinations. PES also has primary responsibility for preparing and/or submitting routine communications with Ecology (including monthly progress reports) and weekly air monitoring reports.

    - Primary contact: Daniel Balbiani, P.E.
    - Address: 1215 Fourth Avenue, Seattle, Washington, 98161
    - Phone Number: 206-529-3980

- **Health and Safety Consultant: EMB Consulting, LLC.** EMB Consulting has primary responsibility for establishing the health and safety requirements for the project, implementing the air monitoring plan, and providing weekly air monitoring reports to PES

    - Primary contact: Elisabeth Black, CIH.
    - Address: 22725 44th Ave W, #203, Mountlake Terrace, Washington 98043
    - Phone Number: 206- 915.2395

- **Soil Treatment Contractor: Environmental Chemical Corporation.** ECC has primary responsibility for performing in-situ treatment of the soil exceeding contained-in criteria, including performing bench scale tests to determine the appropriate chemical dosage, and for performing the in-situ treatment of Soil Management Areas 2,3 and 4.

    - Primary contact: Ron Coringrato
    - Address: 1746 Cole Boulevard, Building 21, Suite 350, Lakewood, Colorado 80401
    - Phone Number: 303-298-7607 ext. 21223

6.4 Interim Action Implementation Report

The IAWP requires preparation of an interim action implementation report at the completion of the interim action (i.e., after the post-perimeter well injection monitoring has been completed). With respect to the CMMP activities, the implementation report will include a comprehensive summary of the work performed, the total quantities of soil disposed of by waste category, summary of the verification testing results, summary of the water treatment operations and discharge permit-related reporting, boring logs and development information for the contingent action wells, and other information as necessary to document that the objectives of the CMMP were met.

The Agency Review Draft interim action report will be submitted for Ecology review and comment. After receipt of Ecology's comments, a final interim action implementation report that addresses Ecology's comments will be prepared.

TABLES

Table 1

700 Dexter Building Construction Milestone Schedule
American Linen Supply Co. – Dexter Avenue Site
February 2018

Activity	Approximate Date	Comment
Begin Shoring Installation/Excavation	Mid-March 2019	Based on Ecology approval of CMMP
Begin Dewatering (On-Property)	Mid-March 2019	Ditches, sumps, and/or wells as necessary
Begin Mass Excavation	Late May/Early June	
Begin Dewatering (Perimeter)	July/August 2019	Perimeter Vacuum Wells
Complete Mass Excavation	October 2019	Includes treatment of soil in Soil Management Areas 2, 3, and 4 per CMMP.
Install Contingent Action Injection Wells and On-Property Monitoring Wells	August through November 2019	On-Property monitoring wells will be sampled once before access is temporarily restricted due to garage construction and then quarterly after access is re-established in mid-2020
Install Vapor Intrusion Barrier	December 2019 through February 2020	
Begin Construction of Building	December 2019	
End Dewatering	Third Quarter 2020	Dewatering will continue until building structure reaches at least to Floor 3.
Perimeter EVO Injection	Fourth Quarter 2020	Approximately 3 months after dewatering system is shut down. Includes baseline sampling event prior to injections.
Quarterly Monitoring After Perimeter EVO Injections	First Quarter 2021	Will continue for at least a year and then integrated into the long-term Sitewide monitoring program per the RI/FS and Final Cleanup Action.
Building Construction Complete	Third Quarter 2021	

Table 2

Soil Analytical Results for Injection Well and Soil Boring Installation - August through October, 2018
Former American Linen Supply
700 Dexter Avenue North, Seattle, Washington

Sample Location	Sample ID	Sample Date	Sampled By	Lab	Sample Depth (feet bgs)	Sample Elevation (feet NAVD 88)	Benzene	Toluene	Ethylbenzene	Total Xylenes	PCE	TCE	cDCE	tDCE	VC
						Screening Levels	**0.030**	**0.273**	**0.343**	**0.831**	**0.025**	**0.030**	**0.050**	**0.050**	**0.050**
B-249	B-249-5	10/15/18	PES	Pace	5	34.24	0.000418 U	0.00131 U	0.000554 U	0.00500 U	**0.122 J**	**0.0109**	**0.0102**	0.00149 U	0.000714 U
	B-249-8	10/15/18	PES	Pace	8	31.24	0.000451 U	0.00141 U	0.000598 U	0.00539 U	**0.949 J**	**0.0828**	**0.0287**	0.00161 U	0.000771 U
	B-249-15	10/15/18	PES	Pace	15	24.24	0.000463 U	**0.00236 J**	**0.00143 J**	**0.00973**	**1.97 J**	**0.214**	**0.0692**	0.00166 U	0.000791 U
	B-249-17	10/15/18	PES	Pace	17	22.24	0.000453 U	0.00142 U	0.000600 U	0.00541 U	**8.35 J**	**0.150**	**0.0459**	0.00162 U	0.000773 U
	B-249-20	10/15/18	PES	Pace	20	19.24	0.000473 U	0.00148 U	0.000626 U	0.00565 U	**10.3**	**0.661**	**0.558**	**0.00420 J**	0.000807 U
B-250	B-250-2.5	10/15/18	PES	Pace	2.5	36.89	0.000442 U	0.00138 U	0.000585 U	0.00528 U	**0.701 J**	**0.00576**	**0.00164 J**	0.00158 U	0.000754 U
	B-250-8	10/15/18	PES	Pace	8	31.39	0.000445 U	0.00139 U	0.000590 U	0.00532 U	**1.81 J**	**0.0269**	**0.00387**	0.00159 U	0.000760 U
	B-250-10	10/15/18	PES	Pace	10	29.39	0.000445 U	0.00139 U	0.000590 U	0.00532 U	**21.7 J**	**0.0762**	**0.123**	**0.00166 J**	0.000760 U
	B-250-13	10/15/18	PES	Pace	13	26.39	0.000449 U	0.00140 U	0.000595 U	0.00537 U	**18.2 J**	**0.553**	**0.288**	**0.00285 J**	0.000767 U
	B-250-20	10/15/18	PES	Pace	20	19.39	0.000463 U	0.00145 U	0.000614 U	0.00554 U	**8.68 J**	**0.528**	**0.833**	**0.00435 J**	**0.00304**
	B-250-24	10/15/18	PES	Pace	24	15.39	0.000438 U	0.00137 U	0.000580 U	0.00523 U	**7.69**	**0.407**	**0.614**	**0.00344 J**	**0.00318**
	B-250-30	10/16/18	PES	Pace	30	9.39	0.000436 U	**0.00259 J**	**0.000590 J**	0.00521 U	**0.288**	**0.0519**	**0.533**	**0.0138**	**0.358**
B-251	B-251-5	10/15/18	PES	Pace	5	34.25	0.000420 U	0.00131 U	0.000557 U	0.00502 U	**0.0286**	**0.146**	**0.0153**	0.00150 U	0.000718 R
	B-251-8	10/15/18	PES	Pace	8	31.25	0.000444 U	0.00139 U	0.000588 U	0.00530 U	**0.230**	**0.135**	**0.0879**	0.00159 U	0.000758 U
	B-251-10	10/15/18	PES	Pace	10	29.25	0.000445 U	0.00139 U	0.00059 U	0.00532 U	**10.3**	**0.0501**	**0.0191**	0.00159 U	0.000760 U
	B-251-15	10/15/18	PES	Pace	15	24.25	0.000452 U	0.00141 U	0.000599 U	0.00540 U	**12.0**	**0.102**	**0.0366**	0.00162 U	0.000772 U
	B-251-20	10/15/18	PES	Pace	20	19.25	0.000468 U	0.00146 U	0.000621 U	0.00560 U	**6.66**	**0.154**	**0.0474**	0.00167 U	0.000800 U
	B-251-25	10/15/18	PES	Pace	25	14.25	0.000459 U	0.00144 U	0.000609 U	0.00549 U	**6.09**	**0.512**	**0.191**	0.00164 U	0.000785 U
B-252	B-252-2.5	10/15/18	PES	Pace	2.5	36.67	0.000418 U	0.00131 U	0.000554 U	0.00499 U	**0.306**	**0.0201**	**0.0146**	0.00149 U	0.000714 U
	B-252-8	10/15/18	PES	Pace	8	31.17	0.000428 U	0.00134 U	0.000567 U	0.00511 U	**0.0783**	**0.0156**	**0.0312**	0.00153 U	0.000731 U
	B-252-10	10/15/18	PES	Pace	10	29.17	0.000443 U	0.00139 U	0.000588 U	0.0053 U	**0.356**	**0.0503**	**0.0600**	0.00159 U	0.000757 U
	B-252-15	10/15/18	PES	Pace	15	24.17	0.000471 U	0.00147 U	0.000624 U	0.00563 U	**3.43**	**0.682**	**0.340**	0.00168 U	0.000805 U
	B-252-19	10/15/18	PES	Pace	19	20.17	0.000483 U	0.00151 U	0.000640 U	0.00577 U	**2.88**	–	**1.36**	**0.00231** J	**0.138 J**
	B-252-25	10/15/18	PES	Pace	25	14.17	0.000439 U	0.00137 U	0.000582 U	0.00525 U	**1.35**	**0.266**	**0.207**	0.00157 U	**0.00602**
	B-252-29	10/15/18	PES	Pace	29	10.17	0.000458 U	0.00143 U	0.000606 U	0.00547 U	**1.99**	**0.483**	**0.484**	**0.00656**	**0.00634**
B-253A	B-253A-5	10/18/18	PES	Pace	5	35.59	0.000456 U	**0.00195 J**	0.000604 U	0.00544 U	**0.0116 J**	**0.0285**	**0.0322**	0.00163 U	0.000778 U
	B-253A-8	10/18/18	PES	Pace	8	32.59	0.000451 U	**0.00193 J**	0.000597 U	0.00538 U	**0.917 J**	**0.00621**	**0.00584**	0.00161 U	0.000769 U
	B-253A-10	10/18/18	PES	Pace	10	30.59	0.000438 U	0.00137 U	0.000581 U	0.00524 U	**2.29 J**	**0.00740**	**0.00458**	0.00157 U	0.000748 U
	B-253A-15	10/18/18	PES	Pace	15	25.59	0.000449 U	**0.00193 J**	0.000595 U	0.00537 U	**15.7 J**	**0.0186 J**	**0.00229 J**	0.00161 U	0.000767 U
	B-253A-20	10/18/18	PES	Pace	20	20.59	0.000441 U	0.00138 U	0.000584 U	0.00526 U	**0.868 J**	**0.00529**	0.000760 U	0.00158 U	0.000752 U
B-254	B-254-5	10/16/18	PES	Pace	5	34.65	0.000479 U	0.00150 U	0.000635 UJ	0.00572 U	**9.35**	**0.0662**	**0.0425**	0.00171 U	0.0654 U
	B-254-10	10/16/18	PES	Pace	10	29.65	0.000454 U	0.00142 U	0.000602 UJ	0.00543 U	**3.09**	**0.0173**	**0.0251**	0.00162 U	**0.0111 J**
	B-254-13.5	10/16/18	PES	Pace	13.5	26.15	0.000469 U	**0.00152 J**	0.000622 UJ	0.00561 U	**42.2**	**0.353**	**0.366**	**0.00740**	0.320 U
	B-254-20	10/16/18	PES	Pace	20	19.65	0.000430 U	0.00134 U	0.00057 UJ	0.00514 U	**28.0**	**0.228**	**0.182**	**0.00222 J**	0.147 U
	B-254-25	10/16/18	PES	Pace	25	14.65	0.000447 U	**0.00321 J**	**0.000655 J**	0.00534 U	**46.7**	**0.681**	**1.20**	**0.00449 J**	0.305 U
B-254A	B-254A-27	10/19/18	PES	Pace	27	12.65	0.000437 U	**0.001610 J**	0.000578 U	0.005220 U	**0.0954**	**0.0118**	**0.165**	0.001560 U	**0.0508**
	B-254A-30	10/19/18	PES	Pace	30	9.65	0.000430 U	**0.001660 J**	0.000570 U	0.005140 U	**6.24**	**0.143**	**0.0964**	0.001540 U	0.000735 U
	B-254A-35	10/19/18	PES	Pace	35	4.65	0.000421 UJ	0.001320 UJ	0.000558 UJ	0.005040 UJ	**0.0584 J**	**0.000679 J**	**0.143 J**	0.001510 UJ	**0.0326 J**
B-255	B-255-3.5	10/16/18	PES	Pace	3.5	36.32	0.000457 U	0.00143 U	0.000605 UJ	0.00546 U	**0.0927**	**0.00586**	**0.0101**	0.00163 U	0.000780 U
	B-255-8	10/16/18	PES	Pace	8	31.82	0.000463 U	0.00145 U	0.000614 UJ	0.00554 U	**0.0420**	**0.0342**	**0.0118**	0.00166 U	0.000791 U
	B-255-15	10/16/18	PES	Pace	15	24.82	0.000436 U	0.00136 U	0.000577 UJ	0.00521 U	**1.23**	**0.0362**	**0.0294**	0.00156 U	**0.00247 J**
B-255A	B-255A-21	10/16/18	PES	Pace	21	18.82	0.000423 U	0.00132 U	**0.000720 J**	0.00506 U	**18.9**	**3.11**	**2.74**	**0.00577**	**0.0532 J**
B-256	B-256-2.5	10/16/18	PES	Pace	2.5	37.11	0.000468 U	0.00146 U	0.000620 UJ	0.00559 U	**0.055**	**0.0532**	**0.0273**	0.00167 U	**0.0123**
	B-256-5	10/16/18	PES	Pace	5	34.61	0.000442 U	0.00138 U	0.000585 UJ	0.00528 U	**0.0193**	**0.0162 J**	**0.0190**	0.00158 U	**0.0155**
	B-256-10	10/16/18	PES	Pace	10	29.61	0.000427 U	0.00134 U	0.000566 UJ	0.00511 U	**0.589**	**0.182**	**0.548**	**0.00197 J**	**0.0359**
	B-256-15	10/16/18	PES	Pace	15	24.61	0.000443 U	0.00138 U	0.000587 UJ	0.00529 U	**0.324**	**0.0863**	**0.768**	**0.00510 J**	**0.0715**
	B-256-18	10/16/18	PES	Pace	18	21.61	0.000443 U	0.00138 U	0.000586 UJ	0.00529 U	**0.207**	**0.0126**	**0.143**	0.00158 U	**0.0170**
B-257	B-257-5	10/17/18	PES	Pace	5	34.38	0.000484 U	0.00151 U	0.000642 UJ	0.00579 U	**0.0333**	**0.0356**	**0.0699**	0.00173 U	**0.00478**
	B-257-10	10/17/18	PES	Pace	10	29.38	0.000447 U	0.00140 U	0.000592 UJ	0.00534 U	**1.75**	**0.183**	**0.481**	**0.00474 J**	**0.0252**
	B-257-15	10/17/18	PES	Pace	15	24.38	0.000465 U	0.00145 U	0.000616 UJ	0.00555 U	**1.26**	**0.134**	**0.364**	**0.00411 J**	0.000793 U
	B-257-20	10/17/18	PES	Pace	20	19.38	0.000450 U	0.00140 U	0.000596 UJ	0.00537 U	**2.06**	**0.455**	**1.67**	**0.00652**	**0.226**

Table 2

Soil Analytical Results for Injection Well and Soil Boring Installation - August through October, 2018
Former American Linen Supply
700 Dexter Avenue North, Seattle, Washington

Sample Location	Sample ID	Sample Date	Sampled By	Lab	Sample Depth (feet bgs)	Sample Elevation (feet NAVD 88)	Benzene		Toluene		Ethylbenzene		Total Xylenes		PCE		TCE		cDCE		tDCE		VC	
						Screening Levels	0.030		0.273		0.343		0.831		0.025		0.030		0.050		0.050		0.050	
B-258	B-258-3	10/17/18	PES	Pace	3	36.17	0.000438	U	0.00137	U	0.000581	UJ	0.00524	U	**0.0198**		**0.00793**		**0.0116**		0.00157	U	0.000748	U
	B-258-8	10/17/18	PES	Pace	8	31.17	0.000455	U	0.00142	U	0.000603	U	0.00544	U	**0.0619**		**0.00635**		**0.00236**	**J**	0.00163	U	0.000777	U
	B-258-10	10/17/18	PES	Pace	10	29.17	0.000479	U	0.0015	U	0.000634	U	0.00572	U	**0.538**		**0.0149**		**0.0048**		0.00171	U	0.000817	U
	B-258-15	10/17/18	PES	Pace	15	24.17	0.00944	U	0.00148	U	0.000625	U	0.00564	U	**16.2**		**0.0763**		**0.0119**		0.00169	U	0.000806	U
	B-258-20	10/17/18	PES	Pace	20	19.17	0.000446	U	0.0014	U	0.000592	U	0.00533	U	**3.71**		**0.0117**		**0.0135**		0.00160	U	0.000762	U
B-259	B-259-2.5	10/17/18	PES	Pace	2.5	36.68	0.000450	U	**0.00189**	**J**	0.000597	U	0.00538	U	**0.0784**		**0.00504**		**0.00815**		0.00161	U	0.000769	U
	B-259-5	10/17/18	PES	Pace	5	34.18	0.000438	U	0.00137	U	0.000581	U	0.00524	U	**0.00933**		**0.00910**		**0.0696**		0.00157	U	**0.00121**	**J**
	B-259-10	10/17/18	PES	Pace	10	29.18	0.000458	U	**0.00224**	**J**	0.000607	U	0.00548	U	**0.00535**		**0.00372**		**0.105**		0.00164	U	**0.00257**	**J**
	B-259-15	10/17/18	PES	Pace	15	24.18	0.000470	U	**0.00152**	**J**	0.000622	U	0.00561	U	**0.0251**		**0.0103**		**0.715**		**0.00395**	**J**	**0.166**	
	B-259-20	10/17/18	PES	Pace	20	19.18	0.000447	U	0.00140	U	0.000592	U	0.00534	U	**0.697**		**0.253**		**0.718**		0.00160	U	**0.0191**	
B-260	B-260-5	10/17/18	PES	Pace	5	34.24	0.000444	U	0.00139	U	0.000588	U	0.00530	U	**0.0785**		**0.00667**		**0.0185**		0.00159	U	0.000757	U
	B-260-8	10/17/18	PES	Pace	8	31.24	0.000449	UJ	**0.00153**	**J**	0.000595	U	0.00536	U	**0.0294**	**J+**	**0.00771**	**J**	**0.142**		**0.00182**	**J**	**0.00269**	**J**
	B-260-10	10/17/18	PES	Pace	10	29.24	0.000459	U	0.00143	U	0.000608	U	0.00549	U	**0.0106**		**0.00211**		**0.568**		**0.00241**	**J**	**0.0103**	
	B-260-15	10/17/18	PES	Pace	15	24.24	0.00465	U	**0.00165**	**J**	0.000615	U	0.00555	U	**9.92**		**1.98**		**0.414**		**0.00349**	**J**	**0.0101**	
	B-260-20	10/17/18	PES	Pace	20	19.24	0.00442	U	0.00138	U	0.000586	U	0.00528	U	**8.23**		**1.38**		**0.588**		0.00158	U	**0.00167**	**J**
B-261	B-261-3	10/17/18	PES	Pace	3	36.89	0.000457	U	0.00143	U	0.000606	U	0.00546	U	**0.0198**		**0.000584**	**J**	**0.00244**	**J**	0.00163	U	0.000780	U
	B-261-5	10/17/18	PES	Pace	5	34.89	0.0362	U	**0.00151**	**J**	0.000600	U	0.00541	U	**25.2**	**J+**	0.0362	U	**0.00255**	**J**	0.00162	U	0.000773	U
	B-261-8	10/17/18	PES	Pace	8	31.89	0.00479	U	**0.00162**	**J**	0.000635	U	0.00573	U	**7.13**		0.00479	U	**0.00234**	**J**	0.00171	U	0.000818	U
	B-261-10	10/17/18	PES	Pace	10	29.89	0.0184	U	0.00144	U	0.000611	U	0.00551	U	**25.3**	**J+**	0.0184	U	**0.00359**		0.00165	U	0.000787	U
	B-261-15	10/17/18	PES	Pace	15	24.89	0.00879	U	0.00137	U	0.000582	U	0.00525	U	**13.1**		**0.0284**		**0.00353**		0.00157	U	0.000750	U
	B-261-20	10/17/18	PES	Pace	20	19.89	0.0899	U	**0.00203**	**J**	**0.000806**	**J**	0.00537	U	**112**	**J+**	**0.908**		**0.105**		**0.00200**	**J**	0.000768	U
B-262	B-262-5	10/17/18	PES	Pace	5	34.88	0.000471	U	**0.00858**		**0.00214**	**J**	**0.00775**		**14.4**	**J**	**0.0142**		0.0650	U	0.00168	U	0.000805	U
	B-262-8	10/17/18	PES	Pace	8	31.88	0.00044	U	0.00137	U	0.000583	U	0.00526	U	**0.612**		**0.00725**		**0.00981**		0.00157	U	0.000751	U
	B-262-10	10/17/18	PES	Pace	10	29.88	0.000445	U	0.00139	U	0.00059	U	0.00532	U	**0.495**		**0.00390**		**0.00190**	**J**	0.00159	U	0.000761	U
	B-262-15	10/17/18	PES	Pace	15	24.88	0.000439	U	0.00137	U	0.000582	U	0.00525	U	**1.81**		**0.0301**		**0.00332**		0.00157	U	0.000750	U
	B-262-20	10/17/18	PES	Pace	20	19.88	0.000471	U	0.00147	U	0.000624	U	0.00563	U	**2.05**	**J**	**0.0634**		**0.0429**		0.00168	U	0.000804	U
B-263	B-263-3	10/18/18	PES	Pace	3	36.78	0.000490	U	0.00153	U	0.000649	U	0.00585	U	**0.0143**		**0.000626**	**J**	**0.00113**	**J**	0.00175	U	0.000836	U
	B-263-5	10/18/18	PES	Pace	5	34.78	0.000432	U	0.00135	U	0.000573	U	0.00517	U	**0.0302**		**0.00438**		**0.0164**		0.00155	U	0.000738	U
	B-263-8	10/18/18	PES	Pace	8	31.78	0.000422	U	0.00132	U	0.000559	U	0.00504	U	**0.0301**		**0.00471**		**0.0277**		0.00151	U	0.00072	U
	B-263-10	10/18/18	PES	Pace	10	29.78	0.000455	U	0.00142	U	0.000603	U	0.00544	U	**0.0321**		**0.00106**	**J**	0.000785	U	0.00163	U	0.000777	U
	B-263-15	10/18/18	PES	Pace	15	24.78	0.000437	U	0.00136	U	0.000579	U	0.00522	U	**0.0558**		**0.00523**		**0.0170**		0.00156	U	0.000746	U
	B-263-18	10/18/18	PES	Pace	18	21.78	0.000434	U	0.00136	U	0.000575	U	0.00519	U	**0.416**		**0.0154**		**0.0894**		0.00155	U	**0.00733**	
B-264	B-264-3	10/18/18	PES	Pace	3	36.84	0.000434	U	0.00136	U	0.000576	U	0.00519	U	**0.200**		**0.00630**		0.000749	U	0.00155	U	0.000742	U
	B-264-5	10/18/18	PES	Pace	5	34.84	0.000463	U	0.00145	U	0.000613	U	0.00553	U	**0.096**		**0.00185**		0.000799	U	0.00165	U	0.00079	U
	B-264-8	10/18/18	PES	Pace	8	31.84	0.000457	U	0.00143	U	0.000606	U	0.00546	U	**0.415**		**0.00376**		0.000789	U	0.00163	U	0.000781	U
	B-264-10	10/18/18	PES	Pace	10	29.84	0.000441	U	0.00138	U	0.000584	U	0.00527	U	**1.3**		**0.00533**		0.00076	U	0.00158	U	0.000752	U
	B-264-15	10/18/18	PES	Pace	15	24.84	0.000465	U	0.00145	U	0.000617	U	0.00556	U	**0.663**		**0.00852**		**0.000940**	**J**	0.00166	U	**0.00303**	
	B-264-16	10/18/18	PES	Pace	16	23.84	**0.00115**		**0.00291**	**J**	0.000595	U	0.00537	U	**0.199**		**0.00250**		**0.00250**	**J**	0.00161	U	0.000767	U
B-265	B-265-3	10/18/18	PES	Pace	3	36.84	0.000477	U	**0.00150**	**J**	0.000632	U	0.00570	U	**0.154**		**0.00198**		**0.00118**	**J**	0.00171	U	0.000815	U
	B-265-5	10/18/18	PES	Pace	5	34.84	0.000464	U	0.00145	U	0.000614	U	0.00554	U	1.57	UJ	**0.00413**		**0.00391**		0.00166	U	0.000791	U
	B-265-8	10/18/18	PES	Pace	8	31.84	0.000447	U	0.00140	U	0.000592	U	0.00534	U	**2.37**	**J**	**0.00473**		**0.00354**		0.00160	U	0.000762	U
	B-265-10	10/18/18	PES	Pace	10	29.84	0.000440	U	0.00137	U	0.000583	U	0.00526	U	**1.15**	**J**	**0.00325**		**0.00135**	**J**	0.00157	U	0.000751	U
	B-265-17.5	10/18/18	PES	Pace	18	22.34	0.000443	U	0.00138	U	0.000586	U	0.00529	U	**0.0155**	**J**	0.000443	U	0.000763	U	0.00158	U	0.000756	U
B-266	B-266-5	10/18/18	PES	Pace	5	35.72	0.000487	U	**0.00546**	**J**	0.000646	U	0.00582	U	**0.0153**	**J**	0.0064		0.0052		0.00174	U	0.000832	U
	B-266-8	10/18/18	PES	Pace	8	32.72	0.000509	U	**0.00302**	**J**	0.000675	U	0.00609	U	**0.00703**	**J**	0.0092		0.0085		0.00182	U	0.000869	U
	B-266-10	10/18/18	PES	Pace	10	30.72	0.000644	U	0.00201	U	0.000853	U	0.00769	U	**0.00843**	**J**	0.0032		0.0062		0.00231	U	0.0011	U
	B-266-15	10/18/18	PES	Pace	15	25.72	0.000534	U	**0.00296**	**J**	0.000707	U	0.00637	U	**1.79**	**J**	0.0021		0.00092	U	0.00191	U	0.000911	U
	B-266-20	10/18/18	PES	Pace	20	20.72	0.000446	U	**0.00330**	**J**	0.000591	U	0.00533	U	**5.70**	**J**	0.1110		0.0195		0.00159	U	0.000761	U
B-267	B-267-2.5	10/18/18	PES	Pace	3	37.39	0.000481	U	0.00150	U	0.000637	U	0.00574	U	**0.00171**	**J**	0.000481	U	0.000829	U	0.00172	U	0.000821	U
	B-267-5	10/18/18	PES	Pace	5	34.89	0.000436	U	**0.00570**		0.000578	U	0.00521	U	**0.138**		**0.000945**	**J**	0.000753	U	0.00156	U	0.000745	U
	B-267-8	10/18/18	PES	Pace	8	31.89	0.000477	U	0.00149	U	0.000632	U	0.00570	U	**0.604**	**J**	**0.00123**		0.000823	U	0.00171	U	0.000815	U

Table 2

Soil Analytical Results for Injection Well and Soil Boring Installation - August through October, 2018
Former American Linen Supply
700 Dexter Avenue North, Seattle, Washington

Sample Location	Sample ID	Sample Date	Sampled By	Lab	Sample Depth (feet bgs)	Sample Elevation (feet NAVD 88)	Benzene	Toluene	Ethylbenzene	Total Xylenes	PCE	TCE	cDCE	tDCE	VC
						Screening Levels	**0.030**	**0.273**	**0.343**	**0.831**	**0.025**	**0.030**	**0.050**	**0.050**	**0.050**
B-267	B-267-10	10/18/18	PES	Pace	10	29.89	0.000452 U	**0.00188 J**	0.000599 U	0.00540 U	**0.517 J**	**0.00270**	0.000780 U	0.00162 U	0.000772 U
(continued)	B-267-15	10/18/18	PES	Pace	15	24.89	0.00894 U	0.0279 U	0.0118 U	0.107 U	**7.72**	**0.0853**	0.0154 U	0.0320 U	0.0153 U
	B-267-20	10/18/18	PES	Pace	20	19.89	0.00994 U	0.0310 U	0.0132 U	0.119 U	**8.01**	**0.102**	0.0171 U	0.0356 U	0.0170 U
INTERIM ACTION INJECTION WELLS															
Treatment Zone A															
IW-54A	IW-54A-8	9/12/2018	PES	ESC	8	31.11	0.000462 U	**0.00424 J**	0.000612 U	0.00552 U	**48.1**	**0.0503**	**0.00700**	0.00165 U	0.000778 U
	IW-54A-49	9/12/2018	PES	ESC	49	-9.89	0.000463 U	**0.00537 J**	0.000614 U	0.00554 U	**0.0827**	0.000463 U	0.000799 U	0.00166 U	0.000791 U
IW-58A	IW-58A-38	10/17/2018	PES	Pace	38	1.18	0.000437 U	**0.00206 J**	0.000579 U	0.00522 U	**2.67 J**	**0.279**	**1.48**	**0.0323**	**0.0128**
	B-929-38 (DUP)	10/17/2018	PES	Pace	38 (dup)	1.20	0.000450 U	**0.00250 J**	0.000597 U	0.00538 U	**2.31 J**	**0.201**	**1.77**	**0.0456**	**0.0167**
Treatment Zone B															
IW-53B	IW-53B-30	9/20/2018	PES	ESC	30	5.31	**0.000505 J**	**0.00303 J**	**0.00061**	0.0052 U	**1.74**	**0.152**	**0.171**	**0.00381**	**0.0079**
IW-54B	IW-54B-8	9/5/2018	PES	ESC	8	31.19	0.000436 U	**0.00476 J**	**0.00226 J**	10.4 U	**937**	**0.922 J**	1.51 U	0.00156 UJ	**0.00293**
	IW-54B-13	9/6/2018	PES	ESC	13	26.19	0.000444 U	0.00139 U	0.000588 U	0.0530 U	**2.21**	**0.0456**	**0.0349**	0.00159 U	0.000758 U
	IW-54B-21	9/6/2018	PES	ESC	21	18.19	0.000436 U	**0.00277 J**	0.000578 U	0.104 U	**11.0**	**4.48**	**1.90**	**0.00612 J**	0.000745 U
	IW-54B-33	9/6/2018	PES	ESC	33	6.19	**0.000702 J**	**0.00246 J**	0.000663 U	0.00592 U	**0.0689**	**0.0349**	**1.02**	0.00179 UJ	**0.0927**
IW-55B	IW-55B-39	9/13/2018	PES	ESC	39	12.78	0.000425 U	**0.00173 J**	0.000563 U	0.00508 U	**1.13**	**0.0340**	**0.0320**	0.00152 U	0.000725 U
	IW-55B-43	9/13/2018	PES	ESC	43	8.78	0.000452 U	0.00141 U	0.000600 U	0.00541 U	**47.1**	**1.04**	**1.06**	0.00162 U	**0.0522**
	IW-55B-61	9/13/2018	PES	ESC	61	-9.22	0.000475 U	**0.00745**	**0.000966 J**	0.00568 U	**0.343**	**0.0155**	**3.42**	**0.0213**	**0.341**
Treatment Zone C															
IW-22C	IW-22C-62	8/31/2018	PES	ESC	60	-21.1	0.000462 U	**0.00954**	**0.00123 J**	0.219 U	**14.5**	**0.708**	**0.305**	0.00165 U	0.000789 U
	IW-22C-78	8/31/2018	PES	ESC	78	-39.1	0.000484 U	**0.00182 J**	0.000642 U	0.231 U	**16.6**	**0.915**	**0.975**	0.00173 U	**0.00698**
IW-23C	IW-23C-42	9/4/2018	PES	ESC	42	-3.0	0.000479 U	**0.00716**	**0.00266 J**	2.29 U	**308**	**0.929**	**8.86**	**0.0116 J**	**0.532**
IW-24C	IW-24C-48	9/7/2018	PES	ESC	48	-8.8	**0.000635 J**	**0.00380 J**	0.000599	0.0540 U	**0.313**	**0.0257**	**3.74**	**0.0101**	**0.176 J-**
	IW-24C-55	9/7/2018	PES	ESC	55	-15.8	**0.000769 J**	**0.00382 J**	**0.00186 J**	**0.00785**	**140**	**0.882**	**0.980**	**0.0424**	0.000813 U
	IW-24C-66	9/10/2018	PES	ESC	66	-26.8	0.000495 U	0.618 U	0.262 U	**0.0121**	**210**	**1.54**	**2.18**	**0.0248**	0.000845 U
	IW-24C-75	9/10/2018	PES	ESC	75	-35.8	0.000478 U	0.598 U	0.253 U	**0.0127**	**309**	**2.12**	**2.62**	**0.0228**	0.000817 U
	IW-24C-80	9/10/2018	PES	ESC	80	-40.8	0.000442 U	**0.00148 J**	0.000586 U	0.00529 U	**12.3**	**0.128**	**0.699**	**0.00418 J**	**0.0312**
IW-27C	IW-27C-45	9/10/2018	PES	ESC	45	6.8	0.000448 U	**0.00223 J**	0.000593 U	0.00535 U	**18.6**	**0.178**	**0.282**	**0.00239 J**	**0.0297**
IW-28C	IW-28C-92	9/17/2018	PES	ESC	92	-40.6	0.000435 U	**0.00168**	0.000576 U	0.00520 U	**0.983**	**0.00290**	**0.0103**	0.00155 U	0.000742 U
Treatment Zone D															
IW-12D	IW-12D-42	9/14/2018	PES	ESC	42	-3.0	0.000434 U	**0.00188 J**	0.000575 U	0.00519 U	**55.8**	**0.491**	**2.16**	0.00155 U	**0.132**
	B-928-42 (DUP)	9/14/2018	PES	ESC	4	-3.0	0.000435 U	**0.00326 J**	0.000576 U	0.00519 U	**50.8**	**0.401**	**1.88**	0.00155 U	**0.105**
	IW-12D-50	9/14/2018	PES	ESC	50	-11.0	0.000437 U	**0.00427 J**	0.000580 U	0.00523 U	**54.4**	**1.51**	**1.04**	**0.0126**	**0.0585**
	IW-12D-60	9/14/2018	PES	ESC	60	-21.0	0.000451 U	**0.00436 J**	0.000597 U	0.00538 U	**9.63**	**0.347**	**0.566**	0.00161 U	**0.0123**
	IW-12D-85	9/17/2018	PES	ESC	85	-46.0	**0.000458 J**	**0.00194 J**	0.000592 U	0.00534 U	**8.01**	**0.0451**	**0.0596**	0.0016 U	0.000763 U
	IW-12D-95	9/17/2018	PES	ESC	95	-56.0	0.000481 U	0.0015 U	0.00637 U	0.00575 U	**0.942**	**0.00512**	**0.00818**	0.00172 U	**0.00139**
IW-13D	IW-13D-80	9/18/2018	PES	ESC	80	-40.8	0.000441 U	**0.00447**	**0.000719**	**0.00585**	**31.4**	**1.21**	**0.157**	**0.00404**	**0.0191**
	IW-13D-85	9/18/2018	PES	ESC	85	-45.8	0.000460 U	0.00178	0.000610 U	0.00550 U	**0.205**	**0.202**	**0.0220**	**0.00499**	0.000786 U
	IW-13D-95	9/18/2018	PES	ESC	95	-55.8	0.000481 U	**0.00171**	0.000638 U	0.00575 U	**0.00194**	**0.00168**	**0.00113**	0.00172 U	0.000822 U
IW-14D	IW-14D-45	9/11/2018	PES	ESC	45	-5.9	0.000419 U	0.00131 U	0.000555 U	0.00501 U	**0.712**	**0.0173**	**0.224**	**0.00591 J**	**0.0146**
	IW-14D-55	9/11/2018	PES	ESC	55	-15.9	0.000452 U	**0.00389 J**	**0.000834 J**	0.00540 U	**56.7**	**4.36**	**3.90**	0.0111 UJ	**0.0180**
	IW-14D-65	9/11/2018	PES	ESC	65	-25.9	0.000449 U	**0.00166 J**	0.000595 U	0.00536 U	**1.60**	**0.100**	**0.244**	**0.00171 J**	0.000767 U
	IW-14D-75	9/11/2018	PES	ESC	75	-35.9	**0.000525 J**	**0.00304 J**	0.000595 U	0.00536 U	**0.0728**	**0.00797**	**0.00943**	0.00160 UJ	0.000766 U
	IW-14D-86	9/11/2018	PES	ESC	86	-46.9	**0.000604 J**	**0.00291 J**	0.000584 U	0.00527 U	**2.31**	**0.502**	**0.0189**	**0.00742 J**	0.000752 U
	IW-14D-95	9/11/2018	PES	ESC	95	-55.9	**0.000701 J**	**0.00318 J**	**0.000606 J**	0.00541 U	**5.03**	**0.616**	**0.0212**	**0.00528 J**	0.000774 U
IW-15D	IW-15D-54	9/11/2018	PES	ESC	54	-2.2	**0.000455 J**	**0.00333 J**	**0.000628 J**	0.00511 U	**2.32**	**0.282**	**0.242**	0.00153 UJ	**0.00390**

Table 2

Soil Analytical Results for Injection Well and Soil Boring Installation - August through October, 2018
Former American Linen Supply
700 Dexter Avenue North, Seattle, Washington

Sample Location	Sample ID	Sample Date	Sampled By	Lab	Sample Depth (feet bgs)	Sample Elevation (feet NAVD 88)	Benzene		Toluene		Ethylbenzene		Total Xylenes		PCE	TCE	cDCE	tDCE		VC	
						Screening Levels	**0.030**		**0.273**		**0.343**		**0.831**		**0.025**	**0.030**	**0.050**	**0.050**		**0.050**	
IW-16D	IW-16D-85	10/18/2018	PES	Pace	85	-45.6	**0.00321**	J	**0.00897**	J	**0.00256**	**J**	0.0223	U	**1.35**	**0.336**	**0.336**	0.00666	U	0.00318	U
	IW-16D-90	10/18/2018	PES	Pace	90	-50.6	0.000474	U	0.00148	U	0.000628	U	0.00567	U	**0.0916**	**0.140**	**0.0191**	0.00170	U	0.000810	U
	IW-16D-95	10/18/2018	PES	Pace	95	-55.6	0.00194	U	0.00605	U	0.00257	U	0.0231	U	**1.47**	**0.564**	**0.0238**	0.00693	U	0.00331	U

Notes:
1. PHCs and VOCs Analyzed by EPA Method 8260C
2. MTCA Cleanup Regulation, Chapter 173-340-900 of WAC, Table 740-1 Method A Cleanup Levels for Soil, revised November 2007.
3. CLARC, Soil, Method B, Non Cancer, CLARC website - <https://fortress.wa.gov/ecy/clarc/CLARCHome.aspx>. Updated August 2015.
4. CLARC, Soil, Method B, Cancer, CLARC website - <https://fortress.wa.gov/ecy/clarc/CLARCHome.aspx>. Updated August 2015.

Laboratory and Results Notes:
5. Detected results shown in bold, detections above the MTCA Cleanup level highlighted in gray
6. – =results not available or results pending analysis
7. J = The reported concentration is an estimate based on detectable results between the method detection limit and reporting limit, laboratory QA/QC, or data validation review.
8. J+ = The result is an estimate quanitity, but the result may be biased high.
9. R = The data is unusable. The sample result is rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

Abbreviations:
8. cDCE = cis-1,2-dichloroethene
9. MTCA = Washington State Model Toxics Control Act
10. PCE = perchloroethylene (tetrachloroethene)
11. PES = PES Environmental, Inc.
12. PHCs = petroleum hydrocarbons
13. TCE = trichloroethylene
14. tDCE = trans-1,2-dichloroethene
15. VC = vinyl chloride
16. VOCs = volatile organic compounds
17. WAC = Washington Administrative Code

Table 3

Soil Analytical Results for Petroleum Hydrocarbons and CVOCs
Soil Management Areas
Former American Linen Supply
700 Dexter Avenue North, Seattle, Washington

Sample Location	Soil Management Area	Sample ID	Sample Date	Sampled By	Lab	Sample Depth (feet bgs)	Sample Elevation (feet NAVD 88)	Analytical Reslts (milligrams per kilogram)															
								GRO		Benzene		Toluene		Ethylbenzene		Total Xylenes		PCE		TCE		cDCE		tDCE		VC	
							Contained-In Criteria	–		–		–		–		–		**14**		**10**		**160**		–		**0.67**	
On Property																											
B-1	1	B-1-13	6/23/00	TR	ARI	13	27.00	–		0.0012	U	0.0012	U	0.0012	U	0.0024	U	0.0012	U	0.0012	U	**0.0021**		0.0012	U	0.0012	U
B-3	1	B-3-12	6/23/00	TR	ARI	12	28.00	–		0.0013	U	0.0013	U	0.0013	U	0.0026	U	0.0013	U	0.0013	U	**0.0016**		0.0013	U	0.0013	U
B-5	1	B-5-10	6/23/00	TR	ARI	10	30.00	–		0.0011	U	0.0011	U	0.0011	U	0.0022	U	**0.0051**		0.0011	U	**0.0021**		0.0011	U	0.0011	U
		B-5-11.5	6/23/00	TR	ARI	11.5	28.50	–		0.0012	U	0.0012	U	0.0012	U	0.0024	U	**0.12**		**0.0088**		**0.013**		0.0012	U	0.0012	U
B-10	1	B-10-12	6/24/00	TR	ARI	12	28.00	–		–		–		–		–		**0.017**		**0.0014**		**0.0061**		0.0011	U	0.0011	U
B-201	1	B-201-10	6/19/17	PES	ESC	10	29.80	–		0.00120	U	0.00601	U	0.00120	U	0.00361	U	**0.0679**		**0.00638**		**0.00298**		0.00120	U	0.00120	U
		B-201-30	6/19/17	PES	ESC	30	9.80	–		0.00113	U	0.00567	U	0.00113	U	0.00340	U	**0.00264**		0.00113	U	**0.0784**		**0.00761**		0.00113	U
		B-201-35	6/19/17	PES	ESC	35	4.80	–		0.00116	U	0.00580	U	0.00116	U	0.00348	U	**0.00471**		**0.00134**		**0.0149**		**0.00200**		0.00116	U
B-202	1	B-202-5	6/19/17	PES	ESC	5	34.17	0.119	U	0.00119	U	0.00595	U	0.00119	U	0.00357	U	**0.108**		**0.00580**		0.00119	U	0.00119	U	0.00119	U
		B-202-20	6/19/17	PES	ESC	20	19.17	–		0.00119	U	0.00594	U	0.00119	U	0.00356	U	**0.0632**		**0.00503**		0.00119	U	0.00119	U	0.00119	U
B-203	1	B-203-5	6/20/17	PES	ESC	5	34.18	**168**		**0.0358**		**0.0272**		**0.0745**		**0.0494**		0.00115	U	0.00115	U	0.00115	U	0.00115	U	0.00115	U
		B-203-25	6/20/17	PES	ESC	25	14.18	**0.174**		0.00117	U	0.00586	U	0.00117	U	0.00351	U	**0.00241**		0.00117	U	0.00117	U	0.00117	U	0.00117	U
B-204	1	B-204-20	6/20/17	PES	ESC	20	19.80	–		0.00116	U	0.00579	U	0.00116	U	0.00347	U	0.00116	U	0.00116	U	0.00116	U	0.00116	U	0.00116	U
B-205	1	B-205-10	8/30/17	PES	ESC	10	30.28	**274**	**q**	**0.304**		**0.372**	**J**	**4.74**		**6.02**		0.0333	U	0.0336	U	0.0283	U	0.0318	U	0.0351	U
B-206	2	B-206-15	8/14/17	PES	ESC	15	24.10	**0.243**		0.00777	U	0.0124	U	0.00854	U	0.0200	U	**0.0715**		**0.00831**	**J**	**0.306**		**0.00825**	**J**	0.00838	U
		B-206-30	8/14/17	PES	ESC	30	9.10	**1.32**	**J**	0.000310	U	0.000498	U	0.000341	U	0.000801	U	**0.0522**		**0.0289**		**12.6**		**0.00230**		**0.124**	
B-207	1	B-207-30	8/25/17	PES	ESC	30	8.51	0.0385	U	0.00767	U	0.0123	U	0.00843	U	0.0198	U	**0.109**		**0.0373**		**0.0557**		0.00750	U	0.00827	U
B-208	1	B-208-20	8/24/17	PES	ESC	20	18.80	–		0.000319	U	0.000513	U	0.000351	U	0.000825	U	0.00816	U	**0.000689**	**J**	**0.0257**		**0.000708**	**J**	**0.00270**	
		B-208-35	8/24/17	PES	ESC	35	3.80	–		0.000294	U	0.000472	U	0.000323	U	0.000760	U	**0.0109**	**J**	**0.00162**		**0.160**		**0.00656**		**0.00719**	
		B-901-50	8/24/17	PES	ESC	35 (dup)	3.80	–		0.000305	U	0.000491	U	0.000336	U	0.000789	U	**0.407**	**J**	**0.00118**		**0.152**		**0.00577**		**0.00719**	
B-209	1	B-209-20	8/25/17	PES	ESC	20	18.97	–		0.000314	U	0.000504	U	0.000345	U	0.000811	U	**0.000424**	**J**	**0.000587**	**J**	**0.0174**		**0.000402**	**J**	**0.00168**	
		B-209-35	8/25/17	PES	ESC	35	3.97	–		0.000288	U	0.000464	U	0.000317	U	0.000746	U	**0.00682**		**0.00119**		**0.0508**		**0.000840**	**J**	**0.00915**	
B-210	1	B-210-6	8/21/17	PES	ESC	6	33.38	–		0.000318	U	0.000512	U	0.000350	U	0.000823	U	**0.0313**		**0.00234**		**0.000287**	**J**	0.000311	U	0.000343	U
		B-210-15	8/21/17	PES	ESC	15	24.38	0.919	U	0.00731	U	0.0117	U	0.00804	U	0.0189	U	**0.0730**		**0.0647**		0.00637	U	0.00715	U	0.00789	U
		B-210-20	8/21/17	PES	ESC	20	19.38	0.0378	U	0.000301	U	0.000484	U	0.000331	U	0.000778	U	0.000307	U	0.000311	U	**0.00185**		0.000294	U	**0.000499**	**J**
		B-210-35	8/21/17	PES	ESC	35	4.38	0.0391	U	0.000312	U	0.000501	U	0.000343	U	0.000806	U	**0.00789**		**0.00300**		**0.00950**		0.000305	U	0.000336	U
B-211	1	B-211-20	8/17/17	PES	ESC	20	19.75	–		0.000301	U	0.000485	U	0.000332	U	0.000779	U	**0.0153**		**0.0202**		**0.0282**		**0.00109**	**J**	**0.000723**	**J**
		B-211-35	8/17/17	PES	ESC	35	4.75	–		0.000304	U	0.000489	U	0.000334	U	0.000786	U	**0.000805**	**J**	0.000314	U	**0.00104**	**J**	0.000297	U	**0.000539**	**J**
B-216	1	B-216-20	9/1/17	PES	ESC	20	31.86	–		0.000291	U	0.000467	U	0.000320	U	0.000752	U	**0.00134**		0.000301	U	0.000253	U	0.000284	U	0.000313	U
		B-216-40	9/1/17	PES	ESC	40	11.86	–		0.000293	U	0.000471	U	0.000322	U	0.000757	U	0.000299	U	0.000303	U	0.000255	U	0.000286	U	0.000316	U
		B-216-50	9/1/17	PES	ESC	50	1.86	–		0.000292	U	0.000469	U	0.000321	U	0.000754	U	0.000298	U	0.000302	U	0.000254	U	0.000285	U	0.000315	U
B-217	4	B-217-15	9/5/17	PES	ESC	15	36.80	–		0.000306	U	0.000493	U	0.000337	U	0.000792	U	**0.0221**		0.000317	U	0.000267	U	0.000300	U	0.000330	U
		B-217-25	9/5/17	PES	ESC	25	26.80	–		0.000299	U	0.000481	U	0.000329	U	0.000774	U	**0.0432**		**0.00122**		**0.00105**	**J**	0.000293	U	0.000323	U
		B-217-35	9/5/17	PES	ESC	35	16.80	–		0.000310	U	0.000498	U	0.000341	U	0.000801	U	0.000317	U	0.000320	U	0.000270	U	0.000303	U	0.000334	U
		B-217-42	9/5/17	PES	ESC	42	9.80	–		0.000309	U	**0.000702**	**J**	0.000340	U	0.000798	U	**152**		**0.150**		**5.73**		**0.00334**		**0.464**	**J**
B-218	1	B-218-12.5	9/19/17	PES	ESC	12.5	25.61	–		0.000307	U	0.000494	U	0.000338	U	0.000795	U	**0.0438**		**0.775**		**2.16**		**0.0171**		**0.0281**	
		B-218-19	9/19/17	PES	ESC	19	19.11	–		0.000306	U	0.000493	U	0.000337	U	0.000792	U	**0.000476**	**J**	**0.00946**	**J**	**0.123**		**0.00346**		**0.0286**	
		B-218-25	9/19/17	PES	ESC	25	13.11	–		0.000313	U	0.000503	U	0.000344	U	0.000808	U	**0.0104**		**0.0144**		**0.0781**		**0.00124**		**0.0449**	
B-220	2	B-220-15	9/20/17	PES	ESC	15	23.91	–		0.000307	U	0.000493		0.000338	U	0.000794	U	**0.0351**		**0.0526**		**0.576**		**0.00163**		**0.0771**	
		B-220-29	9/20/17	PES	ESC	29	9.91	–		0.000314	U	**0.000672**	**J+**	0.000345	U	0.000811	U	**14.0**		**1.74**		**2.13**		**0.00550**	**J+**	**0.0490**	**J+**
		B-220-32	9/20/17	PES	ESC	32	6.91	–		0.000308	U	0.000495	U	0.000339	U	0.000796	U	**6.52**		**0.692**	**J**	**1.55**		**0.00784**		**0.143**	

Table 3

Soil Analytical Results for Petroleum Hydrocarbons and CVOCs
Soil Management Areas
Former American Linen Supply
700 Dexter Avenue North, Seattle, Washington

Sample Location	Soil Management Area	Sample ID	Sample Date	Sampled By	Lab	Sample Depth (feet bgs)	Sample Elevation (feet NAVD 88)	Analytical Reslts (milligrams per kilogram)															
								GRO	Benzene		Toluene		Ethylbenzene		Total Xylenes		PCE		TCE		cDCE		tDCE		VC	
Contained-In Criteria								–	–		–		–		–		**14**		**10**		**160**		–		**0.67**	
B-221	2	B-221-16	9/20/17	PES	ESC	16	23.02	–	0.00791	U	0.0127	U	0.00869	U	0.0204	U	**0.539**		**0.250**		**1.37**		0.00773	U	0.0805	U
		B-221-22	9/20/17	PES	ESC	22	17.02	–	0.311	U	0.499	U	0.342	U	0.803	U	**25.8**		**0.984**	**J**	**2.56**		0.304	U	0.335	U
		B-221-33	9/20/17	PES	ESC	33	6.02	–	0.302	U	0.486	U	0.332	U	0.781	U	**21.8**		**0.835**	**J**	**1.93**		0.296	U	0.326	U
		B-221-37	9/20/17	PES	ESC	37	2.02	–	0.0635	U	0.102	U	0.0698	U	0.165	U	**9.02**		**0.447**		**0.438**		0.0621	U	0.0684	U
		B-915-80	9/20/17	PES	ESC	37 (dup)	2.02	–	0.0309	U	0.0497	U	0.0340	U	0.0800	U	**7.54**		**0.400**		**0.342**		0.0303	U	0.0334	U
B-222	2	B-222-17	9/21/17	PES	ESC	17	22.16	–	0.000306	U	0.000492	U	0.000337	U	0.000791	U	**1.01**		**0.815**		0.000266	U	**0.00481**		**0.00907**	
		B-222-25	9/21/17	PES	ESC	25	14.16	–	0.000312	U	0.000502	U	0.000343	U	0.000807	U	**0.714**		**0.130**		**0.109**		**0.00171**		**0.0116**	
		B-222-34	9/21/17	PES	ESC	34	5.16	–	0.000303	U	0.000486	U	0.000333	U	0.000782	U	0.0190	UJ	**0.00506**		**0.0255**		**0.000980**	**J**	**0.0120**	
B-223	2	B-223-16	9/21/17	PES	ESC	16	23.10	–	0.0638	U	0.103	U	0.0702	U	0.165	U	**27.0**		**1.08**		**1.71**		0.0624	U	0.0688	U
		B-223-22	9/21/17	PES	ESC	22	17.10	–	0.0617	U	0.0991	U	0.0678	U	0.160	U	**38.0**		**0.453**		**0.713**		0.0603	U	0.0665	U
		B-223-30	9/21/17	PES	ESC	30	9.10	–	7.43	U	11.9	U	8.17	U	19.2	U	**5,560**		7.68	U	6.47	U	7.27	U	8.01	U
		B-223-39	9/21/17	PES	ESC	39	0.10	–	0.000308	U	0.000494	U	0.000338	U	0.000795	U	**4.68**		**0.0228**		**0.0914**		**0.000883**	**J**	**0.00775**	
B-224	1	B-224-6	11/27/17	PES	ESC	6	33.10	–	0.000292	U	0.000469	U	0.000321	U	0.000755	U	**0.0208**		**0.00205**		**0.000624**	**J**	0.000285	U	0.000315	U
		B-224-11	11/27/17	PES	ESC	11	28.10	–	0.000722	U	**0.00174**	**J**	0.000793	U	0.00186	U	**0.151**		**0.0404**		**0.148**		**0.0136**		**0.0577**	
		B-224-16	11/27/17	PES	ESC	16	23.10	–	0.000326	U	0.000525	U	0.000359	U	0.000844	U	**0.0101**		**0.00374**		**0.0279**		**0.000403**	**J**	**0.0195**	
		B-224-21.5	11/27/17	PES	ESC	21.5	17.60	–	0.000313	U	0.000504	U	0.000345	U	0.000810	U	**2.71**		**0.0906**		**0.117**		**0.00140**		**0.00460**	
		B-224-26	11/27/17	PES	ESC	26	13.10	–	0.000357	U	0.000574	U	0.000392	U	0.000923	U	**3.07**		**0.234**		**0.289**		**0.00329**		**0.0154**	
		B-224-31	11/27/17	PES	ESC	31	8.10	–	0.000316	U	0.000508	U	0.000348	U	0.000816	U	**4.71**		**0.137**		**0.207**		**0.00128**		**0.00773**	
		B-224-36	11/27/17	PES	ESC	36	3.10	–	0.000300	U	0.000482	U	0.000330	U	0.000775	U	**6.55**		**0.269**		**0.326**		**0.00289**		**0.0255**	
B-225	1	B-225-5	11/27/17	PES	ESC	5	34.10	–	0.000293	U	0.000471	U	0.000322	U	0.000757	U	**0.0223**		**0.00239**		**0.00217**		0.000286	U	0.000316	U
		B-225-11	11/27/17	PES	ESC	11	28.10	–	0.000316	U	0.000508	U	0.000347	U	0.000816	U	**0.0124**		**0.00394**		**0.0222**		0.000309	U	**0.000480**	**J**
		B-225-16	11/27/17	PES	ESC	16	23.10	–	0.00794	U	0.0127	U	0.00873	U	0.0205	U	**4.26**		**0.353**		**1.62**		0.00776	U	**0.0460**	
		B-225-21	11/27/17	PES	ESC	21	18.10	–	0.00767	U	0.0123	U	0.00844	U	0.0198	U	**1.11**		**0.0428**		**0.0455**		0.00750	U	0.00828	U
		B-225-26	11/27/17	PES	ESC	26	13.10	–	0.000317	U	0.000510	U	0.000349	U	0.000820	U	**1.13**		**0.0370**		**0.0710**		**0.000763**	**J**	**0.00619**	
		B-225-31	11/27/17	PES	ESC	31	8.10	–	0.000309	U	0.000496	U	0.000339	U	0.000798	U	**1.09**		**0.0372**		**0.164**		**0.000751**	**J**	**0.00550**	
		B-225-36	11/27/17	PES	ESC	36	3.10	–	0.000333	U	0.000535	U	0.000366	U	0.000860	U	**0.158**		**0.00696**		**0.0115**		0.000325	U	**0.000538**	**J**
B-226	2	B-226-6	11/28/17	PES	ESC	6	33.10	–	0.000325	U	0.000523	U	0.000358	U	0.000841	U	**0.0227**		**0.00209**		**0.00317**		0.000318	U	0.000350	U
		B-226-11	11/28/17	PES	ESC	11	28.10	–	0.000306	U	**0.000730**	**J**	0.000337	U	0.000792	U	**0.00869**		**0.00190**		**0.00338**		0.000299	U	**0.000805**	**J**
		B-226-16	11/28/17	PES	ESC	16	23.10	–	0.00757	U	0.0121	U	0.00832	U	0.0195	U	**21.7**	**J**	**0.917**	**J**	**1.84**	**J**	**0.0147**	**J**	**0.0557**	**J**
		B-920-35	11/28/17	PES	ESC	16 (dup)	23.10	–	0.000299	U	0.000480	U	0.000329	U	0.000772	U	**10.6**	**J**	**0.0316**	**J**	**0.0714**	**J**	**0.000613**	**J**	**0.00141**	**J**
		B-226-21	11/28/17	PES	ESC	21	18.10	–	0.000308	U	0.000494	U	0.000338	U	0.000795	U	**3.07**		**0.00779**		**0.00832**		0.000301	U	**0.000390**	**J**
		B-226-31.5	11/28/17	PES	ESC	31.5	7.60	–	0.000287	U	0.000462	U	0.000316	U	0.000743	U	**4.80**		**0.0755**		**0.135**		**0.00128**		**0.0102**	
B-227	2	B-227-6	11/28/17	PES	ESC	6	33.10	–	0.000308	U	0.000496	U	0.000339	U	0.000797	U	**0.0154**		**0.000798**	**J**	**0.000455**	**J**	0.000301	U	0.000332	U
		B-227-11	11/28/17	PES	ESC	11	28.10	–	0.000291	U	0.000468	U	0.000320	U	0.000752	U	**0.141**		**0.0406**		**0.0438**		**0.00143**		0.000314	U
		B-227-16	11/28/17	PES	ESC	16	23.10	–	0.000309	U	0.000497	U	0.000340	U	0.000800	U	**2.47**		**0.0804**		**0.429**		**0.00203**		**0.00781**	
		B-227-21	11/28/17	PES	ESC	21	18.10	–	0.000313	U	0.000504	U	0.000345	U	0.000810	U	**7.18**		**0.311**		**0.393**		**0.00290**		**0.0186**	
		B-227-26	11/28/17	PES	ESC	26	13.10	–	0.000315	U	0.000506	U	0.000346	U	0.000813	U	**7.86**		**0.124**		**0.351**		**0.00186**		**0.00735**	
		B-227-31	11/28/17	PES	ESC	31	8.10	–	0.000324	U	0.000521	U	0.000356		0.000837	U	**8.38**		**0.0396**		**0.0636**		**0.000628**	**J**	**0.00446**	
		B-227-36	11/28/17	PES	ESC	36	3.10	–	0.000310	U	0.000498	U	0.000341		0.000801	U	**1.75**		**0.138**		**0.382**		**0.00193**		**0.00169**	
B-228	2	B-228-6	11/29/17	PES	ESC	6	33.10	–	0.000330	U	0.000531	U	0.000363	U	0.000854	U	**0.0291**		**0.00216**		**0.00505**		0.000323	U	0.000356	U
		B-228-11	11/29/17	PES	ESC	11	28.10	–	0.000300	U	0.000482	U	0.000330	U	0.000776	U	**0.00300**		**0.000709**	**J**	**0.000669**	**J**	0.000293	U	0.000323	U
		B-228-16	11/29/17	PES	ESC	16	23.10	–	0.000291	U	**0.000556**	**J**	0.000320	U	0.000752	U	**203**	**J**	**0.680**	**J**	**0.811**	**J**	**0.00385**		**0.00764**	
		B-921-22	11/29/17	PES	ESC	16 (dup)	23.10	–	0.000310	U	**0.000672**	**J**	0.000341	U	0.000802	U	**18.2**	**J**	**0.378**	**J**	**0.474**	**J**	**0.00415**		**0.00840**	
		B-228-21	11/29/17	PES	ESC	21	18.10	–	0.000305	U	0.000491	U	0.000336	U	0.000789	U	**14.0**		**0.0594**		**0.0290**		**0.000496**	**J**	**0.000858**	**J**
B-228		B-228-26	11/29/17	PES	ESC	26	13.10	–	0.000291	U	0.000467	U	0.000320	U	0.000751	U	**10.2**		**0.0775**		**0.112**		**0.000777**	**J**	**0.0127**	

Table 3

Soil Analytical Results for Petroleum Hydrocarbons and CVOCs
Soil Management Areas
Former American Linen Supply
700 Dexter Avenue North, Seattle, Washington

Sample Location	Soil Management Area	Sample ID	Sample Date	Sampled By	Lab	Sample Depth (feet bgs)	Sample Elevation (feet NAVD 88)	Analytical Reslts (milligrams per kilogram)																	
								GRO	Benzene		Toluene		Ethylbenzene		Total Xylenes		PCE		TCE		cDCE		tDCE		VC	
						Contained-In Criteria		–	–		–		–		–		14		10		160		–		0.67	
(continued)		B-228-31	11/29/17	PES	ESC	31	8.10	–	0.000300	U	0.000482	U	0.000330	U	0.000775	U	**1.60**		**0.0786**		**0.121**		**0.000614**	**J**	**0.0103**	
		B-228-36	11/29/17	PES	ESC	36	3.10	–	0.000305	U	0.000490	U	0.000336	U	0.000789	U	**0.101**		**0.0486**		**0.0648**		**0.000603**	**J**	**0.0217**	
B-229	2	B-229-6	11/29/17	PES	ESC	6	33.10	–	0.000395	U	0.000635	U	0.000435	U	0.00102	U	**0.769**		**0.0382**		**0.0257**		0.000386	U	0.000426	U
		B-229-11	11/29/17	PES	ESC	11	28.10	–	0.000383	U	**0.00219**	**J**	0.000422	U	0.000991	U	**0.0366**		**0.00585**		**0.118**		**0.00148**		**0.0272**	
		B-229-16	11/29/17	PES	ESC	16	23.10	–	**0.000388**	**J**	0.000517	U	0.000354	U	0.000832	U	**0.101**		**0.0138**		**0.0188**		**0.000828**	**J**	**0.00481**	
		B-229-25	11/29/17	PES	ESC	25	14.10	–	0.000296	U	0.000476	U	0.000326	U	0.000765	U	**2.50**		**0.510**		**0.865**		**0.00195**		**0.0418**	
		B-229-31	11/29/17	PES	ESC	31	8.10	–	0.000326	U	0.000523	U	0.000358	U	0.000842	U	**4.99**		**1.53**		**2.35**		**0.00384**		**0.105**	
		B-229-36	11/29/17	PES	ESC	36	3.10	–	0.000297	U	0.000477	U	0.000327	U	0.000768	U	**9.25**		**0.898**		**1.02**		**0.00217**		**0.0609**	
B-230	2	B-230-6	11/30/17	PES	ESC	6	33.10	–	0.000285	U	0.000458	U	0.000313	U	0.000736	U	**0.0333**		**0.00215**		**0.00376**		0.000278	U	0.000307	U
		B-230-11	11/30/17	PES	ESC	11	28.10	–	**0.000348**	**J**	0.000474	U	0.000324	U	0.000762	U	**0.00442**		**0.000709**	**J**	**0.00634**		0.000288	U	**0.00225**	
		B-230-16	11/30/17	PES	ESC	16	23.10	–	0.0751	U	0.120	U	0.0826	U	0.194	U	**1,100**		**9.17**		**10.4**		0.0735	U	0.0810	U
		B-230-21	11/30/17	PES	ESC	21	18.10	–	0.645	U	1.04	U	0.709	U	1.67	U	**2,820**	**J**	**4.43**	**J**	**2.71**	**J**	0.630	U	0.695	U
		B-922-15	11/30/17	PES	ESC	21 (dup)	18.10	–	0.326	U	0.524	U	0.359	U	0.843	U	**165**	**J**	**0.505**	**J**	**0.884**	**J**	0.319	U	0.351	U
		B-230-26	11/30/17	PES	ESC	26	13.10	–	0.809	U	1.29	U	0.889	U	2.09	U	**607**		0.836	U	0.705	U	0.791	U	0.872	U
		B-230-31	11/30/17	PES	ESC	31	8.10	–	0.336	U	0.540	U	0.369	U	0.868	U	**105**		**0.603**	**J**	**1.82**		0.328	U	0.362	U
		B-230-35	11/30/17	PES	ESC	35	4.10	–	0.0488	U	0.0784	U	0.0536	U	**0.174**	**J**	**25.4**		**0.211**		**0.470**		0.0477	U	0.0525	U
B-231	2	B-231-6	11/30/17	PES	ESC	6	33.10	–	0.000333	U	0.000535	U	0.000366	U	0.000861	U	**0.0109**		**0.00146**		**0.00617**		0.000326	U	0.000359	U
		B-231-11	11/30/17	PES	ESC	11	28.10	–	0.000318	U	0.000512	U	0.000350	U	0.000823	U	**0.0347**		**0.000346**	**J**	**0.000868**	**J**	0.000311	U	0.000343	U
		B-231-16	11/30/17	PES	ESC	16	23.10	–	0.00756	U	0.0121	U	0.00831	U	0.0195	U	**0.438**		**0.118**		**2.18**		0.00739	U	**0.0114**	**J**
		B-231-21	11/30/17	PES	ESC	21	18.10	–	0.0179	U	0.0287	U	0.0196	U	0.0462	U	**0.728**		**0.180**		**0.911**		0.0174	U	**0.0458**	**J**
		B-231-26	11/30/17	PES	ESC	26	13.10	–	0.000314	U	0.000504	U	0.000345	U	0.000811	U	**0.119**		**0.0177**		**0.122**		**0.000898**	**J**	**0.00996**	
		B-231-30	11/30/17	PES	ESC	30	9.10	–	0.000305	U	0.000490	U	0.000335	U	0.000787	U	**0.0182**		**0.00140**		**0.00245**		0.000298	U	**0.00142**	
		B-231-36	11/30/17	PES	ESC	36	3.10	–	0.000306	U	0.000492	U	0.000337	U	0.000792	U	**0.0521**		**0.00158**		**0.0441**		**0.000664**	**J**	**0.118**	
B-232	2	B-232-6	12/1/17	PES	ESC	6	33.10	–	**0.000380**	**J**	**0.00268**	**J**	0.000351	U	**0.000825**	**J**	**0.00936**		**0.00224**		**0.00586**		**0.000488**	**J**	**0.00163**	
		B-232-11	12/1/17	PES	ESC	11	28.10	–	**0.000630**	**J+**	**0.000806**	**J+**	0.000395	U	0.000929	U	**0.00590**	**J+**	**0.00169**	**J+**	**0.00464**	**J+**	0.000351	U	**0.00346**	**J+**
		B-232-16	12/1/17	PES	ESC	16	23.10	–	0.000316	U	0.000508	U	0.000348	U	0.000817	U	0.000676	U	0.000327	U	**0.0101**		0.000309	U	**0.00442**	
		B-232-21	12/1/17	PES	ESC	21	18.10	–	0.000302	U	0.000486	U	0.000332	U	0.000781	U	**0.0190**		**0.0216**		**0.147**		**0.00106**	**J**	**0.00682**	
		B-232-26	12/1/17	PES	ESC	26	13.10	–	0.0101	U	0.0162	U	0.0111	U	0.0261	U	**11.1**		**0.763**		**0.474**		0.00987	U	0.0109	U
		B-232-31	12/1/17	PES	ESC	31	8.10	–	0.000305	U	0.000490	U	0.000335	U	0.000788	U	**4.27**		**0.0964**		**0.0874**		**0.000524**	**J**	**0.0110**	
		B-232-36	12/1/17	PES	ESC	36	3.10	–	0.000320	U	0.000514	U	0.000352	U	0.000827	U	**1.88**		**0.0913**		**0.110**		**0.000631**	**J**	**0.0123**	
B-233	2	B-233-6	12/1/17	PES	ESC	6	29.50	–	0.000291	U	0.000468	U	0.000320	U	0.000753	U	**0.0192**		**0.00321**		**0.00266**		0.000285	U	0.000314	U
		B-233-11	12/1/17	PES	ESC	11	24.50	–	**0.00167**	**J+**	**0.00349**	**J+**	0.000828	U	0.00194	U	**0.172**	**J+**	**0.0579**	**J+**	**0.0321**	**J+**	0.000737	U	**0.00824**	**J+**
		B-233-16	12/1/17	PES	ESC	16	19.50	–	**0.000420**	**J**	0.000612	U	0.000419	U	0.000985	U	**0.0231**		**0.00524**		**0.0101**		0.000373	U	**0.00358**	
		B-233-21	12/1/17	PES	ESC	21	14.50	–	**0.00770**		0.0123	U	0.00847	U	0.0199	U	**8.23**		**0.434**		**0.645**		**0.00859**	**J**	**0.0584**	
		B-233-26	12/1/17	PES	ESC	26	9.50	–	0.0161	U	0.0259	U	0.0177	U	0.0417	U	**9.90**		**2.55**		**2.40**		0.0158	U	**0.0261**	**J**
		B-233-31	12/1/17	PES	ESC	31	4.50	–	0.00839	U	0.0134	U	0.00923	U	0.0216	U	**17.3**		**1.99**		**1.65**		0.00821	U	**0.0519**	
B-234	4	B-234-11	12/4/17	PES	ESC	11	40.80	–	0.000314	U	0.000505	U	0.000345	U	0.000812	U	**0.00155**		0.000324	U	0.000273	U	0.000307	U	0.000338	U
		B-234-30	12/4/17	PES	ESC	30	21.80	–	0.000286	U	0.000459	U	0.000314	U	0.000739	U	0.000292	U	0.000295	U	0.000249	U	0.000279	U	0.000308	U
B-234A	4	B-234A-35	12/4/17	PES	ESC	35	16.80	–	0.000310	U	0.000498	U	0.000341	U	0.000801	U	**0.000320**	**J**	0.000320	U	0.000270	U	0.000303	U	0.000334	U
		B-234A-40	12/4/17	PES	ESC	40	11.80	–	0.000291	U	0.000467	U	0.000320	U	0.000751	U	**0.000501**	**J**	0.000300	U	0.000253	U	0.000284	U	0.000313	U
		B-234A-42	12/4/17	PES	ESC	42	9.80	–	0.000331	U	0.000532	U	0.000364	U	0.000855	U	**0.0146**		**0.00180**		**3.65**	**J**	**0.00104**	**J**	**0.343**	**J**
		B-924-30	12/4/17	PES	ESC	42 (dup)	9.80	–	0.000328	U	0.000527	U	0.000361	U	0.000848	U	**0.0113**		**0.00161**		**2.54**	**J**	**0.00119**	**J**	**0.167**	**J**
		B-234A-45	12/4/17	PES	ESC	45	6.80	–	0.000304	U	0.000489	U	0.000335	U	0.000787	U	**0.0533**		**0.00364**		**1.99**		**0.000552**	**J**	**0.106**	
B-235	4	B-235-15	12/5/17	PES	ESC	15	36.80	–	0.000325	U	0.000521	U	0.000357	U	0.000838	U	**0.0393**		**0.000776**	**J**	0.000261	U	0.000317	U	0.000349	U
		B-235-35	12/5/17	PES	ESC	35	16.80	–	0.000299	U	0.000480	U	0.000329	U	0.000773	U	**0.0424**		**0.00527**		**0.000746**	**J**	0.000292	U	0.000322	U

Table 3

Soil Analytical Results for Petroleum Hydrocarbons and CVOCs
Soil Management Areas
Former American Linen Supply
700 Dexter Avenue North, Seattle, Washington

Sample Location	Soil Management Area	Sample ID	Sample Date	Sampled By	Lab	Sample Depth (feet bgs)	Sample Elevation (feet NAVD 88)	Analytical Reslts (milligrams per kilogram)																	
								GRO		Benzene		Toluene		Ethylbenzene		Total Xylenes		PCE		TCE		cDCE		tDCE		VC	
Contained-In Criteria								–		–		–		–		–		14		10		160		–		0.67	
		B-235-40	12/5/17	PES	ESC	40	11.80	–		**0.000326**	**J**	0.000476	U	0.000326	U	0.000765	U	**2.24**		**0.0233**		**0.00618**		0.000289	U	0.000319	U
		B-235-42.5	12/5/17	PES	ESC	42.5	9.30	–		0.0590	U	0.0948	U	0.0649	U	0.153	U	**18.9**		**1.06**		**2.07**		0.0577	U	**0.0877**	**J**
		B-235-45	12/5/17	PES	ESC	45	6.80	–		0.000304	U	**0.000506**	**J**	0.000334	U	0.000786	U	**20.7**		**1.09**		**0.479**		**0.000963**	**J**	**0.0885**	
B-236	4	B-236-20	12/5/17	PES	ESC	20	31.80	–		0.000309	U	0.000496	U	0.000340	U	0.000798	U	**0.0460**		**0.00164**		**0.00139**		0.000302	U	0.000333	U
		B-236-35	12/5/17	PES	ESC	35	16.80	–		0.000489	U	0.000786	U	0.000538	U	0.00127	U	**0.00968**		0.000310	U	0.000261	U	0.000478	U	0.000527	U
		B-236-40	12/5/17	PES	ESC	40	11.80	–		0.000299	U	0.000480	U	0.000329	U	0.000772	U	**0.0440**		**0.000826**	**J**	**0.00621**		0.000292	U	**0.00373**	
		B-236-42.5	12/5/17	PES	ESC	42.5	9.30	–		0.317	U	0.509	U	0.348	U	0.819	U	**16,400**		72.5		**2.87**		0.310	U	**0.407**	**J**
		B-236-45	12/5/17	PES	ESC	45	6.80	–		0.106	U	0.170	U	0.116	U	0.274	U	**31.0**		**0.335**	**J**	**0.969**		0.104	U	0.114	U
B-237	4	B-237-5	12/6/17	PES	ESC	5	46.80	–		0.000314	U	0.000505	U	0.000346	U	0.000813	U	**0.00814**		0.000325	U	0.000274	U	0.000307	U	0.000339	U
		B-237-35	12/6/17	PES	ESC	35	16.80	–		0.000315	U	0.000507	U	0.000347	U	0.000815	U	**0.000770**	**J**	0.000326	U	0.000274	U	0.000308	U	0.000340	U
		B-237-40	12/6/17	PES	ESC	40	11.80	–		0.000290	U	0.000466	U	0.000319	U	0.000750	U	**2.57**		**0.0163**		**1.34**		0.000284	U	0.000313	U
		B-237-42	12/6/17	PES	ESC	42	9.80	–		0.000319	U	**0.000539**	**J**	0.000351	U	0.000825	U	**24.1**	**J**	**0.746**	**J**	**1.84**	**J**	**0.00338**	**J**	**0.290**	**J**
		B-925-41	12/6/17	PES	ESC	42 (dup)	9.80	–		0.0345	U	0.0554	U	0.0379	U	0.0891	U	**53.0**	**J**	**1.86**	**J**	**4.51**	**J**	0.0337	U	**0.110**	**J**
		B-237-45	12/6/17	PES	ESC	45	6.80	–		0.000348	U	0.000559	U	0.000382	U	0.000899	U	**10.9**		**0.0457**		**2.83**		**0.000848**	**J**	**0.131**	
B-238	2	B-238-6	12/6/17	PES	ESC	6	33.10	–		0.000315	U	0.000506	U	0.000346	U	0.000814	U	**0.0262**		**0.00294**		**0.0118**		0.000308	U	0.000339	U
		B-238-11	12/6/17	PES	ESC	11	28.10	–		**0.000929**	**J+**	**0.00774**	**J+**	0.000346	U	0.000812	U	**22.7**		**0.0724**	**J+**	**0.0767**	**J+**	**0.000705**	**J+**	**0.00193**	
		B-238-16	12/6/17	PES	ESC	16	23.10	–		0.0772	U	0.124	U	0.0849	U	0.199	U	**28.6**		**0.262**	**J**	**0.191**	**J**	0.0755	U	0.0833	U
		B-238-21	12/6/17	PES	ESC	21	18.10	–		0.301	U	0.484	U	0.331	U	0.779	U	**156**		0.311	U	0.262	U	0.295	U	0.325	U
		B-238-26	12/6/17	PES	ESC	26	13.10	–		0.000302	U	0.000485	U	0.000332	U	0.000781	U	**3.04**		**0.303**		**0.375**		**0.00236**		**0.0375**	
		B-238-31	12/6/17	PES	ESC	31	8.10	–		0.000286	U	0.000460	U	0.000315	U	0.000740	U	**1.02**		**0.0375**		**0.0572**		**0.000537**	**J**	**0.0210**	
		B-238-36	12/6/17	PES	ESC	36	3.10	–		0.000316	U	0.000508	U	0.000348	U	0.000817	U	**4.04**		**0.0399**		**0.0928**		**0.000500**	**J**	**0.0328**	
B-239	1	B-239-5	4/3/18	PES	ESC	5	34.24	–		0.000321	U	0.000516	U	0.000353	U	0.000830	U	**0.0292**		**0.00590**		**0.0107**		0.000314	U	0.000346	U
		B-239-10	4/3/18	PES	ESC	10	29.24	–		0.000319	U	0.000512	U	0.000350	U	0.000824	U	**0.509**		**0.104**		**0.0366**		**0.000619**	**J**	**0.0159**	
		B-239-15	4/3/18	PES	ESC	15	24.24	–		0.000307	U	0.000494	U	0.000338	U	0.000795	U	**0.133**		**0.0428**		**0.0187**		0.000301	U	**0.00479**	
		B-239-20	4/3/18	PES	ESC	20	19.24	–		0.000305	U	0.000490	U	0.000335	U	0.000788	U	**0.00688**		**0.000781**	**J**	**0.000649**	**J**	0.000298	U	0.000328	U
		B-239-25	4/3/18	PES	ESC	25	14.24	–		0.000309	U	0.000497	U	0.000340	U	0.000800	U	**0.00259**		**0.000327**	**J**	**0.000411**	**J**	0.000302	U	0.000333	U
		B-239-35	4/3/18	PES	ESC	35	4.24	–		0.000292	U	0.000470	U	0.000322	U	0.000756	U	**0.0330**		**0.00550**		**0.00395**		0.000286	U	**0.000632**	**J**
B-240	2	B-240-5	4/2/18	PES	ESC	5	34.24	–		0.000298	U	0.000479	U	0.000328	U	0.000770		**0.0231**		0.000308	U	**0.00274**		0.000291	U	0.000321	U
		B-240-10	4/2/18	PES	ESC	10	29.24	–		**0.000325**	**J**	0.000478	U	0.000327	U	0.000770	U	**1.25**		**0.0141**		**0.0929**		**0.000635**	**J**	**0.0427**	
		B-240-15	4/2/18	PES	ESC	15	24.24	–		0.000310	U	0.000498	U	0.000341	U	0.000801	U	**53.7**		**0.118**		**0.0785**		**0.000802**	**J**	**0.00418**	
		B-240-20	4/2/18	PES	ESC	20	19.24	–		0.000314	U	0.000505	U	0.000346	U	0.000813	U	**6.75**		**0.0715**	**J**	**0.142**		**0.000619**	**J**	**0.0268**	
		B-240-25	4/2/18	PES	ESC	25	14.24	–		0.0151	U	0.0242	U	0.0165	U	0.0390	U	**5.18**		**0.214**		**0.356**		0.0147	U	**0.0421**	**J**
		B-240-30	4/2/18	PES	ESC	30	9.24	–		0.000325	U	0.000523	U	0.000358	U	0.000841	U	**5.51**		**0.352**		**0.578**		**0.00143**		**0.0480**	
		B-240-35	4/2/18	PES	ESC	35	4.24	–		0.000324	U	0.000521	U	0.000357	U	0.000838	U	**5.53**		**0.290**		**0.461**		**0.00131**		**0.0447**	
B-241	2	B-241-5	4/4/18	PES	ESC	5	34.08	–		**0.00118**		**0.0139**		**0.210**		**4.11**		**0.0428**		**0.00500**		**0.00554**		0.000286	U	0.000316	U
		B-241-10	4/4/18	PES	ESC	10	29.08	–		0.000306	U	0.000492	U	**0.000337**	**J**	0.000791	U	**0.00116**		**0.000459**	**J**	**0.0503**		**0.000357**	**J**	**0.00320**	
		B-241-15	4/4/18	PES	ESC	15	24.08	–		0.000301	U	0.000484	U	0.000332	U	0.000779	U	**0.00106**	**J**	**0.000424**	**J**	**0.000701**	**J**	0.000295	U	**0.00335**	
		B-241-20	4/4/18	PES	ESC	20	19.08	–		0.000329	U	0.000528	U	0.000361	U	0.000849	U	**0.0273**		**0.0525**		**0.172**		**0.00274**		**0.0648**	
		B-241-25	4/4/18	PES	ESC	25	14.08	–		0.000305	U	0.000491	U	0.000336	U	0.000789	U	**0.0148**		**0.00615**		**0.0177**		0.000298	U	**0.00779**	
		B-241-30	4/3/18	PES	ESC	30	9.08	–		0.000303	U	0.000487	U	0.000333	U	0.000783	U	**0.0422**		**0.0721**		**0.469**		**0.00315**		**0.107**	
		B-241-35	4/3/18	PES	ESC	35	4.08	–		0.000313	U	0.000502	U	0.000344	U	0.000808	U	**0.00290**	**J+**	**0.000891**	**J+**	**0.00791**		**0.00103**	**J+**	**0.0114**	

Table 3

Soil Analytical Results for Petroleum Hydrocarbons and CVOCs
Soil Management Areas
Former American Linen Supply
700 Dexter Avenue North, Seattle, Washington

Sample Location	Soil Management Area	Sample ID	Sample Date	Sampled By	Lab	Sample Depth (feet bgs)	Sample Elevation (feet NAVD 88)	Analytical Reslts (milligrams per kilogram)															
								GRO		Benzene		Toluene		Ethylbenzene		Total Xylenes		PCE		TCE		cDCE		tDCE		VC	
Contained-In Criteria								–		–		–		–		–		14		10		160		–		0.67	
B-242	3	B-242-5	4/4/18	PES	ESC	5	33.84	–		0.000293	U	0.000471	U	0.000322	U	0.000758	U	**0.0116**		**0.00647**		**0.00494**		0.000287	U	0.000316	U
		B-242-10	4/4/18	PES	ESC	10	28.84	–		0.000296	U	0.000475	U	0.000325	U	0.000764	U	**0.0783**		**0.00835**		**0.00156**		0.000289	U	0.000319	U
		B-242-15	4/4/18	PES	ESC	15	23.84	–		0.000315	U	0.000506	U	0.000346	U	0.000814	U	**1.97**		**0.0304**		**0.00483**		0.000308	U	0.000339	U
		B-242-20	4/4/18	PES	ESC	20	18.84	–		0.000306	U	0.000492	U	0.000336	U	0.000791	U	**6.61**		**0.0335**		**0.00878**		0.000299	U	0.000330	U
		B-242-25	4/4/18	PES	ESC	25	13.84	–		0.0298	U	0.0478	U	0.0327	U	0.0769	U	**2.05**		0.0308	U	0.0259	U	0.0291	U	0.0321	U
		B-242-30	4/4/18	PES	ESC	30	8.84	–		0.000302	U	0.000485	U	0.000332	U	0.000781	U	**0.205**		**0.000348**	**J**	**0.00101**	**J**	0.000295	U	**0.00828**	
		B-242-35	4/4/18	PES	ESC	35	3.84	–		0.000311	U	0.000500	U	0.000342	U	0.000804	U	**0.00754**		0.000321	U	**0.000439**	**J**	0.000304	U	0.000335	U
B-243	3	B-243-5	3/29/18	PES	ESC	5	34.88	0.0394	U	0.000314	U	0.000504	U	0.000345	U	0.000811	U	**0.0560**		0.000324	U	0.000273	U	0.000307	U	0.000338	U
		B-243-10	3/29/18	PES	ESC	10	29.88	**0.619**		0.000307	U	0.000493	U	0.000337	U	0.000793	U	**6.96**		**0.00115**		**0.000267**	**J**	0.000300	U	0.000331	U
		B-243-15	3/29/18	PES	ESC	15	24.88	**1.64**	**J**	0.00764	U	0.0122	U	0.00840	U	0.0197	U	**0.888**		0.00790	U	0.00665	U	0.00747	U	0.00824	U
		B-243-20	3/29/18	PES	ESC	20	19.88	**1.11**		0.000311	U	0.000500	U	0.000342	U	0.000805	U	**25.3**		**0.0563**	**J+**	0.000271	U	0.000304	U	0.000336	U
		B-243-25	3/29/18	PES	ESC	25	14.88	**0.568**		0.000301	U	0.000484	U	0.000331	U	0.000778	U	**6.66**		**0.0547**		0.000262	U	0.000294	U	0.000324	U
		B-243-30	3/29/18	PES	ESC	30	9.88	**0.586**		0.000294	U	0.000473	U	0.000323	U	0.000760	U	**6.12**		**0.0763**		0.000256	U	0.000287	U	0.000317	U
		B-243-35	3/29/18	PES	ESC	35	4.88	**0.491**		0.000299	U	0.000481	U	0.000329	U	0.000773	U	**11.0**		**0.0967**		**0.0121**		0.000292	U	0.000322	U
B-244	1	B-244-5	3/28/18	PES	ESC	5	33.79	–		**0.00411**		**0.00127**	**J**	0.000375	U	**0.00133**	**J**	**0.0205**		**0.00511**		**0.00740**		0.000333	U	**0.00137**	
		B-244-10	3/28/18	PES	ESC	10	28.79	–		**0.000911**	**J**	**0.000594**	**J**	0.000354	U	0.000832	U	**0.00727**		**0.000767**	**J**	**0.00128**		0.000315	U	**0.000526**	**J**
		B-244-15	3/28/18	PES	ESC	15	23.79	–		0.000308	U	0.000495	U	0.000339	U	0.000796	U	**0.00254**		**0.000615**	**J**	**0.000833**	**J**	0.000301	U	**0.00102**	**J**
		B-244-20	3/28/18	PES	ESC	20	18.79	–		0.000306	U	0.000492	U	0.000337	U	0.000792	U	**0.000760**	**J**	**0.00185**		**0.00537**		**0.000309**	**J**	**0.000575**	**J**
		B-244-25	3/28/18	PES	ESC	25	13.79	–		0.000286	U	0.000459	U	0.000314	U	0.000739	U	0.000292	U	**0.000296**	**J**	**0.00556**		0.000280	U	**0.00150**	
		B-244-30	3/28/18	PES	ESC	30	8.79	–		0.000295	U	0.000475	U	0.000325	U	0.000763	U	**0.00210**		0.000305	U	**0.0243**		**0.00106**	**J**	**0.00144**	
		B-244-35	3/28/18	PES	ESC	35	3.79	–		0.000310	U	0.000498	U	0.000341	U	0.000802	U	**0.0158**		**0.00357**		**0.0522**		**0.00211**		**0.00668**	
B-245	1	B-245-5	3/28/18	PES	ESC	5	34.90	–		0.000294	U	0.000472	U	0.000323	U	0.000760	U	**0.00371**		0.000304	U	**0.000490**	**J**	0.000287	U	**0.00142**	
		B-245-10	3/28/18	PES	ESC	10	29.90	–		0.000310	U	0.000498	U	0.000341	U	0.000801	U	**0.00419**		0.000320	U	**0.00132**		0.000303	U	0.000334	U
		B-245-15	3/28/18	PES	ESC	15	24.90	–		0.000313	U	0.000503	U	0.000344	U	0.000809	U	**0.0317**		**0.00188**		**0.00502**		0.000306	U	**0.000458**	**J**
		B-245-20	3/28/18	PES	ESC	20	19.90	–		0.000292	U	0.000469	U	0.000321	U	0.000754	U	**0.00746**		**0.000868**	**J**	**0.00265**		0.000285	U	**0.000458**	**J**
		B-245-25	3/28/18	PES	ESC	25	14.90	–		0.000306	U	0.000491	U	0.000336	U	0.000790	U	**0.00364**		**0.000464**	**J**	**0.00148**		0.000299	U	**0.000466**	**J**
		B-245-30	3/29/18	PES	ESC	30	9.90	–		0.000580	U	0.000934	U	0.000638	U	**0.00150**		**0.0737**		**0.145**		**4.73**		**0.00437**		**0.224**	**J**
		B-245-35	3/29/18	PES	ESC	35	4.90	–		**0.000419**	**J**	0.000488	U	0.000334	U	0.000785	U	**0.00623**		**0.00152**		**0.0564**		0.000297	U	**0.0194**	
B-246	1	B-246-6	5/11/18	PES	ESC	6	33.90	–		0.000475	U	0.00148	U	0.000629	U	0.00567	U	**0.00396**		**0.00192**		**0.00324**		0.00170	U	0.000811	U
		B-246-11	5/11/18	PES	ESC	11	28.90	–		0.000472	U	0.00148	U	0.000626	U	0.00564	U	**0.0271**		**0.00638**		**0.00531**		0.00169	U	0.000807	U
		B-246-15	5/11/18	PES	ESC	15	24.90	–		**0.000583**	**J**	**0.00318**	**J**	0.000599	U	0.00540	U	**0.0616**		**0.0132**		**0.0196**		0.00162	U	0.000772	U
		B-246-25	5/11/18	PES	ESC	25	14.90	–		0.000447	U	0.00214	UJ	0.000593	U	0.00534	U	**12.7**		**0.448**		**0.157**		**0.00745**		0.000764	U
		B-246-30	5/11/18	PES	ESC	30	9.90	–		0.000471	U	**0.00172**	**J**	0.000624	U	0.00563	U	**6.98**		**0.162**		**3.36**		**0.00860**		**0.0308**	
		B-246-35	5/11/18	PES	ESC	35	4.90	–		0.000461	U	0.00144	U	0.000611	U	0.00551	U	**0.00548**		0.000461	U	**0.00505**		0.00165	U	0.000787	U
B-247	1	B-247-5	4/20/18	PES	ESC	5	34.73	–		0.000306	U	0.000493	U	0.000337	U	0.000792	U	**0.0594**		**0.00692**		**0.0478**		**0.000491**	**J**	**0.00114**	
		B-247-10	4/20/18	PES	ESC	10	29.73	–		0.000311	U	0.000500	U	0.000342	U	0.000804	U	**0.00586**		**0.00175**		**0.00459**		0.000304	U	**0.00173**	
		B-247-15	4/20/18	PES	ESC	15	24.73	–		0.000299	U	0.000481	U	0.000329	U	0.000774	U	**0.00415**		**0.00482**		**0.00577**		0.000293	U	**0.00221**	
		B-247-20	4/20/18	PES	ESC	20	19.73	–		0.000301	U	0.000485	U	0.000332	U	0.000779	U	**0.00432**		**0.000887**	**J**	**0.00682**		0.000295	U	**0.00718**	
		B-247-25	4/20/18	PES	ESC	25	14.73	–		0.000294	U	0.000472	U	0.000323	U	0.000759	U	**0.00244**		**0.000327**	**J**	**0.000271**	**J**	0.000287	U	**0.000411**	**J**
		B-247-30	4/20/18	PES	ESC	30	9.73	–		0.000297	U	0.000478	U	0.000327	U	0.000769	U	**0.000984**	**J**	0.000307	U	**0.000409**	**J**	0.000291	U	**0.000651**	**J**
		B-247-35	4/20/18	PES	ESC	35	4.73	–		0.000298	U	0.000478	U	0.000327	U	0.000769	U	**0.00128**		0.000307	U	**0.000430**	**J**	**0.000452**	**J**	0.000321	U
B-248	1	B-248-5	4/23/18	PES	ESC	5	46.85	–		0.000308	U	0.000495	U	0.0003390	U	0.000797	U	**0.00318**		0.000318	UJ	0.000268	U	0.000301	U	0.000332	U
		B-248-10	4/23/18	PES	ESC	10	41.85	–		0.000301	U	0.000484	U	0.000331	U	0.000778	UJ	**0.0178**		**0.00126**	**J**	0.000511	U	0.000294	U	0.000324	U
		B-248-15	4/23/18	PES	ESC	15	36.85	–		0.000440	U	0.00137	U	0.000583	U	0.00526	U	**0.118**		**0.00378**		0.00113	U	0.00157	U	0.000751	U
B-248		B-248-20	4/23/18	PES	ESC	20	31.85	–		0.000292	U	0.00469	U	0.000321	U	0.000755	UJ	**0.0238**		**0.00233**	**J**	**0.00426**	**J+**	0.000286	U	0.000315	U

Table 3

Soil Analytical Results for Petroleum Hydrocarbons and CVOCs
Soil Management Areas
Former American Linen Supply
700 Dexter Avenue North, Seattle, Washington

Sample Location	Soil Management Area	Sample ID	Sample Date	Sampled By	Lab	Sample Depth (feet bgs)	Sample Elevation (feet NAVD 88)	Analytical Reslts (milligrams per kilogram)																	
								GRO		Benzene		Toluene		Ethylbenzene		Total Xylenes		PCE		TCE		cDCE		tDCE		VC	
Contained-In Criteria								–		–		–		–		–		**14**		**10**		**160**		–		**0.67**	
(continued)		B-248-25	4/23/18	PES	ESC	25	26.85	–		0.000469	U	0.00147	U	0.000622	U	0.005610	U	**0.621**		**0.0667**		**0.0426**	J+	0.00168	U	0.000801	U
		B-248-30	4/23/18	PES	ESC	30	21.85	–		0.000292	U	0.000469	U	0.000321	U	0.000755	UJ	**0.00255**	J	**0.00297**	J	**0.00122**		0.000285	U	0.000315	U
		B-248-35	4/23/18	PES	ESC	35	16.85	–		**0.000442**	J	**0.00178**	J	0.000574	U	0.00518	U	**0.122**		**0.0456**		**0.142**	J+	0.00155	U	0.000740	U
		B-248-40	4/23/18	PES	ESC	40	11.85	–		**0.000463**	J	0.00139	U	0.000591	U	0.00533	U	**0.200**		**0.0599**		**0.0429**	J+	0.00159	U	**0.00574**	
		B-248-45	4/23/18	PES	ESC	45	6.85	–		**0.000865**	J	**0.00143**	J	0.000605	U	0.00546	U	**0.0248**		**0.00566**		**0.00492**	J+	0.00163	U	0.000780	U
		B-248-50	4/23/18	PES	ESC	50	1.85	–		**0.000945**	J-	**0.00163**	J-	0.000579	UJ	0.00523	UJ	**0.0109**	J-	**0.00177**	J-	**0.00350**	J+	0.00156	UJ	0.00167	U
B-249	3	B-249-5	10/15/18	PES	Pace	5	34.24	–	–	0.000418	U	0.00131	U	0.000554	U	0.00500	U	**0.122**	J	**0.0109**		**0.0102**		0.00149	U	0.000714	U
		B-249-8	10/15/18	PES	Pace	8	31.24	–	–	0.000451	U	0.00141	U	0.000598	U	0.00539	U	**0.949**	J	**0.0828**		**0.0287**		0.00161	U	0.000771	U
		B-249-15	10/15/18	PES	Pace	15	24.24	–	–	0.000463	U	**0.00236**	J	**0.00143**	J	**0.00973**		**1.97**	J	**0.214**		**0.0692**		0.00166	U	0.000791	U
		B-249-17	10/15/18	PES	Pace	17	22.24	–	–	0.000453	U	0.00142	U	0.000600	U	0.00541	U	**8.35**	J	**0.150**		**0.0459**		0.00162	U	0.000773	U
		B-249-20	10/15/18	PES	Pace	20	19.24	–	–	0.000473	U	0.00148	U	0.000626	U	0.00565	U	**10.3**		**0.661**		**0.558**		**0.00420**	J	0.000807	U
B-250	3	B-250-2.5	10/15/18	PES	Pace	2.5	36.89	–	–	0.000442	U	0.00138	U	0.000585	U	0.00528	U	**0.701**	J	**0.00576**		**0.00164**	J	0.00158	U	0.000754	U
		B-250-8	10/15/18	PES	Pace	8	31.39	–	–	0.000445	U	0.00139	U	0.000590	U	0.00532	U	**1.81**	J	**0.0269**		**0.00387**		0.00159	U	0.000760	U
		B-250-10	10/15/18	PES	Pace	10	29.39	–	–	0.000445	U	0.00139	U	0.000590	U	0.00532	U	**21.7**	J	**0.0762**		**0.123**		**0.00166**	J	0.000760	U
		B-250-13	10/15/18	PES	Pace	13	26.39	–	–	0.000449	U	0.00140	U	0.000595	U	0.00537	U	**18.2**	J	**0.553**		**0.288**		**0.00285**	J	0.000767	U
		B-250-20	10/15/18	PES	Pace	20	19.39	–	–	0.000463	U	0.00145	U	0.000614	U	0.00554	U	**8.68**	J	**0.528**		**0.833**		**0.00435**	J	**0.00304**	
		B-250-24	10/15/18	PES	Pace	24	15.39	–	–	0.000438	U	0.00137	U	0.000580	U	0.00523	U	**7.69**		**0.407**		**0.614**		**0.00344**	J	**0.00318**	
		B-250-30	10/16/18	PES	Pace	30	9.39	–	–	0.000436	U	**0.00259**	J	**0.000590**	J	0.00521	U	**0.288**		**0.0519**		**0.533**		**0.0138**		**0.358**	
B-251	3	B-251-5	10/15/18	PES	Pace	5	34.25	–	–	0.000420	U	0.00131	U	0.000557	U	0.00502	U	**0.0286**		**0.146**		**0.0153**		0.00150	U	0.000718	R
		B-251-8	10/15/18	PES	Pace	8	31.25	–	–	0.000444	U	0.00139	U	0.000588	U	0.00530	U	**0.230**		**0.135**		**0.0879**		0.00159	U	0.000758	U
		B-251-10	10/15/18	PES	Pace	10	29.25	–	–	0.000445	U	0.00139	U	0.00059	U	0.00532	U	**10.3**		**0.0501**		**0.0191**		0.00159	U	0.000760	U
		B-251-15	10/15/18	PES	Pace	15	24.25	–	–	0.000452	U	0.00141	U	0.000599	U	0.00540	U	**12.0**		**0.102**		**0.0366**		0.00162	U	0.000772	U
		B-251-20	10/15/18	PES	Pace	20	19.25	–	–	0.000468	U	0.00146	U	0.000621	U	0.00560	U	**6.66**		**0.154**		**0.0474**		0.00167	U	0.000800	U
		B-251-25	10/15/18	PES	Pace	25	14.25	–	–	0.000459	U	0.00144	U	0.000609	U	0.00549	U	**6.09**		**0.512**		**0.191**		0.00164	U	0.000785	U
B-252	3	B-252-2.5	10/15/18	PES	Pace	2.5	36.67	–	–	0.000418	U	0.00131	U	0.000554	U	0.00499	U	**0.306**		**0.0201**		**0.0146**		0.00149	U	0.000714	U
		B-252-8	10/15/18	PES	Pace	8	31.17	–	–	0.000428	U	0.00134	U	0.000567	U	0.00511	U	**0.0783**		**0.0156**		**0.0312**		0.00153	U	0.000731	U
		B-252-10	10/15/18	PES	Pace	10	29.17	–	–	0.000443	U	0.00139	U	0.000588	U	0.0053	U	**0.356**		**0.0503**		**0.0600**		0.00159	U	0.000757	U
		B-252-15	10/15/18	PES	Pace	15	24.17	–	–	0.000471	U	0.00147	U	0.000624	U	0.00563	U	**3.43**		**0.682**		**0.340**		0.00168	U	0.000805	U
		B-252-19	10/15/18	PES	Pace	19	20.17	–	–	0.000483	U	0.00151	U	0.000640	U	0.00577	U	**2.88**		**–**		**1.36**		**0.00231**	J	**0.138**	J
		B-252-25	10/15/18	PES	Pace	25	14.17	–	–	0.000439	U	0.00137	U	0.000582	U	0.00525	U	**1.35**		**0.266**		**0.207**		0.00157	U	**0.00602**	
		B-252-29	10/15/18	PES	Pace	29	10.17	–	–	0.000458	U	0.00143	U	0.000606	U	0.00547	U	**1.99**		**0.483**		**0.484**		**0.00656**		**0.00634**	
B-253A	3	B-253A-5	10/18/18	PES	Pace	5	35.59	–	–	0.000456	U	**0.00195**	J	0.000604	U	0.00544	U	**0.0116**	J	**0.0285**		**0.0322**		0.00163	U	0.000778	U
		B-253A-8	10/18/18	PES	Pace	8	32.59	–	–	0.000451	U	**0.00193**	J	0.000597	U	0.00538	U	**0.917**	J	**0.00621**		**0.00584**		0.00161	U	0.000769	U
		B-253A-10	10/18/18	PES	Pace	10	30.59	–	–	0.000438	U	0.00137	U	0.000581	U	0.00524	U	**2.29**	J	**0.00740**		**0.00458**		0.00157	U	0.000748	U
		B-253A-15	10/18/18	PES	Pace	15	25.59	–	–	0.000449	U	**0.00193**	J	0.000595	U	0.00537	U	**15.7**	J	**0.0186**	J	**0.00229**	J	0.00161	U	0.000767	U
		B-253A-20	10/18/18	PES	Pace	20	20.59	–	–	0.000441	U	0.00138	U	0.000584	U	0.00526	U	**0.868**	J	**0.00529**		0.000760	U	0.00158	U	0.000752	U
B-254	3	B-254-5	10/16/18	PES	Pace	5	34.65	–	–	0.000479	U	0.00150	U	0.000635	UJ	0.00572	U	**9.35**		**0.0662**		**0.0425**		0.00171	U	0.0654	U
		B-254-10	10/16/18	PES	Pace	10	29.65	–	–	0.000454	U	0.00142	U	0.000602	UJ	0.00543	U	**3.09**		**0.0173**		**0.0251**		0.00162	U	**0.0111**	J
		B-254-13.5	10/16/18	PES	Pace	13.5	26.15	–	–	0.000469	U	**0.00152**	J	0.000622	UJ	0.00561	U	**42.2**		**0.353**		**0.366**		**0.00740**		0.320	U
		B-254-20	10/16/18	PES	Pace	20	19.65	–	–	0.000430	U	0.00134	U	0.00057	UJ	0.00514	U	**28.0**		**0.228**		**0.182**		**0.00222**	J	0.147	U
		B-254-25	10/16/18	PES	Pace	25	14.65	–	–	0.000447	U	**0.00321**	J	**0.0007**	J	0.00534	U	**46.7**		**0.681**		**1.20**		**0.00449**	J	0.305	U

Table 3

Soil Analytical Results for Petroleum Hydrocarbons and CVOCs
Soil Management Areas
Former American Linen Supply
700 Dexter Avenue North, Seattle, Washington

Sample Location	Soil Management Area	Sample ID	Sample Date	Sampled By	Lab	Sample Depth (feet bgs)	Sample Elevation (feet NAVD 88)	Analytical Reslts (milligrams per kilogram)															
								GRO		Benzene		Toluene		Ethylbenzene		Total Xylenes		PCE		TCE		cDCE		tDCE		VC	
Contained-In Criteria								–		–		–		–		–		14		10		160		–		0.67	
B-254A	3	B-254A-27	10/19/18	PES	Pace	27	12.65	–	–	0.000437	U	**0.00161**	**J**	0.000578	U	0.00522	U	**0.0954**		**0.0118**		**0.165**		0.00156	U	**0.0508**	
		B-254A-30	10/19/18	PES	Pace	30	9.65	–	–	0.000430	U	**0.00166**	**J**	0.000570	U	0.00514	U	**6.24**		**0.143**		**0.0964**		0.00154	U	0.000735	U
		B-254A-35	10/19/18	PES	Pace	35	4.65	–	–	0.000421	UJ	0.00132	UJ	**0.000558**	**UJ**	0.00504	UJ	**0.0584**	**J**	**0.000679**	**J**	**0.143**	**J**	0.00151	UJ	**0.0326**	**J**
B-255	3	B-255-3.5	10/16/18	PES	Pace	3.5	36.32	–	–	0.000457	U	0.00143	U	0.000605	UJ	0.00546	U	**0.0927**		**0.00586**		**0.0101**		0.00163	U	0.000780	U
		B-255-8	10/16/18	PES	Pace	8	31.82	–	–	0.000463	U	0.00145	U	0.000614	UJ	0.00554	U	**0.0420**		**0.0342**		**0.0118**		0.00166	U	0.000791	U
		B-255-15	10/16/18	PES	Pace	15	24.82	–	–	0.000436	U	0.00136	U	0.000577	UJ	0.00521	U	**1.23**		**0.0362**		**0.0294**		0.00156	U	**0.00247**	**J**
B-255A	3	B-255A-21	10/16/18	PES	Pace	21	18.82	–	–	0.000423	U	0.00132	U	**0.000720**	**J**	0.00506	U	**18.9**		**3.11**		**2.74**		**0.00577**		**0.0532**	**J**
B-256	3	B-256-2.5	10/16/18	PES	Pace	2.5	37.11	–	–	0.000468	U	0.00146	U	0.000620	UJ	0.00559	U	**0.055**		**0.0532**		**0.0273**		0.00167	U	**0.0123**	
		B-256-5	10/16/18	PES	Pace	5	34.61	–	–	0.000442	U	0.00138	U	0.000585	UJ	0.00528	U	**0.0193**		**0.0162**	**J**	**0.0190**		0.00158	U	**0.0155**	
		B-256-10	10/16/18	PES	Pace	10	29.61	–	–	0.000427	U	0.00134	U	0.000566	UJ	0.00511	U	**0.589**		**0.182**		**0.548**		**0.00197**	**J**	**0.0359**	
		B-256-15	10/16/18	PES	Pace	15	24.61	–	–	0.000443	U	0.00138	U	0.000587	UJ	0.00529	U	**0.324**		**0.0863**		**0.768**		**0.00510**	**J**	**0.0715**	
		B-256-18	10/16/18	PES	Pace	18	21.61	–	–	0.000443	U	0.00138	U	0.000586	UJ	0.00529	U	**0.207**		**0.0126**		**0.143**		0.00158	U	**0.0170**	
B-257	3	B-257-5	10/17/18	PES	Pace	5	34.38	–	–	0.000484	U	0.00151	U	0.000642	UJ	0.00579	U	**0.0333**		**0.0356**		**0.0699**		0.00173	U	**0.00478**	
		B-257-10	10/17/18	PES	Pace	10	29.38	–	–	0.000447	U	0.00140	U	0.000592	UJ	0.00534	U	**1.75**		**0.183**		**0.481**		**0.00474**	**J**	**0.0252**	
		B-257-15	10/17/18	PES	Pace	15	24.38	–	–	0.000465	U	0.00145	U	0.000616	UJ	0.00555	U	**1.26**		**0.134**		**0.364**		**0.00411**	**J**	0.000793	U
		B-257-20	10/17/18	PES	Pace	20	19.38	–	–	0.000450	U	0.00140	U	0.000596	UJ	0.00537	U	**2.06**		**0.455**		**1.67**		**0.00652**		**0.226**	
B-258	3	B-258-3	10/17/18	PES	Pace	3	36.17	–	–	0.000438	U	0.00137	U	0.000581	UJ	0.00524	U	**0.0198**		**0.00793**		**0.0116**		0.00157	U	0.000748	U
		B-258-8	10/17/18	PES	Pace	8	31.17	–	–	0.000455	U	0.00142	U	0.000603	U	0.00544	U	**0.0619**		**0.00635**		**0.00236**	**J**	0.00163	U	0.000777	U
		B-258-10	10/17/18	PES	Pace	10	29.17	–	–	0.000479	U	0.0015	U	0.000634	U	0.00572	U	**0.538**		**0.0149**		**0.0048**		0.00171	U	0.000817	U
		B-258-15	10/17/18	PES	Pace	15	24.17	–	–	0.00944	U	0.00148	U	0.000625	U	0.00564	U	**16.2**		**0.0763**		**0.0119**		0.00169	U	0.000806	U
		B-258-20	10/17/18	PES	Pace	20	19.17	–	–	0.000446	U	0.0014	U	0.000592	U	0.00533	U	**3.71**		**0.0117**		**0.0135**		0.00160	U	0.000762	U
B-259	3	B-259-2.5	10/17/18	PES	Pace	2.5	36.68	–	–	0.000450	U	**0.00189**	**J**	0.000597	U	0.00538	U	**0.0784**		**0.00504**		**0.00815**		0.00161	U	0.000769	U
		B-259-5	10/17/18	PES	Pace	5	34.18	–	–	0.000438	U	0.00137	U	0.000581	U	0.00524	U	**0.00933**		**0.00910**		**0.0696**		0.00157	U	**0.00121**	**J**
		B-259-10	10/17/18	PES	Pace	10	29.18	–	–	0.000458	U	**0.00224**	**J**	0.000607	U	0.00548	U	**0.00535**		**0.00372**		**0.105**		0.00164	U	**0.00257**	**J**
		B-259-15	10/17/18	PES	Pace	15	24.18	–	–	0.000470	U	**0.00152**	**J**	0.000622	U	0.00561	U	**0.0251**		**0.0103**		**0.715**		**0.00395**	**J**	**0.166**	
		B-259-20	10/17/18	PES	Pace	20	19.18	–	–	0.000447	U	0.00140	U	0.000592	U	0.00534	U	**0.697**		**0.253**		**0.718**		0.00160	U	**0.0191**	
B-260	3	B-260-5	10/17/18	PES	Pace	5	34.24	–	–	0.000444	U	0.00139	U	0.000588	U	0.00530	U	**0.0785**		**0.00667**		**0.0185**		0.00159	U	0.000757	U
		B-260-8	10/17/18	PES	Pace	8	31.24	–	–	0.000449	UJ	**0.00153**	**J**	0.000595	U	0.00536	U	**0.0294**	**J+**	**0.00771**	**J**	**0.142**		**0.00182**	**J**	**0.00269**	**J**
		B-260-10	10/17/18	PES	Pace	10	29.24	–	–	0.000459	U	0.00143	U	0.000608	U	0.00549	U	**0.0106**		**0.00211**		**0.568**		**0.00241**	**J**	**0.0103**	
		B-260-15	10/17/18	PES	Pace	15	24.24	–	–	0.00465	U	**0.00165**	**J**	0.000615	U	0.00555	U	**9.92**		**1.98**		**0.414**		**0.00349**	**J**	**0.0101**	
		B-260-20	10/17/18	PES	Pace	20	19.24	–	–	0.00442	U	0.00138	U	0.000586	U	0.00528	U	**8.23**		**1.38**		**0.588**		0.00158	U	**0.00167**	**J**
B-261	3	B-261-3	10/17/18	PES	Pace	3	36.89	–	–	0.000457	U	0.00143	U	0.000606	U	0.00546	U	**0.0198**		**0.000584**	**J**	**0.00244**	**J**	0.00163	U	0.000780	U
		B-261-5	10/17/18	PES	Pace	5	34.89	–	–	0.0362	U	**0.00151**	**J**	0.000600	U	0.00541	U	**25.2**	**J+**	0.0362	U	**0.00255**	**J**	0.00162	U	0.000773	U
		B-261-8	10/17/18	PES	Pace	8	31.89	–	–	0.00479	U	**0.00162**	**J**	0.000635	U	0.00573	U	**7.13**		0.00479	U	**0.00234**	**J**	0.00171	U	0.000818	U
		B-261-10	10/17/18	PES	Pace	10	29.89	–	–	0.0184	U	0.00144	U	0.000611	U	0.00551	U	**25.3**	**J+**	0.0184	U	**0.00359**		0.00165	U	0.000787	U
		B-261-15	10/17/18	PES	Pace	15	24.89	–	–	0.00879	U	0.00137	U	0.000582	U	0.00525	U	**13.1**		**0.0284**		**0.00353**		0.00157	U	0.000750	U
		B-261-20	10/17/18	PES	Pace	20	19.89	–	–	0.0899	U	**0.00203**	**J**	**0.000806**	**J**	0.00537	U	**112**	**J+**	**0.908**		**0.105**		**0.00200**	**J**	0.000768	U
B-262	3	B-262-5	10/17/18	PES	Pace	5	34.88	–	–	0.000471	U	**0.00858**		**0.00214**	**J**	**0.00775**		**14.4**	**J**	**0.0142**		0.0650	U	0.00168	U	0.000805	U
		B-262-8	10/17/18	PES	Pace	8	31.88	–	–	0.00044	U	0.00137	U	0.000583	U	0.00526	U	**0.612**		**0.00725**		**0.00981**		0.00157	U	0.000751	U
		B-262-10	10/17/18	PES	Pace	10	29.88	–	–	0.000445	U	0.00139	U	0.00059	U	0.00532	U	**0.495**		**0.00390**		**0.00190**	**J**	0.00159	U	0.000761	U
		B-262-15	10/17/18	PES	Pace	15	24.88	–	–	0.000439	U	0.00137	U	0.000582	U	0.00525	U	**1.81**		**0.0301**		**0.00332**		0.00157	U	0.000750	U
		B-262-20	10/17/18	PES	Pace	20	19.88	–	–	0.000471	U	0.00147	U	0.000624	U	0.00563	U	**2.05**	**J**	**0.0634**		**0.0429**		0.00168	U	0.000804	U

Table 3

Soil Analytical Results for Petroleum Hydrocarbons and CVOCs
Soil Management Areas
Former American Linen Supply
700 Dexter Avenue North, Seattle, Washington

Sample Location	Soil Management Area	Sample ID	Sample Date	Sampled By	Lab	Sample Depth (feet bgs)	Sample Elevation (feet NAVD 88)	Analytical Reslts (milligrams per kilogram)															
								GRO		Benzene		Toluene		Ethylbenzene		Total Xylenes		PCE		TCE		cDCE		tDCE		VC	
Contained-In Criteria								–		–		–		–		–		**14**		**10**		**160**		–		**0.67**	
B-263	3	B-263-3	10/18/18	PES	Pace	3	36.78	–	–	0.000490	U	0.00153	U	0.000649	U	0.00585	U	**0.0143**		**0.000626**	**J**	**0.00113**	**J**	0.00175	U	0.000836	U
		B-263-5	10/18/18	PES	Pace	5	34.78	–	–	0.000432	U	0.00135	U	0.000573	U	0.00517	U	**0.0302**		**0.00438**		**0.0164**		0.00155	U	0.000738	U
		B-263-8	10/18/18	PES	Pace	8	31.78	–	–	0.000422	U	0.00132	U	0.000559	U	0.00504	U	**0.0301**		**0.00471**		**0.0277**		0.00151	U	0.00072	U
		B-263-10	10/18/18	PES	Pace	10	29.78	–	–	0.000455	U	0.00142	U	0.000603	U	0.00544	U	**0.0321**		**0.00106**	**J**	0.000785	U	0.00163	U	0.000777	U
		B-263-15	10/18/18	PES	Pace	15	24.78	–	–	0.000437	U	0.00136	U	0.000579	U	0.00522	U	**0.0558**		**0.00523**		**0.0170**		0.00156	U	0.000746	U
		B-263-18	10/18/18	PES	Pace	18	21.78	–	–	0.000434	U	0.00136	U	0.000575	U	0.00519	U	**0.416**		**0.0154**		**0.0894**		0.00155	U	**0.00733**	
B-264	3	B-264-3	10/18/18	PES	Pace	3	36.84	–	–	0.000434	U	0.00136	U	0.000576	U	0.00519	U	**0.200**		**0.00630**		0.000749	U	0.00155	U	0.000742	U
		B-264-5	10/18/18	PES	Pace	5	34.84	–	–	0.000463	U	0.00145	U	0.000613	U	0.00553	U	**0.096**		**0.00185**		0.000799	U	0.00165	U	0.00079	U
		B-264-8	10/18/18	PES	Pace	8	31.84	–	–	0.000457	U	0.00143	U	0.000606	U	0.00546	U	**0.415**		**0.00376**		0.000789	U	0.00163	U	0.000781	U
		B-264-10	10/18/18	PES	Pace	10	29.84	–	–	0.000441	U	0.00138	U	0.000584	U	0.00527	U	**1.3**		**0.00533**		0.00076	U	0.00158	U	0.000752	U
		B-264-15	10/18/18	PES	Pace	15	24.84	–	–	0.000465	U	0.00145	U	0.000617	U	0.00556	U	**0.663**		**0.00852**		**0.000940**	**J**	0.00166	U	**0.00303**	
		B-264-16	10/18/18	PES	Pace	16	23.84	–	–	**0.00115**		**0.00291**	**J**	0.000595	U	0.00537	U	**0.199**		**0.00250**		**0.00250**	**J**	0.00161	U	0.000767	U
B-265	3	B-265-3	10/18/18	PES	Pace	3	36.84	–	–	0.000477	U	**0.00150**	**J**	0.000632	U	0.00570	U	**0.154**		**0.00198**		**0.00118**	**J**	0.00171	U	0.000815	U
		B-265-5	10/18/18	PES	Pace	5	34.84	–	–	0.000464	U	0.00145	U	0.000614	U	0.00554	U	1.57	UJ	**0.00413**		**0.00391**		0.00166	U	0.000791	U
		B-265-8	10/18/18	PES	Pace	8	31.84	–	–	0.000447	U	0.00140	U	0.000592	U	0.00534	U	**2.37**	**J**	**0.00473**		**0.00354**		0.00160	U	0.000762	U
		B-265-10	10/18/18	PES	Pace	10	29.84	–	–	0.000440	U	0.00137	U	0.000583	U	0.00526	U	**1.15**	**J**	**0.00325**		**0.00135**	**J**	0.00157	U	0.000751	U
		B-265-17.5	10/18/18	PES	Pace	18	22.34	–	–	0.000443	U	0.00138	U	0.000586	U	0.00529	U	**0.0155**	**J**	0.000443	U	0.000763	U	0.00158	U	0.000756	U
B-266	3	B-266-5	10/18/18	PES	Pace	5	35.72	–	–	0.000487	U	**0.00546**	**J**	0.000646	U	0.00582	U	**0.0153**	**J**	**0.0064**		**0.0052**		0.00174	U	0.000832	U
		B-266-8	10/18/18	PES	Pace	8	32.72	–	–	0.000509	U	**0.00302**	**J**	0.000675	U	0.00609	U	**0.00703**	**J**	**0.0092**		**0.0085**		0.00182	U	0.000869	U
		B-266-10	10/18/18	PES	Pace	10	30.72	–	–	0.000644	U	0.00201	U	0.000853	U	0.00769	U	**0.0084**	**J**	**0.0032**		**0.0062**		0.00231	U	0.0011	U
		B-266-15	10/18/18	PES	Pace	15	25.72	–	–	0.000534	U	**0.00296**	**J**	0.000707	U	0.00637	U	**1.79**	**J**	**0.0021**		0.00092	U	0.00191	U	0.000911	U
		B-266-20	10/18/18	PES	Pace	20	20.72	–	–	0.000446	U	**0.00330**	**J**	0.000591	U	0.00533	U	**5.70**	**J**	**0.1110**		**0.0195**		0.00159	U	0.000761	U
B-267	3	B-267-2.5	10/18/18	PES	Pace	3	37.39	–	–	0.000481	U	0.00150	U	0.000637	U	0.00574	U	**0.00171**	**J**	0.000481	U	0.000829	U	0.00172	U	0.000821	U
		B-267-5	10/18/18	PES	Pace	5	34.89	–	–	0.000436	U	**0.00570**		0.000578	U	0.00521	U	**0.138**	**J**	**0.000945**	**J**	0.000753	U	0.00156	U	0.000745	U
		B-267-8	10/18/18	PES	Pace	8	31.89	–	–	0.000477	U	0.00149	U	0.000632	U	0.00570	U	**0.604**		**0.00123**		0.000823	U	0.00171	U	0.000815	U
		B-267-10	10/18/18	PES	Pace	10	29.89	–	–	0.000452	U	**0.00188**	**J**	0.000599	U	0.00540	U	**0.517**		**0.00270**		0.000780	U	0.00162	U	0.000772	U
		B-267-15	10/18/18	PES	Pace	15	24.89	–	–	0.00894	U	0.0279	U	0.0118	U	0.107	U	**7.72**		**0.0853**		0.0154	U	0.0320	U	0.0153	U
		B-267-20	10/18/18	PES	Pace	20	19.89	–	–	0.00994	U	0.0310	U	0.0132	U	0.119	U	**8.01**		**0.102**		0.0171	U	0.0356	U	0.0170	U
DB01	1	DB01-10	3/18/13	SES	F&BI	10	30.00	–		–		–		–		–		**0.042**		0.03	U	0.05	U	0.05	U	0.05	U
		DB01-20	3/18/13	SES	F&BI	20	20.00	–		–		–		–		–		0.025	U	0.03	U	0.05	U	0.05	U	0.05	U
		DB01-30	3/18/13	SES	F&BI	30	10.00	–		–		–		–		–		0.025	U	0.03	U	0.05	U	0.05	U	0.05	U
		DB01-40	3/18/13	SES	F&BI	40	0.00	–		–		–		–		–		0.025	U	0.03	U	0.05	U	0.05	U	0.05	U
DB02	1	DB02-10	3/18/13	SES	F&BI	10	26.00	2	U	0.02	U	0.02	U	0.02	U	0.06	U	0.025	U	0.03	U	0.05	U	0.05	U	0.05	U
		DB02-15	3/18/13	SES	F&BI	15	21.00	2	U	0.02	U	0.02	U	0.02	U	0.06	U	–		–		–		–		–	
		DB02-20	3/18/13	SES	F&BI	20	16.00	–		–		–		–		–		**0.22**		0.03	U	0.05	U	0.05	U	0.05	U
		DB02-30	3/18/13	SES	F&BI	30	6.00	–		–		–		–		–		**0.058**		0.03	U	0.05	U	0.05	U	0.05	U
DB05	1	DB05-10	3/26/13	SES	F&BI	10	41.80	–		–		–		–		–		0.025	U	0.03	U	0.05	U	0.05	U	0.05	U
		DB05-20	3/26/13	SES	F&BI	20	31.80	–		–		–		–		–		0.025	U	0.03	U	0.05	U	0.05	U	0.05	U
		DB05-30	3/26/13	SES	F&BI	30	21.80	–		–		–		–		–		**3.2**		**0.040**		0.05	U	0.05	U	0.05	U
		DB05-40	3/26/13	SES	F&BI	40	11.80	–		–		–		–		–		**14**		**0.085**		0.05	U	0.05	U	0.05	U
		DB05-50	3/26/13	SES	F&BI	50	1.80	–		–		–		–		–		0.025	U	0.03	U	0.05	U	0.05	U	0.05	U

Table 3

Soil Analytical Results for Petroleum Hydrocarbons and CVOCs
Soil Management Areas
Former American Linen Supply
700 Dexter Avenue North, Seattle, Washington

Sample Location	Soil Management Area	Sample ID	Sample Date	Sampled By	Lab	Sample Depth (feet bgs)	Sample Elevation (feet NAVD 88)	Analytical Reslts (milligrams per kilogram)															
								GRO	Benzene		Toluene		Ethylbenzene		Total Xylenes		PCE		TCE		cDCE		tDCE		VC	
Contained-In Criteria								–	–		–		–		–		**14**		**10**		**160**		–		**0.67**	
DB09	1	DB09-10	3/19/13	SES	F&BI	10	30.00	–	–		–		–		–		**0.027**		0.03	U	0.05	U	0.05	U	0.05	U
		DB09-20	3/19/13	SES	F&BI	20	20.00	–	–		–		–		–		**0.15**		0.03	U	0.05	U	0.05	U	0.05	U
		DB09-30	3/19/13	SES	F&BI	30	10.00	–	–		–		–		–		**6.1**		**0.22**		**0.25**		0.05	U	0.05	U
		DB09-40	3/19/13	SES	F&BI	40	0.00	–	–		–		–		–		**1.3**		**0.28**		**0.18**		0.05	U	0.05	U
DB11	1	DB11-15	4/2/13	SES	F&BI	15	36.80	–	–		–		–		–		0.025	U	0.03	U	0.05	U	0.05	U	0.05	U
		DB11-25	4/2/13	SES	F&BI	25	26.80	–	–		–		–		–		**0.028**		0.03	U	0.05	U	0.05	U	0.05	U
		DB11-35	4/2/13	SES	F&BI	35	16.80	–	–		–		–		–		0.025	U	0.03	U	0.05	U	0.05	U	0.05	U
		DB11-45	4/2/13	SES	F&BI	45	6.80	–	–		–		–		–		**15**		**0.12**		0.05	U	0.05	U	0.05	U
DB14	1	DB14-10	4/4/13	SES	F&BI	10	31.50	**260**	**0.059**		**0.41**		**1.2**		**3.6**		0.025	U	0.03	U	0.05	U	0.05	U	0.05	U
		DB14-20	4/4/13	SES	F&BI	20	21.50	**73**	0.02	U	**0.078**		**0.29**		**1.0**		0.025	U	0.03	U	0.05	U	0.05	U	0.05	U
		DB14-30	4/4/13	SES	F&BI	30	11.50	–	–		–		–		–		0.025	U	0.03	U	0.05	U	0.05	U	0.05	U
		DB14-40	4/4/13	SES	F&BI	40	1.50	–	–		–		–		–		**0.050**		0.03	U	**0.077**		0.05	U	0.05	U
IW06	1	IW06-25	1/15/16	SES	F&BI	25	26.80	–	–		–		–		–		**0.49**	**ve**	**0.010**		0.005	U	0.005	U	0.005	U
		IW06-30	1/15/16	SES	F&BI	30	21.80	–	–		–		–		–		**0.19**		**0.0080**		0.005	U	0.005	U	0.005	U
		IW06-40	1/15/16	SES	F&BI	40	11.80	–	–		–		–		–		0.005	U	0.003	U	0.005	U	0.005	U	0.005	U
		IW06-50	1/15/16	SES	F&BI	50	1.80	–	–		–		–		–		**0.071**		0.003	U	0.005	U	0.005	U	0.005	U
IW-1C	1	IW-1C-5	3/7/18	PES	ESC	5	34.14	–	0.000300	U	0.000482	U	0.000330	U	0.000775	U	**0.0399**		**0.00620**		**0.00291**		0.000293	U	0.000323	U
		IW-1C-15	3/7/18	PES	ESC	15	24.14	–	0.000317	U	0.000510	U	0.000349	U	0.000820	U	**0.00145**		**0.000516**	**J**	**0.00154**		0.000310	U	**0.000790**	**J**
		IW-1C-25	3/7/18	PES	ESC	25	14.14	–	0.0641	U	0.103	U	0.0705	U	0.166	U	**11.1**		**0.845**		**0.769**		0.0627	U	0.0691	U
		IW-1C-35	3/7/18	PES	ESC	35	4.14	–	0.000290	U	0.000465	U	0.000319	U	0.000749	U	**2.66**		**0.286**		**0.404**		**0.00339**		**0.0511**	
IW-2C	1	IW-2C-5	3/7/18	PES	ESC	5	31.33	–	**0.000546**	**J**	0.000536	U	0.000367	U	0.000862	U	**0.000478**	**J**	**0.000790**	**J**	**0.00860**		**0.000363**	**J**	**0.000593**	**J**
		IW-2C-15	3/7/18	PES	ESC	15	21.33	–	0.000323	U	0.000519	U	0.000355	U	0.000834	U	0.000330	U	0.000333	U	**0.000795**	**J**	0.000315	U	**0.00186**	
		IW-2C-25	3/7/18	PES	ESC	25	11.33	–	0.000302	U	0.000485	U	0.000332	U	0.000780	U	**6.20**		**0.388**		**0.304**		**0.00130**		**0.00850**	
		IW-2C-35	3/7/18	PES	ESC	35	1.33	–	0.000340	U	0.000547	U	0.000374	U	0.000879	U	**0.947**		**0.0403**		**0.0708**		**0.000522**	**J**	**0.00140**	
IW-3C	2	IW-3C-5	3/9/18	PES	ESC	5	34.13	–	0.000295	U	0.000475	U	0.000325	U	0.000763	U	**0.0323**		**0.00162**		**0.000620**	**J**	0.000289	U	0.000318	U
		IW-3C-15	3/9/18	PES	ESC	15	24.13	–	0.00782	U	0.0125	U	0.00860	U	0.0202	U	**1.36**		**0.0812**		**0.422**		0.00765	U	**0.00964**	**J**
		IW-3C-25	3/9/18	PES	ESC	25	14.13	–	0.159	U	0.256	U	0.175	U	0.412	U	**19.0**		**0.774**		**0.968**		0.156	U	0.172	U
		IW-3C-35	3/9/18	PES	ESC	35	4.13	–	0.0600	U	0.0965	U	0.0660	U	0.156	U	**9.68**		**0.456**		**0.918**		0.0587	U	**0.0932**	**J**
IW-7A	1	IW-7A-5	3/16/18	PES	ESC	5	35.06	**0.799**	**0.0122**		**0.00706**		**0.00221**		**0.00827**		**0.00171**		**0.000944**	**J**	**0.00829**		0.000327	U	**0.000638**	**J**
		IW-7A-10	3/16/18	PES	ESC	10	30.06	**253**	**0.0433**		**0.0179**		**0.0304**		**0.0686**		0.00163	U	0.00145	U	**0.00509**		0.00246	U	0.00134	U
		IW-7A-15	3/16/18	PES	ESC	15	25.06	**108**	**0.279**		**0.135**	**J**	**0.232**		**0.389**		**0.0250**	**J**	0.0112	U	**0.0163**	**J**	0.0106	U	0.0117	U
		IW-7A-20	3/16/18	PES	ESC	20	20.06	**18.7**	**0.00723**		**0.0250**		**0.00585**		**0.0170**		0.00167	U	0.00149	U	**0.00155**	**J**	0.00253	U	0.00137	U
		IW-7A-25	3/16/18	PES	ESC	25	15.06	**2.82**	**0.00189**		0.000526	U	0.000360	U	0.000845	U	0.000334	U	0.000338	U	**0.000857**	**J**	0.000320	U	0.000352	U
		IW-7A-30	3/16/18	PES	ESC	30	10.06	**0.287**	**0.00201**		**0.000845**	**J**	**0.000369**	**J**	0.000810	U	**0.00109**	**J**	**0.000495**	**J**	**0.00175**		0.000306	U	**0.000829**	**J**
		IW-7A-35	3/16/18	PES	ESC	35	5.06	**6.38**	**0.00282**	**J**	**0.00752**		**0.00222**	**J**	0.00575	U	**0.00201**	**J**	0.00128	U	**0.00193**	**J**	0.00217	U	0.00118	U
		IW-7A-40	3/16/18	PES	ESC	40	0.06	**0.296**	0.000318	U	0.000511	U	0.000350	U	0.000822	U	**0.00118**		**0.000393**	**J**	**0.000564**	**J**	0.000311	U	0.000343	U
IW-8B	2	IW-8B-5	3/19/18	PES	ESC	5	34.24	–	0.000296	U	0.000475	U	0.000325	U	0.000764	U	**0.0342**		**0.00314**		**0.00224**		0.000289	U	0.000319	U
		IW-8B-10	3/19/18	PES	ESC	10	29.24	–	0.000291	U	0.000468	U	0.000320	U	0.000752	U	**0.0432**		**0.00481**		**0.00634**		0.000285	U	0.000314	U
		IW-8B-15	3/19/18	PES	ESC	15	24.24	–	0.0777	U	0.124	U	0.0854	U	0.200	U	**29.6**		**0.243**	**J**	0.198	U	**0.0760**		0.0838	U
		IW-8B-20	3/19/18	PES	ESC	20	19.24	–	0.000296	U	0.000790	U	0.000326	U	0.000766	U	**23.9**		**0.105**		**0.117**		**0.00141**		**0.00354**	
		IW-8B-25	3/19/18	PES	ESC	25	14.24	–	0.000316	U	0.000508	U	0.000348	U	0.000817	U	**4.80**		**0.109**		**0.319**		**0.00107**	**J**	**0.0350**	
		IW-8B-30	3/19/18	PES	ESC	30	9.24	–	0.000303	U	0.000488	U	0.000334	U	0.000784	U	**2.56**		**0.0560**		**0.107**		**0.000461**	**J**	**0.0153**	

Table 3

Soil Analytical Results for Petroleum Hydrocarbons and CVOCs
Soil Management Areas
Former American Linen Supply
700 Dexter Avenue North, Seattle, Washington

Sample Location	Soil Management Area	Sample ID	Sample Date	Sampled By	Lab	Sample Depth (feet bgs)	Sample Elevation (feet NAVD 88)	Analytical Reslts (milligrams per kilogram)																	
								GRO	Benzene		Toluene		Ethylbenzene		Total Xylenes		PCE		TCE		cDCE		tDCE		VC	
Contained-In Criteria								–	–		–		–		–		14		10		160		–		0.67	
IW-8C	2	IW-8C-5	3/14/18	PES	ESC	5	32.50	–	**0.00198**	**J+**	0.000746	U	0.000510	U	0.00120	U	**5.81**		**0.129**	**J+**	**0.0338**	**J+**	**0.000693**	**J+**	**0.00182**	**J+**
		IW-8C-10	3/14/18	PES	ESC	10	27.50	–	**0.00277**		**0.00153**	**J**	0.000514	U	**0.00122**	**J**	**0.0394**		**0.00705**		**0.0112**		**0.00192**		**0.00710**	
		IW-8C-15	3/14/18	PES	ESC	15	22.50	–	0.000318	U	0.000511	U	0.000350	U	0.000823	U	**0.000583**	**J**	0.000329	U	**0.000359**	**J**	0.000311	U	0.000342	U
		IW-8C-20	3/14/18	PES	ESC	20	17.50	–	0.000291	U	0.000468	U	0.000320	U	0.000753	U	**0.00474**		**0.000938**	**J**	**0.0108**		0.000285	U	**0.00100**	**J**
		IW-8C-25	3/14/18	PES	ESC	25	12.50	–	0.000321	U	0.000517	U	0.000354	U	0.000831	U	**5.39**		**0.768**		**0.946**		**0.00231**		**0.0426**	
		IW-8C-30	3/14/18	PES	ESC	30	7.50	–	0.000299	U	0.000480	U	0.000329	U	0.000772	U	**0.798**		**0.0947**		**0.143**		**0.00177**		**0.0814**	
		IW-8C-35	3/14/18	PES	ESC	35	2.50	–	0.000312	U	0.000502	U	0.000344	U	0.000807	U	**0.833**		**0.0474**		**0.162**		**0.000842**	**J**	**0.0230**	
IW-11D	1	IW-11D-10	4/19/18	PES	ESC	10	28.37	–	**0.00456**		**0.00223**	**J**	**0.000463**	**J**	0.000964	U	**0.00183**		0.000385	U	**0.000329**	**J**	0.000364	U	0.000402	U
		IW-11D-15	4/19/18	PES	ESC	15	23.37	–	0.000313	U	0.000503	U	0.000344	U	0.000809	U	0.000320	U	0.000323	U	0.000272	U	0.000306	U	0.000337	U
		IW-11D-20	4/19/18	PES	ESC	20	18.37	–	0.000312	U	0.000502	U	0.000344	U	0.000807	U	0.000319	U	0.000323	U	0.000272	U	0.000305	U	0.000337	U
		IW-11D-25	4/19/18	PES	ESC	25	13.37	–	0.000295	U	0.000474	U	0.000325	U	0.000763	U	**0.00342**		**0.00368**		**0.0174**		0.000288	U	**0.00161**	
		IW-11D-30	4/19/18	PES	ESC	30	8.37	–	0.000295	U	0.000475	U	0.000325	U	0.000763	U	**0.0362**		**0.00990**		**0.00931**		0.000289	U	**0.00215**	
		IW-11D-35	4/19/18	PES	ESC	35	3.37	–	0.000309	U	0.000497	U	0.000340	U	0.000800	U	**0.0167**		**0.0176**		**0.101**		**0.00208**		**0.0389**	
IW-19B	1	IW-19B-5	3/19/18	PES	ESC	5	32.43	–	**0.000797**	**J**	0.000491	U	0.000336	U	0.000789	U	**0.00478**		**0.000961**	**J**	0.000961	U	0.000298	U	0.000328	U
		IW-19B-10	3/19/18	PES	ESC	10	27.43	–	**0.000465**	**J**	0.000980	U	0.000365	U	0.000859	U	0.000340	U	0.000343	U	0.000718	U	0.000325	U	0.000358	U
		IW-19B-15	3/19/18	PES	ESC	15	22.43	–	0.000309	U	0.000497	U	0.000340	U	0.000800	U	**0.00104**	**J**	0.000320	U	0.000383	U	0.000302	U	0.000333	U
		IW-19B-20	3/19/18	PES	ESC	20	17.43	–	0.000302	U	0.000485	U	0.000332	U	0.000779	U	**0.000942**	**J**	0.000312	U	0.000349	U	0.000295	U	0.000325	U
		IW-19B-25	3/19/18	PES	ESC	25	12.43	–	0.000317	U	0.000509	U	0.000349	U	0.000819	U	**0.00166**		**0.000434**	**J**	0.000621	U	0.000310	U	0.000342	U
		IW-19B-30	3/19/18	PES	ESC	30	7.43	–	0.000303	U	0.000487	U	0.000334	U	0.000784	U	0.000310	U	0.000313	U	0.000600	U	0.000297	U	0.000327	U
		IW-19B-35	3/19/18	PES	ESC	35	2.43	–	0.000299	U	0.000481	U	0.000329	U	0.000774	U	**0.00134**		**0.000436**	**J**	0.000786	U	0.000293	U	0.000323	U
IW-21B	1	IW-21B-5	3/6/18	PES	ESC	5	36.91	–	0.000488	U	0.000784	U	0.000536	U	0.00126	U	**0.0140**		**0.00659**		**0.00711**		0.000477	U	0.000526	U
		IW-21B-10	3/6/18	PES	ESC	10	31.91	–	0.000329	U	0.000529	U	0.000362	U	0.000851	U	**0.0130**		**0.00524**		**0.00482**		0.000322	U	0.000355	U
		IW-21B-20	3/6/18	PES	ESC	20	21.91	–	**0.000864**	**J**	**0.00128**	**J**	0.000357	U	0.000839	U	**0.000338**	**J**	0.000335	U	0.000283	U	0.000317	U	0.000350	U
		IW-21B-30	3/6/18	PES	ESC	30	11.91	–	0.000301	U	0.000485	U	0.000332	U	0.000779	U	0.000308	U	0.000312	U	**0.000406**	**J**	0.000295	U	0.000325	U
		IW-21B-40	3/6/18	PES	ESC	40	1.91	–	0.000298	U	0.000480	U	0.000328	U	0.000772	U	**0.00709**		**0.00187**		**0.0424**		**0.00134**		**0.0212**	
IW-27B	1	IW-27B-5	3/2/18	PES	ESC	5	36.97	–	0.000432	U	0.000695	U	0.000476	U	0.00112	U	**0.0678**		**0.0248**		**0.0106**		0.000424	U	0.000467	U
	1	IW-27B-15	3/2/18	PES	ESC	15	26.97	–	**0.00393**		**0.00124**	**J**	0.000423	U	0.000994	U	**0.0178**		**0.00435**		**0.00218**		0.000376	U	**0.000493**	**J**
		IW-27B-25	3/2/18	PES	ESC	25	16.97	–	0.000314	U	0.000505	U	0.000345	U	0.000812	U	0.000321	U	0.000324	U	0.000273	U	0.000307	U	0.000338	U
		IW-27B-35	3/2/18	PES	ESC	35	6.97	–	0.000309	U	0.000497	U	0.000340	U	0.000799	U	**0.00114**	**J**	**0.000325**	**J**	**0.108**		**0.120**		**0.0195**	
IW-27C	4	IW-27C-45	9/10/18	PES	ESC	45	6.8	–	0.000448	U	**0.00223**	**J**	0.000593	U	0.00535	U	**18.6**		**0.178**		**0.282**		**0.00239**	**J**	**0.0297**	
IW-39B	1	IW-39B-5	3/12/18	PES	ESC	5	35.21	–	0.000343	U	0.000551	U	0.000377	U	0.000886	U	**0.0961**		**0.00856**		**0.0227**		**0.000423**	**J**	0.000370	U
		IW-39B-15	3/12/18	PES	ESC	15	25.21	–	0.000301	U	0.000484	U	0.000331	U	0.000778	U	0.000308	U	0.000311	U	**0.00624**		0.000294	U	0.000324	U
		IW-39B-25	3/12/18	PES	ESC	25	15.21	–	0.000321	U	0.000516	U	0.000353	U	0.000830	U	**0.0371**		**0.00557**		**0.0239**		**0.000814**	**J**	**0.000945**	**J**
		IW-39B-35	3/12/18	PES	ESC	35	5.21	–	0.000296	U	0.000477	U	0.000326	U	0.000766	U	**0.00404**		**0.00185**		**0.0135**		**0.000397**	**J**	**0.00311**	
IW-46B	4	IW-46B-5	3/20/18	PES	ESC	5	46.83	–	0.000303	UJ	0.000488	UJ	0.000334	UJ	0.000785	UJ	**0.00450**	**J**	0.000314	UJ	**0.000434**	**J**	0.000297	UJ	0.000327	UJ
		IW-46B-10	3/20/18	PES	ESC	10	41.83	–	**0.000327**	**J**	0.000477	UJ	0.000326	UJ	0.000767	UJ	**0.0223**	**J**	0.000307	UJ	**0.000349**	**J**	0.000290	UJ	0.000320	UJ
		IW-46B-15	3/20/18	PES	ESC	15	36.83	–	0.00747	UJ	0.0119	UJ	0.00821	UJ	0.0192	UJ	**0.386**	**J**	**0.0108**	**J**	0.00650	UJ	0.00730	UJ	0.00805	UJ
		IW-46B-20	3/20/18	PES	ESC	20	31.83	–	0.000302	UJ	0.000485	UJ	0.000332	UJ	0.000780	UJ	**0.0626**	**J**	**0.00127**	**J**	**0.000960**	**J**	0.000295	UJ	0.000325	UJ
		IW-46B-25	3/20/18	PES	ESC	25	26.83	–	0.000298	UJ	0.000480	UJ	0.000328	UJ	0.000772	UJ	**20.1**	**J**	**0.0476**	**J**	**0.00239**	**J**	0.000292	UJ	**0.000784**	**J**
		IW-46B-30	3/20/18	PES	ESC	30	21.83	–	0.000302	UJ	0.000485	UJ	0.000332	UJ	0.000781	UJ	**5.63**	**J**	**0.0134**	**J**	**0.00513**	**J**	0.000295	UJ	0.000325	UJ
		IW-46B-35	3/20/18	PES	ESC	35	16.83	–	0.000327	UJ	0.000525	UJ	0.000359	UJ	0.000844	UJ	**0.00462**	**J**	0.000338	UJ	**0.000737**	**J**	0.000319	UJ	**0.000712**	**J**
		IW-904-35	3/20/18	PES	ESC	35 (dup)	16.83	–	0.000345	UJ	0.000555	UJ	0.000380	UJ	0.000893	UJ	**0.0143**	**J**	**0.00219**	**J**	**0.00147**	**J**	0.000338	UJ	**0.000756**	**J**
		IW-46B-40	3/20/18	PES	ESC	40	11.83	–	0.000284	UJ	0.000456	UJ	0.000312	UJ	0.000734	UJ	**2.36**	**J**	**0.0147**	**J**	**0.00149**	**J**	0.000278	UJ	0.000306	UJ
		IW-46B-42	3/20/18	PES	ESC	42	9.83	–	**0.000384**	**J**	**0.00189**	**J**	0.000357	UJ	**0.00187**	**J**	**145**	**J**	**1.31**	**J**	**4.91**	**J**	**0.00269**	**J**	**0.356**	**J**
IW-46B		IW-46B-45	3/20/18	PES	ESC	45	6.83	–	1.54	UJ	2.47	UJ	1.68	UJ	3.97	UJ	**261**	**J**	**1.59**	**J**	**2.47**	**J**	1.50	UJ	1.66	UJ

Table 3

Soil Analytical Results for Petroleum Hydrocarbons and CVOCs
Soil Management Areas
Former American Linen Supply
700 Dexter Avenue North, Seattle, Washington

Sample Location	Soil Management Area	Sample ID	Sample Date	Sampled By	Lab	Sample Depth (feet bgs)	Sample Elevation (feet NAVD 88)	Analytical Reslts (milligrams per kilogram)																	
								GRO	Benzene		Toluene		Ethylbenzene		Total Xylenes		PCE		TCE		cDCE		tDCE		VC	
						Contained-In Criteria		–	–		–		–		–		14		10		160		–		0.67	
(continued)		IW-46B-50	3/20/18	PES	ESC	50	1.83	–	**0.000504**	**J**	**0.000577**	**J**	0.000297	UJ	0.000698	UJ	**2.31**	**J**	**0.0168**	**J**	**2.05**	**J**	**0.00309**	**J**	**1.65**	**J**
IW-47B	4	IW-47B-5	3/22/18	PES	ESC	5	46.80	–	**0.000323**	**J**	0.000512	UJ	0.000350	UJ	0.000823	UJ	**0.0518**		**0.00121**	**J**	**0.000394**	**J**	0.000311	UJ	0.000343	UJ
		IW-47B-10	3/22/18	PES	ESC	10	41.80	–	0.000318	UJ	0.000511	UJ	0.000349	UJ	0.000821	UJ	**0.0214**	**J**	**0.000935**	**J**	**0.000623**	**J**	0.000311	UJ	0.000342	UJ
		IW-47B-15	3/22/18	PES	ESC	15	36.80	–	0.000301	UJ	0.000485	UJ	0.000332	UJ	0.000779	UJ	**0.00348**	**J**	0.000312	UJ	**0.0413**	**J**	0.000295	UJ	0.000325	UJ
		IW-47B-20	3/22/18	PES	ESC	20	31.80	–	0.000300	UJ	0.000482	UJ	0.000330	UJ	0.000775	UJ	**0.0344**	**J**	**0.00453**	**J**	**0.00146**	**J**	0.000293	UJ	0.000323	UJ
		IW-47B-25	3/22/18	PES	ESC	25	26.80	–	0.000305	UJ	0.000491	UJ	0.000336	UJ	0.000790	UJ	**0.0435**	**J**	**0.00663**	**J**	**0.00859**	**J**	0.000299	UJ	0.000329	UJ
		IW-47B-30	3/22/18	PES	ESC	30	21.80	–	0.000303	UJ	0.000487	UJ	0.000333	UJ	0.000783	UJ	**0.00334**	**J**	**0.00136**	**J**	**0.146**	**J**	**0.000962**	**J**	0.000326	UJ
		IW-47B-35	3/22/18	PES	ESC	35	16.80	–	0.000297	UJ	0.000477	UJ	0.000327	UJ	0.000768	UJ	**0.00552**	**J**	**0.00173**	**J**	**0.00566**	**J**	0.000290	UJ	0.000320	UJ
		IW-47B-40	3/22/18	PES	ESC	40	11.80	–	0.000306	UJ	0.000493	UJ	0.000337	UJ	0.000792	UJ	**0.0155**	**J**	**0.00284**	**J**	**0.0378**	**J**	0.000300	UJ	**0.00246**	**J**
		IW-47B-42	3/22/18	PES	ESC	42	9.80	–	0.000354	UJ	**0.000822**	**J**	0.000390	UJ	0.000916	UJ	**0.196**	**J**	**0.0157**	**J**	**0.0477**	**J**	0.000346	UJ	**0.00137**	**J**
		IW-47B-45	3/22/18	PES	ESC	45	6.80	–	0.000305	UJ	0.000491	UJ	0.000336	UJ	0.000789	UJ	**0.0192**	**J**	**0.00253**	**J**	**1.42**	**J**	**0.000473**	**J**	**0.00224**	**J**
		IW-47B-50	3/22/18	PES	ESC	50	1.80	–	0.000317	UJ	0.000510	UJ	0.000349	UJ	0.000820	UJ	**0.0102**	**J**	**0.00206**	**J**	**0.0368**	**J**	**0.00397**	**J**	**0.00131**	**J**
IW-48B	1	IW-48B-5	3/23/18	PES	ESC	5	46.68	–	0.000312	U	0.000502	U	0.000343	U	0.000807	U	**0.0108**		0.000322	U	0.000272	U	0.000305	U	0.000336	U
		IW-48B-10	3/23/18	PES	ESC	10	41.68	–	0.000306	U	0.000491	U	0.000336	U	0.000790	U	**0.00589**		0.000316	U	**0.00100**	**J**	0.000299	U	0.000329	U
		IW-48B-15	3/23/18	PES	ESC	15	36.68	–	**0.00101**	**J**	0.000507	U	0.000347	U	0.000815	U	**0.0117**		0.000326	U	**0.000585**	**J**	0.000308	U	0.000340	U
		IW-48B-20	3/23/18	PES	ESC	20	31.68	–	0.000297	U	0.000478	U	0.000327	U	0.000768	U	**0.0775**		**0.00543**		**0.00149**		0.000290	U	0.000320	U
		IW-48B-25	3/23/18	PES	ESC	25	26.68	–	0.000304	U	0.000489	U	0.000334	U	0.000786	U	**0.924**		**0.0104**		**0.00777**		0.000297	U	0.000328	U
		IW-48B-30	3/23/18	PES	ESC	30	21.68	–	0.000298	U	0.000478	U	0.000327	U	0.000769	U	0.127	UJ	**0.00751**		**0.00569**		0.000291	U	0.000321	U
		IW-48B-35	3/23/18	PES	ESC	35	16.68	–	0.000311	U	0.000499	U	0.000342	U	0.000803	U	0.00825	UJ	**0.00215**		**0.0901**		**0.000991**	**J**	0.000335	U
		IW-48B-40	3/23/18	PES	ESC	40	11.68	–	0.000295	U	0.000474	U	0.000324	U	0.000762	U	**0.0129**	**J**	**0.00267**		**0.000350**	**J**	**0.00178**		0.000318	U
		IW-48B-42	3/23/18	PES	ESC	42	9.68	–	0.000298	U	0.000478	U	0.000327	U	0.000769	U	0.00329	UJ	**0.00150**		**0.0110**		0.000291	U	0.000321	U
		IW-905-42	3/23/18	PES	ESC	42 (dup)	9.68	–	0.000295	U	0.000474	U	0.000324	U	0.000763	U	**0.00302**		**0.00122**		**0.00820**		0.000288	U	0.000318	U
		IW-48B-45	3/23/18	PES	ESC	45	6.68	–	0.000293	U	0.000471	U	0.000322	U	0.000757	U	**0.000668**	**J**	0.000303	U	**0.00156**		0.000286	U	0.000316	U
		IW-48B-50	3/23/18	PES	ESC	50	1.68	–	0.000298	U	0.000479	U	0.000328	U	0.000770	U	**0.00167**	**J**	**0.00101**	**J**	**0.00420**		**0.00118**		0.000321	U
IW-50A	4	IW-50A-5	3/27/18	PES	ESC	5	46.85	–	**0.000343**	**J**	0.000495	U	0.000339	U	0.000797	U	**0.0105**		0.000318	U	0.000268	U	0.000301	U	0.000332	U
		IW-50A-10	3/27/18	PES	ESC	10	41.85	–	0.000301	U	0.000484	U	0.000331	U	0.000778	U	**0.00526**		**0.00365**		**0.00210**		0.000294	U	0.000324	U
		IW-50A-15	3/27/18	PES	ESC	15	36.85	–	0.000297	U	0.000477	U	0.000326	U	0.000767	U	**0.00323**		**0.00225**		**0.00185**		0.000290	U	0.000320	U
		IW-50A-20	3/27/18	PES	ESC	20	31.85	–	0.000300	U	0.000482	U	0.000330	U	0.000776	U	**0.00173**		0.000310	U	**0.0300**		0.000293	U	0.000323	U
		IW-50A-25	3/27/18	PES	ESC	25	26.85	–	0.000292	U	0.000470	U	0.000321	U	0.000755	U	**0.0149**		**0.00376**		**0.0836**		**0.000640**	**J**	0.000315	U
		IW-50A-30	3/27/18	PES	ESC	30	21.85	–	0.000293	U	0.000471	U	0.000323	U	0.000758	U	**0.00643**		**0.00146**		**0.0103**		0.000287	U	0.000316	U
		IW-50A-35	3/27/18	PES	ESC	35	16.85	–	0.000294	U	0.000473	U	0.000323	U	0.000760	U	**0.00599**		**0.00158**		**0.0158**		0.000287	U	0.000317	U
		IW-50A-40	3/27/18	PES	ESC	40	11.85	–	0.000298	U	0.000480	U	0.000328	U	0.000771	U	**0.00647**		**0.00188**		**0.0273**		0.000292	U	0.000322	U
		IW-50A-42	3/27/18	PES	ESC	42	9.85	–	0.000297	U	0.000477	U	0.000326	U	0.000767	U	**0.0263**		**0.00273**		**0.0970**		0.000290	U	**0.00893**	
		IW-50A-45	3/27/18	PES	ESC	45	6.85	–	0.000299	U	0.000481	U	0.000329	U	0.000773	U	**2.10**		**0.0367**		**0.350**		0.000292	U	**0.00501**	
		IW-50A-50	3/27/18	PES	ESC	50	1.85	–	0.000303	U	0.000487	U	0.000333	U	0.000783	U	**2.67**	**J**	**0.0210**	**J**	**0.621**	**J**	0.000296	U	**0.0112**	
		IW-906-50	3/27/18	PES	ESC	50 (dup)	1.85	–	0.000305	U	0.000490	U	0.000335	U	0.000788	U	**0.0849**	**J**	**0.00989**	**J**	**0.121**	**J**	0.000298	U	**0.0119**	
IW-51A	1	IW-51A-5	3/26/18	PES	ESC	5	46.91	–	0.000297	U	0.000477	U	0.000327	U	0.000768	U	**0.00410**		0.000307	U	**0.000359**	**J**	0.000290	U	0.000320	U
		IW-51A-10	3/26/18	PES	ESC	10	41.91	–	0.000294	U	0.000473	U	0.000324	U	0.000761	U	**0.00112**		0.000304	U	0.000256	U	0.000288	U	0.000317	U
		IW-51A-15	3/26/18	PES	ESC	15	36.91	–	0.000306	U	0.000492	U	0.000337	U	0.000792	U	**0.00450**		0.000316	U	**0.000778**	**J**	0.000299	U	0.000330	U
		IW-51A-20	3/26/18	PES	ESC	20	31.91	–	0.000293	U	0.000470	U	0.000322	U	0.000756	U	**0.00211**		0.000302	U	**0.000759**	**J**	0.000286	U	0.000315	U
		IW-51A-25	3/26/18	PES	ESC	25	26.91	–	0.000373	U	0.000599	U	0.000410	U	0.000963	U	**5.20**		**0.0410**		**0.0670**		**0.000506**	**J**	0.000401	U
		IW-51A-30	3/26/18	PES	ESC	30	21.91	–	0.000291	U	0.000468	U	0.000320	U	0.000752	U	**3.14**		**0.0147**		**0.00590**		0.000284	U	0.000314	U
		IW-51A-35	3/26/18	PES	ESC	35	16.91	–	0.000294	U	0.000473	U	0.000323	U	0.000760	U	**0.00981**		0.000304	U	**0.00305**		0.000287	U	**0.000805**	**J**
IW-51A (continued)		IW-51A-40	3/26/18	PES	ESC	40	11.91	–	0.000295	U	0.000474	U	0.000324	U	0.000763	U	**0.101**		**0.00781**		**2.17**		**0.000872**	**J**	**0.0155**	
		IW-51A-42	3/26/18	PES	ESC	42	9.91	–	0.000301	U	0.000483	U	0.000331	U	0.000777	U	**2.97**		**0.0397**		**2.37**		**0.00244**		**0.0869**	**J**

Table 3

Soil Analytical Results for Petroleum Hydrocarbons and CVOCs
Soil Management Areas
Former American Linen Supply
700 Dexter Avenue North, Seattle, Washington

Sample Location	Soil Management Area	Sample ID	Sample Date	Sampled By	Lab	Sample Depth (feet bgs)	Sample Elevation (feet NAVD 88)	Analytical Reslts (milligrams per kilogram)															
								GRO	Benzene		Toluene		Ethylbenzene		Total Xylenes		PCE		TCE		cDCE		tDCE		VC	
Contained-In Criteria								–	–		–		–		–		14		10		160		–		0.67	
		IW-51A-45	3/26/18	PES	ESC	45	6.91	–	0.000301	U	0.000483	U	0.000331	U	0.000777	U	**0.125**		0.000311	U	**0.0456**		0.000294	U	**0.0448**	
		IW-51A-50	3/26/18	PES	ESC	50	1.91	–	**0.000378**	**J**	0.000497	U	0.000340	U	0.000800	U	**1.36**		**0.0165**		**2.06**		**0.000572**	**J**	**0.00557**	
IW-53B	1	IW-53B-30	9/20/18	PES	ESC	30	5.31	–	**0.000505**	**J**	**0.00303**	**J**	**0.00061**		0.0052	U	**1.74**		**0.152**		**0.171**		**0.00381**		**0.0079**	
IW-54A	3	IW-54A-8	9/12/18	PES	ESC	8	31.11	–	0.000462	U	**0.00424**	**J**	0.000612	U	0.00552	U	**48.1**		**0.0503**		**0.00700**		0.00165	U	0.000778	U
IW-54B	3	IW-54B-8	9/5/18	PES	ESC	8	31.19	–	0.000436	U	**0.00476**	**J**	**0.00226**	**J**	10.4	U	**937**		**0.922**	**J**	1.51	U	0.00156	UJ	**0.00293**	
		IW-54B-13	9/6/18	PES	ESC	13	26.19	–	0.000444	U	0.00139	U	0.000588	U	0.0530	U	**2.21**		**0.0456**		**0.0349**		0.00159	UJ	0.000758	U
		IW-54B-21	9/6/18	PES	ESC	21	18.19	–	0.000436	U	**0.00277**	**J**	0.000578	U	0.104	U	**11.0**		**4.48**		**1.90**		**0.00612**	**J**	0.000745	U
		IW-54B-33	9/6/18	PES	ESC	33	6.19	–	**0.000702**	**J**	**0.00246**	**J**	0.000663	U	0.00592	U	**0.0689**		**0.0349**		**1.02**		0.00179	UJ	**0.0927**	
IW-55B	4	IW-55B-39	9/13/18	PES	ESC	39	12.78	–	0.000425	U	**0.00173**	**J**	0.000563	U	0.00508	U	**1.13**		**0.0340**		**0.0320**		0.00152	U	0.000725	U
		IW-55B-43	9/13/18	PES	ESC	43	8.78	–	0.000452	U	0.00141	U	0.000600	U	0.00541	U	**47.1**		**1.04**		**1.06**		0.00162	U	**0.0522**	
IW-58A	1	IW-58A-38	10/17/18	PES	Pace	38	1.18	–	0.000437	U	**0.00206**	**J**	0.000579	U	0.00522	U	**2.67**	**J**	**0.279**		**1.48**		**0.0323**		**0.0128**	
		B-929-38	10/17/18	PES	Pace	38 (dup)	1.20	–	0.000450	U	**0.00250**	**J**	0.000597	U	0.00538	U	**2.31**	**J**	**0.201**		**1.77**		**0.0456**		**0.0167**	
MW130 (B130)	1	B130-10	3/1/16	SES	F&BI	10	29.50	–	–		–		–		–		**0.17**		**0.040**		0.05	U	0.05	U	0.05	U
		B130-20	3/1/16	SES	F&BI	20	19.50	–	–		–		–		–		**0.82**		**0.054**		0.05	U	0.05	U	0.05	U
		B130-30	3/1/16	SES	F&BI	30	9.50	–	–		–		–		–		0.025	U	0.02	U	0.05	U	0.05	U	0.05	U
MW131 (B131)	1	B131-10	3/1/16	SES	F&BI	10	30.00	–	–		–		–		–		0.025	U	0.02	U	0.05	U	0.05	U	0.05	U
		B131-20	3/1/16	SES	F&BI	20	20.00	–	–		–		–		–		0.025	U	0.02	U	0.05	U	0.05	U	0.05	U
		B131-30	3/1/16	SES	F&BI	30	10.00	–	–		–		–		–		**0.097**		**2.4**		**3.2**		**0.064**		0.05	U
		B131-40	3/1/16	SES	F&BI	40	0.00	–	–		–		–		–		0.025	U	0.02	U	0.05	U	0.05	U	0.05	U
MW-132	1	MW-132-20	8/22/17	PES	ESC	20	20.14	0.0378	U	0.000301	U	0.000484	U	0.000331	U	0.000778	U	**0.000312**	**J**	**0.000380**	**J**	**0.0108**		**0.000443**	**J**	**0.00217**	
		MW-132-35	8/22/17	PES	ESC	35	5.14	0.0379	U	0.000302	U	0.000486	U	0.000332	U	0.000781	U	**0.00166**		0.000312	U	**0.00506**		0.000295	U	0.00377	UJ
MW-133	1	MW-133-20	8/15/17	PES	ESC	20	20.08	**0.183**		**0.000422**	**J**	0.000511	U	0.000350	U	0.000823	U	**3.62**		**0.0688**		**0.159**		**0.000591**	**J**	**0.000389**	**J**
		MW-133-35	8/15/17	PES	ESC	35	5.08	0.0443	U	0.000353	U	0.000567	U	0.000388	U	0.000911	U	0.00901	U	**0.000594**	**J**	**0.000361**	**J**	0.000345	U	0.000380	U
MW-134	1	MW-134-20	8/29/17	PES	ESC	20	21.45	1.12	U	0.00197	U	0.000571	U	0.000391	U	0.000919	U	0.000363	U	0.000367	U	0.000309	U	0.000347	U	0.000383	U
MW-135	2	MW-135-16	8/24/17	PES	ESC	14	25.17	**641**	**z**	0.0329	U	**0.166**	**J**	**0.0750**	**J**	**0.331**	**J**	**933**		**113**		**329**		**0.700**		**17.0**	
		MW-135-20	8/24/17	PES	ESC	20	19.17	**0.277**		0.00769	U	0.0123	U	0.00845	U	0.0198	U	**1.73**		**0.461**		**0.408**		0.00752	U	**0.0241**	**J**
		MW-135-30	8/24/17	PES	ESC	30	9.17	**10.4**	**z**	0.000287	U	**0.00159**	**J**	0.000315	U	**0.00135**	**J**	**109**		**2.90**		**1.98**		**0.00363**		**0.0430**	
		MW-135-36	8/24/17	PES	ESC	36	3.17	**0.733**		0.000315	U	0.000507	U	0.000347	U	0.000815	U	**20.1**		**0.0571**		**0.154**		**0.000907**	**J**	**0.00962**	
MW-136	1	MW-136-35	8/28/17	PES	ESC	35	16.87	–		0.000284	U	0.000457	U	0.000313	U	0.000735	U	**0.00777**		**0.000437**	**J**	**0.0117**		0.000278	U	0.000306	U
		B-902-15	8/28/17	PES	ESC	35 (dup)	16.87	–		0.000295	U	0.000474	U	0.000324	U	0.000762	U	**0.00621**		**0.000324**	**J**	**0.0141**		0.000288	U	0.000318	U
		MW-136-44	8/28/17	PES	ESC	44	7.87	–		0.000303	U	0.000487	U	0.000333	U	0.000783	U	0.0853	UJ	**0.00255**		**0.0174**		0.000296	U	0.000327	U
		MW-136-50	8/28/17	PES	ESC	50	1.87	–		0.000311	U	0.000499	U	0.000342	U	0.000803	U	0.000318	U	0.000321	U	0.00677	U	0.00759	U	0.000335	U
MW-137	1	MW-137-25	8/31/17	PES	ESC	25	26.77	0.0370	U	0.000294	U	0.000473	U	0.000324	U	0.000761	U	**0.00174**		**0.00245**		**0.000783**	**J**	0.000288	U	0.000317	U
		MW-137-45	8/31/17	PES	ESC	45	6.77	0.0384	U	0.00764	U	0.0122	U	0.00840	U	0.0197	U	0.00781	U	0.00790	U	**0.00753**	**J**	0.00747	U	0.00824	U
MW-139	1	MW-139-20	9/13/17	PES	ESC	20	19.81	–		0.000312	U	0.000502	U	0.000344	U	0.000807	U	**0.0138**	**J**	0.000323	U	**0.000500**	**J**	0.000305	U	**0.00397**	
		MW-139-31	9/13/17	PES	ESC	31	8.81	–		0.000289	U	0.000464	U	0.000318	U	0.000747	U	**0.00308**		**0.000467**	**J**	**0.00814**		0.000282	U	**0.00139**	
MW-141	1	MW-141-15	9/18/17	PES	ESC	15	24.59	–		0.000305	U	0.000490	U	0.000335	U	0.000787	U	0.000311	U	0.000315	U	**0.00128**		0.000298	U	**0.000388**	**J**
		MW-141-35	9/18/17	PES	ESC	35	4.59	–		0.000313	U	0.000504	U	0.000345	U	0.000810	U	0.000320	U	0.000324	U	**0.000473**	**J**	0.000306	U	0.000338	U
MW-152	1	MW-152-5	3/13/18	PES	ESC	5	34.11	–		0.000304	U	**0.000678**	**J**	0.000335	U	**0.00131**	**J**	**0.116**		**0.000861**	**J**	0.000265	U	0.000297	U	0.000328	U
		MW-152-15	3/13/18	PES	ESC	15	24.11	–		0.000299	U	0.000481	U	0.000329	U	0.000773	U	**6.12**		**0.101**		**0.00864**		0.000292	U	0.000322	U
		MW-152-25	3/13/18	PES	ESC	25	14.11	–		0.000293	U	0.000471	U	0.000322	U	0.000757	U	**0.276**		**0.00768**		**1.11**		**0.00188**		**0.00488**	
		MW-152-35	3/13/18	PES	ESC	35	4.11	–		0.000296	U	0.000476	U	0.000326	U	0.000765	U	**1.23**		**0.0203**		**0.776**		**0.00168**		**0.0282**	
P01	1	P01-05	2/12/14	SES	F&BI	5	35.50	2	U	0.02	U	0.02	U	0.02	U	0.06	U	–		–		–		–		–	
		P01-10	2/12/14	SES	F&BI	10	30.50	2	U	0.02	U	0.02	U	0.02	U	0.06	U	–		–		–		–		–	
P02	1	P02-05	2/12/14	SES	F&BI	5	34.50	–		–		–		–		–		**0.16**		0.03	U	0.05	U	0.05	U	0.05	U

Table 3

Soil Analytical Results for Petroleum Hydrocarbons and CVOCs
Soil Management Areas
Former American Linen Supply
700 Dexter Avenue North, Seattle, Washington

Sample Location	Soil Management Area	Sample ID	Sample Date	Sampled By	Lab	Sample Depth (feet bgs)	Sample Elevation (feet NAVD 88)	Analytical Reslts (milligrams per kilogram)																					
								GRO		Benzene		Toluene		Ethylbenzene		Total Xylenes		PCE		TCE		cDCE		tDCE		VC	
Contained-In Criteria								–		–		–		–		–		**14**		**10**		**160**		–		**0.67**	
		P02-07.5	2/12/14	SES	F&BI	7.5	32.00	–		–		–		–		–		**1.2**		**0.072**		0.05	U	0.05	U	0.05	U
P03	1	P03-05	2/12/14	SES	F&BI	5	34.50	–		–		–		–		–		**0.36**		0.03	U	0.05	U	0.05	U	0.05	U
P03		P03-07.5	2/12/14	SES	F&BI	7.5	32.00	–		–		–		–		–		**0.061**		0.03	U	0.05	U	0.05	U	0.05	U
P04	1	P04-05	2/12/14	SES	F&BI	7.5	32.50	–		–		–		–		–		**0.55**		0.03	U	0.05	U	0.05	U	0.05	U
		P04-10	2/12/14	SES	F&BI	10	30.00	–		–		–		–		–		0.025	U	0.03	U	0.05	U	0.05	U	0.05	U
P05	1	P05-05	2/12/14	SES	F&BI	5	35.00	–		–		–		–		–		**0.049**		0.03	U	0.05	U	0.05	U	0.05	U
		P05-07.5	2/12/14	SES	F&BI	7.5	32.50	–		–		–		–		–		**0.031**		0.03	U	0.05	U	0.05	U	0.05	U
P06	1	P06-07.5	2/12/14	SES	F&BI	7.5	32.50	–		–		–		–		–		**0.31**		0.03	U	0.05	U	0.05	U	0.05	U
		P06-10	2/12/14	SES	F&BI	10	30.00	–		–		–		–		–		**0.083**		0.03	U	0.05	U	0.05	U	0.05	U
Off Property																													
B-212	1	B-212-15	9/8/17	PES	ESC	15	42.61	0.977	U	0.000311	U	0.000500	U	0.000342	U	0.000804	U	0.000318	U	0.000321	U	0.000271	UJ	0.000304	U	0.000335	U
		B-212-21	9/8/17	PES	ESC	21	36.61	**63.0**	**q**	**0.000346**	**J**	**0.000649**	**J**	**0.00103**	**J**	**0.0131**		**0.000490**	**J**	0.000290	U	0.000244	UJ	0.000274	U	0.000302	U
		B-212-35	9/8/17	PES	ESC	35	22.61	1.98	U	0.000294	U	0.000473	U	0.000324	U	0.000761	U	**0.000955**	**J**	0.000304	U	0.000256	UJ	0.000288	U	0.000317	U
		B-212-45	9/8/17	PES	ESC	45	12.61	**2.81**	**J**	**0.000303**	**J**	0.000454	U	0.000311	U	0.000730	U	0.000289	U	0.000292	U	0.000246	UJ	0.000276	U	0.000304	U
		B-907-25	9/8/17	PES	ESC	45 (dup)	12.61	1.16	U	0.00807	U	0.0129	U	0.00887	U	0.0208	U	0.00825	U	0.00834	U	0.00703	U	0.00789	U	0.00870	U
		B-212-55	9/8/17	PES	ESC	55	2.61	**3.40**	**J**	0.000305	U	0.000490	U	0.000335	U	0.000787	U	0.000311	U	0.000315	U	0.000265	UJ	0.000298	U	0.000328	U
B-213	1	B-213-15	9/5/17	PES	ESC	15	42.42	–		0.000313	U	0.000503	U	0.000344	U	0.000809	U	**0.00289**		0.000323	U	0.000272	U	0.000306	U	0.000337	U
		B-213-21.5	9/5/17	PES	ESC	22	35.92	–		**0.000385**	**J**	**0.000540**	**J**	**0.000991**	**J**	**0.0126**	**J**	**0.00263**		0.000291	U	0.000245	U	0.000275	U	0.000303	U
		B-213-35	9/5/17	PES	ESC	35	22.42	–		0.000292	U	0.000470	U	0.000322	U	0.000756	U	0.000299	U	0.000302	U	0.000254	U	0.000286	U	0.000315	U
		B-213-45	9/5/17	PES	ESC	45	12.42	–		0.000299	U	0.000481	U	0.000329	U	0.000774	U	0.000306	U	0.000309	U	0.000260	U	0.000293	U	0.000323	U
		B-213-55	9/5/17	PES	ESC	55	2.42	–		0.000294	U	0.000472	U	0.000323	U	0.000760	U	0.000300	U	0.000304	U	0.000256	U	0.000287	U	0.000317	U
B-214	1	B-214-15	9/7/17	PES	ESC	15	42.42	–		0.000290	U	0.000465	U	0.000318	U	0.000748	U	0.000296	U	0.000299	U	0.000252	UJ	0.000283	U	0.000312	U
		B-214-25	9/7/17	PES	ESC	25	32.42	–		0.000285	U	0.000459	U	0.000314	U	0.000738	U	0.000292	U	0.000295	U	0.000248	UJ	0.000279	U	0.000308	U
		B-214-35	9/7/17	PES	ESC	35	22.42	–		0.000293	U	0.000471	U	0.000322	U	0.000758	U	0.000300	U	0.000303	U	0.000255	UJ	0.000287	U	0.000316	U
		B-214-45	9/7/17	PES	ESC	45	12.42	–		0.000287	U	0.000462	U	0.000316	U	0.000743	U	0.000294	U	0.000297	U	0.000250	UJ	0.000281	U	0.000310	U
		B-214-55	9/7/17	PES	ESC	55	2.42	–		**0.000343**	**J**	0.000482	U	0.000330	U	0.000775	U	0.000306	U	0.000310	U	0.000261	UJ	0.000293	U	0.000323	U
B-215	1	B-215-15	9/12/17	PES	ESC	15	38.95	–		0.000293	U	0.000471	U	0.000322	U	0.000757	U	0.000299	U	0.000303	U	0.000255	U	0.000286	U	0.000316	U
		B-215-25	9/12/17	PES	ESC	25	28.95	–		0.000289	U	0.000464	U	0.000318	U	0.000747	U	**0.00480**		0.000299	U	0.000252	U	0.000283	U	0.000311	U
		B-215-35	9/12/17	PES	ESC	35	18.95	–		0.000318	U	0.000512	U	0.000350	U	0.000823	U	**0.0277**		**0.00195**		**0.0620**		0.000311	U	0.000343	U
MW102 (B102)	1	B102-20	7/17/12	SES	F&BI	20	29.19	–		–		–		–		–		0.025	U	0.03	U	0.05	U	0.05	U	0.05	U
		B102-30	7/17/12	SES	F&BI	30	19.19	–		–		–		–		–		0.025	U	0.03	U	0.05	U	0.05	U	0.05	U
		B102-38	7/17/12	SES	F&BI	38	11.19	–		–		–		–		–		0.025	U	0.03	U	0.05	U	0.05	U	0.05	U
		B102-40	7/17/12	SES	F&BI	40	9.19	–		–		–		–		–		–		–		–		–		–	
MW104 (B104)	1	B104-10	7/30/12	SES	F&BI	10	32.68	–		–		–		–		–		0.025	U	0.03	U	0.05	U	0.05	U	0.05	U
		B104-20	7/30/12	SES	F&BI	20	22.68	–		–		–		–		–		0.025	U	0.03	U	0.05	U	0.05	U	0.05	U
		B104-30	7/30/12	SES	F&BI	30	12.68	–		–		–		–		–		**1.8**		**0.086**		**0.14**		0.05	U	0.05	U
		B104-35	7/30/12	SES	F&BI	35	7.68	–		–		–		–		–		**7.1**		**0.23**		**0.099**		0.05	U	0.05	U
MW107 (B107)	1	B107-05	3/12/12	SES	F&BI	5	38.82	2	U	0.03	U	0.05	U	0.05	U	0.15	U	0.025	U	0.03	U	0.05	U	0.05	U	0.05	U
		B107-15	3/12/12	SES	F&BI	15	28.82	2	U	0.03	U	0.05	U	0.05	U	0.15	U	0.025	U	0.03	U	0.05	U	0.05	U	0.05	U
		B107-25	3/12/12	SES	F&BI	25	18.82	2	U	0.03	U	0.05	U	0.05	U	0.15	U	**0.60**		**0.063**		**0.060**		0.05	U	0.05	U

Table 3

Soil Analytical Results for Petroleum Hydrocarbons and CVOCs
Soil Management Areas
Former American Linen Supply
700 Dexter Avenue North, Seattle, Washington

Sample Location	Soil Management Area	Sample ID	Sample Date	Sampled By	Lab	Sample Depth (feet bgs)	Sample Elevation (feet NAVD 88)	Analytical Reslts (milligrams per kilogram)															
								GRO		Benzene		Toluene		Ethylbenzene		Total Xylenes		PCE		TCE		cDCE		tDCE		VC	
Contained-In Criteria								–		–		–		–		–		**14**		**10**		**160**		–		**0.67**	
MW112 (B112)	1	B112-10	11/12/12	SES	F&BI	10	47.49	–		–		–		–		–		0.025	U	0.03	U	0.05	U	0.05	U	0.05	U
		B112-20	11/12/12	SES	F&BI	20	37.49	–		–		–		–		–		0.025	U	0.03	U	0.05	U	0.05	U	0.05	U
		B112-30	11/12/12	SES	F&BI	30	27.49	–		–		–		–		–		0.025	U	0.03	U	0.05	U	0.05	U	0.05	U
		B112-40	11/12/12	SES	F&BI	40	17.49	–		–		–		–		–		0.025	U	0.03	U	0.05	U	0.05	U	0.05	U
		B112-50	11/12/12	SES	F&BI	50	7.49	–		–		–		–		–		0.025	U	0.03	U	0.05	U	0.05	U	0.05	U
MW121 (B121)	1	B121-15	12/16/13	SES	F&BI	15	26.72	2	U	0.3	U	0.05	U	0.05	U	0.15	U	0.025	U	0.03	U	0.05	U	0.05	U	0.05	U
		B121-25	12/16/13	SES	F&BI	25	16.72	2	U	0.3	U	0.05	U	0.05	U	0.15	U	0.025	U	0.03	U	0.05	U	0.05	U	0.05	U
MW124 (B124)	1	B124-10	12/19/13	SES	F&BI	10	46.24	2	U	–		–		–		–		–		–		–		–		–	
		B124-20	12/19/13	SES	F&BI	20	36.24	2	U	0.03	U	0.05	U	0.05	U	0.15	U	0.025	U	0.03	U	0.05	U	0.05	U	0.05	U
		B124-30	12/19/13	SES	F&BI	30	26.24	2	U	0.03	U	0.05	U	0.05	U	0.15	U	0.025	U	0.03	U	0.05	U	0.05	U	0.05	U
		B124-40	12/19/13	SES	F&BI	40	16.24	2	U	0.03	U	0.05	U	0.05	U	0.15	U	0.025	U	0.03	U	0.05	U	0.05	U	0.05	U
		B124-50	12/19/13	SES	F&BI	50	6.24	–		0.03	U	0.05	U	0.05	U	0.15	U	0.025	U	0.03	U	0.05	U	0.05	U	0.05	U
MW-138	1	MW-138-15	9/12/17	PES	ESC	15	42.48	–		0.000321	U	0.000516	U	0.000353	U	0.000830	U	0.000328	U	0.000332	U	0.000279	U	0.000314	U	0.000346	U
		MW-138-25	9/12/17	PES	ESC	25	32.48	–		0.000311	U	0.000500	U	0.000342	U	0.000804	U	0.000318	U	0.000321	U	0.000271	U	0.000304	U	0.000335	U
		MW-138-35	9/12/17	PES	ESC	35	22.48	–		0.000288	U	0.000464	U	0.000317	U	0.000746	U	0.000295	U	0.000298	U	0.000251	U	0.000282	U	0.000311	U
		MW-138-45	9/12/17	PES	ESC	45	12.48	–		0.000285	U	0.000459	U	0.000314	U	0.000738	U	0.000292	U	0.000295	U	0.000248	U	0.000279	U	0.000308	U
		MW-138-56	9/12/17	PES	ESC	56	1.48	–		0.000304	U	0.000488	U	0.000334	U	0.000785	U	0.000310	U	0.000314	U	0.000264	U	0.000297	U	0.000327	U
MW-140	1	MW-140-15	8/30/17	PES	ESC	15	35.57	–		0.000308	U	0.000495	U	0.000339	U	0.000796	U	0.000315	U	0.000318	U	0.000268	U	0.000301	U	0.000332	U
		MW-140-25	8/30/17	PES	ESC	25	25.57	–		0.000293	U	0.000471	U	0.000322	U	0.000757	U	**0.147**		**0.0107**		**0.00199**		0.000286	U	0.000316	U
		MW-140-35	8/30/17	PES	ESC	35	15.57	–		0.00786	U	0.0126	U	0.00865	U	0.0203	U	**15.1**		**0.629**		**0.387**		0.00769	U	**0.0107**	**J**
		MW-140-45	8/30/17	PES	ESC	45	5.57	–		0.000288	U	0.000463	U	0.000317	U	0.000745	U	**4.27**		**0.0793**		**0.0431**		0.000282	U	**0.00160**	
MW-160	1	MW-160-11	5/8/18	PES	ESC	11	31.50	–		0.000649	U	**0.00635**	**J**	0.000860	U	0.00776	U	0.00114	U	0.000649	U	0.00112	U	0.00232	U	0.00110	U
		MW-160-21	5/8/18	PES	ESC	21	21.50	–		**0.000662**	**J**	**0.00421**	**J**	0.000621	U	0.00560	U	**0.000966**	**J**	0.000469	U	**0.00357**		0.00168	U	0.000801	U
		MW-160-31	5/8/18	PES	ESC	31	11.50	–		**0.000503**	**J**	**0.00285**	**J**	0.000643	U	0.00580	U	0.000849	U	0.000485	U	0.000837	U	0.00173	U	0.000828	U
		MW-160-40	5/8/18	PES	ESC	40	2.50	–		0.000454	U	**0.00196**	**J**	0.000602	U	0.00543	U	**0.281**		**0.100**		**0.151**		**0.00373**	**J**	0.000775	U
MW-161	1	MW-161-11	5/14/18	PES	ESC	11	32.82	–		0.00123	U	0.00615	U	0.00307	U	0.00799	U	**0.00523**		0.00123	U	**0.00563**		0.00615	U	0.00307	U
		MW-161-21	5/14/18	PES	ESC	21	22.82	–		0.00104	U	0.00520	U	0.00260	U	0.00676	U	0.00260	U	0.00104	U	**0.00364**		0.00520	U	0.00260	U
		MW-161-31	5/14/18	PES	ESC	31	12.82	–		0.00114	U	0.00572	U	0.00286	U	0.00744	U	**0.0159**		**0.00196**		**0.00387**		0.00572	U	0.00286	U
		MW-161-40	5/14/18	PES	ESC	40	3.82	–		0.00110	U	0.00552	U	0.00276	U	0.00717	U	**0.00438**		**0.00132**		**0.376**		0.00552	U	0.00276	U
R-MW6	1	Unknown	10/27/92	Roux	Unknown	6	39.28	–		–		–		–		–		0.005	U	0.005	U	–		0.005	U	0.010	U
		Unknown	10/27/92	Roux	Unknown	11	34.28	–		–		–		–		–		0.005	U	0.005	U	–		0.005	U	0.010	U
		Unknown	10/27/92	Roux	Unknown	16	29.28	–		–		–		–		–		0.005	U	0.005	U	–		0.005	U	0.010	U
W-MW-01 (P-03)	1	SB-W-03-0160	1/27/12	WW	ARI	16-16.5	28.38	–		0.0010	U	**0.0006**	**J**	0.0010	U	0.0020	U	0.0010	U	0.0010	U	**0.0006**	**J**	0.0010	U	0.0010	U
		SB-W-03-0225	1/27/12	WW	ARI	22.5-23	21.88	–		0.0009	U	**0.0007**	**J**	0.0009	U	0.0018	U	**0.03**	**B**	**0.0018**		**0.0021**		0.0009	U	0.0009	U
		SB-W-03-0315	1/27/12	WW	ARI	31.5-32	12.88	–		0.21	U	0.21	U	0.21	U	0.42	U	**16**	**B**	**0.59**		**0.48**		0.21	U	0.21	U

Table 3

Soil Analytical Results for Petroleum Hydrocarbons and CVOCs
Soil Management Areas
Former American Linen Supply
700 Dexter Avenue North, Seattle, Washington

Sample Location	Soil Management Area	Sample ID	Sample Date	Sampled By	Lab	Sample Depth (feet bgs)	Sample Elevation (feet NAVD 88)	Analytical Reslts (milligrams per kilogram)																	
								GRO	Benzene		Toluene		Ethylbenzene		Total Xylenes		PCE		TCE		cDCE		tDCE		VC	
						Contained-In Criteria		–	–		–		–		–		**14**		**10**		**160**		–		**0.67**	
W-MW-02 (P-06)	1	SB-W-06-0900	1/29/12	WW	ARI	9-9.5	33.96	–	**0.0009**	**J**	0.0013	U	0.0013	U	0.0026	U	**0.058**	**T**	**0.0081**		0.0013	U	0.0013	U	0.0013	U
		SB-W-06-0185	1/29/12	WW	ARI	18.5-19	24.46	–	**0.0008**	**J**	**0.0006**	**J**	0.0009	U	0.0018	U	0.0009	UT	0.0009	U	0.0009	U	0.0009	U	0.0009	U
		SB-W-06-0305	1/30/12	WW	ARI	30.5-31	12.60	–	0.27	U	0.27	U	0.27	U	0.34	U	**18**		**0.41**		**0.4**		0.27	U	0.27	U
		SB-W-06-0380	1/30/12	WW	ARI	38-38.5	4.96	–	0.046	U	0.046	U	0.046	U	0.092	U	**0.14**		**0.057**		**0.52**		0.046	U	0.046	U
		SB-W-06-0405	1/30/12	WW	ARI	40.5-41	2.46	–	0.036	U	0.036	U	0.036	U	0.072	U	**5.2**		**0.2**		**0.15**		0.036	U	0.036	U

Notes:

1. PHCs Analyzed by Method WTPH-HCID, Method 418.1, EPA Method 8020, EPA Method 8015M, or NWTPH-Gx.
2. VOCs Analyzed by EPA Methods 8010, 8020, 8021B, 8260B, 624/8240, or 8260C.

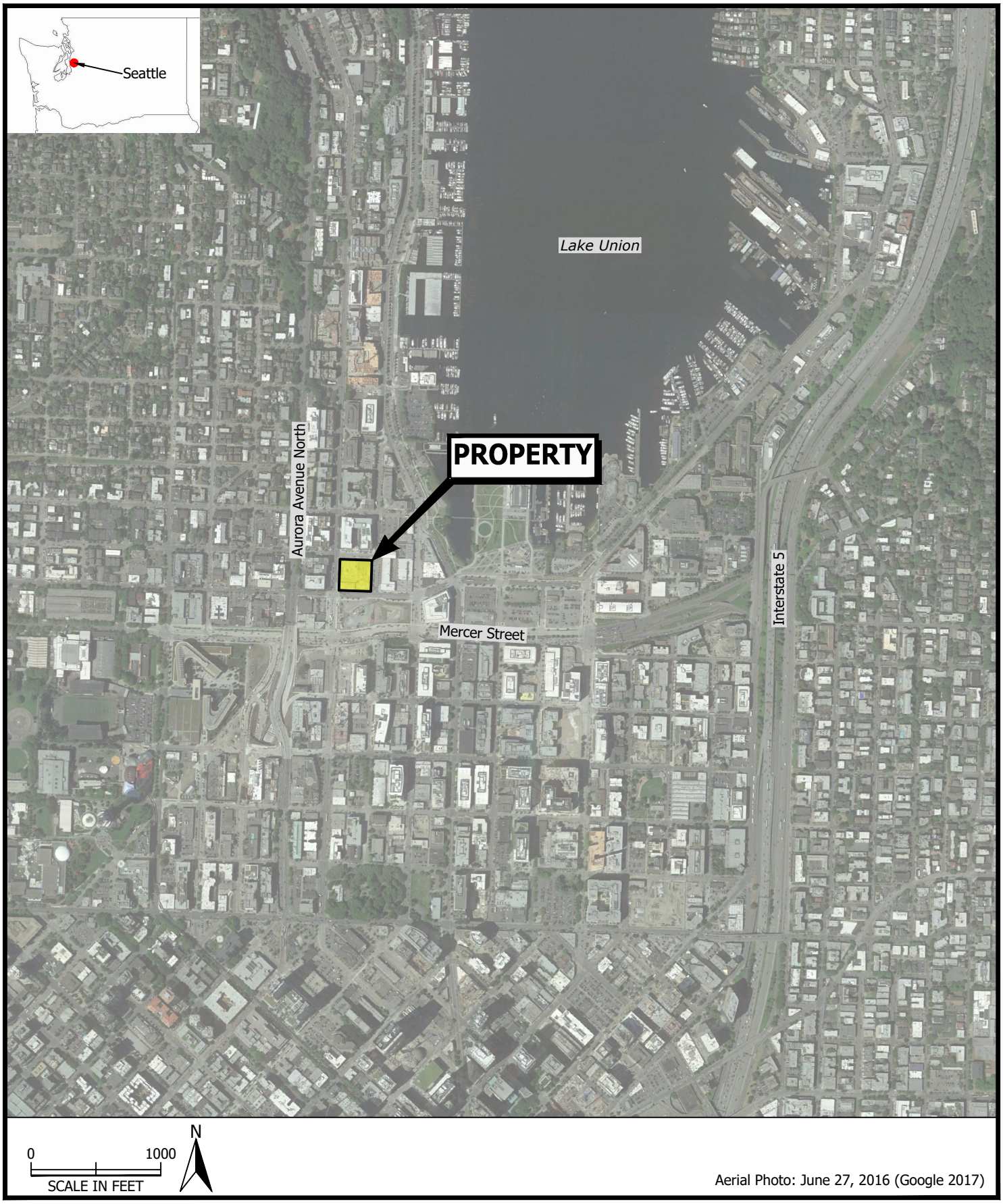
Laboratory and Results Notes:

4. Detected results shown in bold, detections above the criteria for contained-in disposal highlighted in gray
5. – =results not available or results not analyzed/measured
6. B = Analyte detected in an associated method blank.
7. J = The reported concentration is an estimate based on detectable results between the method detection limit and reporting limit, laboratory QA/QC, or data validation review.
8. J+ = The result is an estimated quanitity, but the result may be biased high.
9. J- = The result is an estimated quanitity, but the result may be biased low.
10. q = Sample may contain gasoline or petroleum components. Chromatographic pattern indicates the presence of gasoline constituents.
11. R = The data is unusable. The sample result is rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample
12. T = Analyte also detected in trip blank.
13. U = Not detected at a concentration exceeding laboratory reporting limit
14. ve = Estimated value. The reported range exceeds the calibration range of the analysis.
15. z = Gasoline/petroleum detection result is likely elevated due to high detections of CVOCs.

Abbreviations:

16 . PCE = perchloroethylene (tetrachloroethene)
17. ARI = Analytical Resource, Incorporated, Seattle, Washington
18. bgs = below ground surface
19. cDCE = cis1-2,-dichloroethene
20. CLARC = cleanup levels and risk calculations
21. CVOCs = chlorinated volatile organic compounds
22. Comp = Composite Sample
23. dup = duplicate
24. EPJ = E.PJohnson Construction Inc., and Environmental
25. ESC = ESC Lab Services
26. F&BI = Friedman & Bruya, Inc.
27. GRO = gasoline-range petroleum hydrocarbons
28. HCID = hydrocarbon identification
29. MTCA = Washington State Model Toxics Control Act
30. NWTPH = Northwest Total Petroleum Hydrocarbon
31. Pace = Pace Analytical
32. PCE = perchloroethylene (tetrachloroethene)
33. PES = PES Environmental, Inc.
34. PHCs = petroleum hydrocarbons
35. Retec = Remediation Technologies, Inc.
36. Roux = Roux Associates
37. SES = SoundEarth Strategies, Inc.
38. TCE = trichloroethylene
39. tDCE = trans-1,2-dichloroethene
40. TR = TR Corporation
41. Urban = Urban Redevelopment LLC
42. VC = Vinyl Chloride
43. WAC = Washington Administrative Code
44. WW = WW Environmental LLC

ILLUSTRATIONS



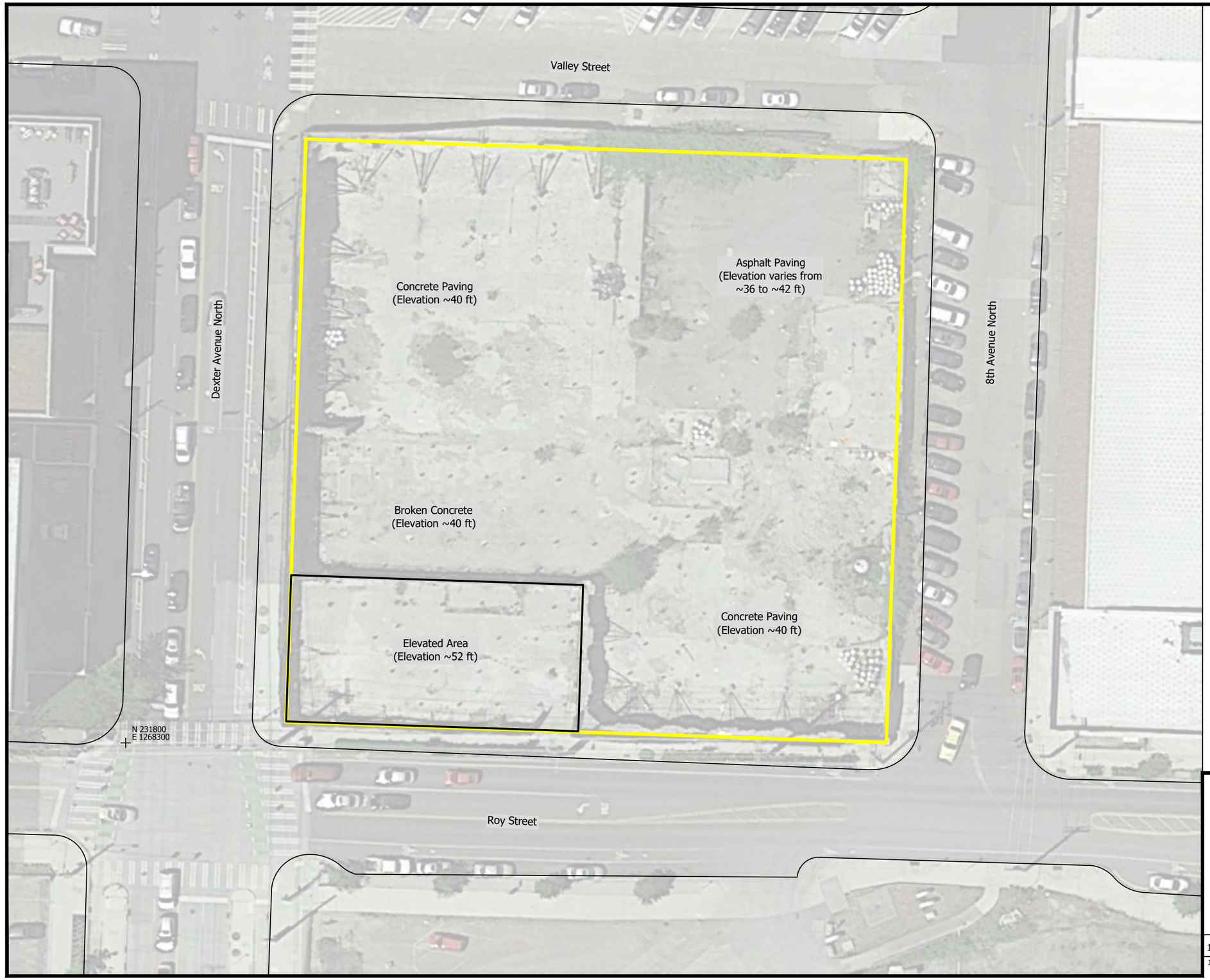
Aerial Photo: June 27, 2016 (Google 2017)

PES Environmental, Inc.
Engineering & Environmental Services

Property Location
Former American Linen Supply
700 Dexter Avenue North
Seattle, Washington

FIGURE
1

1413.004.02.403	141300105401_CMMP_1	BLO	3/19
JOB NUMBER	DRAWING NUMBER	REVIEWED BY	DATE



Explanation

Approximate Property Boundary

N 231800
E 1268300
Coordinate Reference Point
(NAD83, Washington State Plane North, US Feet)
(Vertical Datum NAVD88)

N

0 40

SCALE IN FEET

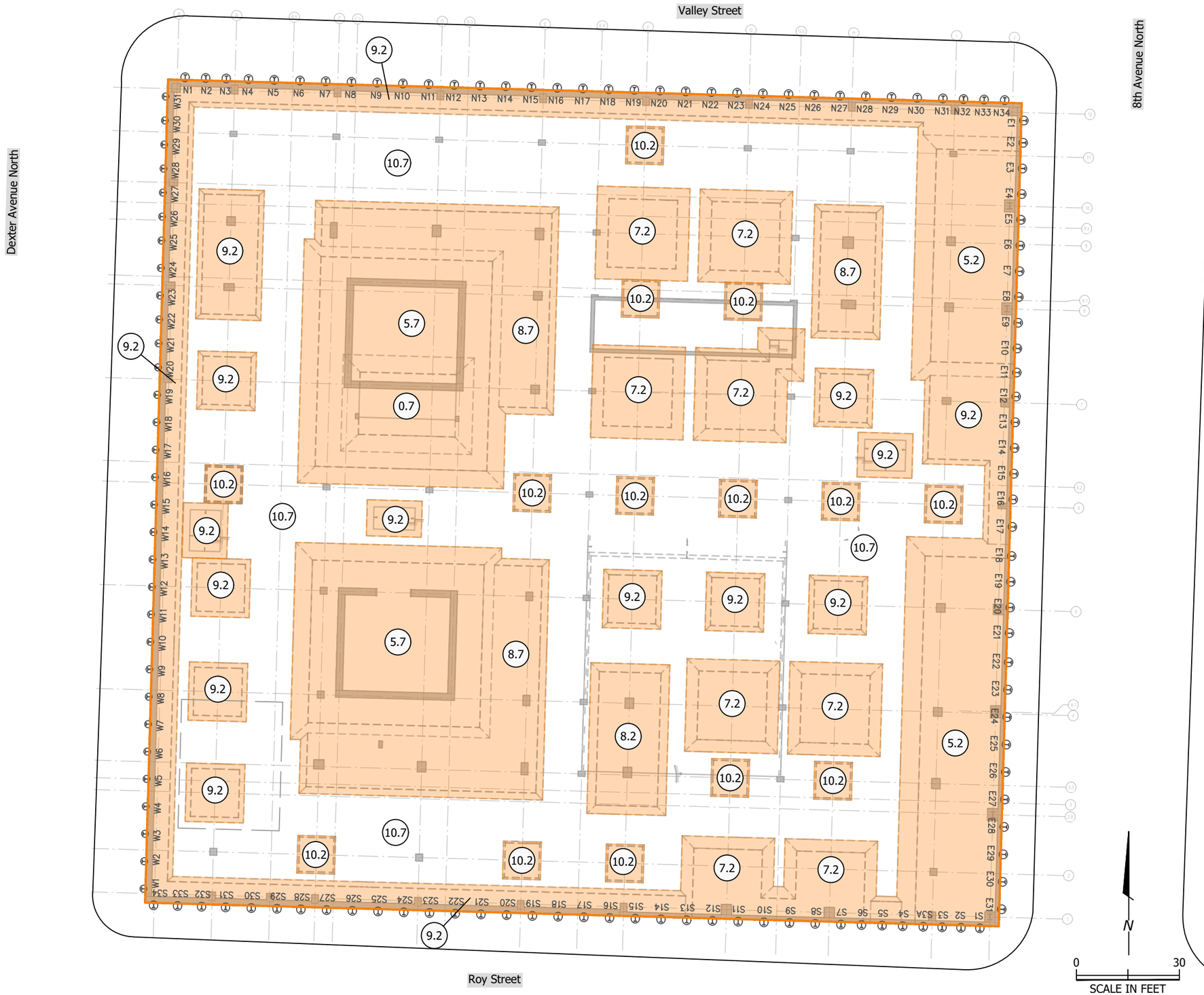
Aerial Photo: June 27, 2016 (Google 2017)

PES Environmental, Inc.
Engineering & Environmental Services

Existing Property Conditions
Former American Linen Supply
700 Dexter Avenue North
Seattle, Washington

FIGURE
2

1413.004.02.404	141300105401_CMMP_2	BLO	3/19
JOB NUMBER	DRAWING NUMBER	REVIEWED BY	DATE



Explanation

Limits of Excavation

5.9 Thickened Slab Section with Elevation Designation

Shoring Wall	Solider Pile Number	Borehole Diameter (feet)	Bottom Elevation (feet)
North	N1 through N29	2.5	0
	N30	2.5	-2
	N31 through N34	2.5	-4
East	E1 through E31	2.5	-4
South	S1 through S3A	2.5	-4
	S4 through S12	2.5	-2
	S13	2.5	-1
	S14 through S27	2.5	0
	S28 through S34	2.5	-7.5
West	W1	2.0	0
	W2 through W5	2.0	-9.5
	W6 through W8	2.0	-14.5
	W9 through W16	2.0	-6
	W17 through W31	2.0	0

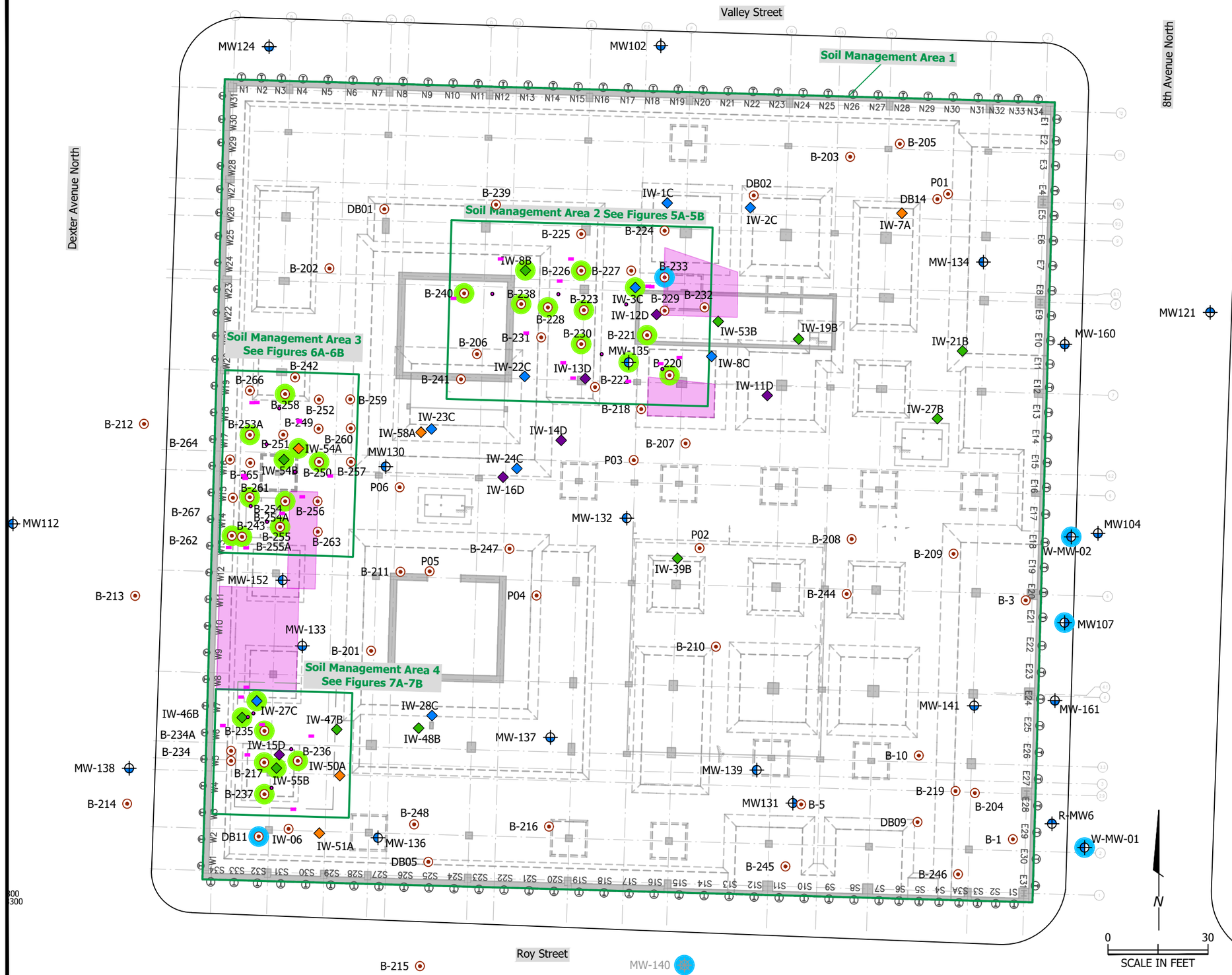
Structural Drawings: Sheet S30/P.3 "Level P3/Foundation Plan" prepared by Magnussen Klemencic Associates

PES Environmental, Inc.
Engineering & Environmental Services

Site Plan and Excavation Limits
Contaminated Media Management Plan
Former American Linen Supply
700 Dexter Avenue North
Seattle, Washington

FIGURE 3

1413.001.05.401	141300105401_CMMP_3-7	BLO	3/19
JOB NUMBER	DRAWING NUMBER	REVIEWED BY	DATE



Explanation

- Limits of Soil Management Areas
- MW101 — Shallow Zone Monitoring Well
- MW107 — Intermediate A Zone Monitoring Well
- W-MW-02 — Intermediate B Zone Monitoring Well
- MW105 — Deep Zone Monitoring Well
- N 231800, E 1268300 — Coordinate Reference Point (NAD83, Washington State Plane North, US Feet)
- IW-8A — Treatment Zone A Injection Well
- IW-20B — Treatment Zone B Injection Well
- IW-6C — Treatment Zone C Injection Well
- IW-14D — Treatment Zone D Injection Well
- B-256 — Soil Boring Location
- MW-140 — Destroyed/Abandoned Monitoring Well
- Soldier Pile Location
  Note: Soldier Piles and other shoring system components (tie backs and soil nails) are included in Soil Management Area 1
- Sample Location has PCE data exceeding 14 mg/kg above elevation zero and above elevation 0 feet
- Sample Location has PCE data exceeding 14 mg/kg above elevation zero but below planned excavation depth or off-property
- Area to be over-excavated below the minimum design elevation down to elevation 5 feet

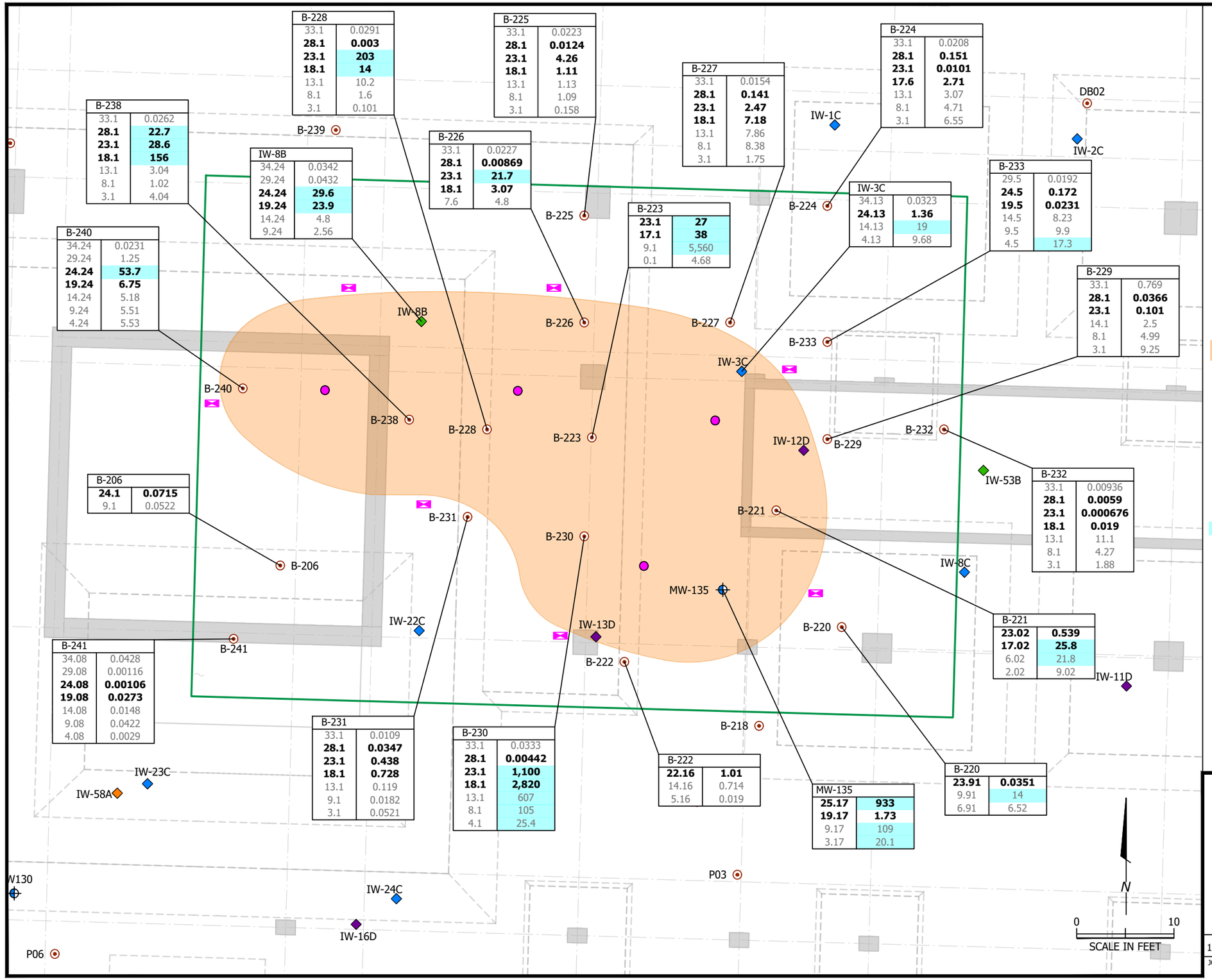
Structural Drawings: Sheet S30/P.3 "Level P3/Foundation Plan" prepared by Magnussen Klemencic Associates

PES Environmental, Inc.
Engineering & Environmental Services

Soil Management Areas
Contaminated Media Management Plan
Former American Linen Supply
700 Dexter Avenue North
Seattle, Washington

FIGURE 4

1413.001.05.401	141300105401_CMMP_3-7	BLO	3/19
JOB NUMBER	DRAWING NUMBER	REVIEWED BY	DATE



Explanation

- MW101 — Shallow Zone Monitoring Well
- MW107 — Intermediate A Zone Monitoring Well
- W-MW-02 — Intermediate B Zone Monitoring Well
- MW105 — Deep Zone Monitoring Well
- N 231800, E 1268300 — Coordinate Reference Point (NAD83, Washington State Plane North, US Feet)
- IW-8A — Treatment Zone A Injection Well
- IW-20B — Treatment Zone B Injection Well
- IW-6C — Treatment Zone C Injection Well
- IW-14D — Treatment Zone D Injection Well
- B-256 — Soil Boring Location
- Preliminary Perimeter Test Pit Location
- Preliminary Overburden Soil Sampling Location

Notes:

1. Soils above elevation 28.5 ft contain PCE at concentrations below 14 mg/kg and will be managed as contained-in soil.
2. Soils outside of the shaded area contain PCE at concentrations below 14 mg/kg and will be managed as contained-in soil.
3. Soils in shaded area have PCE concentrations above 14 mg/kg and will be treated in situ using chemical oxidation. Once post-treatment testing confirms PCE concentrations have been reduced to below 14 mg/kg, the soil will be managed as contained-in soil.

B-223	
Elevation	PCE
23.1	**27**
17.1	**38**
9.1	5,560
0.1	4.68

Bolded PCE and Elevation values are within target elevation interval (28.5 to 15 ft)

Highlighted PCE Concentrations exceed 14 mg/kg

All values shown in milligrams per kilogram (mg/kg)

Elevations are shown in feet NAVD88

PCE = Tetrachloroethene

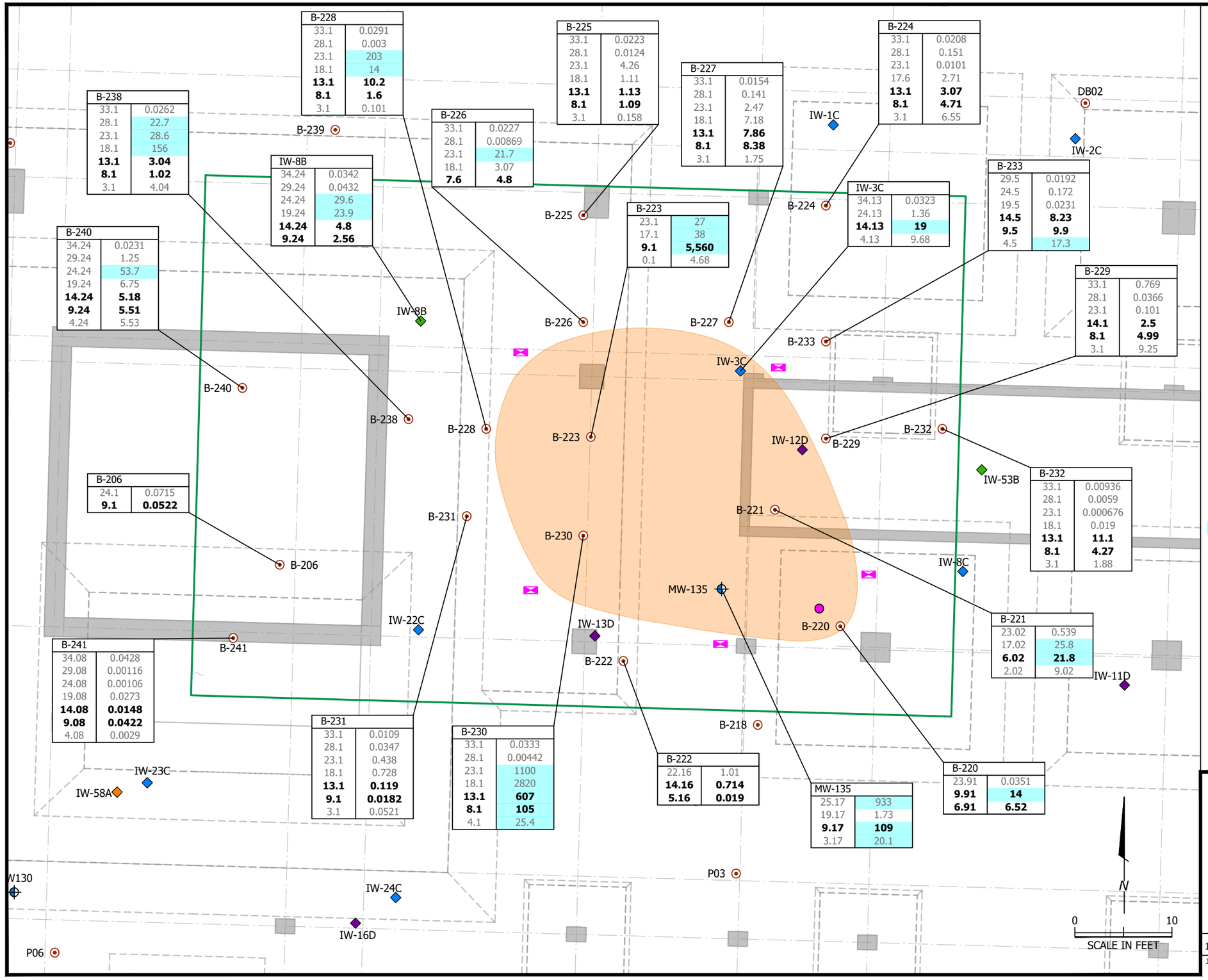
Structural Drawings: Sheet S30/P.3 "Level P3/Foundation Plan" prepared by Magnussen Klemencic Associates

PES Environmental, Inc.
Engineering & Environmental Services

Soil Management Area 2
Elevation Interval 28.5 to 15 ft
Former American Linen Supply
700 Dexter Avenue North
Seattle, Washington

FIGURE
5A

1413.001.05.401	141300105401_CMMP_3-7	BLO	3/19
JOB NUMBER	DRAWING NUMBER	REVIEWED BY	DATE



Explanation

- MW101 — Shallow Zone Monitoring Well
- MW107 — Intermediate A Zone Monitoring Well
- W-MW-02 — Intermediate B Zone Monitoring Well
- MW105 — Deep Zone Monitoring Well
- N 231800 / E 1268300 — Coordinate Reference Point (NAD83, Washington State Plane North, US Feet)
- IW-8A — Treatment Zone A Injection Well
- IW-20B — Treatment Zone B Injection Well
- IW-6C — Treatment Zone C Injection Well
- IW-14D — Treatment Zone D Injection Well
- B-256 — Soil Boring Location
- Preliminary Perimeter Test Pit Location
- Preliminary Overburden Soil Sampling Location

Notes:

1. Soils outside of the shaded area contain PCE at concentrations below 14 mg/kg and will be managed as contained-in soil.
2. Soils in shaded area have PCE concentrations above 14 mg/kg and will be treated in situ using chemical oxidation. Once post-treatment testing confirms PCE concentrations have been reduced to below 14 mg/kg, the soil will be managed as contained-in soil.

B-223	
Elevation	PCE
23.1	27
17.1	38
9.1	**5,560**
0.1	4.68

Bolded PCE and Elevation values are within target elevation interval (15 to 5 ft)
Highlighted PCE Concentrations exceed 14 mg/kg
All values shown in milligrams per kilogram (mg/kg)
Elevations are shown in feet NAVD88
PCE = Tetrachloroethene

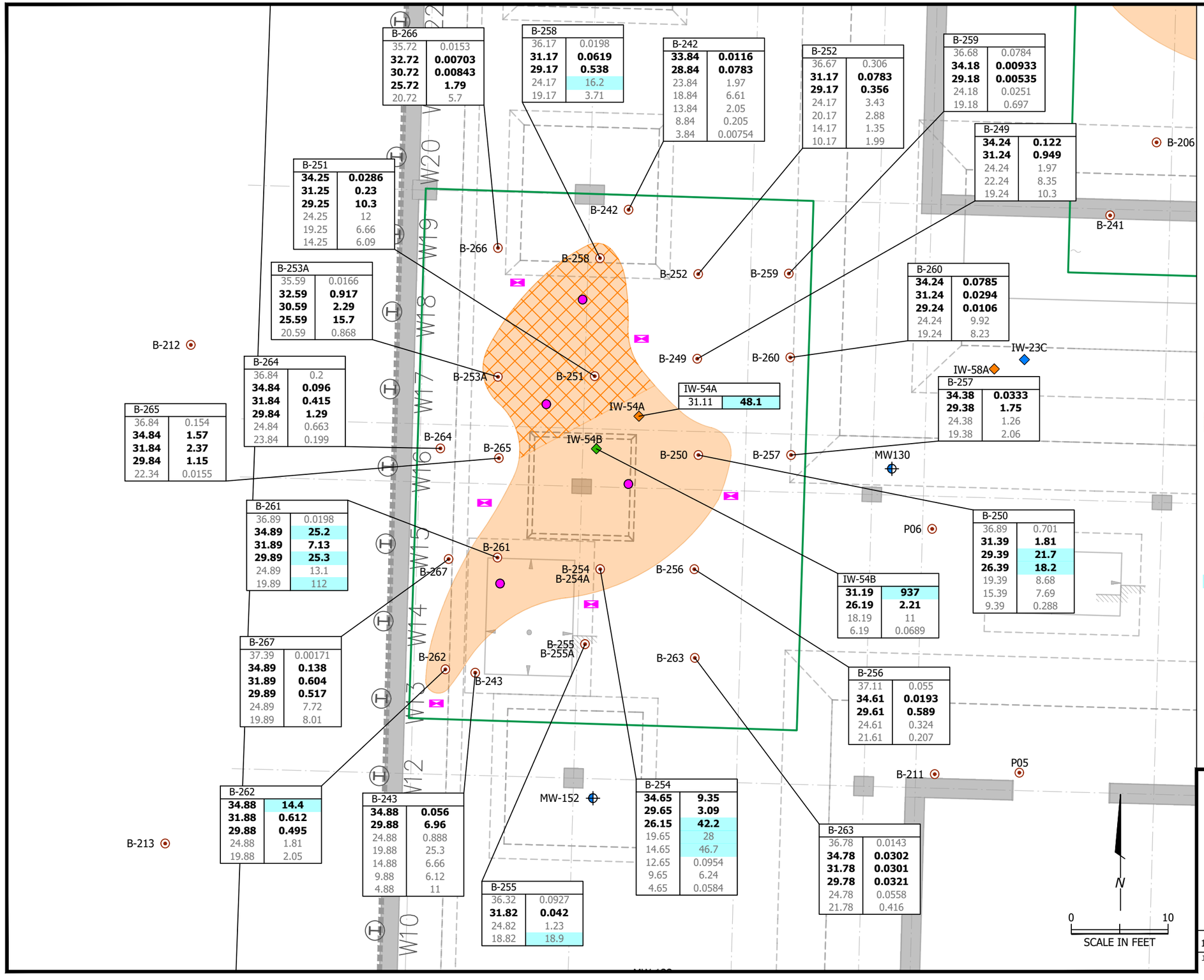
Structural Drawings: Sheet S30/P.3 "Level P3/Foundation Plan" prepared by Magnussen Klemencic Associates

PES Environmental, Inc.
Engineering & Environmental Services

Soil Management Area 2
Elevation Interval 15 to 5 ft
Former American Linen Supply
700 Dexter Avenue North
Seattle, Washington

FIGURE
5B

1413.001.05.401	141300105401_CMMP_3-7	BLO	3/19
JOB NUMBER	DRAWING NUMBER	REVIEWED BY	DATE



Explanation

- MW101 — Shallow Zone Monitoring Well
- MW107 — Intermediate A Zone Monitoring Well
- W-MW-02 — Intermediate B Zone Monitoring Well
- MW105 — Deep Zone Monitoring Well
- N 231800 / E 1268300 — Coordinate Reference Point (NAD83, Washington State Plane North, US Feet)
- IW-8A — Treatment Zone A Injection Well
- IW-20B — Treatment Zone B Injection Well
- IW-6C — Treatment Zone C Injection Well
- IW-14D — Treatment Zone D Injection Well
- B-256 — Soil Boring Location
- Preliminary Perimeter Test Pit Location
- Preliminary Overburden Soil Sampling Location

Notes:

1. Soils above elevation 35 ft contain PCE at concentrations below 14 mg/kg and will be managed as contained-in soil.
2. Soils outside of the shaded area contain PCE at concentrations below 14 mg/kg and will be managed as contained-in soil.
3. Soils in shaded area have PCE concentrations above 14 mg/kg and will be treated in situ using chemical oxidation. Once post-treatment testing confirms PCE concentrations have been reduced to below 14 mg/kg, the soil will be managed as contained-in soil.
4. Soils in hatched area only exceeds 14 mg/kg in the depth interval between 27.5 ft and 25 ft. Soils in this interval will be managed per Note 3. Soils above this interval will be managed as contained-soil.

IW-54B	
Elevation	PCE
31.19	**937**
26.19	**2.21**
18.19	11
6.19	0.0689

Bolded PCE and Elevation values are within target elevation interval (35 to 25 ft)
Highlighted PCE Concentrations exceed 14 mg/kg
All values shown in milligrams per kilogram (mg/kg)
Elevations are shown in feet NAVD88
PCE = Tetrachloroethene

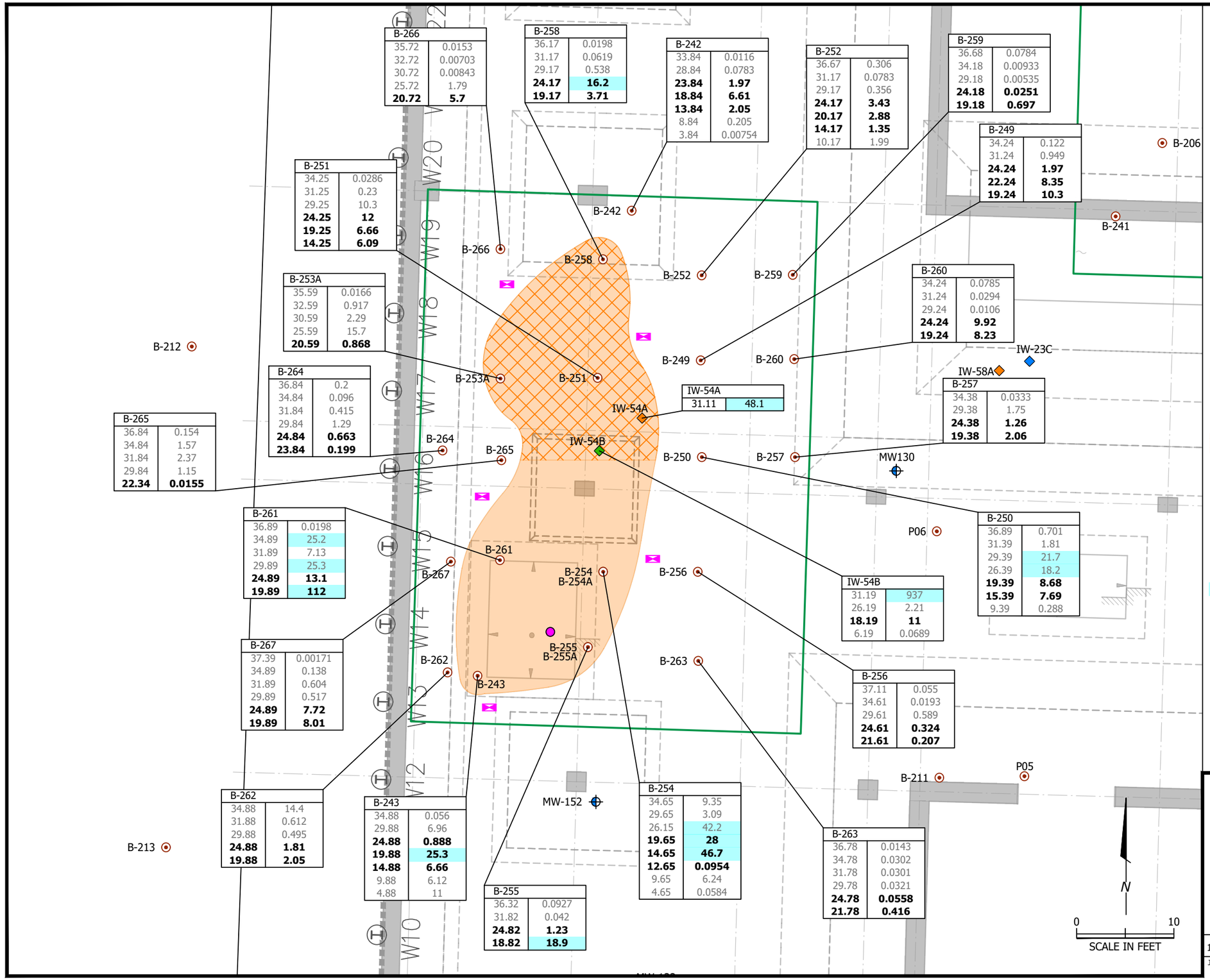
Structural Drawings: Sheet S30/P.3 "Level P3/Foundation Plan" prepared by Magnussen Klemencic Associates

PES Environmental, Inc.
Engineering & Environmental Services

Soil Management Area 3
Elevation Interval 35 to 25 ft
Former American Linen Supply
700 Dexter Avenue North
Seattle, Washington

FIGURE
6A

1413.001.05.401	141300105401_CMMP_3-7	BLO	3/19
JOB NUMBER	DRAWING NUMBER	REVIEWED BY	DATE



Explanation

- MW101 — Shallow Zone Monitoring Well
- MW107 — Intermediate A Zone Monitoring Well
- W-MW-02 — Intermediate B Zone Monitoring Well
- MW105 — Deep Zone Monitoring Well
- N 231800 / E 1268300 — Coordinate Reference Point (NAD83, Washington State Plane North, US Feet)
- IW-8A — Treatment Zone A Injection Well
- IW-20B — Treatment Zone B Injection Well
- IW-6C — Treatment Zone C Injection Well
- IW-14D — Treatment Zone D Injection Well
- B-256 — Soil Boring Location
- Preliminary Perimeter Test Pit Location
- Preliminary Overburden Soil Sampling Location

Notes:

1. Soils between elevation 12.5 ft to the bottom of the excavation contain PCE at concentrations below 14 mg/kg and will be managed as contained-in soil.
2. Soils outside of the shaded area contain PCE at concentrations below 14 mg/kg and will be managed as contained-in soil.
3. Soils in shaded area have PCE concentrations above 14 mg/kg and will be treated in situ using chemical oxidation. Once post-treatment testing confirms PCE concentrations have been reduced to below 14 mg/kg, the soil will be managed as contained-in soil.
4. Soils in hatched area only exceeds 14 mg/kg in the depth interval between 25 ft and 22.5 ft. Soils in this interval will be managed per Note 3. Soils above this interval will be managed as contained-soil.

IW-54B	
Elevation	PCE
31.19	937
26.19	2.21
18.19	**11**
6.19	0.0689

Bolded PCE and Elevation values are within target elevation interval (25 to 12.5 ft)
Highlighted PCE Concentrations exceed 14 mg/kg
All values shown in milligrams per kilogram (mg/kg)
Elevations are shown in feet NAVD88
PCE = Tetrachloroethene

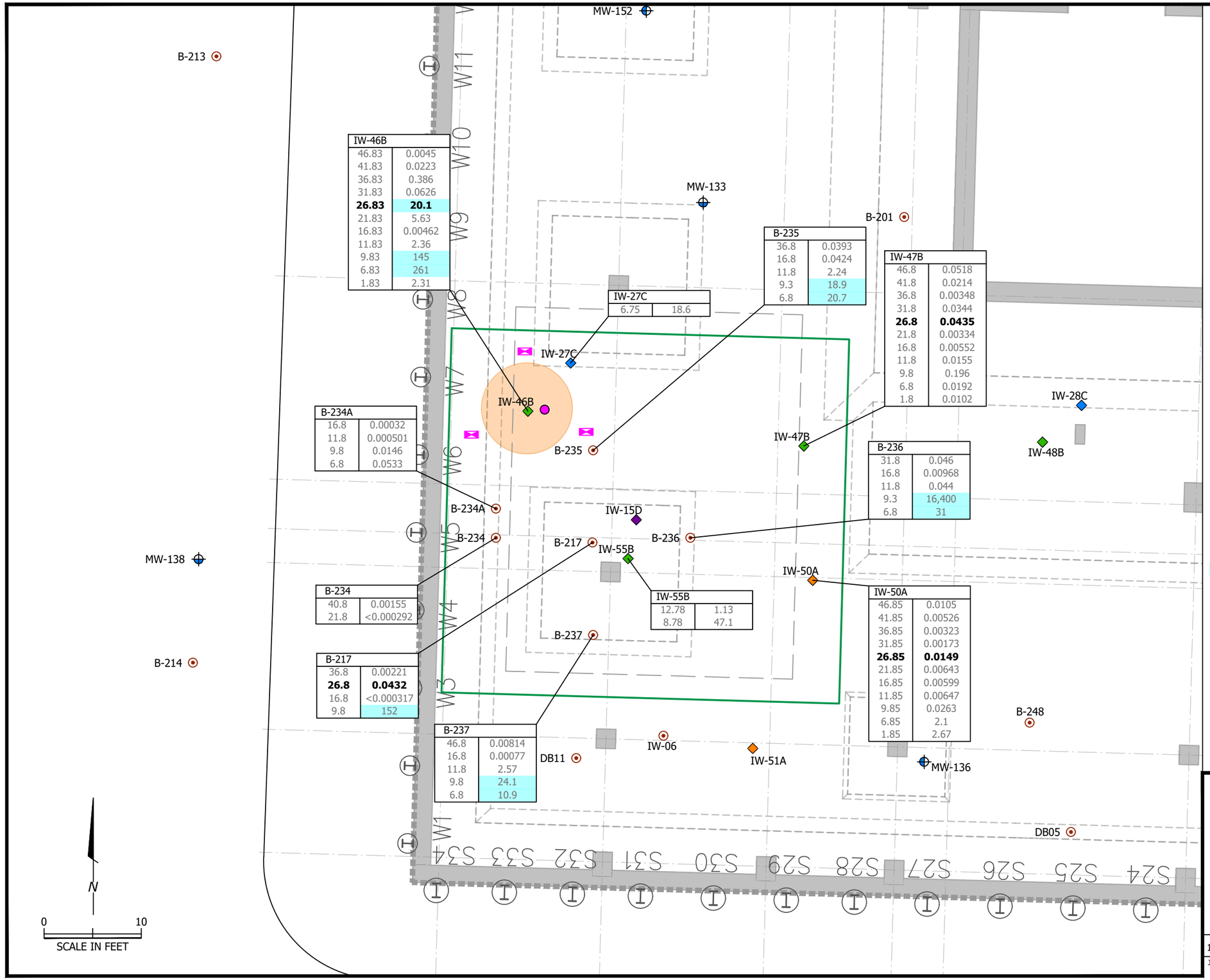
Structural Drawings: Sheet S30/P.3 "Level P3/Foundation Plan" prepared by Magnussen Klemencic Associates

PES Environmental, Inc.
Engineering & Environmental Services

Soil Management Area 3
Elevation Interval 25 to 12.5 ft
Former American Linen Supply
700 Dexter Avenue North
Seattle, Washington

FIGURE
6B

1413.001.05.401	141300105401_CMMP_3-7	BLO	3/19
JOB NUMBER	DRAWING NUMBER	REVIEWED BY	DATE



IW-46B	
46.83	0.0045
41.83	0.0223
36.83	0.386
31.83	0.0626
26.83	**20.1**
21.83	5.63
16.83	0.00462
11.83	2.36
9.83	145
6.83	261
1.83	2.31

IW-27C	
6.75	18.6

B-235	
36.8	0.0393
16.8	0.0424
11.8	2.24
9.3	18.9
6.8	20.7

IW-47B	
46.8	0.0518
41.8	0.0214
36.8	0.00348
31.8	0.0344
26.8	**0.0435**
21.8	0.00334
16.8	0.00552
11.8	0.0155
9.8	0.196
6.8	0.0192
1.8	0.0102

B-234A	
16.8	0.00032
11.8	0.000501
9.8	0.0146
6.8	0.0533

B-236	
31.8	0.046
16.8	0.00968
11.8	0.044
9.3	16,400
6.8	31

IW-55B	
12.78	1.13
8.78	47.1

IW-50A	
46.85	0.0105
41.85	0.00526
36.85	0.00323
31.85	0.00173
26.85	**0.0149**
21.85	0.00643
16.85	0.00599
11.85	0.00647
9.85	0.0263
6.85	2.1
1.85	2.67

B-234	
40.8	0.00155
21.8	<0.000292

B-217	
36.8	0.00221
26.8	**0.0432**
16.8	<0.000317
9.8	152

B-237	
46.8	0.00814
16.8	0.00077
11.8	2.57
9.8	24.1
6.8	10.9

Explanation

- MW101 — Shallow Zone Monitoring Well
- MW107 — Intermediate A Zone Monitoring Well
- W-MW-02 — Intermediate B Zone Monitoring Well
- MW105 — Deep Zone Monitoring Well
- N 231800, E 1268300 — Coordinate Reference Point (NAD83, Washington State Plane North, US Feet)
- IW-8A — Treatment Zone A Injection Well
- IW-20B — Treatment Zone B Injection Well
- IW-6C — Treatment Zone C Injection Well
- IW-14D — Treatment Zone D Injection Well
- B-256 — Soil Boring Location
- Preliminary Perimeter Test Pit Location
- Preliminary Overburden Soil Sampling Location

Notes:

1. Soils above elevation 27.5 ft contain PCE at concentrations below 14 mg/kg and will be managed as contained-in soil.
2. Soils outside of the shaded area contain PCE at concentrations below 14 mg/kg and will be managed as contained-in soil.
3. Soils in shaded area have PCE concentrations above 14 mg/kg and will be treated in situ using chemical oxidation. Once post-treatment testing confirms PCE concentrations have been reduced to below 14 mg/kg, the soil will be managed as contained-in soil.
4. Soils below elevation 22.5 ft down to elevation 12.5 ft contain PCE at concentrations below 14 mg/kg and will be managed as contained-in soil.

Bolded PCE and Elevation values are within target elevation interval (27.5 to 22.5 ft)
Highlighted PCE Concentrations exceed 14 mg/kg
All values shown in milligrams per kilogram (mg/kg)
Elevations are shown in feet NAVD88
PCE = Tetrachloroethene

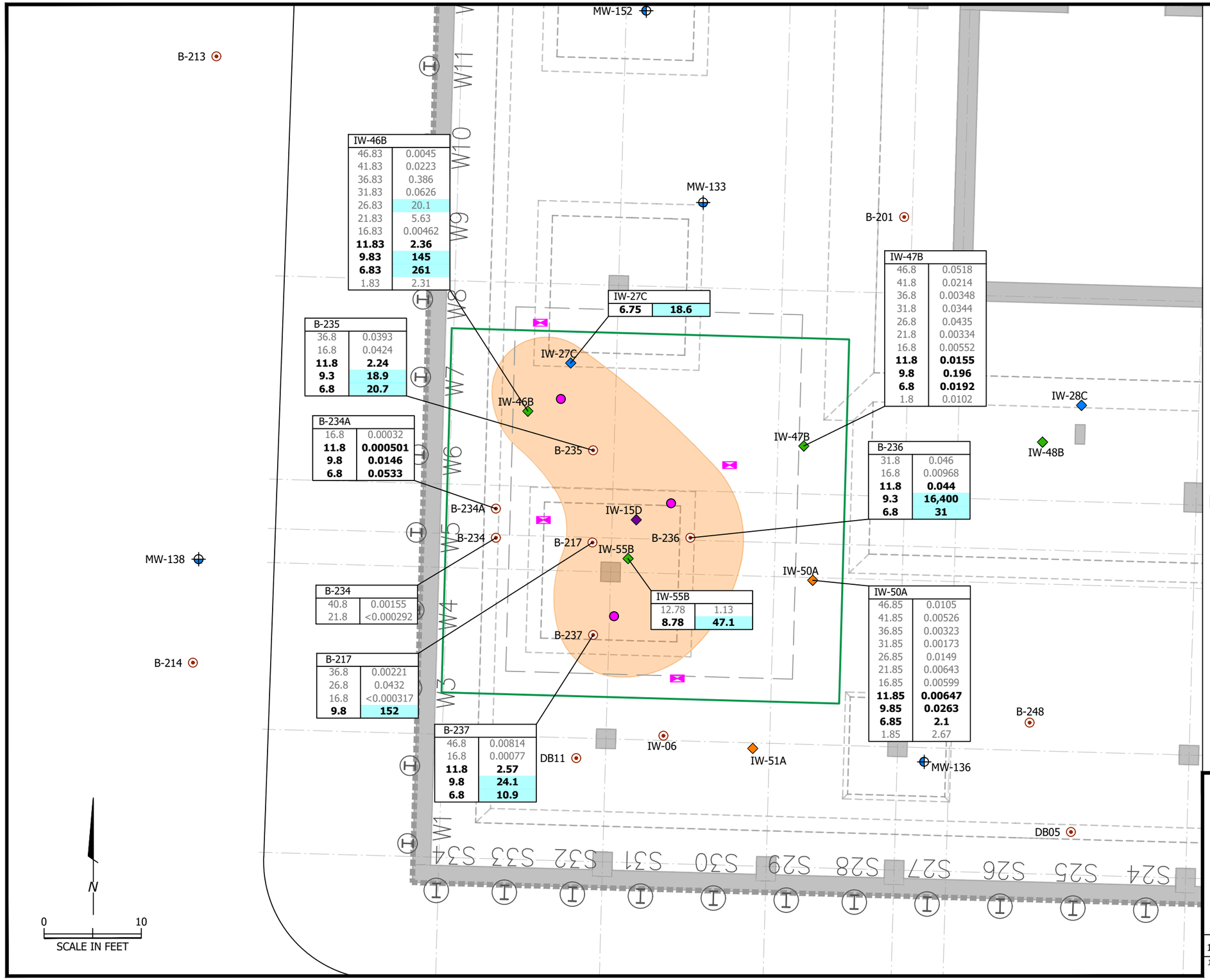
Structural Drawings: Sheet S30/P.3 "Level P3/Foundation Plan" prepared by Magnussen Klemencic Associates

PES Environmental, Inc.
Engineering & Environmental Services

Soil Management Area 4
Elevation Interval 27.5 to 22.5 ft
Former American Linen Supply
700 Dexter Avenue North
Seattle, Washington

FIGURE
7A

1413.001.05.401	141300105401_CMMP_3-7	BLO	3/19
JOB NUMBER	DRAWING NUMBER	REVIEWED BY	DATE



IW-46B	
46.83	0.0045
41.83	0.0223
36.83	0.386
31.83	0.0626
26.83	20.1
21.83	5.63
16.83	0.00462
11.83	**2.36**
9.83	**145**
6.83	**261**
1.83	2.31

IW-27C	
6.75	**18.6**

B-235	
36.8	0.0393
16.8	0.0424
11.8	**2.24**
9.3	**18.9**
6.8	**20.7**

B-234A	
16.8	0.00032
11.8	**0.000501**
9.8	**0.0146**
6.8	**0.0533**

IW-47B	
46.8	0.0518
41.8	0.0214
36.8	0.00348
31.8	0.0344
26.8	0.0435
21.8	0.00334
16.8	0.00552
11.8	**0.0155**
9.8	**0.196**
6.8	**0.0192**
1.8	0.0102

B-236	
31.8	0.046
16.8	0.00968
11.8	**0.044**
9.3	**16,400**
6.8	**31**

IW-55B	
12.78	1.13
8.78	**47.1**

IW-50A	
46.85	0.0105
41.85	0.00526
36.85	0.00323
31.85	0.00173
26.85	0.0149
21.85	0.00643
16.85	0.00599
11.85	**0.00647**
9.85	**0.0263**
6.85	**2.1**
1.85	2.67

B-234	
40.8	0.00155
21.8	<0.000292

B-217	
36.8	0.00221
26.8	0.0432
16.8	<0.000317
9.8	**152**

B-237	
46.8	0.00814
16.8	0.00077
11.8	**2.57**
9.8	**24.1**
6.8	**10.9**

Explanation

- MW101 — Shallow Zone Monitoring Well
- MW107 — Intermediate A Zone Monitoring Well
- W-MW-02 — Intermediate B Zone Monitoring Well
- MW105 — Deep Zone Monitoring Well
- N 231800, E 1268300 — Coordinate Reference Point (NAD83, Washington State Plane North, US Feet)
- IW-8A — Treatment Zone A Injection Well
- IW-20B — Treatment Zone B Injection Well
- IW-6C — Treatment Zone C Injection Well
- IW-14D — Treatment Zone D Injection Well
- B-256 — Soil Boring Location
- Preliminary Perimeter Test Pit Location
- Preliminary Overburden Soil Sampling Location

Notes:

1. Soils outside of the shaded area contain PCE at concentrations below 14 mg/kg and will be managed as contained-in soil.
2. Soils in shaded area have PCE concentrations above 14 mg/kg and will be treated in situ using chemical oxidation. Once post-treatment testing confirms PCE concentrations have been reduced to below 14 mg/kg, the soil will be managed as contained-in soil.

Elevation	PCE
36.8	0.00221
26.8	0.0432
16.8	<0.000317
9.8	**152**

Bolded PCE and Elevation values are within target elevation interval (12.5 to 6 ft)
Highlighted PCE Concentrations exceed 14 mg/kg
All values shown in milligrams per kilogram (mg/kg)
Elevations are shown in feet NAVD88
PCE = Tetrachloroethene

Structural Drawings: Sheet S30/P.3 "Level P3/Foundation Plan" prepared by Magnussen Klemencic Associates

PES Environmental, Inc.
Engineering & Environmental Services

Soil Management Area 4
Elevation Interval 12.5 to 5 ft
Former American Linen Supply
700 Dexter Avenue North
Seattle, Washington

FIGURE
7B

1413.001.05.401	141300105401_CMMP_3-7	BLO	3/19
JOB NUMBER	DRAWING NUMBER	REVIEWED BY	DATE

APPENDIX A

Temporary Shoring Wall Plans

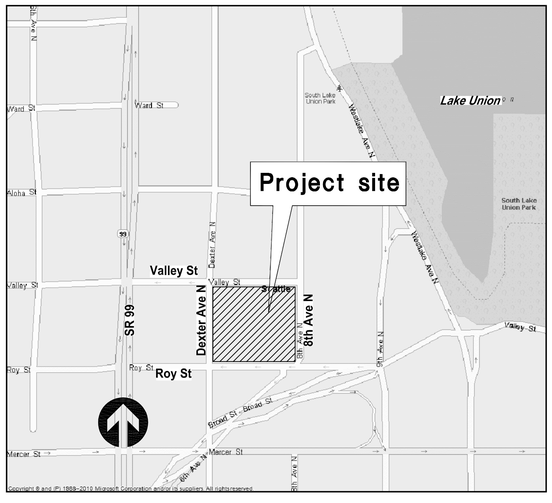
BMR DEXTER LLC

700 DEXTER AVE N

SEATTLE, WASHINGTON

TEMPORARY SHORING WALL PLANS

SHEET NUMBER	SHEET TITLE
SH1.0-1.1	COVER SHEET AND NOTES
SH2.0-2.3	SHORING PLANS
SH3.0-3.3	WALL ELEVATIONS
SH4.0-4.1	CROSS-SECTIONS
SH5.0-5.2	DETAILS



VICINITY MAP

GENERAL:

THE CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL EXISTING DIMENSIONS AND SITE CONDITIONS, DETERMINING ACTUAL LOCATIONS OF ALL EXISTING UTILITIES SHOWN ON THE PLANS AND THOSE UTILITIES OR UNDERGROUND OBSTRUCTIONS NOT SHOWN ON THE PLANS, AND FOR REMOVAL OF ALL ABANDONED UTILITIES, OR OTHER UNDERGROUND OBSTRUCTIONS THAT INTERFERE WITH THE NEW CONSTRUCTION.

THE CONTRACTOR IS RESPONSIBLE FOR THE CONSTRUCTION PROCESS AND THE SAFETY OF THE WORKERS. THIS INCLUDES BUT IS NOT LIMITED TO, THE CONSTRUCTION SEQUENCE, TEMPORARY HANDRAILS, EXCAVATION ACCESS, AND BARRIERS. IT ALSO INCLUDES LIFTING OF MATERIALS AND CONSTRUCTION EQUIPMENT INTO AND OUT OF THE EXCAVATION, TEMPORARY BRACING OF FORMWORK, TEMPORARY SHORING OF EXCAVATIONS, AND STABILITY OF ALL TEMPORARY CUT SLOPES.

REFERENCE DATA:

THE EXISTING SITE, TOPOGRAPHICAL, AND UTILITY DATA; THE PROPOSED GRADES AND UTILITIES; THE DIMENSIONS AND DEPTHS OF THE PROPOSED FOUNDATIONS; AND THE PROPOSED SHORING WALL LOCATIONS ARE BASED ON THE FOLLOWING:

- SELECTED SHEETS FROM THE PLAN SET TITLED: "DEXTER YARD, 700 DEXTER AVE N, SEATTLE, WA. 98109", DATED MARCH 9, 2018, PREPARED BY SKB ARCHITECTS, INC.
- THE DRAWING TITLED: "LEVEL P3/FOUNDATION PLAN", OF THE PLAN SET TITLED: "DEXTER YARD, 700 DEXTER AVE N, SEATTLE, WA. 98109", DATED MARCH 9, 2018, PREPARED BY MAGNUSSON KLEMENCIC ASSOCIATES, INC.
- THE ELECTRONIC FILES CONTAINED IN THE PLAN SET TITLED: "90% UTILITY MAJOR PERMIT, 700 DEXTER AVENUE NORTH, SEATTLE, WASHINGTON", DATED MARCH 8, 2018, PREPARED BY DCI ENGINEERS.
- THE ELECTRONIC DRAWING FILE TITLED: "700 DEXTER AVE N.", DATED MARCH 28, 2017, PREPARED BY BUSH, ROED & HITCHINGS.
- CITY OF SEATTLE SEWER CARDS 217, 3523-2, 3881, AND 3881-1.

BUILDING CODES, DESIGN MANUALS, AND SPECIFICATIONS:

2015 INTERNATIONAL BUILDING CODE (AS AMENDED BY THE CITY OF SEATTLE)

PUBLICATION NO. FHWA-IF-99-015, GEOTECHNICAL ENGINEERING CIRCULAR NO. 4, GROUND ANCHORS AND ANCHORED SYSTEMS

DESIGN SURCHARGE LOADS:

IN ORDER TO ACCOUNT FOR MODERATE TO HEAVY CONSTRUCTION SURCHARGE LOADING ADJACENT TO ALL THE WALLS, A 500 PSF VERTICAL AND 150 PSF HORIZONTAL SURCHARGE LOADING WAS CONSIDERED IN THE DESIGN. HOWEVER, PRIOR TO STRESSING OF THE ANCHORS, THESE VALUES ARE LIMITED TO 250 PSF VERTICAL AND 75 PSF HORIZONTAL.

DESIGN CALCULATIONS:

THE TEMPORARY SHORING WALL DESIGN CALCULATIONS ARE CONTAINED IN THE LETTER REPORT TITLED: "TEMPORARY SHORING WALL DESIGN CALCULATIONS AND PLANS, 700 DEXTER AVENUE NORTH, SEATTLE, WA", PREPARED BY GROUND SUPPORT PLLC FOR BMR DEXTER LLC, DATED APRIL 30, 2018.

SHORING DESIGN CRITERIA:

THE SUBSURFACE DESIGN PARAMETERS AND SHORING WALL DESIGN CRITERIA ARE BASED UPON THE FOLLOWING PROJECT GEOTECHNICAL REPORT: "DRAFT GEOTECHNICAL REPORT, 700 DEXTER AVENUE, SEATTLE, WASHINGTON", PREPARED BY TERRA ASSOCIATES, INC., DATED JULY 28, 2017. THE EARTH PRESSURE DIAGRAMS AND SHORING DESIGN CRITERIA ARE SHOWN ON THIS SET OF PLANS.

GROUNDWATER / DEWATERING:

GROUNDWATER WAS ENCOUNTERED DURING THE SOILS INVESTIGATION. IT IS ASSUMED THAT THIS WATER WILL BE DEWATERED AS NECESSARY, PERHAPS WITH WELL-POINTS, TO RELIEVE ANY PRESSURE FROM THE WALLS AND REMOVE WATER FROM THE CUT FACE.

THEREFORE, FOR THE PURPOSES OF DESIGN OF THE SHORING WALLS, THE WATER TABLE HAS BEEN ASSUMED TO OCCUR BENEATH THE BASE OF THE EXCAVATION. NEVERTHELESS, LOCALIZED WET ZONES AND/OR PERCHED POCKETS AND STRINGERS OF WATER-BEARING SOILS MAY BE ENCOUNTERED AT ANY TIME.

THE WALL FACE EXCAVATION MUST PROCEED CAUTIOUSLY TO AVOID EXCESSIVE GROUND LOSS OR DISTURBANCE IN AREAS OF WATER BEARING SOILS. GAPS IN THE TIMBER LAGGING WILL PROVIDE A FREE-DRAINING FACE CONDITION, AND SUMP PUMPS AND TRENCHES WILL BE REQUIRED AT THE EXCAVATION BASE TO CONTROL WATER INSIDE THE SITE.

TIMBER LAGGING:

ALL LAGGING BOARDS SHALL BE PRESSURE-TREATED, IN GOOD CONDITION, AND SHALL BE HEM-FIR NO. 2 OR BETTER, WITH AN ALLOWABLE FLEXURAL STRESS FB=1020 PSI (WHICH INCLUDES ALL APPLICABLE FLAT-USE AND SIZE FACTORS).

ALL LAGGING BOARDS SHALL BE PRESSURE-TREATED IN ACCORDANCE WITH AWPA STANDARD C14 (FOR END USE CLASSIFICATION 4B), TO A MINIMUM RETENTION OF 0.40 PCF, USING THE CCA PROCESS (COMMERCIAL PRODUCT NAME OSMOSE OR APPROVED EQUAL). ALTERNATIVE TREATMENT PROCESSES MAY BE SUBMITTED TO GROUND SUPPORT PLLC FOR APPROVAL.

THE CONTRACTOR SHALL EXCAVATE THE WALL FACE AND INSTALL THE LAGGING IN SUCH A MANNER AS TO MAINTAIN A SAFE WORK PLACE AND AVOID EXCESSIVE SLOUGHING AND OVERBREAK. BACKFILL BEHIND LAGGING BOARDS WITH A FREE-DRAINING GRANULAR MATERIAL, OR NATIVE SOILS IF APPROVED BY THE GEOTECHNICAL ENGINEER.

AS A MINIMUM, PRIOR TO PLACING THE SUBSEQUENT SET OF TIMBER LAGGING, DO NOT EXCAVATE MORE THAN 4 FEET BELOW THE CURRENT DEPTH OF LAGGED WALL FACE. ALSO, PER SDOT, NO EXCAVATION FOR THE IMMEDIATE LOWER LIFT IS ALLOWED UNTIL VOIDS BEHIND THE LAGGING OF THE ONGOING LIFT ARE FILLED WITH APPROVED MATERIALS.

ALONG ANCHORED WALLS, DO NOT EXCAVATE MORE THAN 2 FEET BELOW THE CURRENT LEVEL OF ANCHORS UNTIL THE THOSE ANCHORS ARE INSTALLED, CURED, TESTED, AND STRESSED.

LEAN-MIX CONCRETE:

ALL LEAN-MIX CONCRETE SHALL HAVE A MINIMUM OF 1-1/2 SACKS (141 LBS) OF CEMENT AND 200 LBS OF FLY ASH PER CUBIC YARD OF CONCRETE. PORTLAND CEMENT SHALL BE TYPE I, II, OR III CONFORMING TO ASTM C150 / AASHTO M85. FLY ASH SHALL BE TYPE F CONFORMING TO ASTM C618.

SLUMP FOR ALL LEAN-MIX CONCRETE SHALL NOT BE LESS THAN 5 INCHES AND NO GREATER THAN 9 INCHES. ADMIXTURES SHALL CONFORM TO THE REQUIREMENTS OF ASTM C494 / AASHTO M194, SHALL BE USED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS, AND SHALL BE APPROVED BY THE ENGINEER.

AGGREGATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM C33 / AASHTO M6 FOR FINE AGGREGATES AND AASHTO M80, CLASS B FOR COARSE AGGREGATES.

STRUCTURAL STEEL:

ALL STRUCTURAL STEEL WIDE FLANGE AND OTHER ROLLED SHAPES SHALL CONFORM TO ASTM A572 / AASHTO M270, GRADE 50; ALL STRUCTURAL STEEL PLATES SHALL CONFORM TO ASTM A36 / AASHTO M270, GRADE 36; ALL RECTANGULAR STEEL TUBE WALERS SHALL CONFORM TO ASTM A500, GRADE B; AND ALL PIPES SHALL CONFORM TO ASTM A53 GRADE B, UNLESS SHOWN OTHERWISE ON THE PLANS, OR APPROVED OTHERWISE BY THE ENGINEER.

STRUCTURAL WELDING:

MINIMUM WELD SIZE 1/4" CONTINUOUS FILLET. MINIMUM WELD LENGTH 2 INCHES. ALL WELDING TO BE PERFORMED BY WABO-CERTIFIED WELDERS PER AWS STANDARD SPECIFICATIONS. USE E70XX ELECTRODES.

SOIL NAIL DESIGN PARAMETERS:

THE FOLLOWING SOIL PROPERTIES WERE USED TO DESIGN THE SOIL NAIL SHORING WALL AT THE EAST END OF THE SOUTH WALL:

SOIL UNIT	DEPTH RANGE (FT)	UNIT WEIGHT (PCF)	SOIL FRICTION (DEG)	SOIL COHESION (PSF)	DESIGN PULLOUT RESISTANCE (K/FT)
FILL	0 TO 10	120	30	0	0.6
GLACIAL CONTACT	10 TO 20	130	35	100	3.5
GLACIAL TILL	> 20	135	38	200	3.5

DESIGN	DRAWN	REVIEW	DATE	REV	DESCRIPTION
CJW	JSS	RJB	4/30/18	0	PERMIT ISSUE
CJW	JSS	RJB	8/16/18	1	COMMENT RESPONSE
CJW	JSS	RJB	2/8/19	2	EAST & WEST ADJUSTMENTS

CHRIS T. WOLSCHLAG — REGISTERED PROFESSIONAL ENGINEER — STATE OF WASHINGTON — 2/8/19

Ground Support PLLC
16932 Woodinville Redmond Rd NE, #210
Woodinville, WA 98072
Ph: (425) 488-1143 Fax: (425) 605-4057

700 DEXTER AVENUE NORTH
TEMPORARY SHORING WALL
COVER & SHORING NOTES

PROJ. NO. 17-49

SHEET NUMBER

SH1.0

D:\Jobs\2017\17-49 (700 Dexter Ave-WA-BMR Dexter LLC)\(shoring)\(permitting)\R2 (20190208)\17495h01aR2.dwg, 2/8/2019 6:38:44 AM

DRILLED SOLDIER PILES:

THE MINIMUM REQUIRED STRUCTURAL STEEL W-SHAPES FOR THE SOLDIER PILES ARE INDICATED ON THE PLANS. ALTERNATIVE STEEL SECTIONS MAY BE USED PROVIDED THAT THE SECTION MODULUS OF EACH ALTERNATIVE STEEL SECTION ARE EQUAL TO OR GREATER THAN THE CROSS-SECTIONAL AREA AND SECTION MODULUS OF THE CORRESPONDING STEEL SECTION SHOWN ON THE PLANS, AND IS APPROVED BY THE SHORING DESIGNER.

SHAFTS SHALL BE CONSTRUCTED SO THAT THE CENTER AT THE TOP OF THE SHAFT IS WITHIN +/- 3 INCHES OF THE PLAN LOCATION. SHAFTS SHALL BE PLUMB. THE ELEVATION AT THE TOP OF SHAFT SHALL BE +/- 3 INCHES FROM THE PLAN LOCATION. DURING CONSTRUCTION FOR THE SHAFTS, THE CONTRACTOR SHALL MAKE FREQUENT CHECKS ON THE PLUMBNESS, ALIGNMENT, AND DIMENSIONS OF THE SHAFTS. ANY DEVIATION EXCEEDING THE ALLOWABLE TOLERANCES SHALL BE CORRECTED IMMEDIATELY.

THE STEEL SOLDIER PILES SHALL BE PLACED SO THAT THE CENTER OF THE PILE IS WITHIN +/- 1 INCH OF THE PLAN LOCATION AT THE TOP OF THE PILE, AND WITHIN 0.5% OF VERTICAL WITH DEPTH.

SHAFTS SHALL BE EXCAVATED TO THE REQUIRED DEPTH AS SHOWN ON THE PLANS. THE EXCAVATION SHALL BE COMPLETED IN A CONTINUOUS OPERATION USING EQUIPMENT CAPABLE OF EXCAVATING THROUGH THE TYPE OF MATERIAL EXPECTED TO BE ENCOUNTERED.

IF THE SHAFT EXCAVATION IS STOPPED WITH THE APPROVAL OF THE ENGINEER, THE SHAFT SHALL BE SECURED BY INSTALLATION OF A SAFETY COVER. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THE SAFETY OF THE SHAFT AND SURROUNDING SOIL AND THE STABILITY OF THE SIDE WALLS. A TEMPORARY CASING SHOULD BE USED IF NECESSARY TO ENSURE SUCH SAFETY AND STABILITY.

WHERE CAVING CONDITIONS ARE ENCOUNTERED, FURTHER EXCAVATION WILL NOT BE ALLOWED UNTIL THE CONTRACTOR SELECTS A METHOD TO PREVENT GROUND MOVEMENT. THE CONTRACTOR MAY ELECT TO PLACE A TEMPORARY CASING OR USE OTHER METHODS APPROVED BY THE ENGINEER.

THE CONTRACTOR SHALL USE APPROPRIATE MEANS (SUCH AS A CLEANOUT BUCKET), TO CLEAN THE BOTTOM OF THE EXCAVATION SUCH THAT NO MORE THAN 2 INCHES OF LOOSE OR DISTURBED MATERIAL IS PRESENT.

WHEN UNEXPECTED OBSTRUCTIONS, WHICH REQUIRE SPECIALIZED EQUIPMENT AND/OR LABOR ARE ENCOUNTERED, THE CONTRACTOR SHALL NOTIFY THE ENGINEER PROMPTLY AND THE OBSTRUCTIONS SHALL BE REMOVED AND THE EXCAVATION CONTINUED IN A MANNER APPROVED BY THE ENGINEER.

TEMPORARY CASINGS FOR THE SHAFTS SHALL BE REMOVED. A MINIMUM 5 FOOT HEAD OF CONCRETE MUST BE MAINTAINED TO BALANCE THE SOIL AND WATER PRESSURE AT THE BOTTOM OF THE CASING DURING REMOVAL. THE CASING SHALL BE SMOOTH.

SHAFT CONCRETE SHALL BE PLACED AS SHOWN ON THE PLANS AND SHALL COMMENCE WITHIN 2 HOURS AFTER COMPLETION OF THE EXCAVATION. SHAFT CONCRETE SHALL BE PLACED IN ONE CONTINUOUS OPERATION TO THE TOP OF THE SHAFT.

IF WATER IS NOT PRESENT, THE CONCRETE SHALL BE DEPOSITED BY A METHOD WHICH PREVENTS AGGREGATE SEGREGATION. THE CONTRACTOR'S METHOD FOR DEPOSITING CONCRETE SHALL HAVE APPROVAL OF THE ENGINEER PRIOR TO CONCRETE PLACEMENT.

IF WATER IS PRESENT, THE CONCRETE SHALL BE DEPOSITED BY TREMIE PLACEMENT METHODS.

SPECIAL INSPECTION OF THE SHORING WALLS:

IN ACCORDANCE WITH SECTION 1704 OF IBC (2015), SPECIAL INSPECTION IS REQUIRED FOR THE FOLLOWING SHORING ITEMS OR PROCESSES: SOLDIER PILE INSTALLATION, AND GROUND ANCHOR INSTALLATION AND TESTING.

DPD PRECONSTRUCTION MEETING:

A PRECONSTRUCTION MEETING IS REQUIRED BETWEEN THE OWNER'S REPRESENTATIVES (GEOTECHNICAL SPECIAL INSPECTOR, GENERAL CONTRACTOR, AND EXCAVATION CONTRACTOR) AND THE DPD SITE INSPECTOR. CONTACT 206-684-8860 TO ARRANGE THE MEETING.

SDOT PRECONSTRUCTION MEETING:

PRIOR TO INSTALLATION OF THE SHORING SYSTEM, A PRECONSTRUCTION MEETING IS REQUIRED WITH SDOT. ATTENDEES SHALL INCLUDE: AN OWNER'S REPRESENTATIVE, THE GENERAL CONTRACTOR, THE EXCAVATION AND SHORING SUBCONTRACTORS, THE GEOTECHNICAL ENGINEERS, SURVEYORS, SHORING DESIGNERS, AND SDOT PERSONNEL.

MONITORING:

SURVEY MONITORING OF THE SHORING WALLS, SHALL BE PERFORMED TO DETERMINE THE VERTICAL AND HORIZONTAL MOVEMENT OF THE MONITORING POINTS. THE MEASURING SYSTEM SHALL HAVE AN ACCURACY OF AT LEAST 0.01 FEET.

THE MONITORING PROGRAM SHALL BE DETERMINED BY THE GEOTECHNICAL SPECIAL INSPECTOR BUT, AT A MINIMUM, SHALL INCLUDE THE FOLLOWING:

(1) ESTABLISH SURVEY LINES NEAR THE TOP OF THE WALL, ON ADJACENT CRITICAL STRUCTURES OR BUILDINGS WITHIN A DISTANCE EQUAL TO THE HEIGHT OF THE WALL, AND ALONG THE CURBLINE AND CENTERLINE OF ADJACENT ROADWAYS OR ALLEYS.

(2) SURVEY POINTS ALONG THE LINES INDICATED IN NOTE 1 ABOVE SHOULD BE SPACED NO MORE THAN EVERY 20-FEET ALONG THE WALL. FOR SOLDIER PILES, PLACE MONITORING POINTS AT THE TOP OF AT LEAST EVERY OTHER SOLDIER PILE.

(3) ESTABLISH A BASELINE READING OF MONITORING POINTS ON THE GROUND SURFACE AND SETTLEMENT-SENSITIVE STRUCTURES BEHIND THE SHORING WALL ALIGNMENT PRIOR TO DEWATERING, EXCAVATION, AND INSTALLATION OF THE SHORING SYSTEMS.

(4) A LICENSED SURVEYOR THAT IS NOT THE CONTRACTOR MUST PERFORM THE SURVEYING AT LEAST ONCE A WEEK. HOWEVER, THE SURVEYING MUST BE PERFORMED BY A LICENSED SURVEYOR A MINIMUM OF TWICE A WEEK, IN ACCORDANCE WITH THE MONITORING REQUIREMENTS ESTABLISHED IN THE PROJECT GEOTECHNICAL ENGINEERING REPORT.

(5) MONITORING POINTS ESTABLISHED ALONG THE CURBLINE AND CENTERLINE OF ADJACENT ROADWAYS NEED TO BE MONITORED WHEN TOTAL WALL MOVEMENTS REACH 0.5 INCH OR AT SDOT REQUEST.

(6) THE GEOTECHNICAL ENGINEER SHALL REVIEW SURVEY DATA AND PROVIDE AN EVALUATION OF WALL PERFORMANCE AND THE SURVEY DATA TO DPD AND SDOT ON AT LEAST A WEEKLY BASIS. PER DPD, THIS WEEKLY REVIEW MUST CONTAIN A GRAPHICAL PRESENTATION OF THE WALL MOVEMENT VERSUS TIME.

(7) IMMEDIATELY NOTIFY THE GEOTECHNICAL AND STRUCTURAL ENGINEERS, SHORING DESIGNER, DPD, AND SDOT, IF 0.5 INCH OF MOVEMENT OCCURS BETWEEN TWO CONSECUTIVE READINGS AND WHEN TOTAL MOVEMENTS REACH 0.5 INCH.

(8) IF MOVEMENTS EXCEED 0.5 INCHES, THE ENGINEERS AND SHORING DESIGNER SHALL DETERMINE THE CAUSE OF DISPLACEMENT AND DEVELOP AND IMPLEMENT REMEDIAL MEASURES SUFFICIENT TO LIMIT TOTAL MOVEMENTS AT 1 INCH.

(9) ALL EARTHWORK AND CONSTRUCTION ACTIVITIES MUST BE DIRECTED TOWARD IMMEDIATE IMPLEMENTATION OF REMEDIAL MEASURES TO LIMIT DEFORMATIONS TO WHAT IS CONSIDERED AS ACCEPTABLE BY SDOT (1 INCH MAXIMUM).

(10) SURVEY FREQUENCY CAN BE DECREASED AFTER THE SHORING SYSTEM HAS BEEN INSTALLED AND THE EXCAVATION IS COMPLETE IF THE DATA INDICATES NO OR LITTLE ADDITIONAL MOVEMENT. SURVEYING MUST CONTINUE UNTIL THE PERMANENT STRUCTURE (INCLUDING FLOOR SLABS AS BRACES) IS COMPLETED UP TO STREET GRADES. THE SURVEY FREQUENCY WOULD BE DETERMINED BY THE GEOTECHNICAL ENGINEER, WITH APPROVAL BY BOTH DPD AND SDOT, AND WOULD BE BASED ON THE SHORING PERFORMANCE.

TEMPORARY GROUND ANCHORS:

1. GENERAL:

1A. THE CONTRACTOR SHALL SELECT THE GROUND ANCHOR TYPE, THE INSTALLATION METHOD, THE ANCHOR DIAMETER, AND THE METHOD OF GROUTING, IN ORDER TO DEVELOP THE DESIGN LOADS INDICATED ON THE PLANS, AS VERIFIED IN ACCORDANCE WITH THE ANCHOR TESTING PROGRAM. REVISED PLANS SHALL BE SUBMITTED TO DPD FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION, IF THE CONTRACTOR DECIDES TO INSTALL GROUND ANCHORS DIFFERENT FROM THE GROUND ANCHORS SHOWN ON THIS PLAN SET. SEE THE GROUND ANCHOR SCHEDULES ON THE WALL ELEVATION SHEETS, AND SHEET SH5.2 FOR THE SPECIFIED ANCHOR DIAMETER AND STRAND REQUIREMENTS.

1B. HOWEVER, IF THE PROPOSED METHODS RESULT IN A LARGER DIAMETER, A LONGER ANCHOR LENGTH, OR A SUBSTANTIALLY GREATER GROUTING PRESSURE THAN INDICATED ON THE APPROVED PLANS, THEN THE CONTRACTOR MUST SUBMIT HIS PROPOSED INSTALLATION AND GROUTING METHODS TO GROUND SUPPORT AND DPD FOR APPROVAL PRIOR TO CONSTRUCTION. THE DETAILS ON SH5.2 MAY BE REFERENCED TO SEE WHAT IS GENERALLY ENVISAGED AS FOR THE GROUND ANCHORS.

2. GROUND ANCHOR INSTALLATION:

2A. AT THE GROUND SURFACE, THE DRILLHOLE SHALL BE LOCATED WITHIN 4 INCHES OF THE LOCATION SHOWN ON THE PLANS. THE DRILLHOLE SHALL BE LOCATED SO THE LONGITUDINAL AXIS OF THE DRILLHOLE AND THE LONGITUDINAL AXIS OF THE TENDON ARE PARALLEL.

2B. AT THE POINT OF ENTRY, THE GROUND ANCHOR SHALL BE INSTALLED WITHIN +/- 3 DEGREES OF THE INCLINATION FROM HORIZONTAL SHOWN IN THE PLANS. AT THE POINT OF ENTRY, THE HORIZONTAL ANGLE MADE BY THE GROUND ANCHOR AND THE STRUCTURE SHALL BE WITHIN +/- 3 DEGREES OF A LINE DRAWN PERPENDICULAR TO THE PLANE OF THE STRUCTURE, UNLESS SHOWN OTHERWISE ON THE PLANS. AT ALL ANCHOR LOCATIONS WHERE TIEBACKS CROSS, THE INCLINATION AND ORIENTATION OF THE ANCHORS SHALL BE +/- 1 DEGREE.

2C. WHEN CAVING CONDITIONS ARE ENCOUNTERED, THE CONTRACTOR SELECT SHALL A METHOD TO PREVENT GROUND MOVEMENT. THE CONTRACTOR MAY USE TEMPORARY CASING.

2D. THE TENDON SHALL BE INSERTED INTO THE DRILLHOLE TO THE DESIRED DEPTH WITHOUT DIFFICULTY. WHEN THE TENDON CANNOT BE COMPLETELY INSERTED, THE CONTRACTOR SHALL REMOVE THE TENDON FROM THE DRILLHOLE AND CLEAN OR REDRILL THE HOLE TO PERMIT INSERTION. PARTIALLY INSERTED TENDONS SHALL NOT BE DRIVEN OR FORCED INTO THE HOLE.

2E. THE CONTRACTOR SHALL USE A NEAT-CEMENT OR A SAND-CEMENT GROUT. THE CEMENT SHALL NOT CONTAIN LUMPS OR OTHER INDICATIONS OF HYDRATION. ADMIXTURES, IF USED, SHALL BE MIXED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

2F. THE GROUT EQUIPMENT SHALL PRODUCE A GROUT FREE OF LUMPS AND UNDISPERSED CEMENT. A POSITIVE DISPLACEMENT GROUT PUMP SHALL BE USED. THE PUMP SHALL BE EQUIPPED WITH A PRESSURE GAUGE TO MONITOR GROUT PRESSURES. THE PRESSURE GAUGE SHALL BE CAPABLE OF MEASURING PRESSURES OF AT LEAST 150 PSI OR TWICE THE ACTUAL GROUT PRESSURES USED BY THE CONTRACTOR, WHICHEVER IS GREATER. THE GROUTING EQUIPMENT SHALL BE SIZED TO ENABLE THE GROUT TO BE PUMPED IN ONE CONTINUOUS OPERATION. THE MIXER SHALL BE CAPABLE OF CONTINUOUSLY AGITATING THE GROUT.

2G. THE GROUT SHALL BE INJECTED FROM THE LOWEST POINT OF THE DRILLHOLE. THE GROUT MAY BE PUMPED THROUGH GROUT TUBES, CASING, OR DRILL RODS. THE GROUT CAN BE PLACED BEFORE OR AFTER INSERTION OF THE TENDON. THE QUANTITY OF THE GROUT AND THE GROUT PRESSURES SHALL BE RECORDED. THE GROUT PRESSURES AND GROUT TAKES SHALL BE CONTROLLED TO PREVENT EXCESSIVE HEAVE IN SOILS OR FRACTURING OF ROCK FORMATIONS.

2H. NO GROUT SHALL BE PLACED UNDER PRESSURE ABOVE THE BOND LENGTH DURING INITIAL GROUTING OF THE ANCHOR BOND LENGTH. THE GROUT AT THE TOP OF THE DRILLHOLE SHALL NOT CONTACT THE BACK OF THE STRUCTURE.

2I. AFTER GROUTING, THE TENDON SHALL NOT BE LOADED UNTIL THE GROUT HAS ATTAINED SUFFICIENT STRENGTH TO CARRY THE TEST LOAD.

3. ANCHOR GROUT:

3A. THE GROUT SHALL BE A NEAT OR SAND/CEMENT MIXTURE WITH A MINIMUM 3-DAY COMPRESSIVE STRENGTH OF 1500 PSI AND A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 3000 PSI PER ASTM C109 / AASHTO T106.

3B. TYPE II CEMENT CONFORMING TO THE REQUIREMENTS OF ASTM C150 / AASHTO M85 SHALL BE USED.

3C. FINE AGGREGATES SHALL CONSIST OF CLEAN, NATURAL SAND, CONFORMING TO THE REQUIREMENTS OF ASTM C33 / AASHTO M6. MANUFACTURED SAND IS ACCEPTABLE PROVIDED IT IS SUITABLE FOR PUMPING IN ACCORDANCE WITH ACI 304, SECTION 4.2.2.

3D. ADMIXTURES SHALL BE IN ACCORDANCE WITH ASTM C494 / AASHTO M194. ADMIXTURES WHICH CONTROL BLEED, IMPROVE FLOW, REDUCE WATER CONTENT, AND RETARD SET MAY BE USED IN THE GROUT SUBJECT TO THE APPROVAL OF THE ENGINEER. EXPANSIVE ADMIXTURES SHALL ONLY BE ADDED TO THE GROUT USED FOR FILLING SEALED ENCAPSULATIONS, TRUMPETS AND ANCHORAGE COVERS. ACCELERATORS WILL NOT BE PERMITTED. ADMIXTURES SHALL BE COMPATIBLE WITH PRESTRESSING STEELS AND MIXED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATION.

4. ANCHOR TENDONS:

4A. THE GROUND ANCHORS TENDONS SHALL CONSIST OF THE FOLLOWING:

1. SEVEN-WIRE, LOW-RELAXATION STRANDS WITH AN ULTIMATE TENSILE STRENGTH OF 270 KSI CONFORMING TO ASTM A416 / AASHTO M203.

4B. STRAND COUPLERS SHALL NOT BE ALLOWED.

5. BONDBREAKER:

5A. A BONDBREAKER MUST BE PROVIDED TO PREVENT THE TENDON FROM BONDING TO THE ANCHOR GROUT SURROUNDING THE UNBONDED LENGTH.

5B. THE BONDBREAKER SHALL BE FABRICATED FROM A SMOOTH PLASTIC TUBE OR PIPE HAVING THE FOLLOWING PROPERTIES:

1. RESISTANCE TO CHEMICAL ATTACK FROM AGGRESSIVE ENVIRONMENTS, GROUT OR GREASE.
2. RESISTANCE TO AGING BY ULTRAVIOLET LIGHT.
3. FABRICATED FROM MATERIAL NON-DETRIMENTAL TO THE TENDON.
4. CAPABLE OF WITHSTANDING ABRASION, IMPACT, AND BENDING DURING HANDLING AND INSTALLATION.
5. ENABLE THE TENDON TO ELONGATE DURING TESTING AND STRESSING.
6. ALLOW THE TENDON TO REMAIN UNBONDED AFTER LOCKOFF.

6. SPACERS AND CENTRALIZERS:

6A. SPACERS SHALL BE USED ALONG THE TENDON BOND LENGTH OF MULTI-ELEMENT TENDONS TO SEPARATE EACH OF THE INDIVIDUAL ELEMENTS OF THE TENDON SO THE PRESTRESSING STEEL WILL BOND TO THE GROUT.

6B. SPACERS SHALL BE POSITIONED SO THEIR CENTER-TO-CENTER SPACING DOES NOT EXCEED 10 FEET. IN ADDITION, THE UPPER SPACER SHALL BE LOCATED A MAXIMUM OF 5 FEET FROM THE TOP OF THE TENDON BOND LENGTH AND THE LOWER SPACER SHALL BE LOCATED A MAXIMUM OF 5 FEET FROM THE BOTTOM OF THE TENDON BOND LENGTH. SPACERS SHALL PERMIT GROUT TO FREELY FLOW UP THE DRILLHOLE. SPACERS SHALL BE FABRICATED FROM PLASTIC.

6C. CENTRALIZERS SHALL PERMIT FREE GROUT FLOW AND SHALL PROVIDE A MINIMUM OF 1 INCH OF COVER OVER THE TENDON BOND LENGTH.

6D. CENTRALIZERS SHALL BE SECURELY ATTACHED TO THE TENDON AND THE CENTER TO CENTER SPACING SHALL NOT EXCEED 10 FEET. THE UPPER CENTRALIZER SHALL BE LOCATED A MAXIMUM OF 5 FEET FROM THE TOP OF THE TENDON BOND LENGTH AND THE LOWER CENTRALIZER SHALL BE LOCATED A MAXIMUM OF 1 FOOT FROM THE BOTTOM OF THE TENDON BOND LENGTH. CENTRALIZERS SHALL BE FABRICATED FROM PLASTIC.

7. ANCHORAGE DEVICES:

7A. ANCHORAGE DEVICES SHALL BE CAPABLE OF DEVELOPING 95% OF THE MINIMUM SPECIFIED ULTIMATE TENSILE STRENGTH OF THE PRESTRESSING STEEL TENDON. THE ANCHORAGE DEVICES SHALL CONFORM TO THE STATIC STRENGTH REQUIREMENTS OF SECTION 3.1.6(1) AND SECTION 3.1.8(1) OF THE PTI "GUIDE SPECIFICATION FOR POST TENSIONING MATERIALS".

7B. THE BEARING PLATES SHALL BE STRUCTURAL STEEL CONFORMING TO ASTM A36/AASHTO M183. THE BEARING PLATES SHALL BE SIZED SO THE ALLOWABLE BENDING STRESSES IN THE PLATE PER AISC-ASD ARE NOT EXCEEDED WHEN THE DESIGN LOAD OF THE GROUND ANCHOR IS APPLIED.

8. ANCHOR TESTING:

8A. EACH GROUND ANCHOR SHALL BE TESTED. THE MAXIMUM TEST LOAD SHALL NOT EXCEED 80% OF THE MINIMUM GUARANTEED ULTIMATE TENSILE STRENGTH (GUTS) OF THE TENDON. THE TEST LOAD SHALL BE SIMULTANEOUSLY APPLIED TO THE ENTIRE TENDON. STRESSING OF SINGLE ELEMENTS OF MULTI-ELEMENT TENDONS WILL NOT BE PERMITTED.

8B. THE TESTING EQUIPMENT SHALL CONSIST OF:

1. A DIAL GAUGE OR VERNIER SCALE CAPABLE OF MEASURING TO 0.001 INCHES SHALL BE USED TO MEASURE THE GROUND ANCHOR MOVEMENT. THE MOVEMENT-MEASURING DEVICE SHALL HAVE A MINIMUM TRAVEL EQUAL TO THE THEORETICAL ELASTIC ELONGATION OF THE TOTAL ANCHOR LENGTH AT THE MAXIMUM TEST LOAD PLUS 1 INCH. THE DIAL GAUGE OR VERNIER SCALE SHALL BE SUPPORTED INDEPENDENT OF THE JACKING SYSTEM AND RETAINED STRUCTURE AND SHALL BE ALIGNED SO THAT ITS AXIS IS WITHIN 5 DEGREES FROM THE AXIS OF THE GROUND ANCHOR.

2. A HYDRAULIC JACK AND PUMP SHALL BE USED TO APPLY THE TEST LOAD. THE JACK AND PRESSURE GAUGE SHALL BE CALIBRATED BY AN INDEPENDENT TESTING LABORATORY AS A UNIT. THE PRESSURE GAUGE SHALL BE GRADUATED IN 100 PSI INCREMENTS OR LESS. THE PRESSURE GAUGE WILL BE USED TO MEASURE THE APPLIED LOAD. THE RAM TRAVEL OF THE JACK SHALL NOT BE LESS THAN THE THEORETICAL ELASTIC ELONGATION OF THE TOTAL ANCHOR LENGTH AT THE MAXIMUM TEST LOAD PLUS ONE INCH. THE JACK SHALL BE INDEPENDENTLY SUPPORTED AND CENTERED OVER THE TENDON SO THAT THE TENDON DOES NOT CARRY THE WEIGHT OF THE JACK.

8C. VERIFICATION TESTS SHALL BE PERFORMED ON 2 ANCHORS PER SOIL TYPE ENCOUNTERED, ANCHOR TYPE USED, OR INSTALLATION METHOD USED. VERIFICATION ANCHORS CAN BE USED AS PRODUCTION ANCHORS IF THEY ARE ACCEPTABLE AS DEFINED BELOW. THE VERIFICATION TEST SHALL BE MADE BY INCREMENTALLY LOADING THE ANCHOR IN ACCORDANCE WITH THE FOLLOWING SCHEDULE.

LOAD	HOLD TIME	LOAD	HOLD TIME	LOAD	HOLD TIME
AL	UNTIL STABLE	0.25DL	UNTIL STABLE	0.75DL	UNTIL STABLE
0.25DL	UNTIL STABLE	0.50DL	UNTIL STABLE	1.00DL	UNTIL STABLE
AL	UNTIL STABLE	0.75DL	UNTIL STABLE	1.25DL	UNTIL STABLE
0.25DL	UNTIL STABLE	1.00DL	UNTIL STABLE	1.50DL	UNTIL STABLE
0.50DL	UNTIL STABLE	1.25DL	UNTIL STABLE	1.75DL	UNTIL STABLE
AL	UNTIL STABLE	AL	UNTIL STABLE	AL	UNTIL STABLE
0.25DL	UNTIL STABLE	0.25DL	UNTIL STABLE	0.25DL	UNTIL STABLE
0.50DL	UNTIL STABLE	0.50DL	UNTIL STABLE	0.50DL	UNTIL STABLE
0.75DL	UNTIL STABLE	0.75DL	UNTIL STABLE	0.75DL	UNTIL STABLE
AL	UNTIL STABLE	1.00DL	UNTIL STABLE	1.00DL	UNTIL STABLE
0.25DL	UNTIL STABLE	1.25DL	UNTIL STABLE	1.25DL	UNTIL STABLE
0.50DL	UNTIL STABLE	1.50DL	60 MINUTES	1.50DL	UNTIL STABLE
0.75DL	UNTIL STABLE	AL	UNTIL STABLE	1.75DL	UNTIL STABLE
1.00DL	UNTIL STABLE	0.25DL	UNTIL STABLE	2.00DL	UNTIL STABLE
AL	UNTIL STABLE	0.50DL	UNTIL STABLE	AL	UNTIL STABLE

THE ALIGNMENT LOAD (AL) SHOULD BE THE MINIMUM LOAD REQUIRED TO ALIGN THE TESTING APPARATUS AND SHOULD NOT EXCEED 0.05DL. DIAL GAUGES SHOULD BE SET AT "ZERO" AFTER THE ALIGNMENT LOAD HAS BEEN APPLIED.

A 10-MINUTE CREEP TEST SHALL BE PERFORMED AT THE 1.50 DL AND 2.00DL INCREMENTS. THE LOAD-HOLD PERIOD SHALL START AS SOON AS THE MAXIMUM TEST LOAD IS APPLIED AND THE ANCHOR MOVEMENT SHALL BE MEASURED AND RECORDED AT 1, 2, 3, 5, 6, AND 10 MINUTES. IF THE ANCHOR MOVEMENT BETWEEN 1 AND 10 MINUTES EXCEEDS 0.04 INCHES, THE MAXIMUM TEST LOAD SHALL BE HELD OF AN ADDITIONAL 50 MINUTES. IF THE LOAD HOLD IS EXTENDED, THE ANCHOR MOVEMENTS SHALL BE RECORDED AT 20, 30, 50, AND 60 MINUTES. IF AN ANCHOR FAILS IN CREEP, RETESTING WILL NOT BE ALLOWED.

8D. PROOF TESTS SHALL BE PERFORMED ON ALL PRODUCTION ANCHORS BY INCREMENTALLY LOADING THE GROUND ANCHOR IN ACCORDANCE WITH THE FOLLOWING SCHEDULE. AT LOAD INCREMENTS OTHER THAN MAXIMUM TEST LOAD, THE LOAD SHALL BE HELD LONG ENOUGH TO OBTAIN A STABLE READING.

AL	1.00DL
0.25DL	1.25DL
0.50DL	1.35DL
0.75DL	

THE MAXIMUM TEST LOAD SHALL BE HELD FOR 10 MINUTES. THE LOAD-HOLD PERIOD SHALL START AS SOON AS THE MAXIMUM TEST LOAD IS APPLIED AND THE ANCHOR MOVEMENT SHALL BE MEASURED AND RECORDED AT 1, 2, 3, 5, 6, AND 10 MINUTES. IF THE ANCHOR MOVEMENT BETWEEN 1 AND 10 MINUTES EXCEEDS 0.04 INCHES, THE MAXIMUM TEST LOAD SHALL BE HELD OF AN ADDITIONAL 50 MINUTES. IF THE LOAD HOLD IS EXTENDED, THE ANCHOR MOVEMENTS SHALL BE RECORDED AT 20, 30, 50, AND 60 MINUTES. IF AN ANCHOR FAILS IN CREEP, RETESTING WILL NOT BE ALLOWED.

8E. A VERIFICATION OR PROOF TESTED GROUND ANCHOR WITH A 10 MINUTE LOAD HOLD CREEP TEST IS CONSIDERED ACCEPTABLE WHEN:

1. THE GROUND ANCHOR CARRIES THE MAXIMUM TEST LOAD WITH LESS THAN 0.04 INCHES OF MOVEMENT BETWEEN THE 1 AND 10 MINUTE READINGS.
2. THE TOTAL MOVEMENT AT THE MAXIMUM TEST LOAD EXCEEDS 80% OF THE THEORETICAL ELASTIC ELONGATION OF THE UNBONDED LENGTH.

8F. A VERIFICATION OR PROOF TESTED GROUND ANCHOR WITH A 60 MINUTE LOAD HOLD CREEP TEST IS CONSIDERED ACCEPTABLE WHEN:

1. THE GROUND ANCHOR CARRIES THE MAXIMUM TEST LOAD WITH LESS THAN 0.08 INCHES OF MOVEMENT PER LOG CYCLE OF TIME AND THE CREEP RATE IS LINEAR OR DECREASING.
2. THE TOTAL MOVEMENT AT THE MAXIMUM TEST LOAD EXCEEDS 80% OF THE THEORETICAL ELASTIC ELONGATION OF THE UNBONDED LENGTH.

IN ADDITION TO THE ABOVE, A VERIFICATION TESTED GROUND ANCHOR MUST NOT EXPERIENCE A PULLOUT FAILURE AT THE MAXIMUM TEST LOAD. A PULLOUT FAILURE IS DEFINED AS THE LOAD AT WHICH ATTEMPTS TO INCREASE THE TEST LOAD RESULT IN CONTINUED PULLOUT MOVEMENT OF THE TEST ANCHOR.

8G. GROUND ANCHORS THAT HAVE A CREEP RATE GREATER THAN SPECIFIED CAN BE INCORPORATED IN THE FINISHED WORK AT A LOAD EQUAL TO ONE-HALF OF THE FAILURE LOAD. THE FAILURE LOAD IS THE MAXIMUM LOAD CARRIED BY THE ANCHOR AFTER THE LOAD HAS BEEN ALLOWED TO STABILIZE FOR TEN MINUTES.

8H. WHEN A GROUND ANCHOR FAILS, THE CONTRACTOR SHALL MODIFY THE ANCHOR DESIGN, THE CONSTRUCTION PROCEDURES, OR BOTH. THESE MODIFICATIONS MAY INCLUDE, BUT ARE NOT LIMITED TO: INSTALLING REPLACEMENT GROUND ANCHORS, MODIFYING THE INSTALLATION METHODS, INCREASING THE BOND LENGTH, OR CHANGING THE GROUND ANCHOR TYPE.

8I. AFTER INTERNAL SUPPORT OF THE EXCAVATION IS PROVIDED BY THE SUBSURFACE PORTION OF THE STRUCTURE, ANCHORS MUST BE DETENSIONED. BASED ON THE CONSTRUCTION SEQUENCE OF THE PERMANENT BASEMENT WALLS AND FLOOR SLABS, THE GENERAL CONTRACTOR WILL COORDINATE WITH THE DESIGN TEAM AS TO WHEN ANCHOR DETENSIONING IS APPROPRIATE. ANCHOR DETENSIONING AND PATCHING OF THE BASEMENT WALLS WILL BE PERFORMED BY THE GENERAL CONTRACTOR.

SHORING REMOVAL:

ALL SOLDIER PILES, GROUND ANCHORS, AND TIMBER LAGGING WITHIN THE PUBLIC RIGHT-OF-WAY SHALL BE REMOVED TO A MINIMUM DEPTH OF 4 FEET BELOW FINISHED GRADE IN ACCORDANCE WITH CITY OF SEATTLE REQUIREMENTS ONCE THE BELOW-GRADE STRUCTURE IS COMPLETED AND THE SHORING IS NO LONGER FUNCTIONING AS EARTH SUPPORT.

SDOT EXISTING SEWER/STORM NOTE:

ALL SEWER AND STORM LINES IN THE ROW WITHIN 10 FEET (OR WITHIN 20 FEET IF SUCH LINES ARE 30-FT OR MORE OFF SITE PROPERTY LINE) OF ANY PROPOSED SHORING ELEMENT SHALL BE VIDEOTAPED OF PRE-PROJECT CONDITION AND A COPY SENT TO SPU (ATTENTION: JEFF WILLIAMS, P.O. BOX 34018, SEATTLE, WA 98124-4018) PRIOR TO PRECONSTRUCTION MEETING.

SOIL NAIL SHORING WALL STABILITY ANALYSES:

IN ACCORDANCE WITH THE REFERENCED FHWA PUBLICATION, THE FOLLOWING PARTIAL FACTORS OF SAFETY WERE USED IN THE ANALYSIS OF INTERNAL AND EXTERNAL SOIL NAIL SHORING WALL STABILITY:

DESIGN COMPONENT	PARTIAL F.O.S. (TEMP)	PARTIAL F.O.S. (PERM)	PARTIAL F.O.S. (SEISMIC)
SOIL FRICTION	1.35	1.50	1.10
SOIL COHESION	1.35	1.50	1.10
SOIL-GROUT ADHESION	2.00	2.00	1.50
NAIL BAR YIELD	1.82	1.82	1.35
FACING CAPACITY	1.35	1.50	1.10

FOR THE INTERIM CONSTRUCTION CONDITIONS WHERE EXCAVATION FOR A LIFT HAS OCCURRED YET THE CORRESPONDING NAIL ROW HAS NOT BEEN INSTALLED, THE REQUIRED PARTIAL FACTORS OF SAFETY FOR SOIL FRICTION AND SOIL COHESION ARE REDUCED TO 1.20 IN ACCORDANCE WITH THE REFERENCED FHWA MANUAL.

DESIGN	DRAWN	REVIEW	DATE	REV	DESCRIPTION
CJW	JSS	RJB	4/30/18	0	PERMIT ISSUE
CJW	JSS	RJB	9/18/18	1	COMMENT RESPONSE
CJW	JSS	RJB	2/8/19	2	EAST & WEST ADJUSTMENTS

2/8/19

Ground Support PLLC
16932 Woodinville Redmond Rd NE, #210
Woodinville, WA 98072
Ph: (425) 488-1143 Fax: (425) 605-4057

700 DEXTER AVENUE NORTH
TEMPORARY SHORING WALL
SHORING NOTES

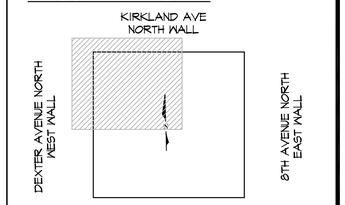
PROJ. NO. 17-49

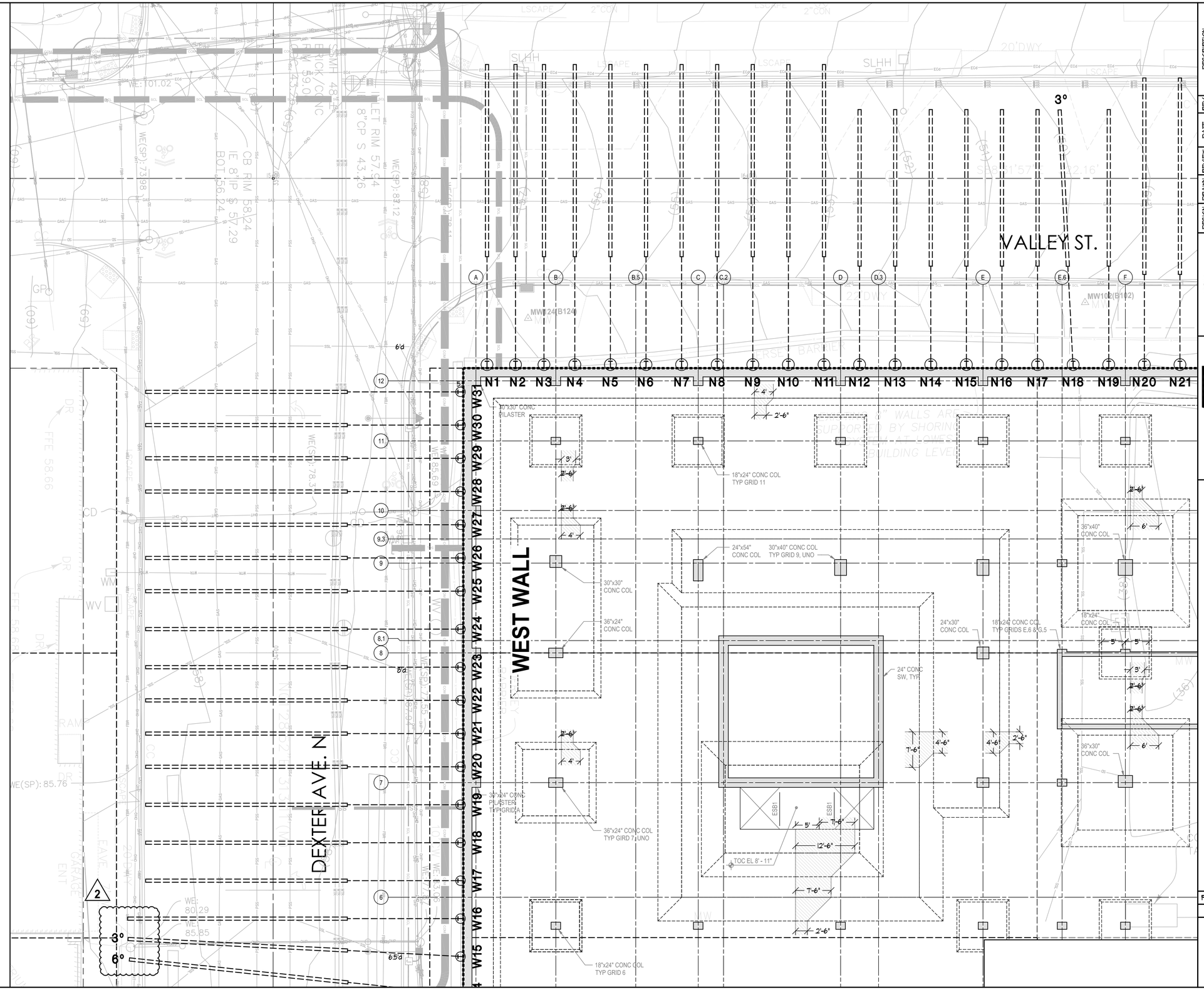
SHEET NUMBER

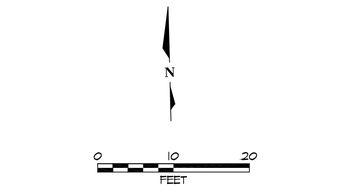
SH1.1

D:\Jobs\2017\17-49 (700 Dexter Ave-WA-BMR Dexter LLC)\(shoring)\(permitting)\R2 (20190208)\1749sh01R2.dwg, 2/8/2019 6:35:47 AM

WALL KEY PLAN







LEGEND

- P1 — SOLDIER PILE
- SOIL ANCHOR
- B — BUILDING GRID LOCATION
- FACE OF SOLDIER PILE WALL
- 100 — EXISTING GRADE CONTOUR
- PROPOSED BUILDING WALL

DESIGN	DRAWN	REVIEW	DATE	REV	DESCRIPTION
CJK	JSS	RJB	4/30/18	0	PERMIT ISSUE
CJK	JSS	RJB	9/18/18	1	COMMENT RESPONSE
CJK	JSS	RJB	2/8/19	2	EAST & WEST ADJUSTMENTS

2/8/19

CHRIS T. WOLSCHLAG — 22000 — REGISTERED PROFESSIONAL ENGINEER — STATE OF WASHINGTON

Ground Support PLLC
16932 Woodinville Redmond Rd NE, #210
Woodinville, WA 98072
Ph: (425) 488-1143 Fax: (425) 605-4057

700 DEXTER AVENUE NORTH
TEMPORARY SHORING WALL
SHORING PLAN

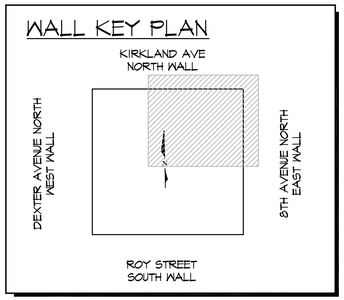
PROJ. NO. 17-49

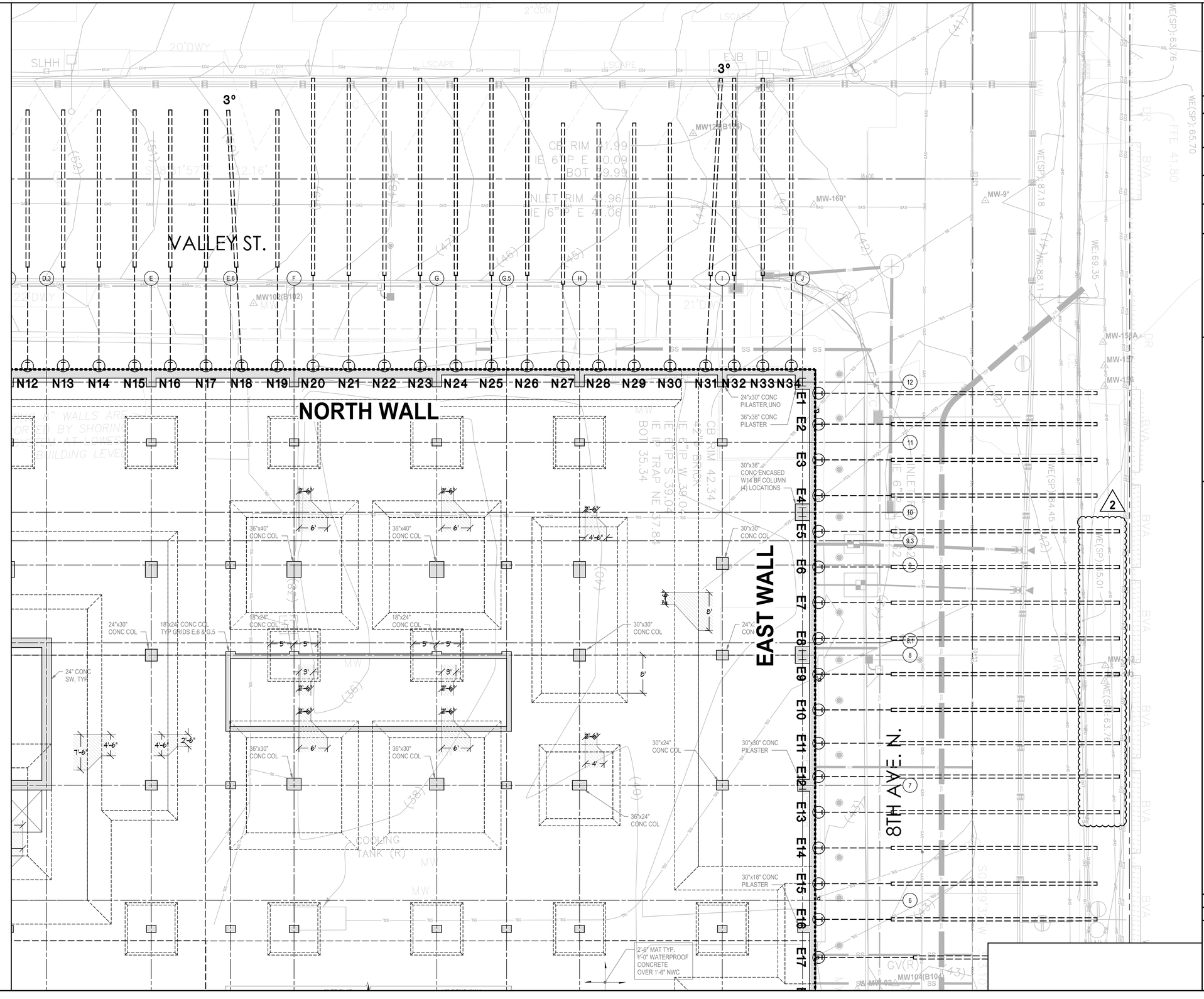
SHEET NUMBER

SH2.0

D:\Jobs\2017\17-49 (700 Dexter Ave-WA-BMR Dexter LLC)\(shoring)\(permitting)\R2 (20190208)\17499sh02aR2.dwg, 2/8/2019 6:38:54 AM

WALL KEY PLAN





LEGEND

- P1 — SOLDIER PILE
- SOIL ANCHOR
- B — BUILDING GRID LOCATION
- FACE OF SOLDIER PILE WALL
- EXISTING GRADE CONTOUR
- PROPOSED BUILDING WALL

DESIGN	DRAWN	REVIEW	DATE	REV	DESCRIPTION
CJK	JSS	RJB	4/30/18	0	PERMIT ISSUE
CJK	JSS	RJB	9/18/18	1	COMMENT RESPONSE
CJK	JSS	RJB	2/8/19	2	EAST & WEST ADJUSTMENTS

CHRIS T. WOLSCHLAG — 2/8/19

Ground Support PLLC
16932 Woodinville Redmond Rd NE, #210
Woodinville, WA 98072
Ph: (425) 488-1143 Fax: (425) 605-4057

700 DEXTER AVENUE NORTH
TEMPORARY SHORING WALL SHORING PLAN

PROJ. NO. 17-49

SHEET NUMBER

SH2.1

D:\Jobs\2017\17-49 (700 Dexter Ave-WA-BMR Dexter LLC)\(shoring)\(permitting)\R2 (20190208)\1749sh02bR2.dwg, 2/8/2019 6:39:02 AM

WALL KEY PLAN

KIRKLAND AVE
NORTH WALL

DEXTER AVENUE NORTH
WEST WALL

8TH AVENUE NORTH
EAST WALL

ROY STREET
SOUTH WALL

EAST WALL

SOUTH WALL

E16 E17 E18 E19 E20 E21 E22 E23 E24 E25 E26 E27 E28 E29 E30 E31

S1 S2 S3 S3A S4 S5 S6 S7 S8 S9 S10 S11 S12 S13 S14 S15 S16 S17 S18 S19 S20 S21 S22 S23

D,3 E E,6 F G G,5 H I J

8" PT SLAB
12" CONC WALL
2'-6" MAT TYP.
4'-0" WATERPROOF CONCRETE OVER 1'-6" NWC
24"x30" CONC COL
24" CONC SW, TYP
7'-6"
4'-6"
4'-6"
2'-6"
30"x30" CONC COL TYP GRID 5, UNO
BU SLAB
40"x40" CONC COL
30"x36" CONC COL
24"x36" CONC COL
RAMP UP
13' - 11"
6'
2'-6"
24"x18" CONC COL
30"x30" CONC COL
8'
5'
24"x42" CONC COL
36"x36" CONC PILASTER
3'-0"x3'-0" CONC COL
3°
5°
4.1
4
3.3
3
2.9
2
1

N

0 10 20
FEET

LEGEND

- P1 — SOLDIER PILE
- SOIL ANCHOR
- B — BUILDING GRID LOCATION
- FACE OF SOLDIER PILE WALL
- 100 — EXISTING GRADE CONTOUR
- PROPOSED BUILDING WALL

DESIGN	DRAWN	REVIEW	DATE	REV	DESCRIPTION
CJK	JSS	RJB	4/30/18	0	PERMIT ISSUE
CJK	JSS	RJB	9/18/18	1	COMMENT RESPONSE
CJK	JSS	RJB	2/8/19	2	EAST & WEST ADJUSTMENTS

CHRIS T. WOLSCHLAG — 22408 — REGISTERED PROFESSIONAL ENGINEER — STATE OF WASHINGTON
2/8/19

Ground Support PLLC
16932 Woodinville Redmond Rd NE, #210
Woodinville, WA 98072
Ph: (425) 488-1143 Fax: (425) 605-4057

700 DEXTER AVENUE NORTH
TEMPORARY SHORING WALL
SHORING PLAN

PROJ. NO. 17-49

SHEET NUMBER

SH2.2

D:\Jobs\2017\17-49 (700 Dexter Ave-WA-BMR Dexter LLC)\(shoring)\(permitting)\R2 (20190208)\1749sh02cR2.dwg, 2/8/2019 6:39:09 AM

WALL KEY PLAN

KIRKLAND AVE
NORTH WALL

DEXTER AVENUE NORTH
WEST WALL

8TH AVENUE NORTH
EAST WALL

ROY STREET
SOUTH WALL

WEST WALL

SOUTH WALL

ROY ST

W16 W15 W14 W13 W12 W11 W10 W9 W8 W7 W6 W5 W4 W3 W2 W1

514 515 516 517 518 519 520 521 522 523 524 525 526 527 528 529 530 531 532 533 534

A B B.5 C C.2 D D.3 E E.6 F

18"x24" CONC COL TYP GRID 6

24"x24" CONC COL TYP GRID B, UNO

24"x24" CONC COL

24"x30" CONC COL

24" CONC SW, TYP

8" PT SLAB

MAXIMUM POSSIBLE OVER-EXCAVATION EL. 2.5

24"x24 CONC COL TYP GRID 2

36"x32" CONC COL

30"x36" CONC COL

24"x36" CONC COL

24"x32" CONC COL

RAMP UP

MW112(B112)

R-MW5

MW-153

MW-154 MW-146 MW-147

N

0 10 20
FEET

LEGEND

- P1 (I) — SOLDIER PILE
- SOIL ANCHOR
- (B) — BUILDING GRID LOCATION
- FACE OF SOLDIER PILE WALL
- 100 — EXISTING GRADE CONTOUR
- PROPOSED BUILDING WALL

DESIGN	DRAWN	REVIEW	DATE	REV	DESCRIPTION
CJW	JSS	RJB	4/30/18	0	PERMIT ISSUE
CJW	JSS	RJB	9/18/18	1	COMMENT RESPONSE
CJW	JSS	RJB	2/8/19	2	EAST & WEST ADJUSTMENTS

CHRIS J. WOLSCHLAG — 22400 — REGISTERED PROFESSIONAL ENGINEER — STATE OF WASHINGTON
2/8/19

Ground Support PLLC
16932 Woodinville Redmond Rd NE, #210
Woodinville, WA 98072
Ph: (425) 488-1143 Fax: (425) 605-4057

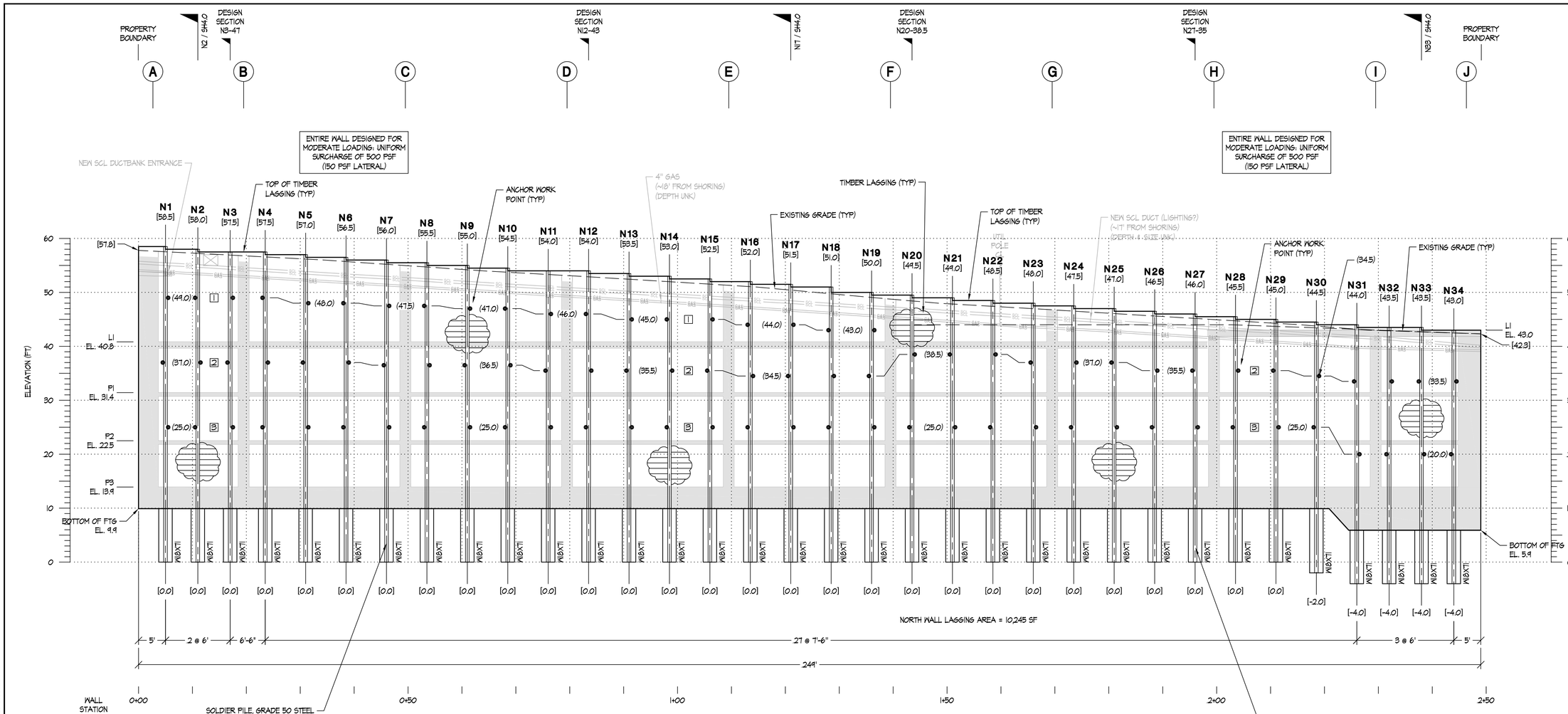
700 DEXTER AVENUE NORTH
TEMPORARY SHORING WALL SHORING PLAN

PROJ. NO. 17-49

SHEET NUMBER

SH2.3

D:\Jobs\2017\17-49 (700 Dexter Ave-WA-BMR Dexter LLC)\(shoring)\(permitting)\R2 (20190208)\17499sh02dR2.dwg, 2/8/2019 6:39:16 AM



NORTH WALL
ANCHOR SCHEDULE

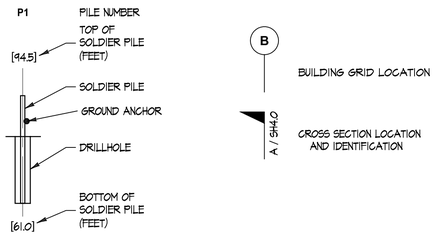
PILE(S)	ROW NUMBER	DECLI-NATION (DEG)	TOTAL LENGTH (FT)	UNBOND LENGTH (FT)	BOND LENGTH (FT)	NO. OF STRANDS	DESIGN LOAD (K)	LOCKOFF LOAD (K)
N1-N11	1	20	68	25	43	5	144	144
	2	20	65	22	43	5	152	152
	3	20	63	16	47	5	167	167
N12-N19	1	20	58	23	35	4	117	117
	2	20	57	21	36	4	124	124
	3	20	58	16	42	5	147	147

NORTH WALL
ANCHOR SCHEDULE

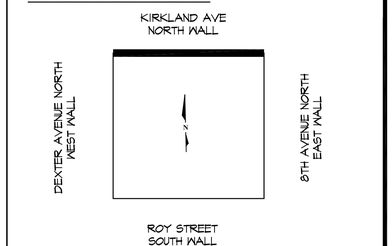
PILE(S)	ROW NUMBER	DECLI-NATION (DEG)	TOTAL LENGTH (FT)	UNBOND LENGTH (FT)	BOND LENGTH (FT)	NO. OF STRANDS	DESIGN LOAD (K)	LOCKOFF LOAD (K)
N20-N26	2	20	65	21	44	5	152	152
	3	20	60	15	45	5	158	158
N27-N30	2	20	55	19	36	4	124	124
	3	20	53	15	38	4	133	133
N31-N34	2	20	65	21	44	5	152	152
	3	20	60	15	45	5	158	158

NOTE: INFORMATION SUPPLIED TO GROUND SUPPORT PLLC AT TIME OF SHORING DESIGN INSUFFICIENT TO CHECK FOR ALL POTENTIAL CONFLICTS BETWEEN SHORING ELEMENTS AND UTILITIES. CONTRACTOR IS RESPONSIBLE FOR LOCATION OF ALL UTILITIES WITHIN ZONE OF SHORING ELEMENTS AND FOR CHECKING THAT NO SUCH CONFLICTS EXIST.

LEGEND



WALL KEY PLAN



0 10 20
FEET

DESIGN	DRAWN	REVIEW	DATE	REV	DESCRIPTION
CJW	JSS	RJB	4/30/18	0	PERMIT ISSUE
CJW	JSS	RJB	9/18/18	1	COMMENT RESPONSE
CJW	JSS	RJB	2/8/19	2	EAST & WEST ADJUSTMENTS

CHRIS T. WOLSCHLAG — 22318 — REGISTERED PROFESSIONAL ENGINEER — STATE OF WASHINGTON
2/8/19

Ground Support PLLC
16932 Woodinville Redmond Rd NE, #210
Woodinville, WA 98072
Ph: (425) 488-1143 Fax: (425) 605-4057

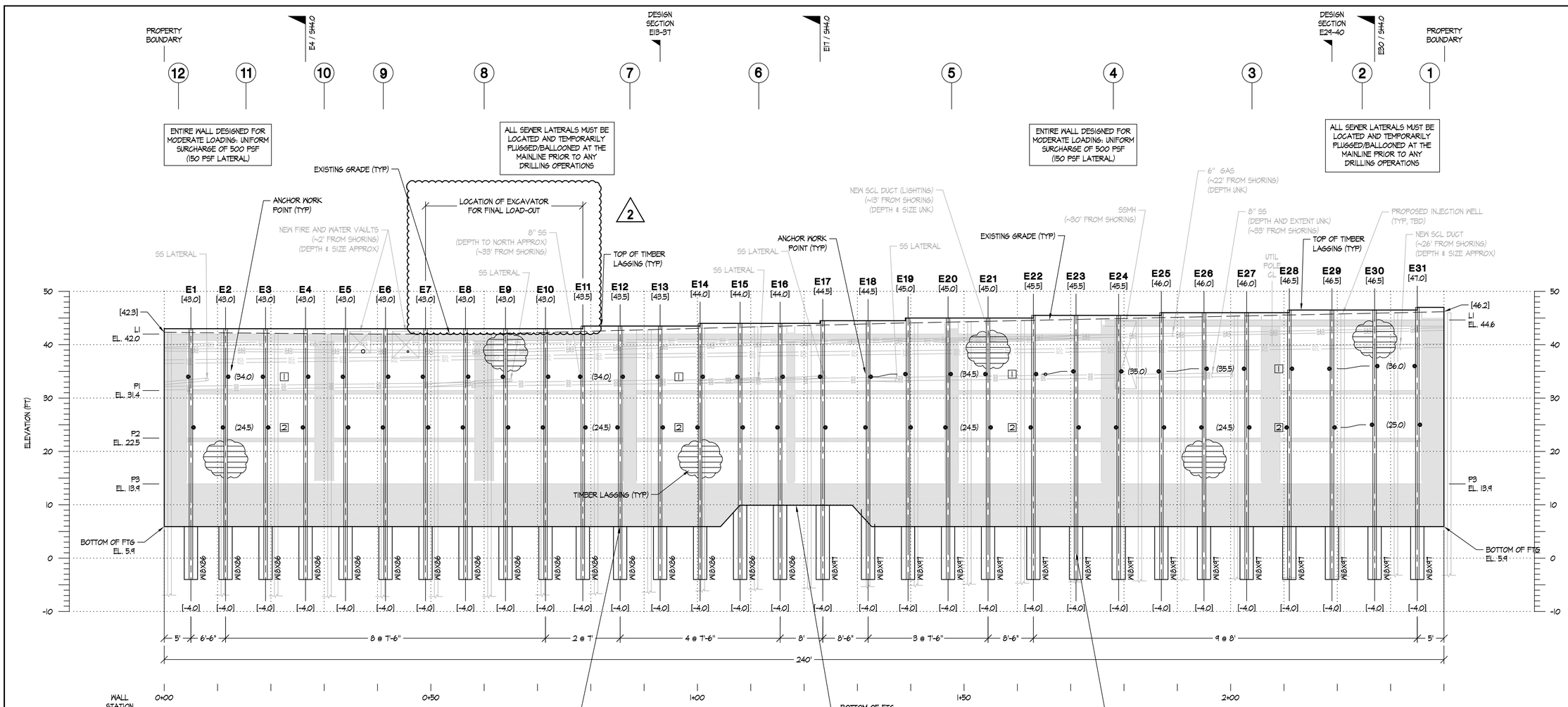
700 DEXTER AVENUE NORTH
TEMPORARY SHORING WALL
NORTH ELEVATION

PROJ. NO. 17-49

SHEET NUMBER

SH3.0

D:\Jobs\2017\17-49 (700 Dexter Ave-WA-BMR Dexter LLC)\(shoring)\(permitting)\R2 (20190208)\17495sh03aR2.dwg, 2/8/2019 6:39:21 AM



EAST WALL

ANCHOR SCHEDULE

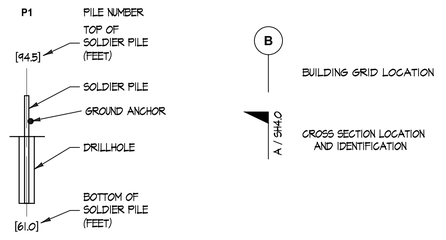
PILE(S)	ROW NUMBER	DECLINATION (DEG)	TOTAL LENGTH (FT)	UNBOND LENGTH (FT)	BOND LENGTH (FT)	NO. OF STRANDS	DESIGN LOAD (K)	LOCKOFF LOAD (K)
E1-E4, E14-E16	1	20	58	20	38	4	115	115
	2	20	63	17	46	5	161	161
E5-E13	1	20	58	20	38	4	131	131
	2	20	63	17	46	5	161	161
E17-E31	1	20	68	22	46	5	158	158
	2	20	67	17	50	5	189	189

2

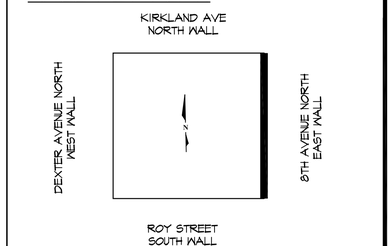
EAST WALL LAGGING AREA = 9,150 SF

NOTE: INFORMATION SUPPLIED TO GROUND SUPPORT PLLC AT TIME OF SHORING DESIGN INSUFFICIENT TO CHECK FOR ALL POTENTIAL CONFLICTS BETWEEN SHORING ELEMENTS AND UTILITIES. CONTRACTOR IS RESPONSIBLE FOR LOCATION OF ALL UTILITIES WITHIN ZONE OF SHORING ELEMENTS AND FOR CHECKING THAT NO SUCH CONFLICTS EXIST.

LEGEND



WALL KEY PLAN



0 10 20
FEET

DESIGN	DRAWN	REVIEW	DATE	REV	DESCRIPTION
CJW	JSS	RJB	4/30/18	0	PERMIT ISSUE
CJW	JSS	RJB	9/18/18	1	COMMENT RESPONSE
CJW	JSS	RJB	2/8/19	2	EAST & WEST ADJUSTMENTS

CHRIS T. WOLSCHLAG — 2/8/19

Ground Support PLLC
16932 Woodinville Redmond Rd NE, #210
Woodinville, WA 98072
Ph: (425) 488-1143 Fax: (425) 605-4057

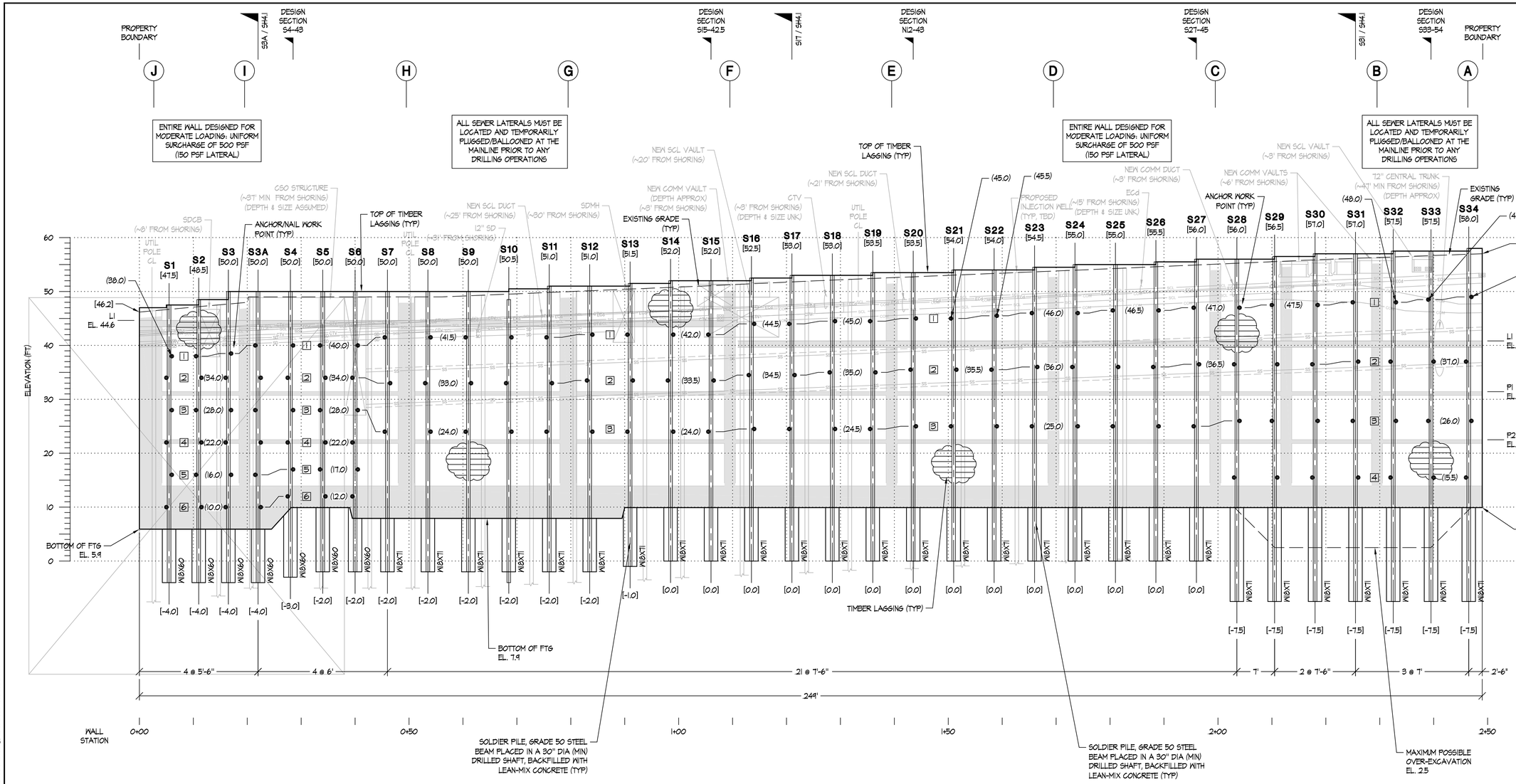
700 DEXTER AVENUE NORTH
TEMPORARY SHORING WALL
EAST ELEVATION

PROJ. NO. 17-49

SHEET NUMBER

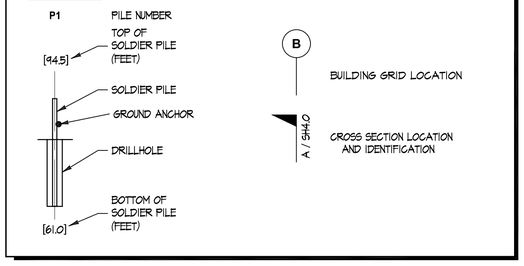
SH3.1

D:\Jobs\2017\17-49 (700 Dexter Ave-WA-BMR Dexter LLC)\(shoring)\(permitting)\R2 (20190208)\17499sh03bR2.dwg, 2/8/2019 6:39:26 AM

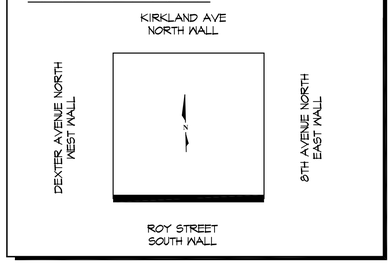


NOTE: INFORMATION SUPPLIED TO GROUND SUPPORT PLLC AT TIME OF SHORING DESIGN INSUFFICIENT TO CHECK FOR ALL POTENTIAL CONFLICTS BETWEEN SHORING ELEMENTS AND UTILITIES. CONTRACTOR IS RESPONSIBLE FOR LOCATION OF ALL UTILITIES WITHIN ZONE OF SHORING ELEMENTS AND FOR CHECKING THAT NO SUCH CONFLICTS EXIST.

LEGEND



WALL KEY PLAN



0 10 20 FEET

SOUTH WALL
ANCHOR SCHEDULE

PILE(S)	ROW NUMBER	DECLI-NATION (DEG)	TOTAL LENGTH (FT)	UNBOND LENGTH (FT)	BOND LENGTH (FT)	NO. OF STRANDS	DESIGN LOAD (K)	LOCKOFF LOAD (K)
S1-S15	1	20	59	23	36	4	125	125
	2	20	57	21	36	4	125	125
	3	20	59	16	43	5	148	148
S16-S20	1	23	58	23	35	4	117	117
	2	20	57	21	36	4	124	124
	3	20	58	16	42	5	147	147
S21-S27	1	23	62	24	38	4	130	130
	2	20	61	22	39	4	135	135
	3	20	61	16	45	5	159	159
S28-S34	1	23	70	27	43	5	158	158
	2	20	70	27	43	5	155	155
	3	20	65	22	43	5	148	148
	4	20	62	17	45	5	158	158

SOUTH WALL LAGGING AREA = 10,900 SF

SOUTH WALL
NAIL SCHEDULE PILES S1-S6

ROW	BAR	GRADE	L (UNO)	α (UNO)	Q_D
1	1"	150	33	20	3.5
2	1"	150	33	18	3.5
3	1"	150	33	15	3.5
4	1"	150	33	15	3.5
5	1"	150	26	15	3.5
6	1"	150	17	15	3.5

SOIL NAILS ON PILES S1-S6 ARE NOT STRESSED AND ARE PASSIVE FULLY-GROUTED BAR ANCHORS/NAILS

DESIGN	DRAWN	REVIEW	DATE	REV	DESCRIPTION
CJW	JSS	RJB	4/30/18	0	PERMIT ISSUE
CJW	JSS	RJB	9/18/18	1	COMMENT RESPONSE
CJW	JSS	RJB	2/8/19	2	EAST & WEST ADJUSTMENTS

CHRIS T. WOLSCHLAG — 21819 — REGISTERED PROFESSIONAL ENGINEER — STATE OF WASHINGTON

Ground Support PLLC
16932 Woodinville Redmond Rd NE, #210
Woodinville, WA 98072
Ph: (425) 488-1143 Fax: (425) 605-4057

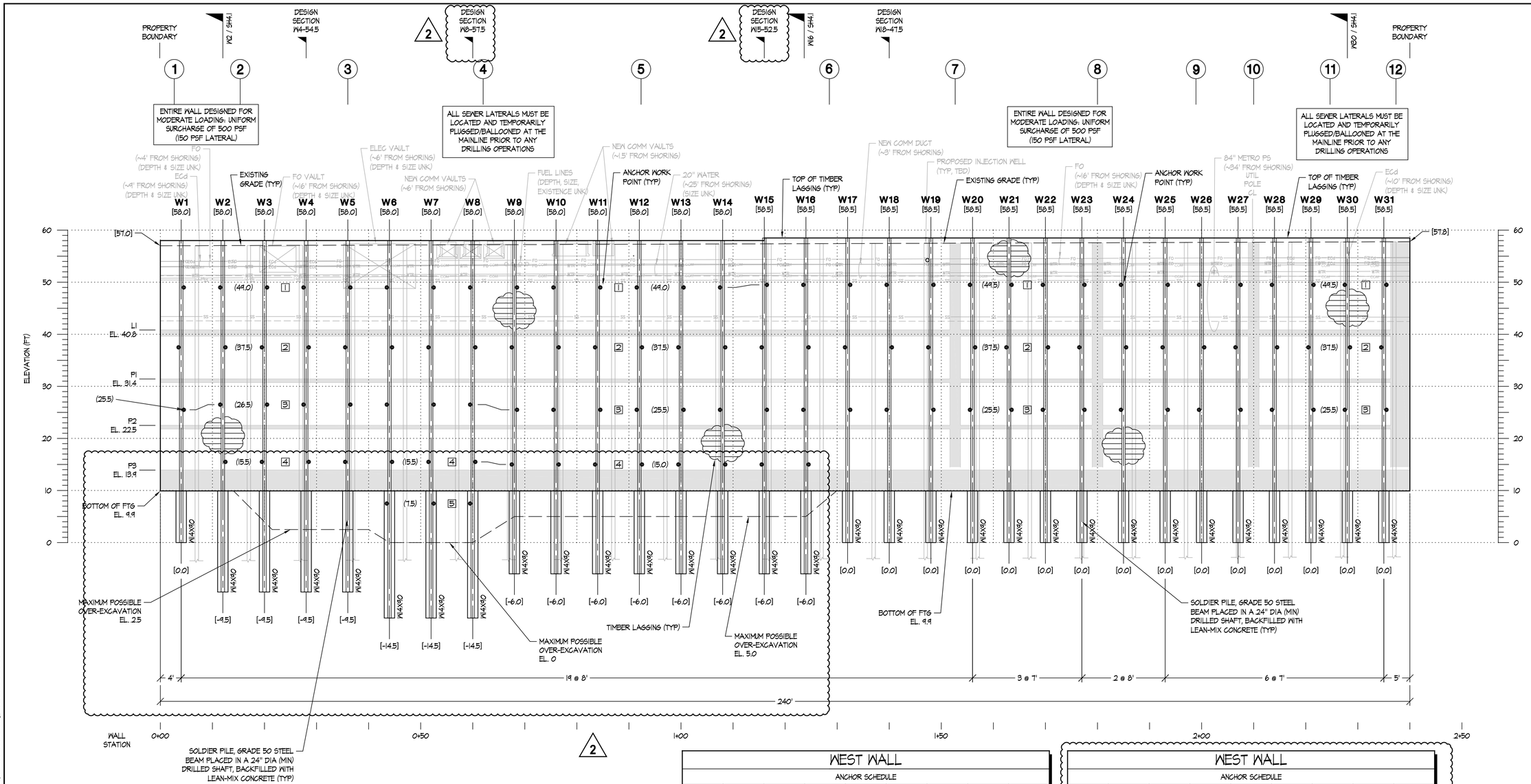
700 DEXTER AVENUE NORTH
TEMPORARY SHORING WALL
SOUTH ELEVATION

PROJ. NO. 17-49

SHEET NUMBER

SH3.2

D:\Jobs\2017\17-49 (700 Dexter Ave-WA-BMR Dexter LLC)\(shoring)\(permitting)\R2 (20190208)\17495sh03x82.dwg, 2/8/2019 6:39:31 AM



NOTE: INFORMATION SUPPLIED TO GROUND SUPPORT PLLC AT TIME OF SHORING DESIGN INSUFFICIENT TO CHECK FOR ALL POTENTIAL CONFLICTS BETWEEN SHORING ELEMENTS AND UTILITIES. CONTRACTOR IS RESPONSIBLE FOR LOCATION OF ALL UTILITIES WITHIN ZONE OF SHORING ELEMENTS AND FOR CHECKING THAT NO SUCH CONFLICTS EXIST.

WEST WALL
ANCHOR SCHEDULE

PILE(S)	ROW NUMBER	DECLINATION (DEG)	TOTAL LENGTH (FT)	UNBOND LENGTH (FT)	BOND LENGTH (FT)	NO. OF STRANDS	DESIGN LOAD (K)	LOCKOFF LOAD (K)
W1, W17-W31	1	23	71	26	45	5	155	155
	2	20	70	23	47	5	164	164
	3	20	67	17	50	6	184	184
W2-W5	1	23	75	28	45	5	164	164
	2	20	76	28	47	5	167	167
	3	20	70	22	50	5	163	163
	4	20	67	17	50	5	174	174

WEST WALL
ANCHOR SCHEDULE

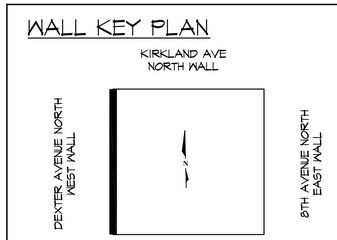
PILE(S)	ROW NUMBER	DECLINATION (DEG)	TOTAL LENGTH (FT)	UNBOND LENGTH (FT)	BOND LENGTH (FT)	NO. OF STRANDS	DESIGN LOAD (K)	LOCKOFF LOAD (K)
W6-W8	1	23	76	28	48	5	170	170
	2	20	76	28	48	5	168	168
	3	20	71	24	47	5	164	164
	4	20	59	18	41	5	142	142
	5	20	48	15	33	4	114	114
W9-W16	1	23	74	27	47	5	163	163
	2	20	75	26	49	5	169	169
	3	20	66	20	46	5	159	159
	4	20	56	15	41	5	142	142

WEST WALL LAGGING AREA = 11,600 SF

LEGEND

P1 PILE NUMBER
[94.5] TOP OF SOLDIER PILE (FEET)
SOLDIER PILE
GROUND ANCHOR
DRILLHOLE
[61.0] BOTTOM OF SOLDIER PILE (FEET)
B — BUILDING GRID LOCATION
A / SH4.0 — CROSS SECTION LOCATION AND IDENTIFICATION

WALL KEY PLAN



0 10 20
FEET

DESIGN	DRAWN	REV/EW'K	DATE	REV	DESCRIPTION
CJW	JBS	RJB	4/30/18	0	PERMIT ISSUE
CJW	JBS	RJB	9/18/18	1	COMMENT RESPONSE
CJW	JBS	RJB	2/8/19	2	EAST & WEST ADJUSTMENTS

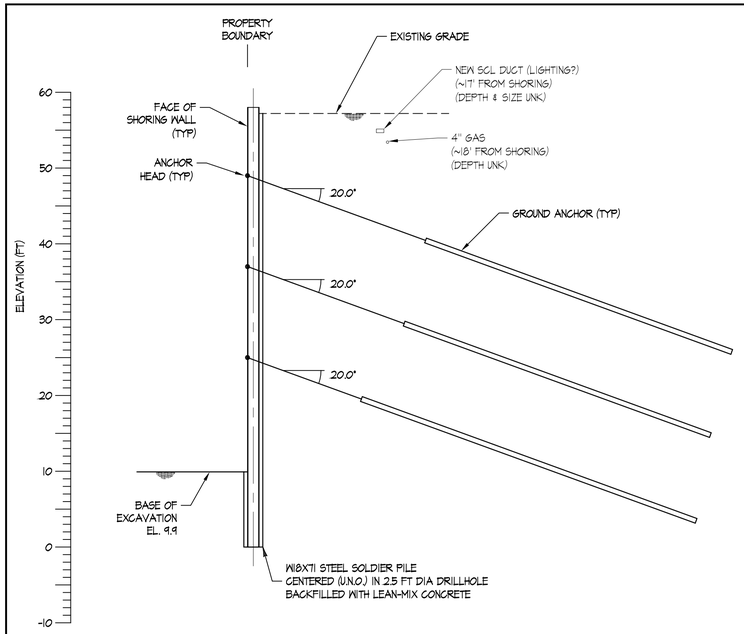
CHRIS T. WOLTSCHLAG — 2/8/19

Ground Support PLLC
16932 Woodinville Redmond Rd NE, #210
Woodinville, WA 98072
Ph: (425) 488-1143 Fax: (425) 605-4057

700 DEXTER AVENUE NORTH
TEMPORARY SHORING WALL
WEST ELEVATION

PROJ. NO. 17-49
SHEET NUMBER
SH3.3

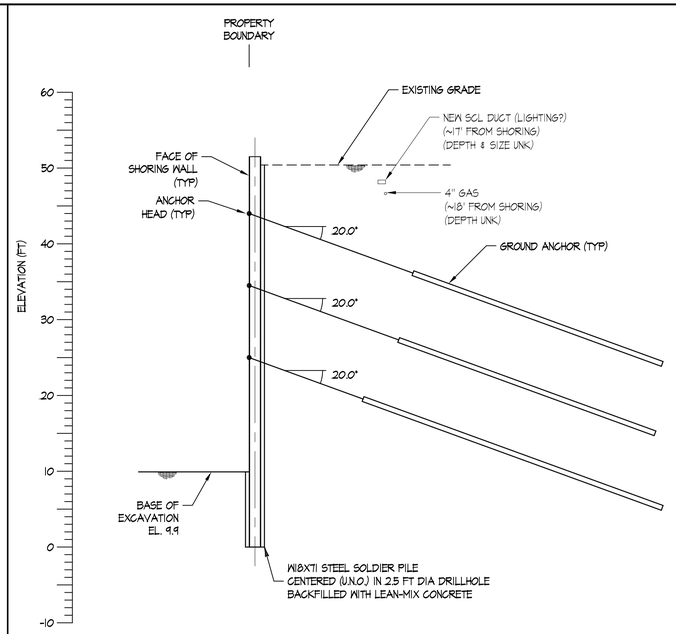
D:\Jobs\2017\17-49 (700 Dexter Ave-WA-BMR Dexter LLC)\(shoring)\(permitting)\R2 (20190208)\1749sh03dR2.dwg, 2/8/2019 6:39:35 AM



N2 / SH4.0

NORTH WALL
CROSS-SECTION AT
PILE N2

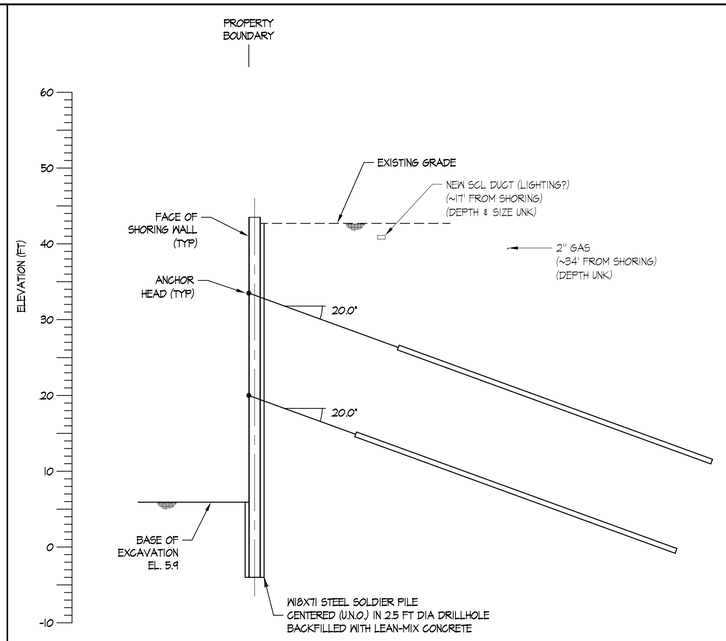
0 10
FEET



N17 / SH4.0

NORTH WALL
CROSS-SECTION AT
PILE N17

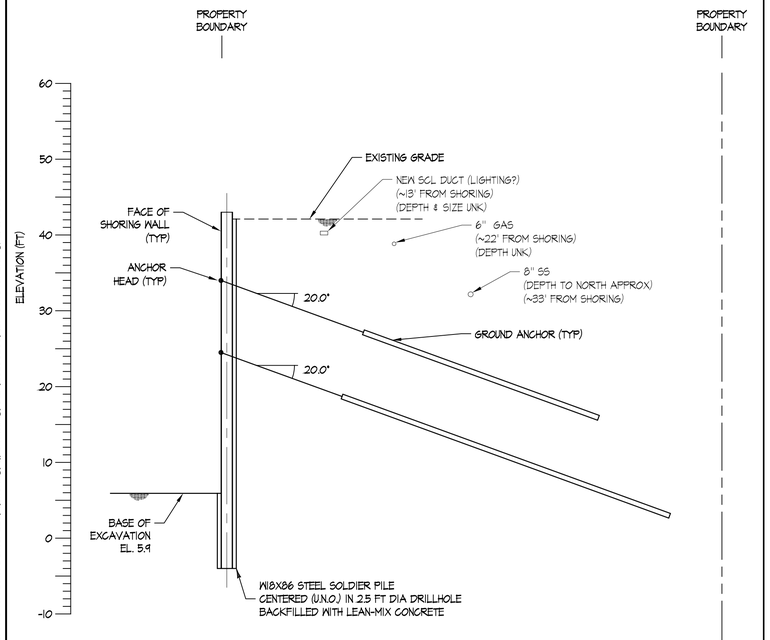
0 10
FEET



N33 / SH4.0

NORTH WALL
CROSS-SECTION AT
PILE N33

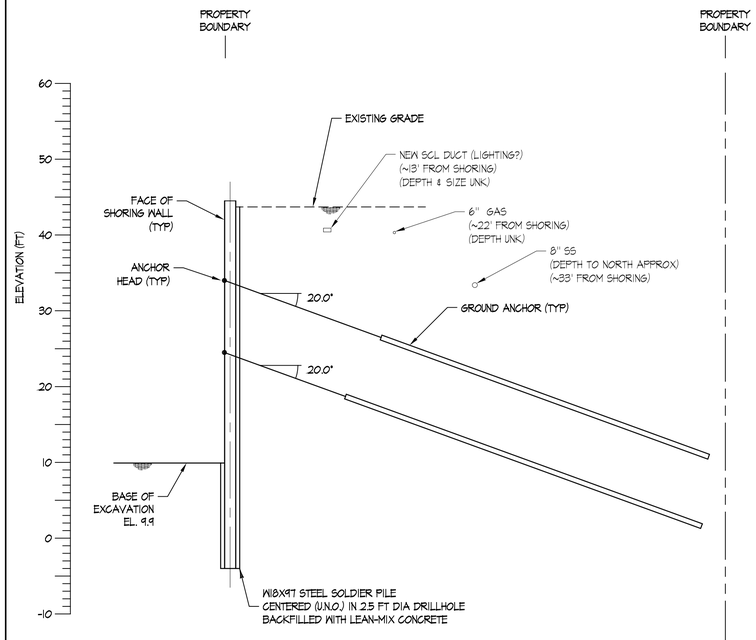
0 10
FEET



E4 / SH4.0

EAST WALL
CROSS-SECTION AT
PILE E4

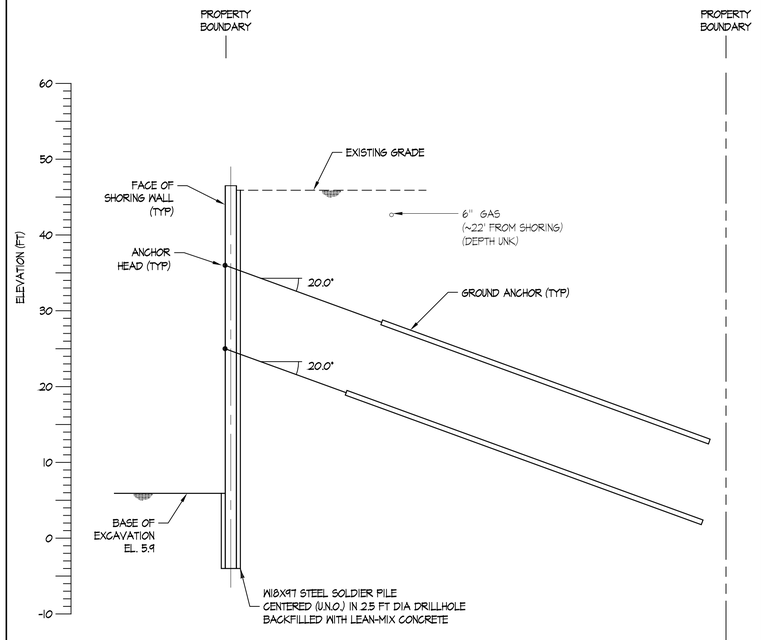
0 10
FEET



E17 / SH4.0

EAST WALL
CROSS-SECTION AT
PILE E17

0 10
FEET



E30 / SH4.0

EAST WALL
CROSS-SECTION AT
PILE E30

0 10
FEET

DESIGN	DRAWN	REVIEW	DATE	REV	DESCRIPTION
CJW	JSS	RJB	4/30/18	0	PERMIT ISSUE
CJW	JSS	RJB	9/18/18	1	COMMENT RESPONSE
CJW	JSS	RJB	2/8/19	2	EAST & WEST ADJUSTMENTS

CHRIS T. WOLOSCHLAG
REGISTERED PROFESSIONAL ENGINEER
STATE OF WASHINGTON
2/8/19

Ground Support PLLC
16932 Woodinville Redmond Rd NE, #210
Woodinville, WA 98072
Ph: (425) 488-1143 Fax: (425) 605-4057

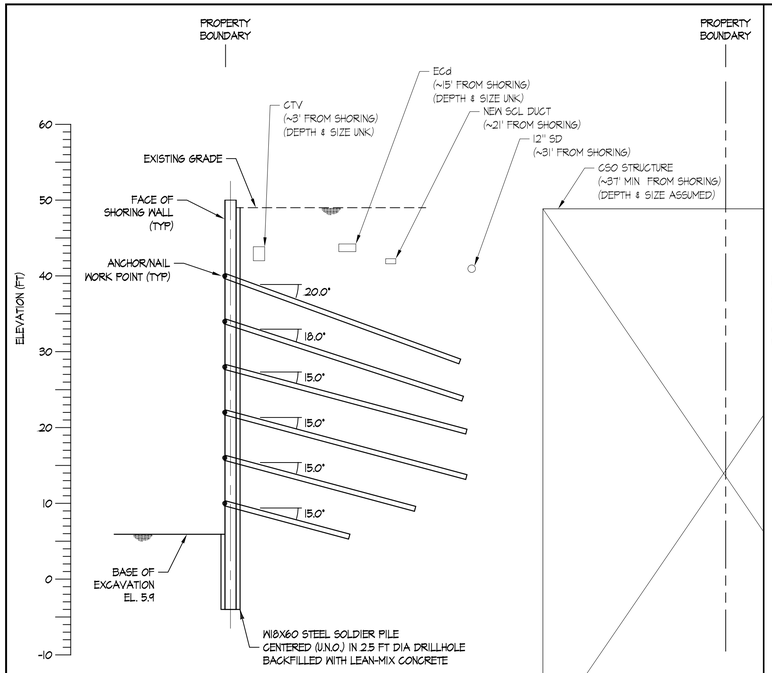
700 DEXTER AVENUE NORTH
TEMPORARY SHORING WALL CROSS-SECTIONS

PROJ. NO. 17-49

SHEET NUMBER

SH4.0

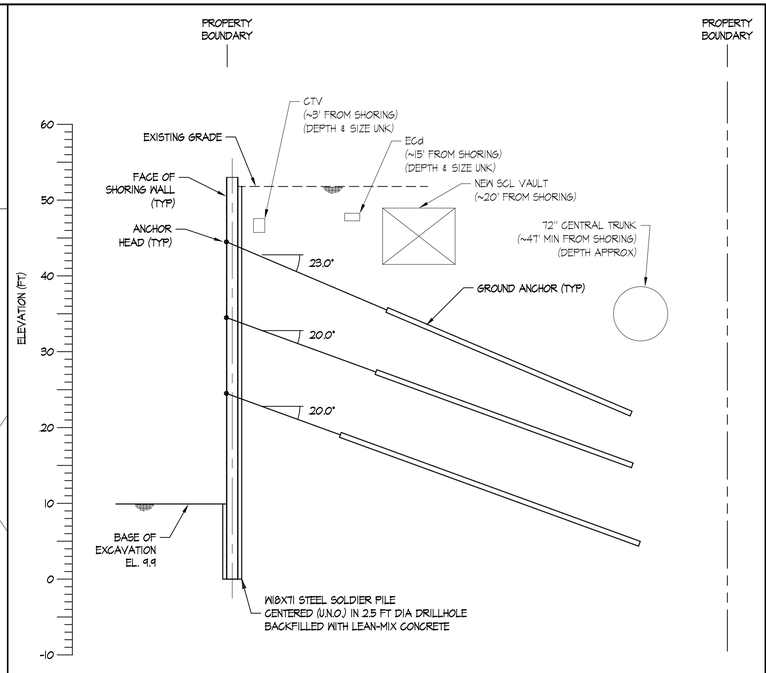
D:\Jobs\2017\17-49 (700 Dexter Ave-WA-BMR Dexter LLC)\(shoring)\(permitting)\R2 (20190208)\17498sh04aR2.dwg, 2/8/2019 6:39:42 AM



SOUTH WALL
CROSS-SECTION AT
PILE S3A

S4 / SH4.1

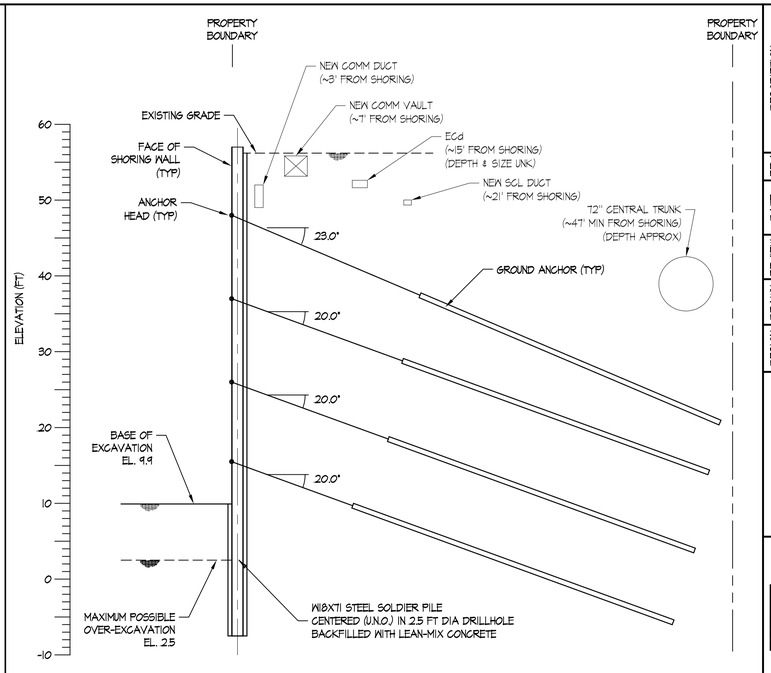
0 10
FEET



SOUTH WALL
CROSS-SECTION AT
PILE S17

S17 / SH4.1

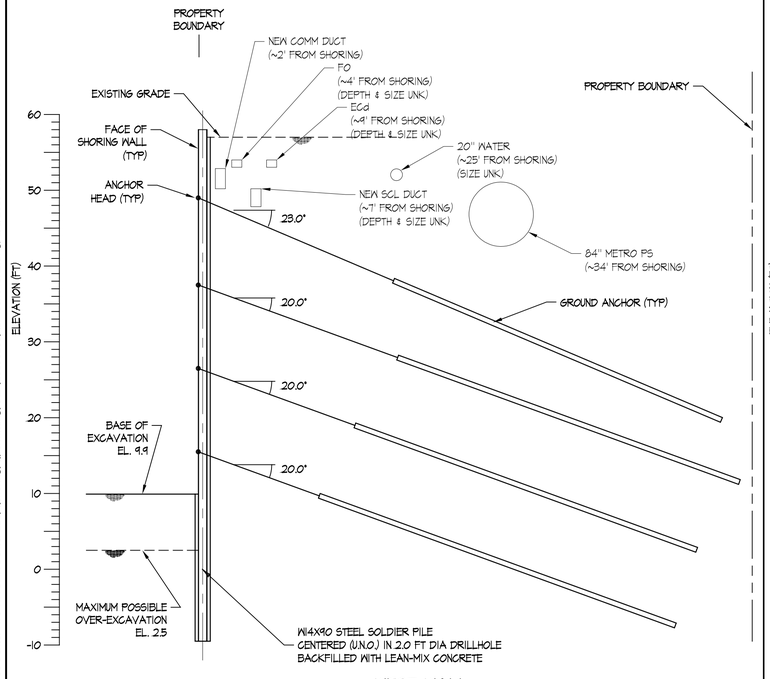
0 10
FEET



SOUTH WALL
CROSS-SECTION AT
PILE S31

S31 / SH4.1

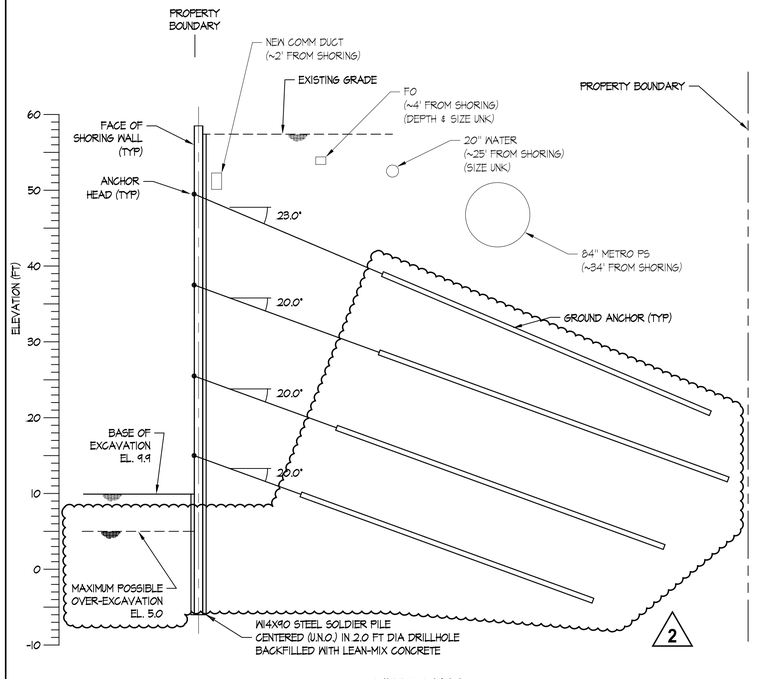
0 10
FEET



WEST WALL
CROSS-SECTION AT
PILE W2

W2 / SH4.1

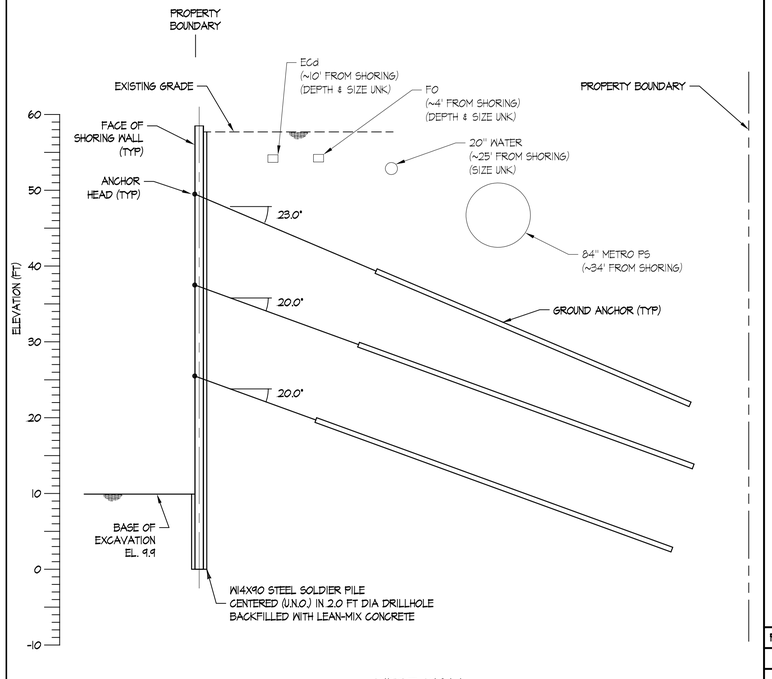
0 10
FEET



WEST WALL
CROSS-SECTION AT
PILE W16

W16 / SH4.1

0 10
FEET



WEST WALL
CROSS-SECTION AT
PILE W30

W30 / SH4.1

0 10
FEET

DESIGN	DRAWN	REVIEW	DATE	REV	DESCRIPTION
CJM	JSS	RJB	4/30/18	0	PERMIT ISSUE
CJM	JSS	RJB	9/18/18	1	COMMENT RESPONSE
CJM	JSS	RJB	2/8/19	2	EAST & WEST ADJUSTMENTS

CHRIS T. WOLOSCHLAG
REGISTERED PROFESSIONAL ENGINEER
STATE OF WASHINGTON
2/8/19

Ground Support PLLC
16932 Woodinville Redmond Rd NE, #210
Woodinville, WA 98072
Ph: (425) 488-1143 Fax: (425) 605-4057

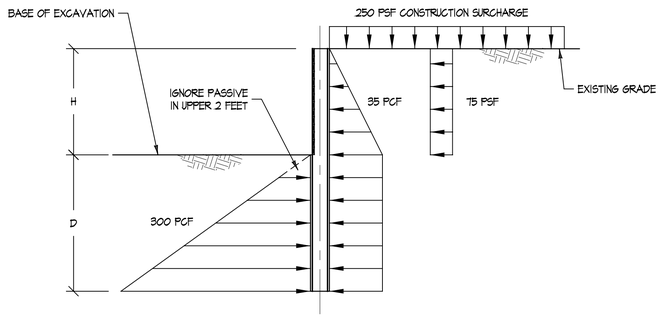
700 DEXTER AVENUE NORTH
TEMPORARY SHORING WALL
CROSS-SECTIONS

PROJ. NO. 17-49

SHEET NUMBER

SH4.1

D:\Jobs\2017\17-49 (700 Dexter Ave-WA-BMR Dexter LLC)\(shoring)\(permitting)\R2 (20190208)\1749sh04bR2.dwg, 2/8/2019 6:39:51 AM



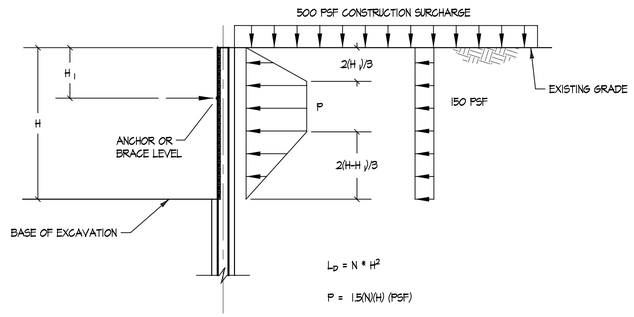
NOTES:

1) BELOW THE EXCAVATION BASE, ACTIVE AND PASSIVE PRESSURES ARE APPLIED TO AN EFFECTIVE PILE WIDTH EQUAL TO 1 AND 2 PILE DIAMETERS, RESPECTIVELY.

2) TOE EMBEDMENT IS DETERMINED BY ACHIEVING FORCE AND MOMENT BALANCE THROUGHOUT TOE OF PILE.

3) NOTE THAT DURING THE CANTILEVER STAGE, THE CONSTRUCTION SURCHARGE IS LIMITED TO HALF THE FULL DESIGN VALUE, UNTIL THE FIRST ROW OF ANCHORS IS TESTED AND LOCKED OFF.

1 / SH5.0 — SHORING DESIGN DIAGRAM
CANTILEVERED PILES
NOT TO SCALE

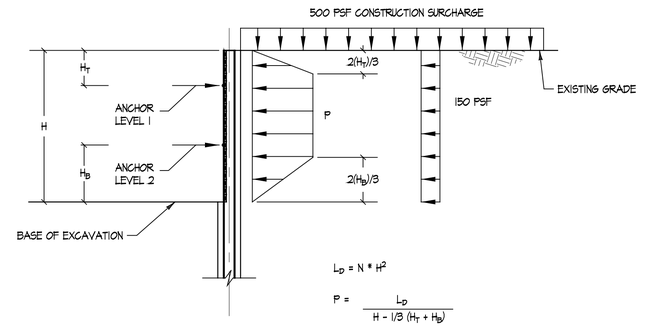


NOTES:

1. EQUIVALENT UNIFORM EARTH PRESSURE FACTOR, "N", EQUAL TO 25 PCF PER THE DESIGN DIAGRAM PRESENTED IN THE GEOTECHNICAL REPORT.

2. THE SHAPE OF THE ACTUAL DIAGRAM UTILIZED IS BASED ON PUBLICATION NO. FHWA-IF-99-015, GEOTECHNICAL ENGINEERING CIRCULAR NO. 4, GROUND ANCHORS AND ANCHORED SYSTEMS.

2 / SH5.0 — SHORING DESIGN DIAGRAM
SINGLE-ANCHORED PILES
NOT TO SCALE

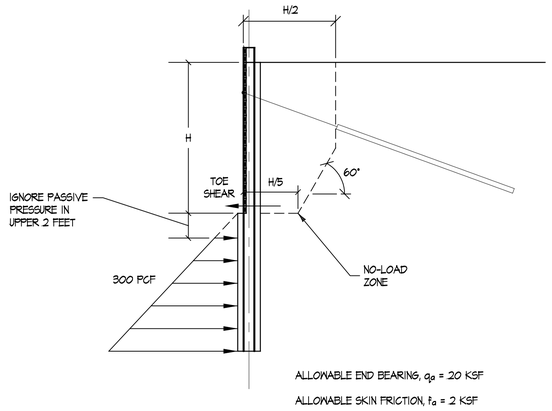


NOTES:

1. EQUIVALENT UNIFORM EARTH PRESSURE FACTOR, "N", EQUAL TO 25 PCF PER THE DESIGN DIAGRAM PRESENTED IN THE GEOTECHNICAL REPORT.

2. THE SHAPE OF THE ACTUAL DIAGRAM UTILIZED IS BASED ON PUBLICATION NO. FHWA-IF-99-015, GEOTECHNICAL ENGINEERING CIRCULAR NO. 4, GROUND ANCHORS AND ANCHORED SYSTEMS.

3 / SH5.0 — SHORING DESIGN DIAGRAM
MULTIPLE-ANCHORED PILES
NOT TO SCALE



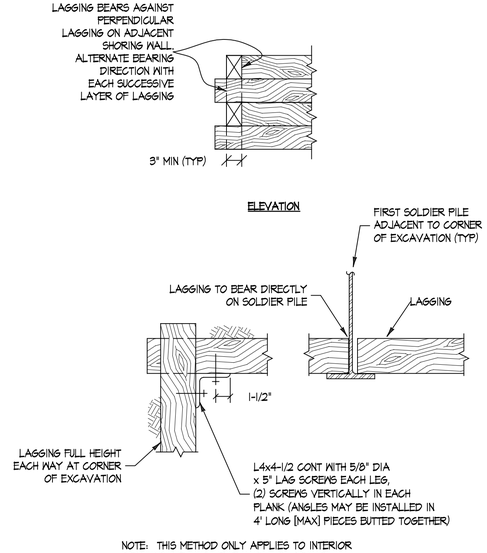
ALLOWABLE END BEARING, q_a = 20 KSF

ALLOWABLE SKIN FRICTION, f_a = .2 KSF

NOTE:

TOE EMBEDMENT DETERMINED BY APPLYING TOE SHEAR AND APPLYING PASSIVE LOAD OVER 2 PILE DIAMETERS, AND ADJUSTING DEPTH TO BALANCE LATERAL LOADS.

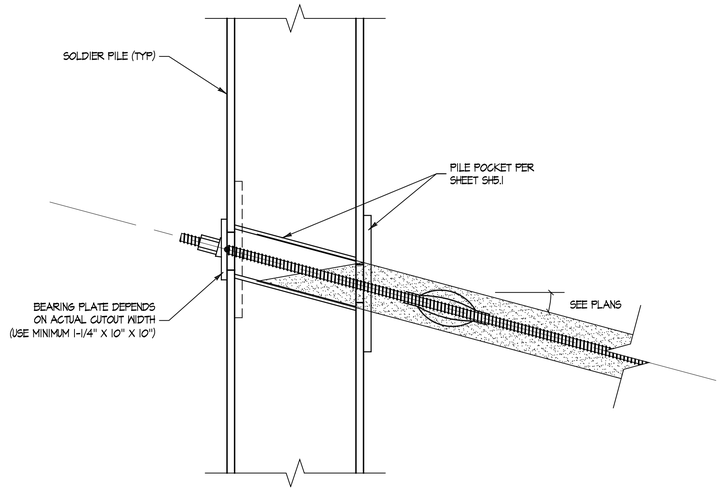
4 / SH5.0 — NO-LOAD ZONE &
TOE EMBEDMENT DIAGRAM
NOT TO SCALE



NOTE: THIS METHOD ONLY APPLIES TO INTERIOR CORNERS WITH INCLUDED ANGLE OF 90°±10°.

PLAN

5 / SH5.0 — INTERIOR CORNER TIMBER
LAGGING SUPPORT DETAIL
NOT TO SCALE



NOTE:

THE CONTRACTOR SHALL SUBMIT A SHOP DRAWING OF THE PROPOSED ANCHOR TO PILE CONNECTION TO THE ENGINEER FOR APPROVAL PRIOR TO FABRICATION.

6 / SH5.0 — SOIL NAIL / BAR ANCHOR
PILE CONNECTION DETAIL
NOT TO SCALE

DESIGN	DRAWN	REVIEW	DATE	REV	DESCRIPTION
CJW	JSS	RJB	4/30/18	0	PERMIT ISSUE
CJW	JSS	RJB	9/6/18	1	COMMENT RESPONSE
CJW	JSS	RJB	2/8/19	2	EAST & WEST ADJUSTMENTS

CHRIS T. WOLSCHLAG — REGISTERED PROFESSIONAL ENGINEER — STATE OF WASHINGTON — 22400 — 2/8/19

Ground Support PLLC
16932 Woodinville Redmond Rd NE, #210
Woodinville, WA 98072
Ph: (425) 488-1143 Fax: (425) 605-4057

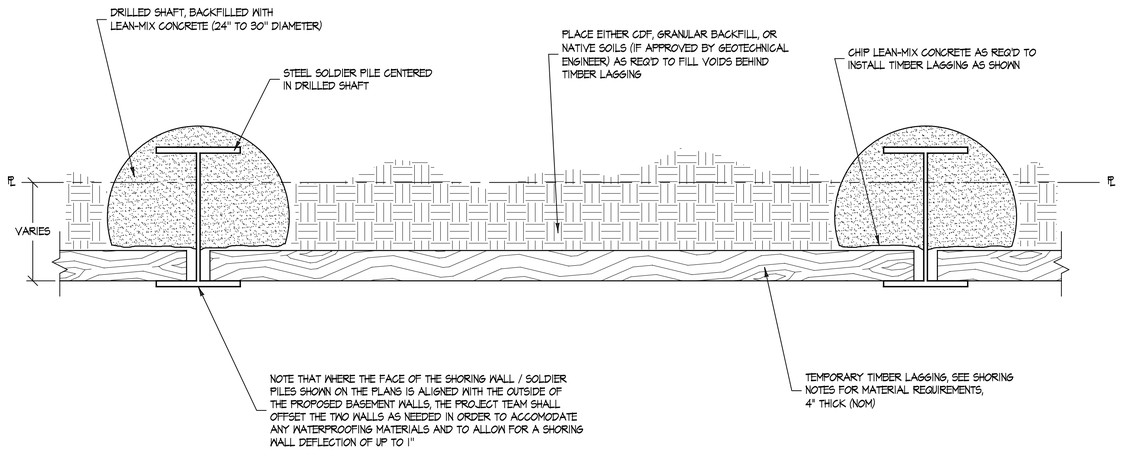
700 DEXTER AVENUE NORTH
TEMPORARY SHORING WALL
DETAILS

PROJ. NO. 17-49

SHEET NUMBER

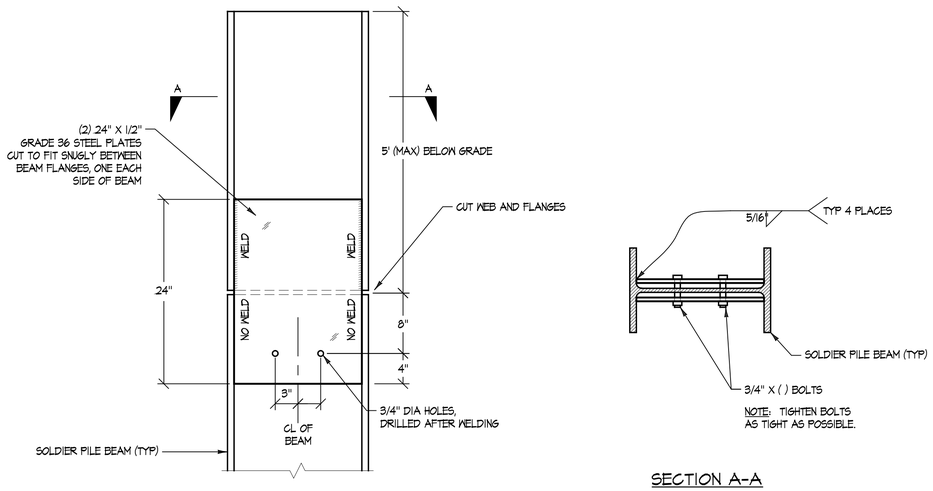
SH5.0

D:\Jobs\2017\17-49 (700 Dexter Ave-WA-BMR Dexter LLC)\(shoring)\(permitting)\R2 (20190208)\17495h05aR2.dwg, 2/8/2019 6:39:57 AM



1 / SH5.1 — PILE / SHAFT / TIMBER LAGGING PLACEMENT DETAIL

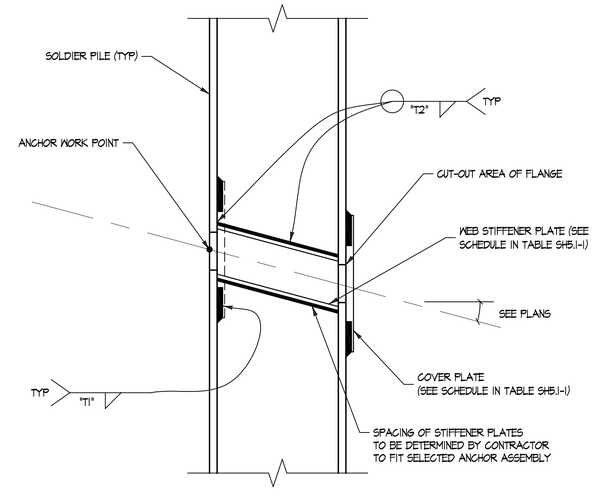
NOT TO SCALE



SECTION A-A

2 / SH5.1 — TYPICAL REMOVABLE TOP CONNECTION DETAIL

NOT TO SCALE

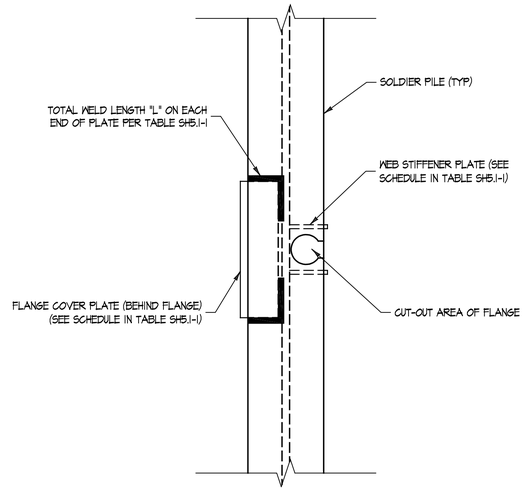


NOTE:

THE CONTRACTOR SHALL SUBMIT A SHOP DRAWING OF THE PROPOSED ANCHOR TO PILE CONNECTION TO THE ENGINEER FOR APPROVAL PRIOR TO FABRICATION.

3 / SH5.1 — ANCHOR TO PILE CONNECTION DETAIL (SIDE VIEW)

NOT TO SCALE



NOTE:

THE CONTRACTOR SHALL SUBMIT A SHOP DRAWING OF THE PROPOSED ANCHOR TO PILE CONNECTION TO THE ENGINEER FOR APPROVAL PRIOR TO FABRICATION.

4 / SH5.1 — ANCHOR TO PILE CONNECTION DETAIL (FRONT VIEW)

NOT TO SCALE

TABLE SH5.1-1
ANCHOR TO PILE CONNECTION SCHEDULE

PILE SECTION	GRADE 36 COVER PLATE DIMENSIONS (IN)	COVER PLATE WELD LENGTH L (IN)	COVER PLATE WELD SIZE T1 (IN)	WEB STIFFENER PLATE DIMENSIONS (IN)	WEB STIFFENER PLATE WELD SIZE T2 (IN)
W14X90	1-1/2 X 7 X 44	26	5/8	1 x 6 X FULL HT	5/16
W18X60	1 X 4 X 35	18	5/16	1 x 4 X FULL HT	5/16
W18XT1	1 X 4 X 43	22	5/16	1 x 4 X FULL HT	5/16
W18XT6	1 X 5 X 40	22	3/8	1 x 5 X FULL HT	5/16
W18X86	1-1/4 X 5 X 46	25	3/8	1 x 5 X FULL HT	5/16
W18X97	1-1/4 X 5-1/2 X 46	25	7/16	1 x 5 X FULL HT	5/16

NOTE:

WEB STIFFENER PLATES ARE FULL DEPTH, ARE FLUSH AT BEARING END, AND WELDED FULL LENGTH AND ALONG BEARING END ON ONE SIDE ONLY

5 / SH5.1 — ANCHOR TO PILE CONNECTION SCHEDULE

NOT TO SCALE

DESIGN	DRAWN	REVIEW	DATE	REV	DESCRIPTION
CJW	JSS	RJB	4/30/18	0	PERMIT ISSUE
CJW	JSS	RJB	9/10/18	1	COMMENT RESPONSE
CJW	JSS	RJB	2/8/19	2	EAST & WEST ADJUSTMENTS

CHRIS T. WOLOSCHLAG — REGISTERED PROFESSIONAL ENGINEER — STATE OF WASHINGTON — 22400 — 2/8/19

Ground Support PLLC
16932 Woodinville Redmond Rd NE, #210
Woodinville, WA 98072
Ph: (425) 488-1143 Fax: (425) 605-4057

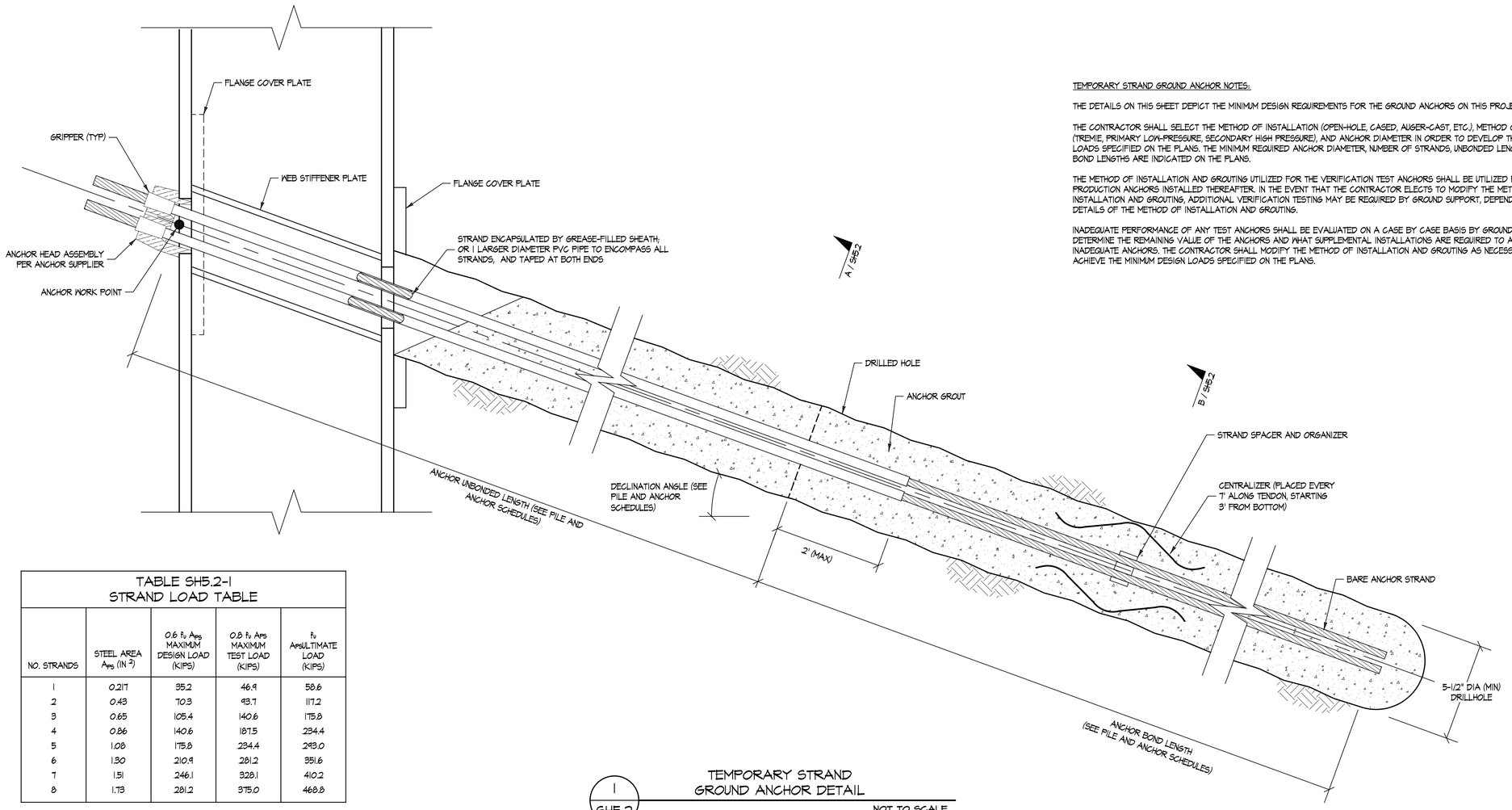
700 DEXTER AVENUE NORTH
TEMPORARY SHORING WALL DETAILS

PROJ. NO. 17-49

SHEET NUMBER

SH5.1

D:\Jobs\2017\17-49 (700 Dexter Ave-WA-BMR Dexter LLC)\shoring\(permitting)\R2 (20190208)\17495h05bR2.dwg, 2/8/2019 6:40:00 AM



1 / SH5.2 TEMPORARY STRAND GROUND ANCHOR DETAIL

NOT TO SCALE

TEMPORARY STRAND GROUND ANCHOR NOTES:

THE DETAILS ON THIS SHEET DEPICT THE MINIMUM DESIGN REQUIREMENTS FOR THE GROUND ANCHORS ON THIS PROJECT.

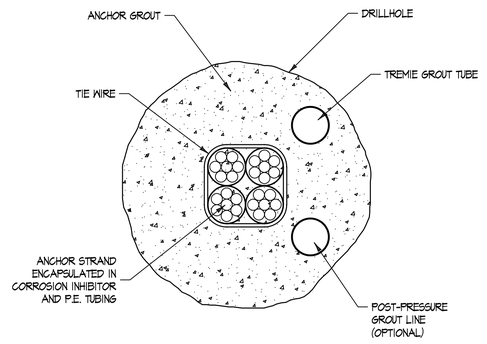
THE CONTRACTOR SHALL SELECT THE METHOD OF INSTALLATION (OPEN-HOLE, CASED, AUGER-CAST, ETC.), METHOD OF GROUTING (TREMIE, PRIMARY LOW-PRESSURE, SECONDARY HIGH PRESSURE), AND ANCHOR DIAMETER IN ORDER TO DEVELOP THE DESIGN LOADS SPECIFIED ON THE PLANS. THE MINIMUM REQUIRED ANCHOR DIAMETER, NUMBER OF STRANDS, UNBONDED LENGTHS, AND BOND LENGTHS ARE INDICATED ON THE PLANS.

THE METHOD OF INSTALLATION AND GROUTING UTILIZED FOR THE VERIFICATION TEST ANCHORS SHALL BE UTILIZED FOR ALL PRODUCTION ANCHORS INSTALLED THEREAFTER. IN THE EVENT THAT THE CONTRACTOR ELECTS TO MODIFY THE METHOD OF INSTALLATION AND GROUTING, ADDITIONAL VERIFICATION TESTING MAY BE REQUIRED BY GROUND SUPPORT, DEPENDING ON THE DETAILS OF THE METHOD OF INSTALLATION AND GROUTING.

INADEQUATE PERFORMANCE OF ANY TEST ANCHORS SHALL BE EVALUATED ON A CASE BY CASE BASIS BY GROUND SUPPORT TO DETERMINE THE REMAINING VALUE OF THE ANCHORS AND WHAT SUPPLEMENTAL INSTALLATIONS ARE REQUIRED TO AUGMENT THE INADEQUATE ANCHORS. THE CONTRACTOR SHALL MODIFY THE METHOD OF INSTALLATION AND GROUTING AS NECESSARY TO ACHIEVE THE MINIMUM DESIGN LOADS SPECIFIED ON THE PLANS.

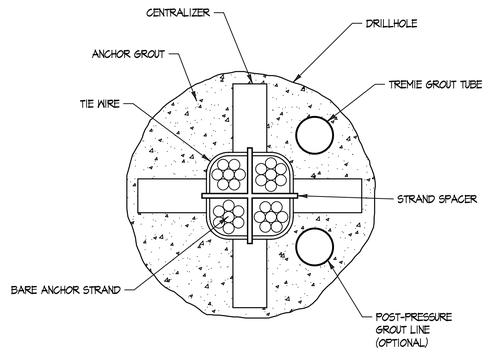
TABLE SH5.2-1
STRAND LOAD TABLE

NO. STRANDS	STEEL AREA A_{ps} (IN^2)	0.6 f_u A_{ps} MAXIMUM DESIGN LOAD (KIPS)	0.8 f_u A_{ps} MAXIMUM TEST LOAD (KIPS)	f_u A_{ps} ULTIMATE LOAD (KIPS)
1	0.217	35.2	46.9	58.6
2	0.43	70.3	93.7	117.2
3	0.65	105.4	140.6	175.8
4	0.86	140.6	187.5	234.4
5	1.08	175.8	234.4	293.0
6	1.30	210.9	281.2	351.6
7	1.51	246.1	328.1	410.2
8	1.73	281.2	375.0	468.8



A / SH5.2 UNBONDED ZONE TYPICAL SECTION

NOT TO SCALE



B / SH5.2 BONDED ZONE TYPICAL SECTION

NOT TO SCALE

DESIGN	DRAWN	REVIEW	DATE	REV	DESCRIPTION
CJW	JSS	RJB	4/30/18	0	PERMIT ISSUE
CJW	JSS	RJB	9/10/18	1	COMMENT RESPONSE
CJW	JSS	RJB	2/8/19	2	EAST & WEST ADJUSTMENTS

CHRIS T. WOLSCHLAG — REGISTERED PROFESSIONAL ENGINEER — STATE OF WASHINGTON — 2/8/19

Ground Support PLLC
16932 Woodinville Redmond Rd NE, #210
Woodinville, WA 98072
Ph: (425) 488-1143 Fax: (425) 605-4057

700 DEXTER AVENUE NORTH
TEMPORARY SHORING WALL DETAILS

PROJ. NO. 17-49

SHEET NUMBER

SH5.2

D:\Jobs\2017\17-49 (700 Dexter Ave-WA-BMR Dexter LLC)\(shoring)\(permitting)\R2 (20190208)\1749sh05-R2.dwg, 2/8/2019 6:40:04 AM

APPENDIX B

Groundwater Control Plan

Groundwater Control Plan
700 Dexter Street
Seattle, Washington

June 28, 2018

Prepared for

Turner Construction Company

830 Fourth Avenue South, Ste 300

Seattle, WA 98134

MIDDOUR CONSULTING LLC

14241 NE Woodinville Duvall Rd, PMB 226
Woodinville, WA 98072
(425) 864-2719

TABLE OF CONTENTS

	Page
INTRODUCTION	1
SITE AND PROJECT DESCRIPTION	1
SOIL AND GROUNDWATER CONDITIONS	2
CONCEPTUAL GROUNDWATER CONTROL APPROACH	2
DEWATERING SYSTEM DESIGN CALCULATIONS	3
Drawdown Analysis	4
GROUNDWATER CONTROL CONSTRUCTION RECOMMENDATIONS	4
Vacuum Wellpoint System	5
Dewatering Well System	7
General System Requirements	8
LIMITATIONS	9

LIST OF FIGURES

Figure	Title
1	Well Spacing and Dewatering to Bottom of Aquifer
2	Dewatering System Layout
2a	Wellpoint Layout – North Shoring Wall
2b	Wellpoint Layout – East Shoring Wall
2c	Wellpoint Layout – South Shoring Wall
2d	Wellpoint Layout – West Shoring Wall
3	Wellpoint Construction Details
4	Dewatering Well Construction Details

INTRODUCTION

This report presents our Groundwater Control Plan and recommendations for the 700 Dexter Street project in Seattle Washington. We understand that Turner Construction Company (TCC) is the general contractor for the project and will subcontract shoring and construction dewatering services. Our understanding of the excavation and shoring methods is based on conversations with Turner. We understand that construction dewatering will be required to install the shoring system and complete foundation construction.

SITE AND PROJECT DESCRIPTION

The project site is located southwest of Lake Union on the city block bound by Valley Street, 8th Avenue North, Roy Street, and Dexter Avenue North in Seattle, Washington. The project site was previously developed with structures along the west and south sides of the property. The existing ground surface around the perimeter of the site slopes downward from the west to the east with an elevation change ranging from about 11 to 16 feet; the elevation of the northwest corner is about 58 feet and the northeast corner is about elevation 42 feet. The project consists of constructing two separate tower structures over a three level below-grade parking structure.

The proposed excavation is rectangular and is about 250 feet long by 240 feet wide and will extend about 32 to 48 feet below existing grade. The main subgrade elevation ranges from 5.9 to 9.9 feet to accommodate the matt foundation and notes on the shoring drawings indicate a small area in the southwest corner may require over-excavation to elevation 2.5 feet. The excavation will be retained using soldier pile and lagging shoring methods in conjunction with three rows of tiebacks. We understand the excavation is scheduled to begin during the fall of 2018 and continuous construction dewatering will be required until sufficient structural weight is constructed to counteract uplift pressure.

The geotechnical and hydrogeological information for the project was provided in the Draft July 28, 2017 Geotechnical Report prepared by Terra Associates Inc. and the January 8, 2018 Public Review Interim Action Work Plan prepared by PES Environmental Inc. We understand contaminated soil and groundwater exist at the project site therefore, PES Environmental should review this plan to ensure temporary dewatering does not adversely affect current and future remediation measures. The temporary shoring plans for the excavation were prepared by Ground Support.

SOIL AND GROUNDWATER CONDITIONS

The geotechnical and environmental report provides a discussion of the site soil and groundwater conditions as determined from numerous soil borings conducted on the project site and on surrounding properties. The subsurface profiles, A-A' through D-D', presented in the environmental report provide a general representation of the soil and groundwater conditions both on and off site.

The soils at the site generally consist of 10 to 15 feet of fill that consist of fine-grained and granular soils. The fill is underlain by recent deposits or glacially consolidated deposits depending on location. The recent deposits consist of silt, silty sand, and sand that are highly variable in their lateral and vertical distribution. The glacial till and ice-contact deposits are also highly variable consisting of silt, silty sand, sand, and silty gravel. Based on blow count data, the top of the glacially consolidated deposits is about elevation 42 feet in the southwest corner of the site and slopes downward to the northeast corner where the elevation is about 7 feet.

The environmental investigations performed at the project site and surrounding properties have identified several water-bearing zones from about 10 to 150 feet below ground surface. Groundwater levels in the various water-bearing zones range from about elevation 35 to 15 feet at the project site and generally have an easterly groundwater flow direction. Based on the soil types and well screen depths, the identified water-bearing zones appear reflect perched water, an unconfined aquifer, and an underlying semi-confined to confined aquifer that in places may be hydraulically connected to the unconfined aquifer. Our experience in the South Lake Union area, specifically south and east of the project site, indicates the static groundwater level of the unconfined aquifer is about elevation 19 to 20 feet assuming no dewatering is occurring in the area. As of May 20, 2018, groundwater in the unconfined aquifer located two blocks east of the project site was between elevation 17 and 16 feet.

CONCEPTUAL GROUNDWATER CONTROL APPROACH

Determining the most appropriate groundwater control approach depends on multiple factors such as geometry of the excavation, access limitations, aquifer properties, depth of excavation, and the amount of aquifer thickness beneath the subgrade. As described in the geotechnical and environmental reports and briefly summarized above, the proposed excavation will encounter perched water as high as elevation 35 feet and an unconfined aquifer with a static groundwater elevation ranging from about 16 to 20 feet.

A thorough review of the numerous soil borings on site does not indicate the presence of an unconfined aquifer typical of the South Lake Union area but rather discontinuous zones or layers of granular soils (sand layers) within the recent fine-grained deposits and discontinuous clean sand layers within the till-like soils. Although the last 10 to 15 feet of the excavation will be located below the static groundwater level (elevation 16 to 20 feet), most of the soils encountered during the excavation will be fine-grained deposits and till-like granular soils that do not readily yield groundwater therefore, groundwater control measures will need to target the saturated discontinuous sand layers.

Removing all the groundwater down to the base of an aquifer or from a sand layer using active groundwater control methods (wells/wellpoints) is not possible as some amount of saturated thickness will remain between neighboring wells as some amount of hydraulic head is required to drive water to the wells. Once the excavation reaches the saturated zone between two wells, groundwater will seep into the excavation rather than flow towards the wells due to the shorter flow path. Figure 1 depicts two scenarios that demonstrate the benefit of decreasing the spacing between wells to reduce the saturated thickness but note that the reduction in well spacing doesn't eliminate the saturated soil.

Calculating an appropriate well spacing to dewater highly variable soil conditions and discontinuous sand soil layers isn't practical as standard well hydraulic equations are based on relatively thick and laterally extensive aquifer conditions. Due to the highly variable soil conditions, successfully controlling groundwater in discontinuous sand layers is a function of intersecting these layers with extraction wells; the more wells penetrating the layers, the better degree of control. Vacuum wellpoints are typically installed 4 to 15 feet on-center whereas standard dewatering wells are typically spaced 30 to 40 feet on-center for a cost-effective system. A vacuum wellpoint system is capable of generating about 18 to 20 feet of drawdown at the wellpoint therefore, groundwater can be extracted from sand layers encountered below the water table down to about 10 feet below subgrade. As such, a vacuum wellpoint system is the most suitable dewatering approach given the subsurface conditions.

The amount of groundwater control required for the perched water is unknown as the lateral extent of the water upgradient is unknown as such, the project team has agreed to install a system of standard dewatering wells inside the excavation footprint. The dewatering wells will extract perched water as well as aid in dewatering sand layers below the water table.

DEWATERING SYSTEM DESIGN CALCULATIONS

Dewatering system design calculations to estimate potential discharge rates, the number of wells, and the spacing between wells were not performed due to the lack of an aquifer which standard well

hydraulic equations are based upon. The lateral and vertical distribution of the saturated sand layers are not fully understood as such, the vacuum wellpoint system will aid in controlling the groundwater but will not likely completely dewater the sand layers. Based on the discontinuous and limited nature of the sand layers, we estimate the total discharge from the vacuum wellpoint system to be less than 75 gpm.

DRAWDOWN ANALYSIS

Operation of the wellpoint system(s) or allowing the sand layers to seep through the lagging wall (passive drainage) will lower groundwater levels within the sand layers which may cause drawdown beneath subsurface and above ground structures. However, calculating the drawdown/cone of depression in discontinuous sand layers and/or interbedded conditions using standard well hydraulic equations is inaccurate as the equations are based on thick laterally extensive aquifer conditions. As such, Middour Consulting has not assessed the potential for dewatering induced settlement or mobilization of groundwater contaminate plumes nor has Middour Consulting implemented any engineering controls to limit the amount of drawdown. Middour Consulting's scope of work did not include these evaluations and Middour Consulting assumes no liability for impacts due to lowering of groundwater levels.

GROUNDWATER CONTROL CONSTRUCTION RECOMMENDATIONS

Groundwater control measures for the project will consist of installing four standard dewatering wells prior to or during solider pile installation to extract perched water as well as aid in dewatering the discontinuous sand layers below the water table. The locations of the dewatering wells shown on Figure 2 are approximate and can be adjusted to coordinate with excavations required for contaminated soil removal. Depending on the amount of perched water encountered, collection and pumping from trenches/sumps may be required. Groundwater in the granular soils below the local water table which is estimated to occur between elevation 16 to 20 feet will be controlled/dewatered by a perimeter vacuum wellpoint system installed through the shoring wall.

Based on the wellpoint spacing and dimensions of the excavation, the vacuum wellpoint system will likely require two wellpoint pumps; therefore, we have divided the wellpoint system into two systems labeled East and West. The East system will encompass about half of the North shoring wall (piles N17/N18 to N34), the East shoring wall (piles E1 to E31) and about half of the South shoring wall (piles S1 to S17/S18). The West system will encompass the remaining shoring wall sections. The wellpoints for the East and West systems should enter the shoring wall about 1 to 2 feet above the static water level (about elevation 16 to 20 feet). We recommend measuring groundwater levels in the observation wells and/or

potholing to determine the elevations of the groundwater. If the groundwater elevation is above the proposed system elevations, Middour Consulting should be notified prior to installation of the systems. If possible, we recommend installing the West wellpoint system and operate it for a few days prior to installation of the East wellpoint system.

Both wellpoint systems will require hanging the header pipe and vacuum pump on the shoring walls therefore, Ground Support should be notified to determine if the current shoring design can accommodate the additional weight. The elevations for the header pipe for both wellpoint systems can be adjusted +/- 2 feet to compensate for tie-backs if there is a conflict. The locations for the proposed vacuum wellpoint systems are shown in plan view on Figure 2 and in profile on Figures 2a through 2d.

As discussed in the *Conceptual Groundwater Control Approach* section, the vacuum wellpoint system(s) will not completely dewater the discontinuous sand layers and some amount of groundwater seepage will occur in between neighboring wellpoints. As such, excavation/lagging lifts may need to be reduced to control seepage and reduce running soil conditions. Installation of filter fabric or other filtering media may be required to direct seepage to gaps in the lagging and/or horizontal drains/well screen installed through the lagging. Groundwater seepage entering the excavation should be collected in sumps and pumped out of the excavation. Due to high turbidity, we recommend segregating the sump water from the wellpoint system discharge.

VACUUM WELLPOINT SYSTEM

Wellpoints: The wellpoints should be installed about 1 to 2 feet above the static water level (about elevation 16 to 20 feet). We recommend measuring groundwater levels in the observation wells and/or potholing to determine the elevations of the groundwater. Typically, the wellpoints should be drilled at a 20 to 30-degree angle from the vertical down to a depth of 20 feet.

Boreholes should be drilled using air or rotary wash drilling methods capable of temporarily casing an 8-inch-diameter borehole. The wellpoint assemblies should consist of 1 ½ to 2-inch diameter PVC well screen and riser. The well screen size should be 20-slot and 3 feet in length. The wellpoint assemblies should incorporate drop tubes to maximize drawdown and to reduce the amount of "tuning" once the water level drops below the well screen. Refer to Figure 3 for general construction details for the wellpoints.

The spacing between wellpoints will vary along the wall as the soldier pile spacing changes but a minimum of one wellpoint between soldier piles shall be maintained where possible as well as one wellpoint in each corner of the excavation. Potential problematic areas may require the spacing to be

reduced therefore, the header system should be constructed to accommodate additional wellpoints. The layout of the proposed wellpoint systems is shown in plan on Figure 2 and in profile on Figures 2a through 2d.

Sand Pack: Sand pack material should consist of Glacier product 8720 or similar product; see Figure 3 for gradation specifications. The sand pack should extend above the static water level with a bentonite seal on top of the filter pack. Well and seal construction should be consistent with WAC 173-160.

Development: We recommend that each wellpoint be developed immediately upon completion to identify zones of higher permeability that may require closer wellpoint spacing and/or additional pumping requirements. Development methods should consist of over-pumping individual wellpoints until the requirements for discharge are achieved. Development will improve the hydraulic connection with the aquifer and should provide a clean dewatering discharge with time.

Wellpoint Pumps: The wellpoint pump(s) should be capable of creating a vacuum equivalent to 21"Hg/23.8'H2O/0.71 bar at the wellpoint pump and a vacuum equivalent to 15.9"Hg/18'H2O/0.54 bar at the most distant wellpoint. The wellpoint pump(s) should be capable of extracting up to 200 gpm pump and discharging the extracted water to the outfall location. Based on the elevation of the wellpoint systems, a booster pump may be required to discharge the extracted groundwater to the final outfall location(s).

Wellpoint Header System: The main wellpoint vacuum header piping should be a minimum of 6 inches in diameter per wellpoint system. The piping configuration should be coordinated with TCC and the excavation contractor to minimize the potential for damage to the piping during excavation and construction activities. *The design of this system requires the wellpoint pump(s) and header system to be mounted on the face of the shoring wall. Attachment methods and weight of the wellpoint system should be conveyed to the shoring designer to ensure there are no adverse impacts to the shoring system created by the additional weight on the shoring wall.*

Wellpoint System Performance and Tuning: Upon installation of the wellpoints, header system, and vacuum pump, the applied vacuum should be checked with a vacuum gauge to ensure a vacuum equivalent of 15.9"Hg/18'H2O/0.54 bar is achieved at the most distant wellpoint. Upon startup of the system, individual wellpoints will likely require "tuning" or valve adjustment to prevent air intake and maintain a maximum vacuum at each wellpoint. Once the system has achieved the maximum drawdown, the amount of tuning will be significantly reduced.

DEWATERING WELL SYSTEM

Dewatering Wells: We recommend the dewatering wells be drilled/installed prior to or during the soldier pile installation. Boreholes should be drilled using bucket auger drilling methods and should be 30- to 36-inch-diameter. Drilling additives and/or slurry to maintain borehole wall stability shall not be used; maintaining a water head and/or casing the borehole are appropriate methods. Well casings and screen should be 12-inch diameter Schedule 40 PVC. Based on the visual soil descriptions from the soil borings and previous experience in the area, well screens should consist of 30-slot screen size. General locations of the dewatering wells are provided on Figure 2.

Sand Pack: The available data indicate a dewatering well gravel pack consisting of Cal Portland 8700 or equivalent shall optimize retention of the formation and well yield. The gradation of the proposed gravel pack is listed on the table below. Well and seal construction shall be consistent with WAC 173-160.

Development: Development is important to improve the hydraulic connection with the aquifer and provide a clean dewatering effluent with time. Each dewatering well shall be developed immediately upon completion. Development methods shall utilize flow-surging and over-pumping until the discharge requirement is achieved. Development data shall be documented to demonstrate that additional development would produce limited improvement.

Pumps: Pumps that are capable of operating in dry well conditions should be provided in each well. Initially pumps should be capable of providing up to 30 gpm at a total dynamic head (TDH) of 50 feet.

Header and Conveyance Piping: The main header and conveyance piping should be constructed using a minimum 4-inch-diameter PVC or HDPE pipe. The piping configuration should be located on the behind the dewatering wells (i.e. away from the excavation) to minimize the potential for damage during excavation.

Power Supply: A continuous main power supply from portable generators or line power is required for all dewatering systems. We recommend that a backup power source is available on site in the event of a power failure from the main power supply.

Operation: The dewatering well system should be operated continuously until the excavation reaches the final subgrade. Should the wells stop pumping perched water and/or groundwater, site water and groundwater seepage can be routed to the wells which can serve as sump locations. The dewatering wells can be decommissioned upon the excavation reaching the final subgrade.

Well Decommissioning: The dewatering wells should be decommissioned in accordance with WAC 173-160 upon completion of dewatering activities.

GENERAL SYSTEM REQUIREMENTS

Power Supply: A continuous main power supply from portable generators or line power is required for all wellpoint systems. We recommend that a backup power source is available on site in the event of a power failure from the main power supply.

Water Level Monitoring: We recommend maintaining the existing monitoring wells until the performance of the dewatering system is evaluated, approximately one week after startup. Alternatively, temporary observation wells can be installed within the excavation footprint to evaluate drawdown during system installation.

We recommend measuring water levels in the surrounding monitoring wells prior to operating the dewatering system to establish baseline water levels and during evaluation of the dewatering system.

Operation: The wellpoint systems should operate a minimum of one week prior to excavation below the static groundwater level. The vacuum wellpoint pumps should be inspected daily by the dewatering contractor and tuned accordingly to maintain maximum vacuum across the entire system. Visual observations of the discharge should be made several times a day during excavation, to monitor for increased turbidity levels. Middour Consulting should be contacted if the dewatering system performance changes significantly. This may include pumping rates that differ significantly from rates presented in this report, the occurrence of a sudden change in pumping rates or groundwater levels, or the occurrence of turbidity levels that exceed discharge limits.

The dewatering system should be operated continuously until sufficient structural weight, as determined by the resident structural engineer, is constructed to counteract the groundwater lateral and uplift forces.

Discharge Water Quality: We understand Turner has subcontracted a water treatment company to manage/treat groundwater and site water; refer to the water treatment plan for details regarding treatment and discharge requirements.

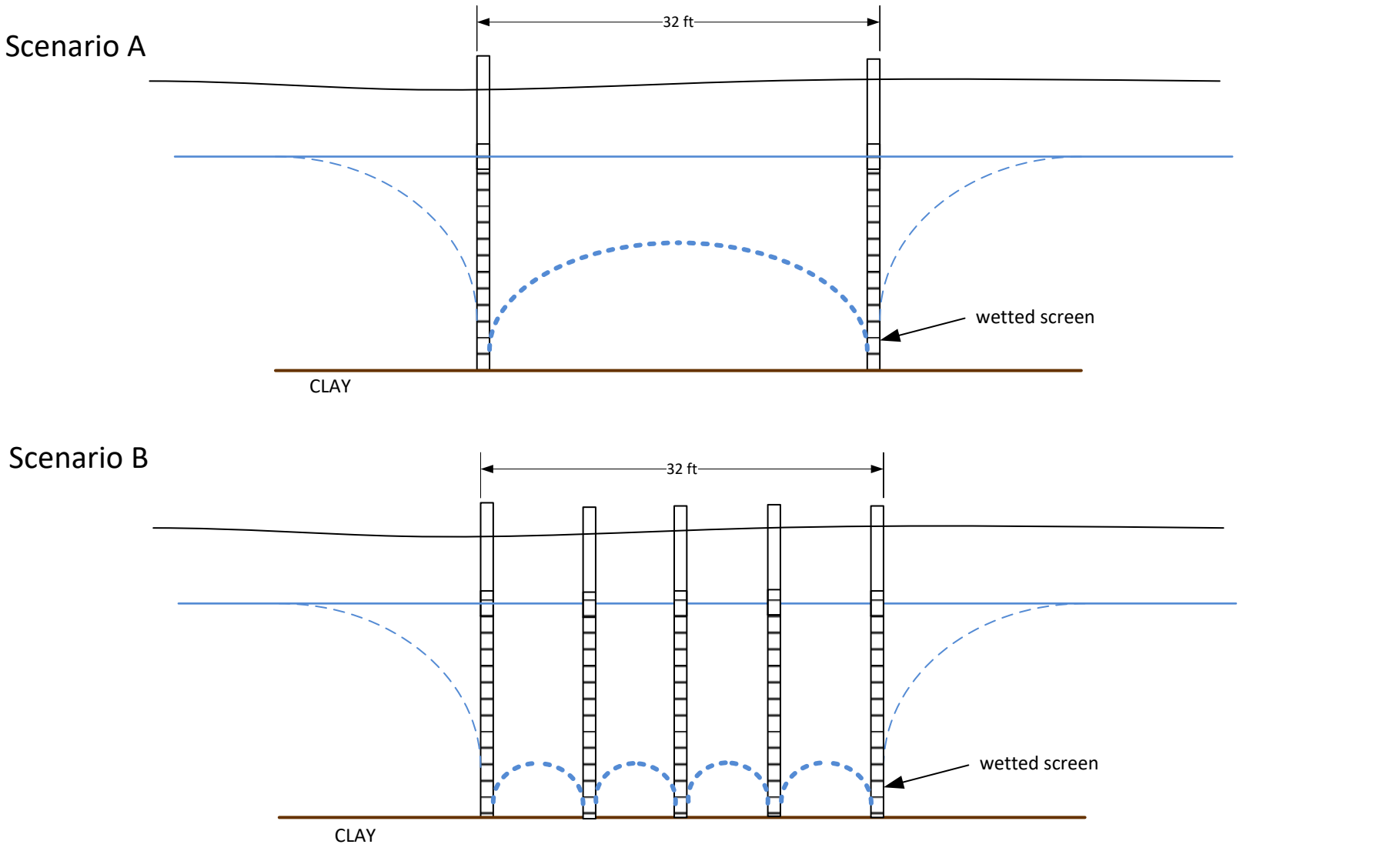
Well Decommissioning: The dewatering wells should be decommissioned in accordance with WAC 173-160 upon completion of dewatering activities.

LIMITATIONS

This Groundwater Control Plan has been prepared for the exclusive use of Turner Construction Company for their proposed work on the 700 Dexter project in Seattle Washington. No other party is entitled to rely on the information, conclusions, and recommendations included in this document without the express written consent of Middour Consulting LLC. Further, the reuse of information, conclusions, and recommendations provided herein for extensions of the project or for any other project, without review and authorization by Middour Consulting, shall be at the user's sole risk. Middour Consulting warrants that within the limitations of scope, schedule, and budget, our services have been provided in a manner consistent with that level of care and skill ordinarily exercised by members of the profession currently practicing in the same locality under similar conditions as this project. We make no other warranty, either express or implied.

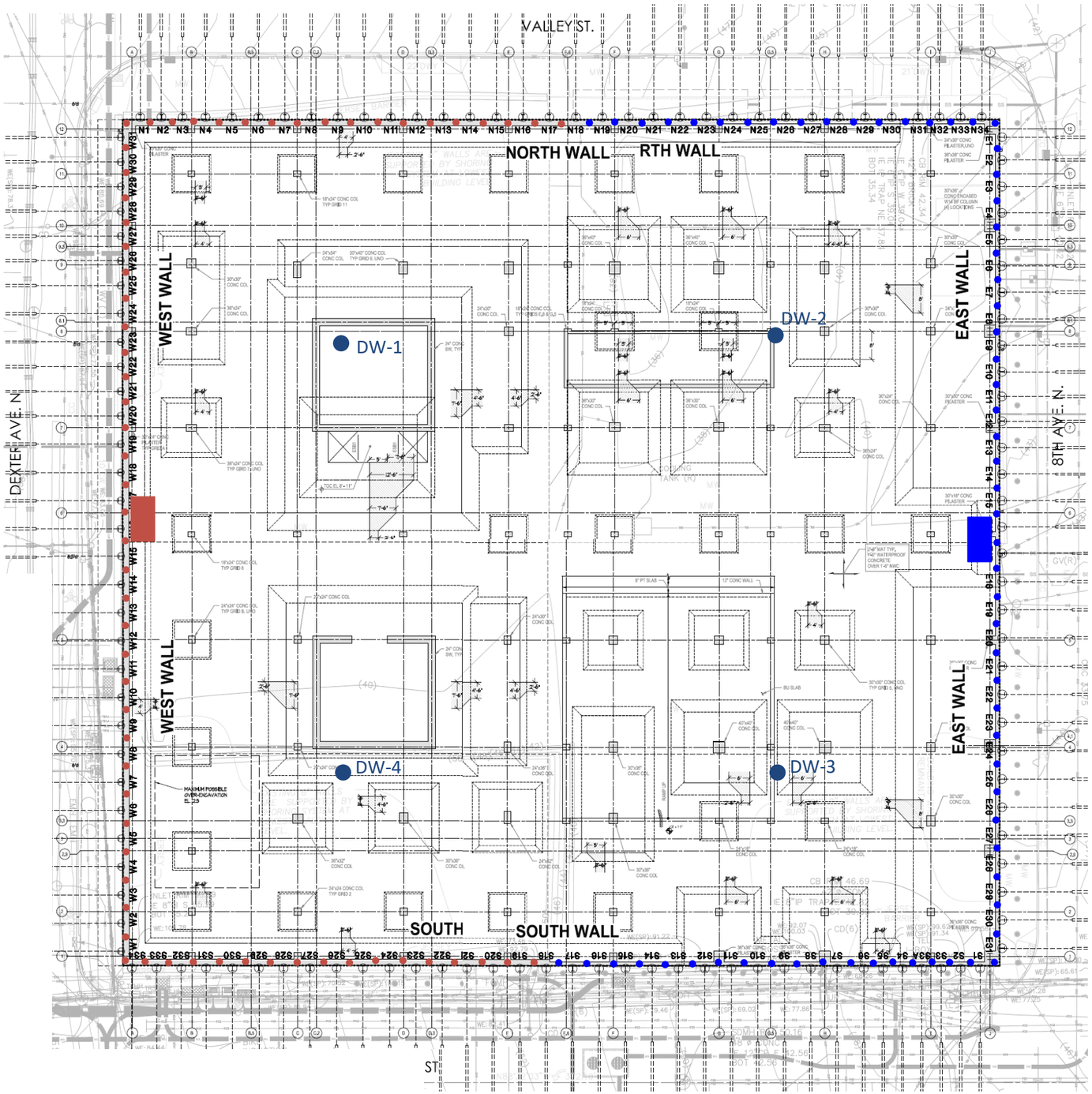
MIDDOUR CONSULTING LLC

Robert O. Middour, L.HG.
Principal Hydrogeologist



MIDDOUR CONSULTING LLC
groundwater control for underground construction

FIGURE 1
Well Spacing and Dewatering to Bottom of Aquifer
700 DEXTER STREET GWCP | Seattle, WA
Project No. 18049002.01 | June 27, 2018



NOTES:

East Vacuum Wellpoint System

Vacuum Pump (approximate location)

West Vacuum Wellpoint System

Vacuum Pump (approximate location)

1) Dewatering well locations are approximate and can be moved to coordinate with excavations required for contaminated soil removal.

2) Determine static groundwater elevations by measuring groundwater levels in observation wells and/or potholing. If groundwater levels are higher than the proposed wellpoint installation elevations (see note 3), contact Middour Consulting.

3) The header pipe and wellpoint entry point through the shoring wall shall for the East and West systems should be 1 to 2 feet above the static groundwater elevation (approx. elevation 16 to 20 feet).

4) See Figures 2a through 2d for profile elevations.

5) The location of the wellpoint pump(s) can be moved but should be near the center of the system.

6) See Figure 3 for vacuum wellpoint construction details

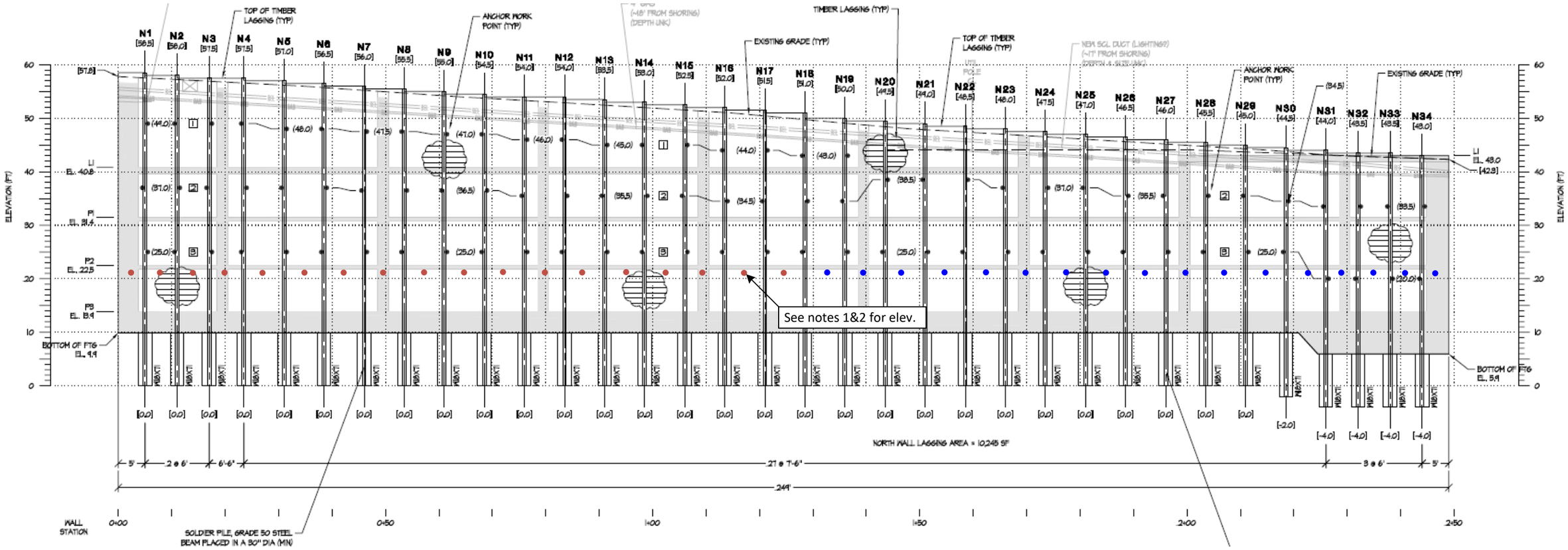
7) See Figure 4 for dewatering well construction details

MIDDOUR CONSULTING LLC
groundwater control for underground construction

DEWATERING WELL LOCATIONS

FIGURE 2
Dewatering System Layout Plan

700 DEXTER STREET GWCP | Seattle, WA
Project No. 18049002.01 | June 27, 2018



East Vacuum Wellpoint System

Vacuum Pump (approximate location)

West Vacuum Wellpoint System

Vacuum Pump (approximate location)

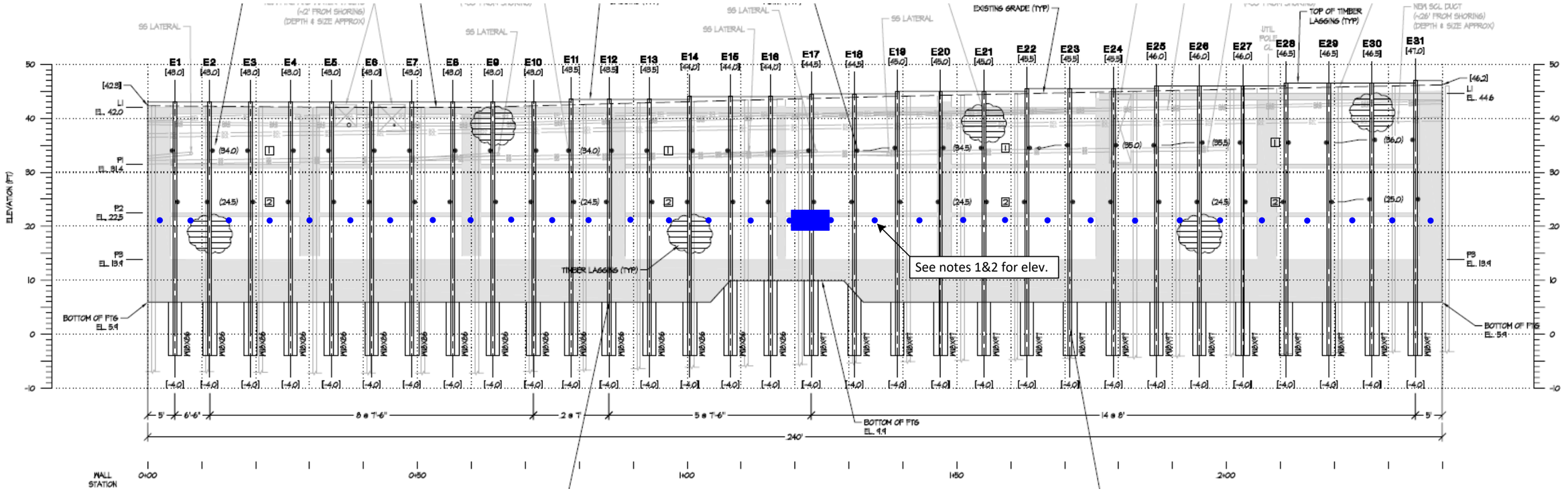
NOTES:

1) Determine static groundwater elevations by measuring groundwater levels in observation wells and/or potholing. If groundwater levels are higher than the proposed wellpoint installation elevations (see note 2), contact Middour Consulting.

2) The header pipe and wellpoint entry point through the shoring wall shall for the East and West systems should be 1 to 2 feet above the static groundwater elevation (approx. elevation 16 to 20 feet).

3) The location of the wellpoint pump(s) can be moved but should be near the center of the system.

4) See Figure 3 for vacuum wellpoint construction details



East Vacuum Wellpoint System

Vacuum Pump (approximate location)

West Vacuum Wellpoint System

Vacuum Pump (approximate location)

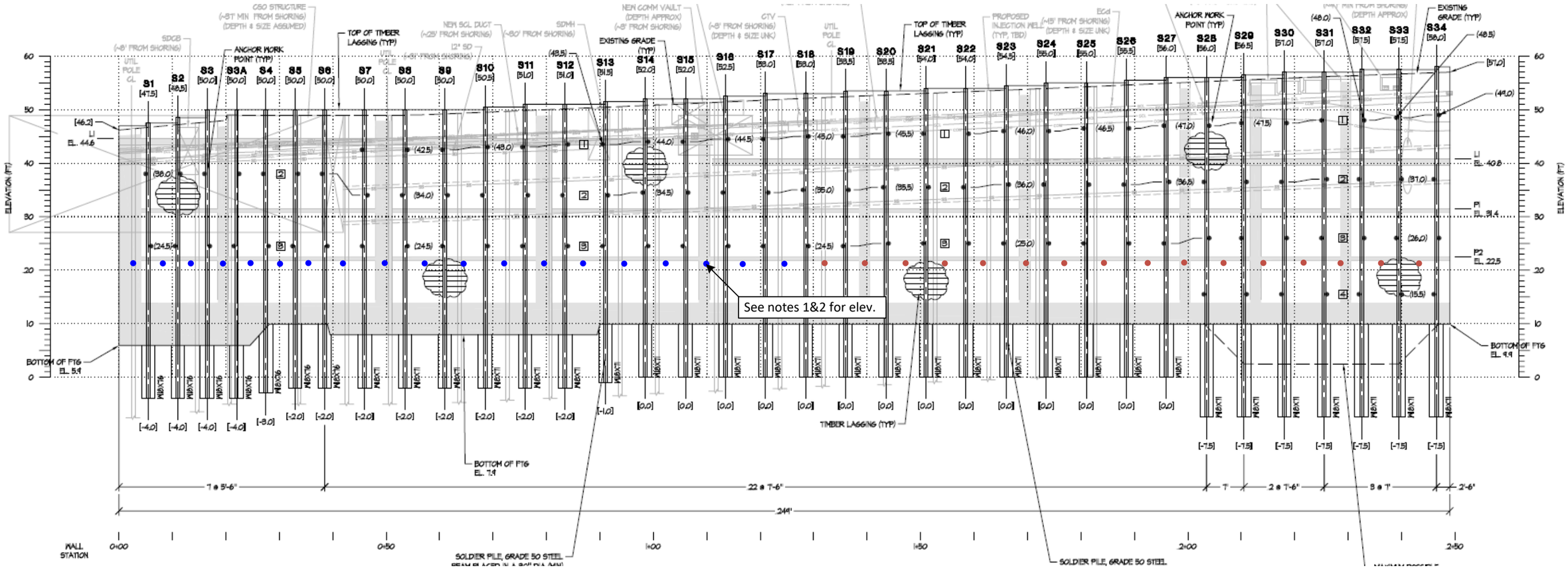
NOTES:

1) Determine static groundwater elevations by measuring groundwater levels in observation wells and/or potholing. If groundwater levels are higher than the proposed wellpoint installation elevations (see note 2), contact Middour Consulting.

2) The header pipe and wellpoint entry point through the shoring wall shall for the East and West systems should be 1 to 2 feet above the static groundwater elevation (approx. elevation 16 to 20 feet).

3) The location of the wellpoint pump(s) can be moved but should be near the center of the system.

4) See Figure 3 for vacuum wellpoint construction details



East Vacuum Wellpoint System

Vacuum Pump (approximate location)

West Vacuum Wellpoint System

Vacuum Pump (approximate location)

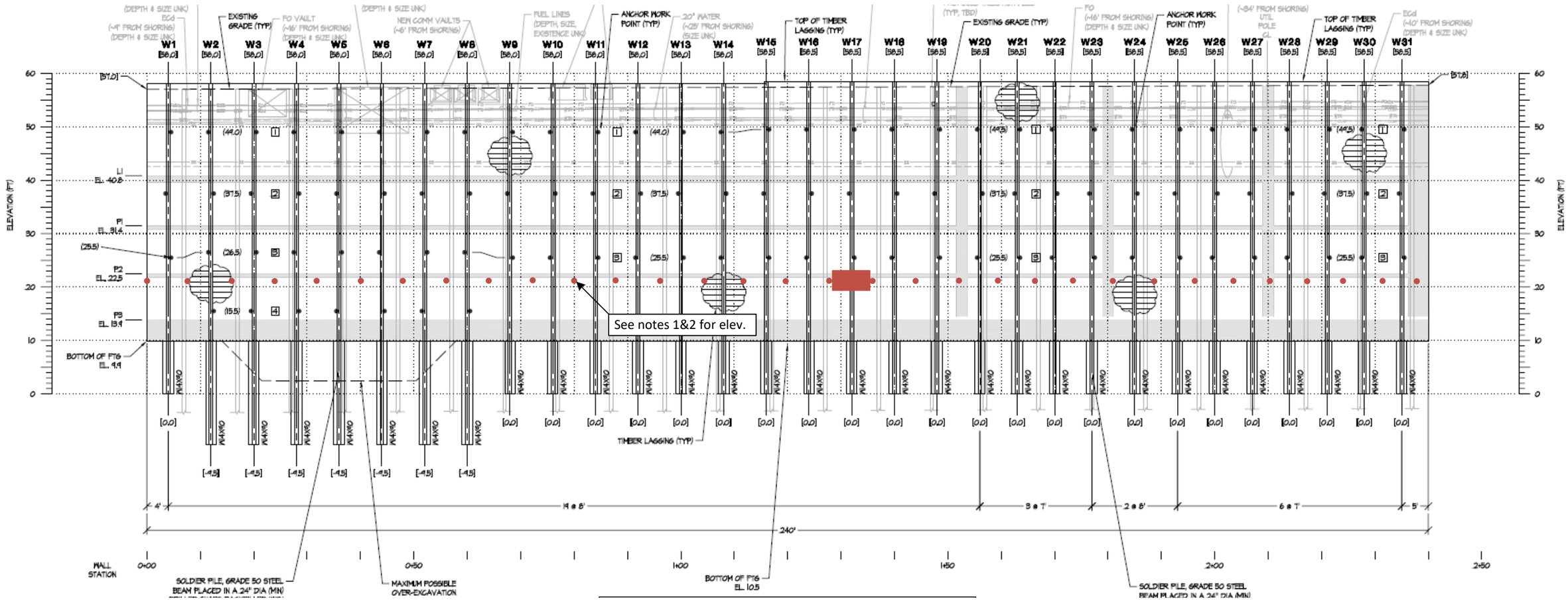
NOTES:

1) Determine static groundwater elevations by measuring groundwater levels in observation wells and/or potholing. If groundwater levels are higher than the proposed wellpoint installation elevations (see note 2), contact Middour Consulting.

2) The header pipe and wellpoint entry point through the shoring wall shall for the East and West systems should be 1 to 2 feet above the static groundwater elevation (approx. elevation 16 to 20 feet).

3) The location of the wellpoint pump(s) can be moved but should be near the center of the system.

4) See Figure 3 for vacuum wellpoint construction details



NOTES:

1) Determine static groundwater elevations by measuring groundwater levels in observation wells and/or potholing. If groundwater levels are higher than the proposed wellpoint installation elevations (see note 2), contact Middour Consulting.

2) The header pipe and wellpoint entry point through the shoring wall shall for the East and West systems should be 1 to 2 feet above the static groundwater elevation (approx. elevation 16 to 20 feet).

3) The location of the wellpoint pump(s) can be moved but should be near the center of the system.

4) See Figure 3 for vacuum wellpoint construction details

East Vacuum Wellpoint System

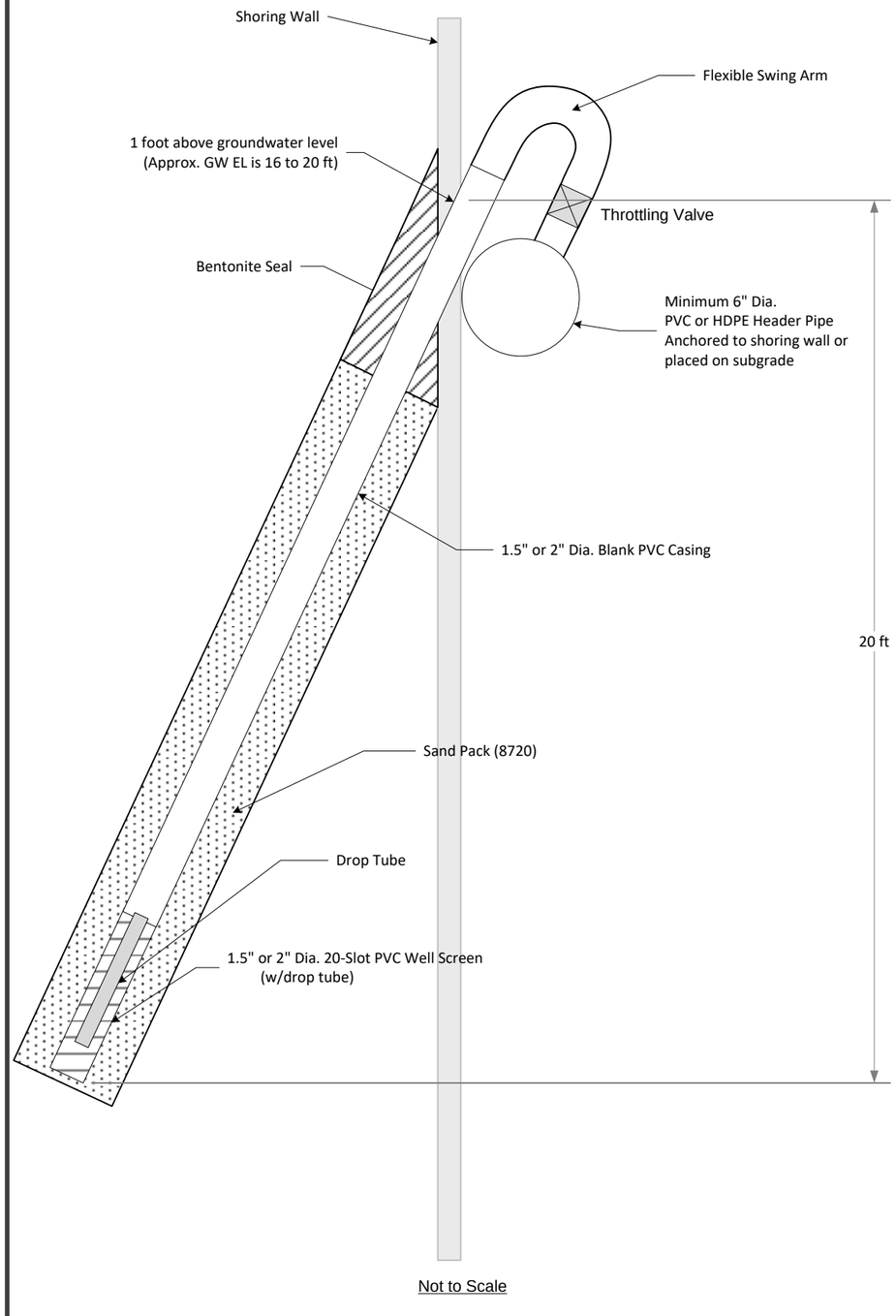
Vacuum Pump (approximate location)

West Vacuum Wellpoint System

Vacuum Pump (approximate location)

MIDDOUR CONSULTING LLC
groundwater control for underground construction

FIGURE 2d
Wellpoint Layout – West Shoring Wall
700 DEXTER STREET GWCP | Seattle, WA
Project No. 18049002.01 | June 27, 2018



Not to Scale

Vacuum Wellpoint System

Wellpoints: The wellpoints should be installed about 1 to 2 feet above the static water level (about elevation 16 to 20 feet). We recommend measuring groundwater levels in the observation wells and/or potholing to determine the elevations of the groundwater. Typically, the wellpoints should be drilled at a 20 to 30-degree angle from the vertical down to a depth of 20 feet. Boreholes should be drilled using air or rotary wash drilling methods capable of temporarily casing an 8-inch-diameter borehole. The wellpoint assemblies should consist of 1 ½ to 2-inch diameter PVC well screen and riser. The well screen size should be 20-slot and 3 feet in length. The wellpoint assemblies should incorporate drop tubes to maximize drawdown and to reduce the amount of "tuning" once the water level drops below the well screen. The spacing between wellpoints will vary along the wall as the soldier pile spacing changes but a minimum of one wellpoint between soldier piles shall be maintained where possible as well as one wellpoint in each corner of the excavation. Potential problematic areas may require the spacing to be reduced therefore, the header system should be constructed to accommodate additional wellpoints. The layout of the proposed wellpoint systems is shown in plan on Figure 2 and in profile on Figures 2a through 2d.

Sand Pack: Sand pack material should consist of Glacier product 8720 or similar product; see table below. The sand pack should extend above the static water level with a bentonite seal on top of the filter pack. Well and seal construction should be consistent with WAC 173-160.

Development: We recommend that each wellpoint be developed immediately upon completion to identify zones of higher permeability that may require closer wellpoint spacing and/or additional pumping requirements. Development methods should consist of over-pumping individual wellpoints until the requirements for discharge are achieved. Development will improve the hydraulic connection with the aquifer and should provide a clean dewatering discharge with time.

Wellpoint Pumps: The wellpoint pump(s) should be capable of creating a vacuum equivalent to 21"Hg/23.8'H2O/0.71 bar at the wellpoint pump and a vacuum equivalent to 15.9"Hg/18'H2O/0.54 bar at the most distant wellpoint. The wellpoint pump(s) should be capable of extracting up to 200 gpm pump and discharging the extracted water to the outfall location. Based on the elevation of the wellpoint systems, a booster pump may be required to discharge the extracted groundwater to the final outfall location(s).

Wellpoint Header System: The main wellpoint vacuum header piping should be a minimum of 6 inches in diameter per wellpoint system. The piping configuration should be coordinated with TCC and the excavation contractor to minimize the potential for damage to the piping during excavation and construction activities. The design of this system requires the wellpoint pump and header system to be mounted on the face of the shoring wall. Attachment methods and weight of the wellpoint system should be conveyed to the shoring designer to ensure there are no adverse impacts to the shoring system created by the additional weight on the shoring wall.

Wellpoint System Performance and Tuning: Upon installation of the wellpoints, header system, and vacuum pump, the applied vacuum shall be checked with a vacuum gauge to ensure a vacuum equivalent of 15.9"Hg/18'H2O/0.54 bar is achieved at the most distant wellpoint. Upon startup of the system, individual wellpoints will likely require "tuning" or valve adjustment to prevent air intake and maintain a maximum vacuum at each wellpoint. Once the system has achieved the maximum drawdown, the amount of tuning will be significantly reduced.

General System Requirements

Water Level Monitoring: We recommend maintaining the existing monitoring wells until the performance of the dewatering system is evaluated, approximately one week after start up. Alternatively, temporary observation wells can be installed within the excavation footprint to evaluate drawdown during system installation. We recommend measuring water levels in the surrounding monitoring wells prior to operating the dewatering system to establish baseline water levels and during evaluation of the dewatering system.

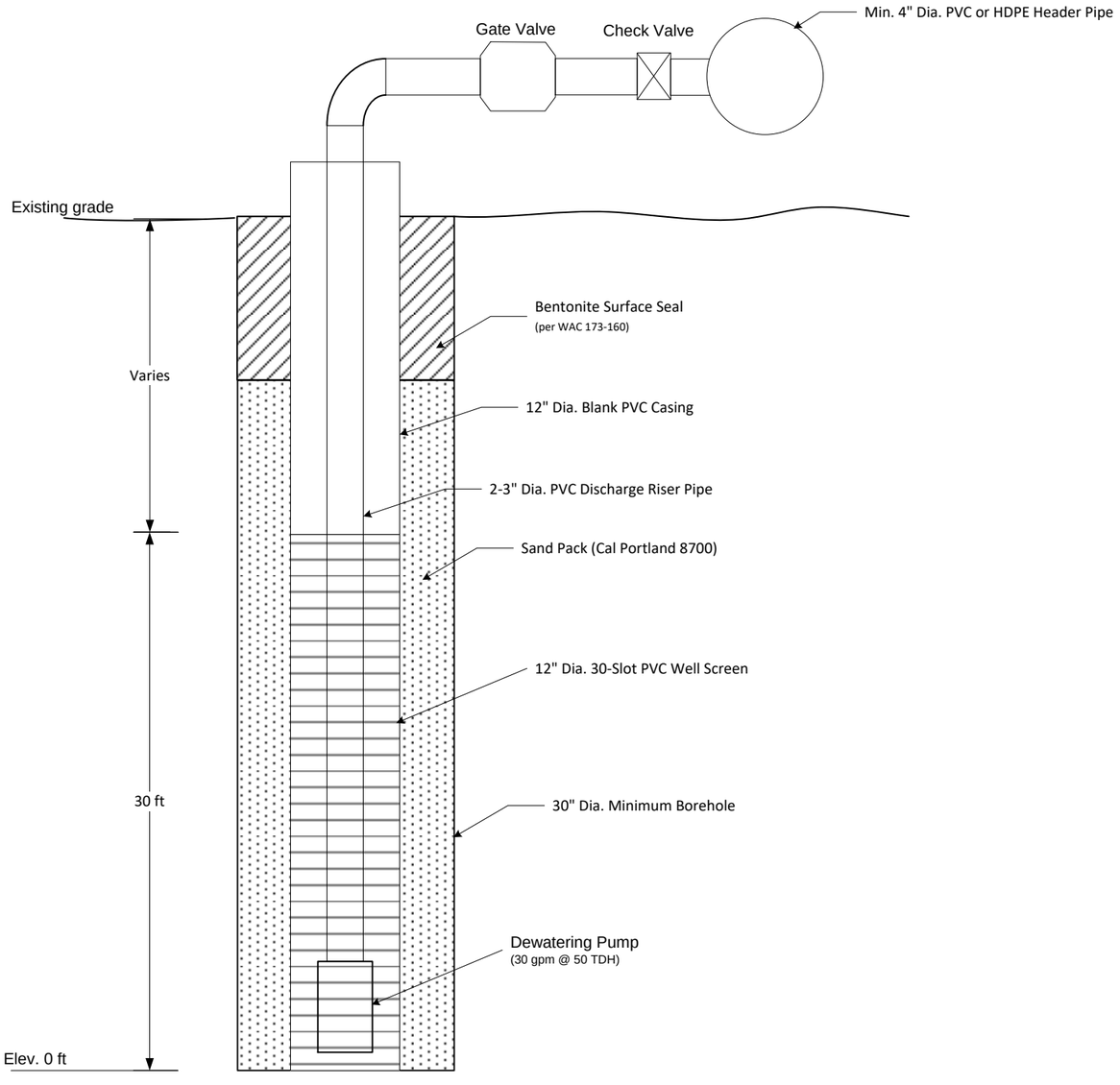
Power Supply: A continuous main power supply from portable generators or line power is required for all dewatering systems. We recommend that a backup power source is available on site in the event of a power failure from the main power supply.

Operation: The wellpoint systems should operate a two weeks prior to excavation below the static groundwater level. The vacuum wellpoint pumps should be inspected daily by the dewatering contractor and tuned accordingly to maintain maximum vacuum across the entire system. Visual observations of the discharge should be made several times a day during excavation, to monitor for increased turbidity levels. Middour Consulting should be contacted if the dewatering system performance changes significantly. This may include pumping rates that differ significantly from rates presented in this report, the occurrence of a sudden change in pumping rates or groundwater levels, or the occurrence of turbidity levels that exceed discharge limits. The dewatering system should be operated continuously until sufficient structural weight, as determined by the resident structural engineer, is constructed to counteract the groundwater lateral and uplift forces.

Well Decommissioning: The dewatering wells should be decommissioned in accordance with WAC 173-160 upon completion of dewatering activities.

Sand Pack Gradations

Sive Size	Grain Size		Cal Portland (8700)		Cal Portland (8720)	
No.	(mm)	(thousandths)	% Finer	% Retained	% Finer	% Retained
3/8	9.51	374.4	100	0	100	0
No. 4	4.75	187.0	65	35	99	1
No. 8	2.38	93.7	4	96	79	21
No. 16	1.19	46.9	3	97	49	51
No. 30	0.595	23.4	1	99	23	77
No. 50	0.297	11.7	0.6	99.4	5	95
No. 100	0.149	5.9	0.4	99.6	0.8	99.2
No. 200	0.074	2.9	0.2	99.8	0.3	99.7



Not to Scale

NOTES:

Dewatering Wells: We recommend the dewatering wells be drilled/installed prior to or during the soldier pile instllation. Boreholes should be drilled using bucket auger drilling methods and should be 30- to 36-inch-diameter. *Drilling additives and/or slurry to maintain borehole wall stability shall not be used; maintaining a water head and/or casing the borehole are appropriate methods.* Well casings and screen should be 12-inch diameter Schedule 40 PVC. Based on the visual soil descriptions from the soil borings and previous experience in the area, well screens should consist of 30-slot screen size. General locations of the dewatering wells are provided on Figure 2.

Sand Pack: The available data indicate a dewatering well gravel pack consisting of Cal Portland 8700 or equivalent shall optimize retention of the formation and well yield. The gradation of the proposed gravel pack is listed on the table below. Well and seal construction shall be consistent with WAC 173-160.

Development: Development is important to improve the hydraulic connection with the aquifer and provide a clean dewatering effluent with time. Each dewatering well shall be developed immediately upon completion. Development methods shall utilize flow-surging and over-pumping until the discharge requirement is achieved. Development data shall be documented to demonstrate that additional development would produce limited improvement.

Pumps: Pumps that are capable of operating in dry well conditions should be provided in each well. Initially pumps should be capable of providing up to 30 gpm at a total dynamic head (TDH) of 50 feet.

Header and Conveyance Piping: The main header and conveyance piping should be constructed using a minimum 4-inch-diameter PVC or HDPE pipe. The piping configuration should be located on the behind the dewatering wells (i.e. away from the excavation) to minimize the potential for damage during excavation.

Power Supply: A continuous main power supply from portable generators or line power is required for all dewatering systems. We recommend that a backup power source is available on site in the event of a power failure from the main power supply.

Operation: The dewatering system should be operated continuously until the excavation reaches the final subgrade. Should the wells stop pumping perched water and/or groundwater, site water and groundwater seepage can be routed to the wells which can serve as sump locations.

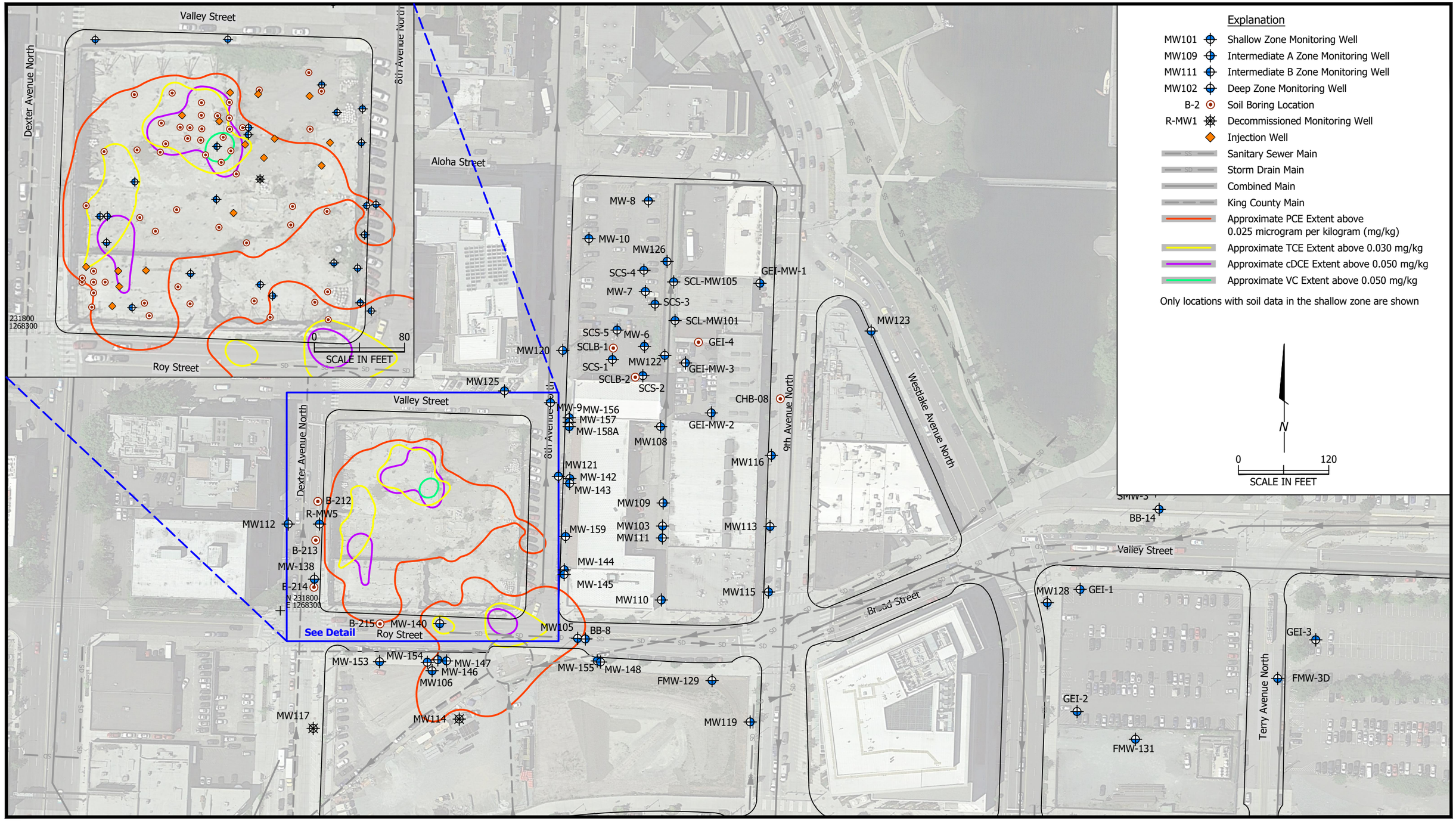
Well Decommissioning: The dewatering wells should be decommissioned in accordance with WAC 173-160 upon completion of dewatering activities.

Sand Pack Gradations

Sive Size	Grain Size		Cal Portland (8700)		Cal Portland (8720)	
No.	(mm)	(thousandths)	% Finer	% Retained	% Finer	% Retained
3/8	9.51	374.4	100	0	100	0
No. 4	4.75	187.0	65	35	99	1
No. 8	2.38	93.7	4	96	79	21
No. 16	1.19	46.9	3	97	49	51
No. 30	0.595	23.4	1	99	23	77
No. 50	0.297	11.7	0.6	99.4	5	95
No. 100	0.149	5.9	0.4	99.6	0.8	99.2
No. 200	0.074	2.9	0.2	99.8	0.3	99.7

APPENDIX C

IAWP Figures 21-24 and 27-30
Drawing 2 from CAA

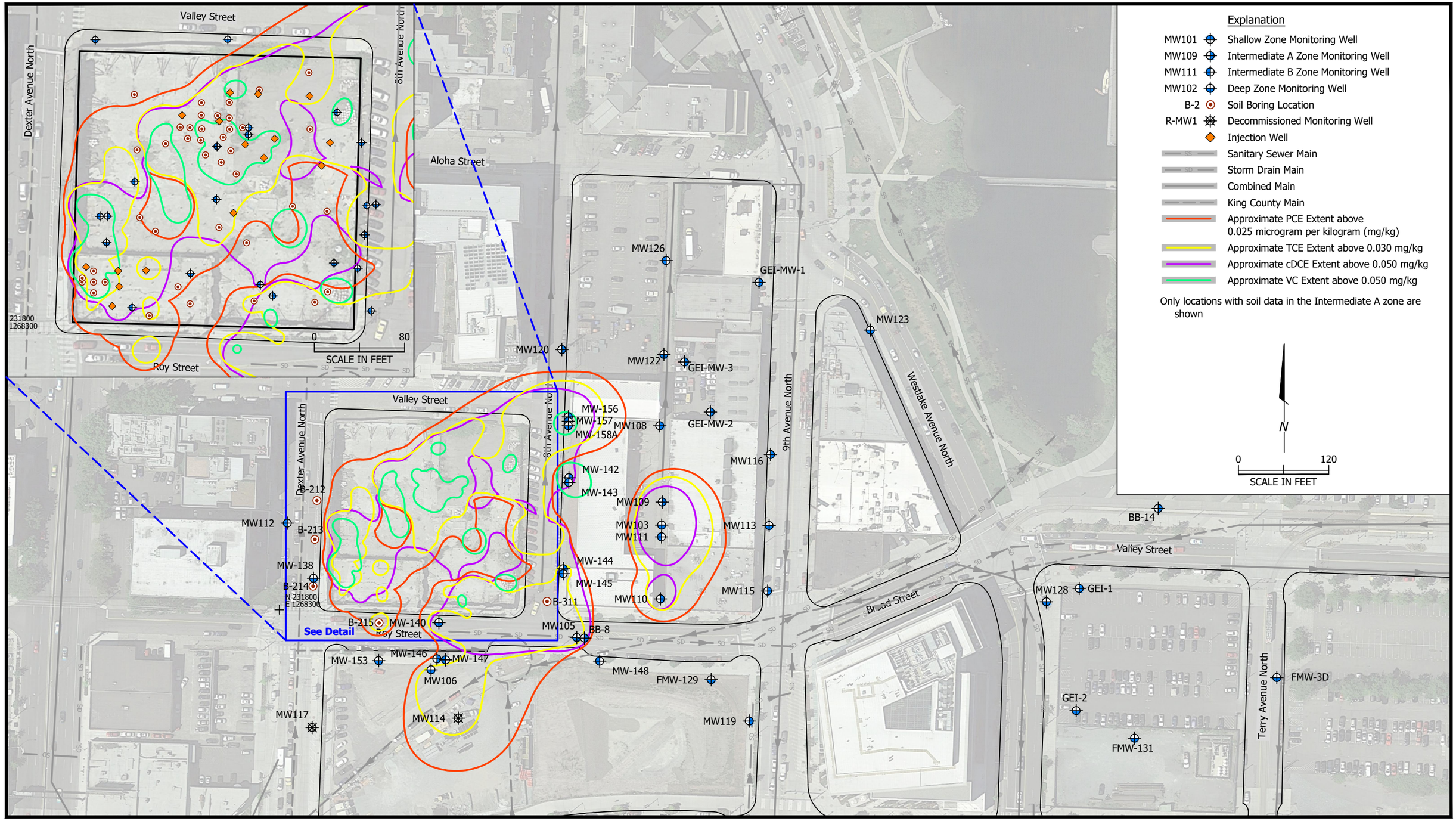


PES Environmental, Inc.
Engineering & Environmental Services

CVOCs in Soil - Shallow Zone
Former American Linen Supply
700 Dexter Avenue North
Seattle, Washington

FIGURE
21

1413.001.02.404	141300102404_IAWP_21	WRH	8/18
JOB NUMBER	DRAWING NUMBER	REVIEWED BY	DATE

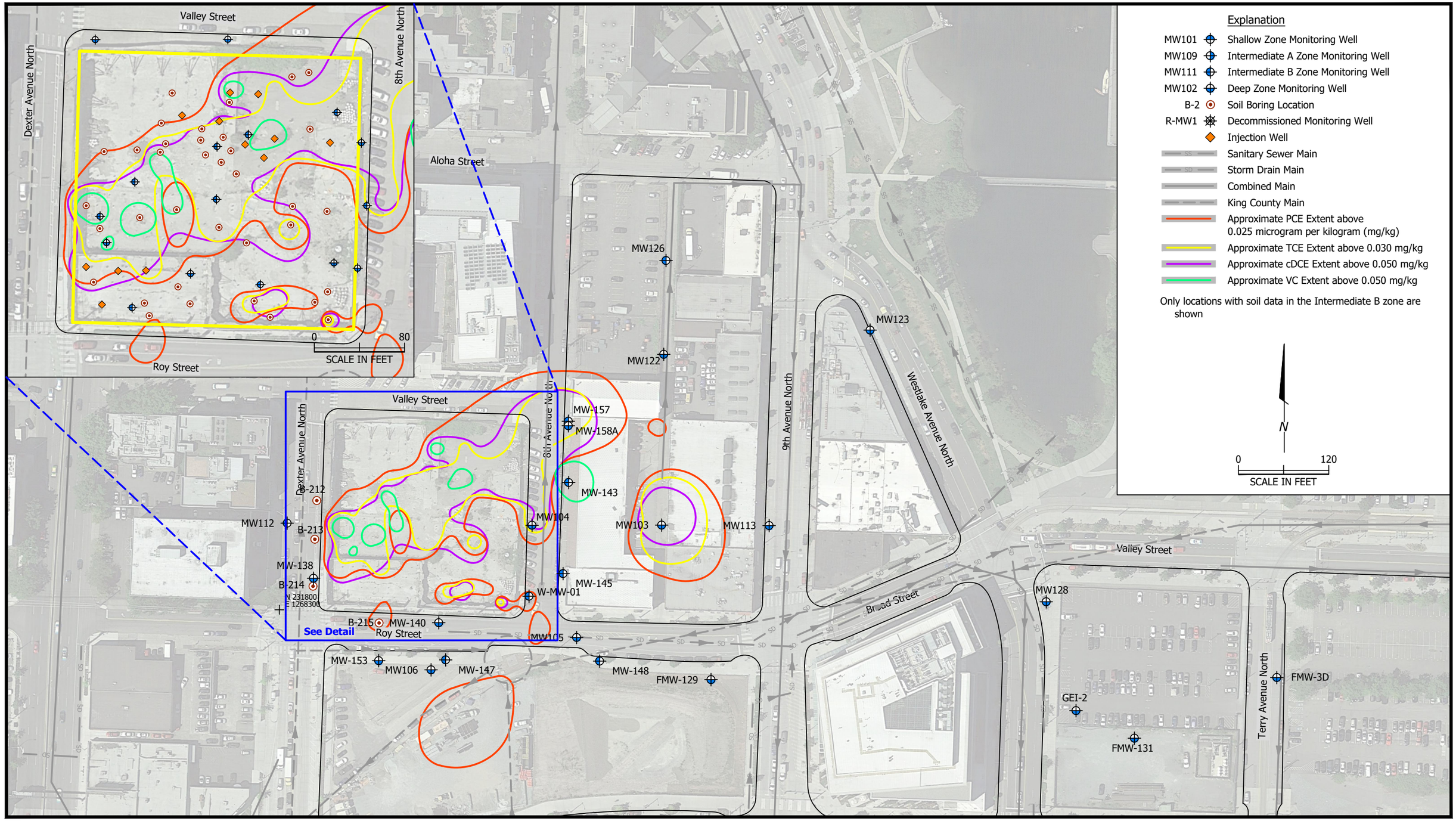


PES Environmental, Inc.
Engineering & Environmental Services

CVOCs in Soil - Intermediate A Zone
Former American Linen Supply
700 Dexter Avenue North
Seattle, Washington

FIGURE
22

1413.001.02.404	141300102404_IAWP_22	WRH	8/18
JOB NUMBER	DRAWING NUMBER	REVIEWED BY	DATE

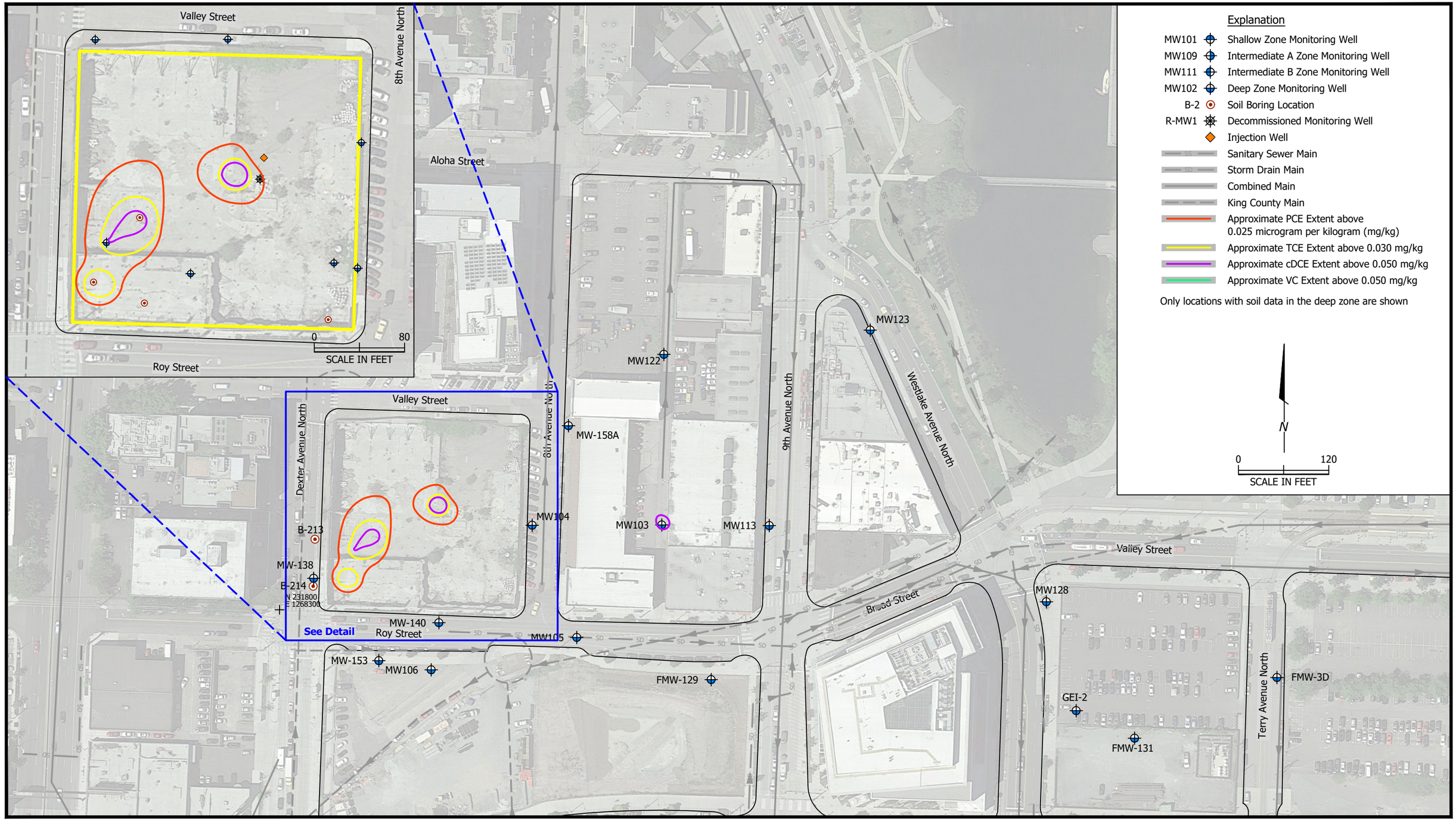


PES Environmental, Inc.
Engineering & Environmental Services

CVOCs in Soil - Intermediate B Zone
Former American Linen Supply
700 Dexter Avenue North
Seattle, Washington

FIGURE
23

1413.001.02.404	141300102404_IAWP_23	WRH	8/18
JOB NUMBER	DRAWING NUMBER	REVIEWED BY	DATE

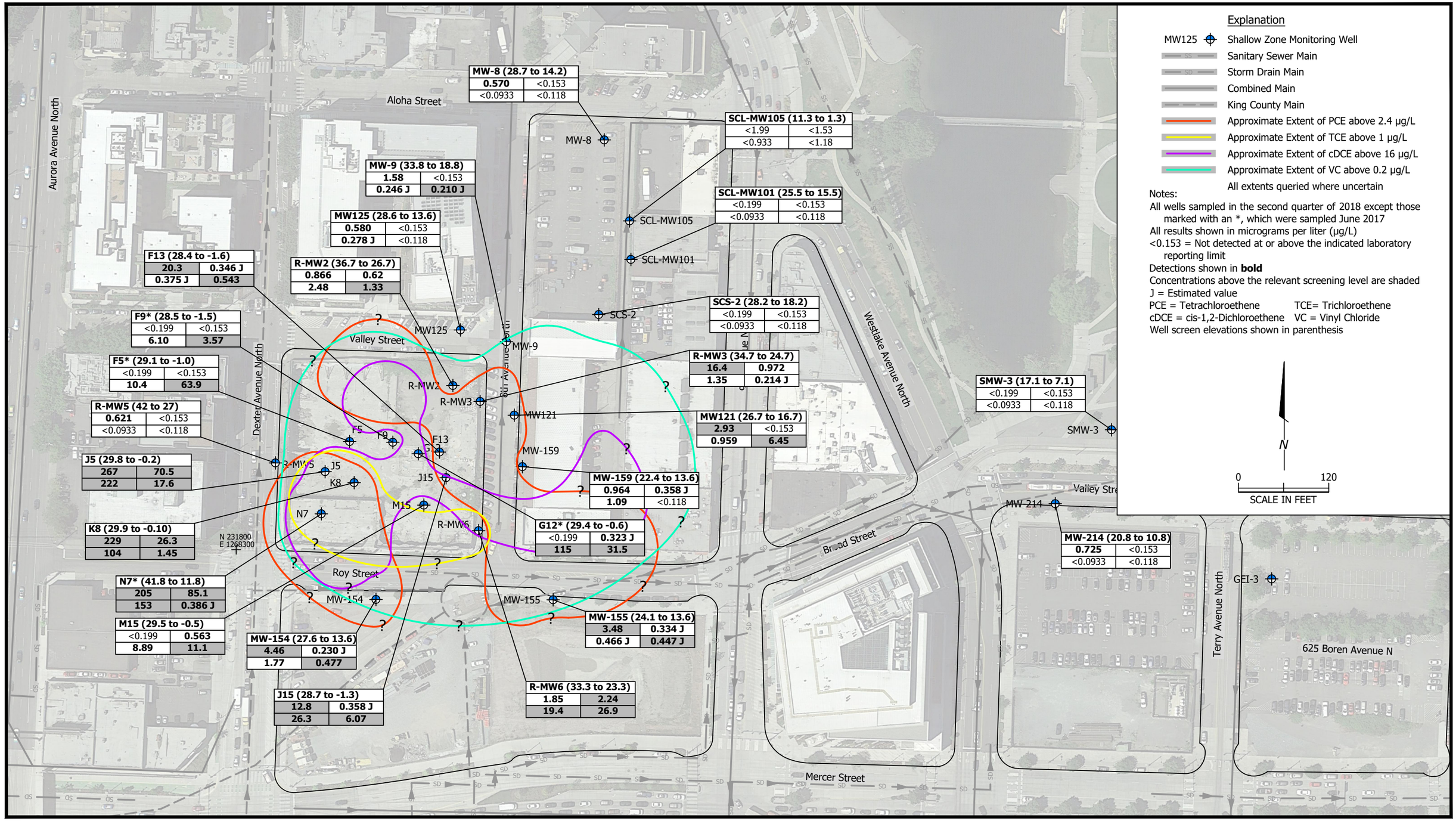


PES Environmental, Inc.
Engineering & Environmental Services

CVOCs in Soil - Deep Zone
Former American Linen Supply
700 Dexter Avenue North
Seattle, Washington

FIGURE
24

1413.001.02.404	141300102404_IAWP_24	WRH	8/18
JOB NUMBER	DRAWING NUMBER	REVIEWED BY	DATE

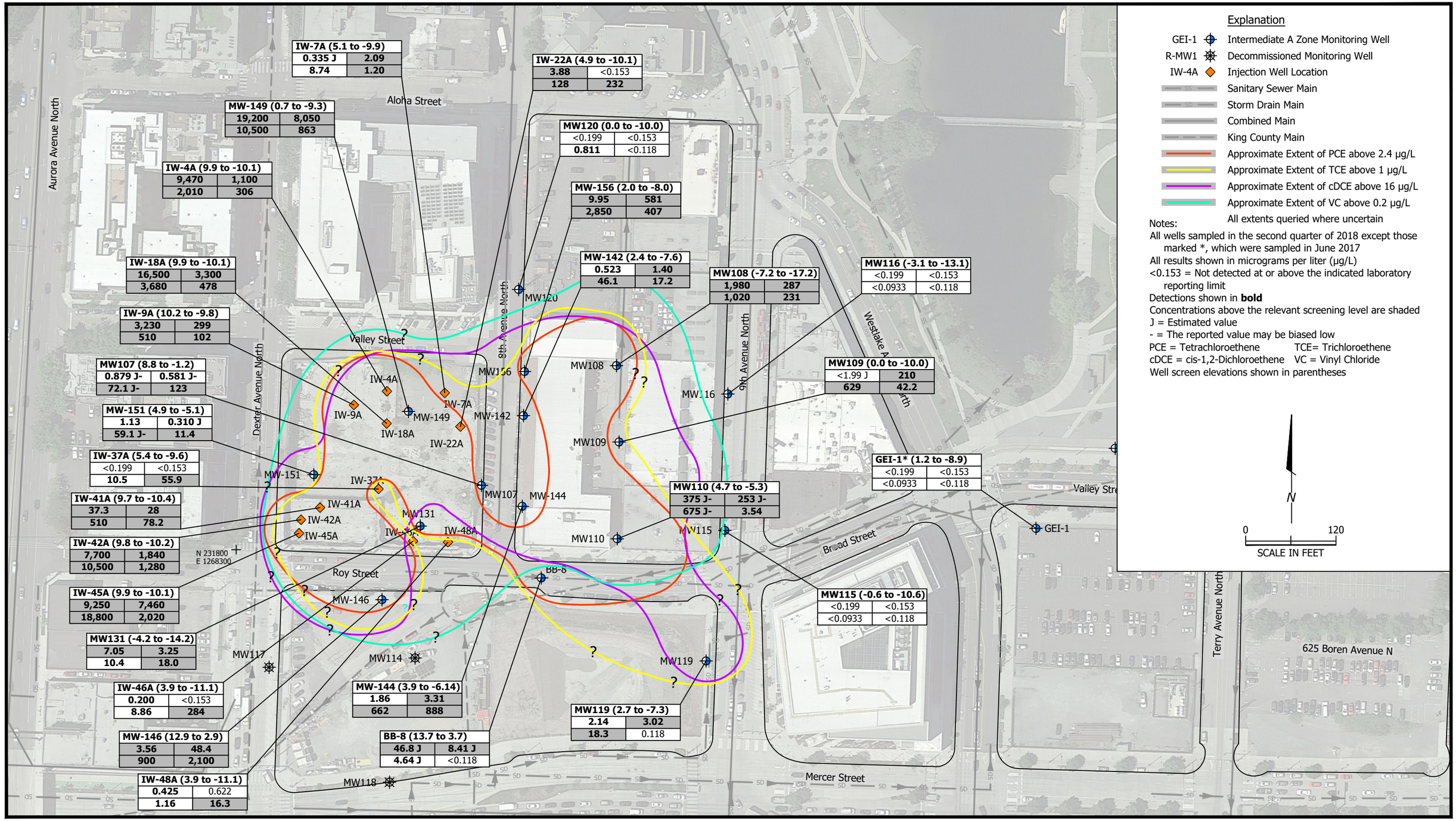


PES Environmental, Inc.
Engineering & Environmental Services

2018 CVOCs in Groundwater
Shallow Zone
Former American Linen Supply
700 Dexter Avenue North
Seattle, Washington

FIGURE
27

1413.001.02.004	141300102404_IAWP_27	WRH	8/18
JOB NUMBER	DRAWING NUMBER	REVIEWED BY	DATE



Notes:
All wells sampled in the second quarter of 2018 except those marked *, which were sampled in June 2017
All results shown in micrograms per liter (µg/L)
<0.153 = Not detected at or above the indicated laboratory reporting limit
Detections shown in **bold**
Concentrations above the relevant screening level are shaded
J = Estimated value
- = The reported value may be biased low
PCE = Tetrachloroethene TCE= Trichloroethene
cDCE = cis-1,2-Dichloroethene VC = Vinyl Chloride
Well screen elevations shown in parentheses

PES Environmental, Inc.
Engineering & Environmental Services

2018 CVOCs in Groundwater
Intermediate A Zone
Former American Linen Supply
700 Dexter Avenue North
Seattle, Washington

FIGURE
28

1413.001.02.004	141300102404_IAWP_28	WRH	8/18
JOB NUMBER	DRAWING NUMBER	REVIEWED BY	DATE

Aloha Street

Valley Street

Roy Street

Broad Street

9th Avenue North

8th Avenue North

Westlake Avenue North

IW-8C (-24.5 to -39.5)	
27,400	1,160
4,160	169

IW-4C (-27.8 to -42.8)	
22,300	1,860
5,080	29.7

IW-24B (-10.9 to -25.9)	
48,800	20,100
48,200	2,040

IW-1C (-23.9 to -38.9)	
5.07	56.5
12.7	1.69

IW-3B (-9.9 to -24.9)	
360	459
3,170	395

IW-17B (-10.0 to -25.0)	
60,100	11,500
51,400	3,230

IW-8B (-9.8 to -24.8)	
25.2	21.8
6.43	0.403

MW-135 (-30.9 to -40.9)	
75,800	7,890
27,700	989

IW-22B (-10.0 to -25.0)	
62,600	6,000
26,600	9,680

MW130 (-30.9 to -40.9)	
13,500	7,400
29,500	1,650

IW-28B (-9.8 to -24.8)	
4.71	2.42
19.4	3.66

IW-13C (-25.2 to -40.2)	
155	111
412	30

MW112 (-17.3 to -27.3)	
<0.199	<0.153
<0.0933	<0.118

MW-152 (-10.2 to -20.2)	
67,300	6,550
35,300	3,660

IW-15C (-26.1 to -40.1)	
670	166
26,800	7,350

N 231800
E 1268300

IW-20C (-28.8 to -43.8)	
721	1,020
6,830	111

IW-47B (-5.2 to -25.2)	
144	170
40,900	3,360

MW-136 (-32.7 to -42.7)	
2.59	0.365 J
4.73	8.57

IW-8D (-40.4 to -55.4)	
6,010	4,310
3,200	631

IW-37B (-13.3 to -28.3)	
1.82	0.497
3,240	2,420

IW-19C (-26.2 to -41.2)	
1.12	0.192 J
103	168

MW-147 (-17.6 to 27.6)	
19.8	83.4
399	1,150

IW-45B (-9.9 to -24.9)	
<0.199	0.215
213	150

IW-49B (-10.1 to -25.1)	
0.307 J	0.572
974	668

MW-150 (-13.3 to -23.3)	
2,500	3,200
9,710	766

MW126 (-54.1 to -64.1)	
<0.199	<0.153
<0.0933	<0.118

IW-6B (-10.4 to -24.4)	
590	847
2,270	24.1

IW-1D (-40.8 to -53.8)	
64,100	2,830
5,920	118

MW-157 (-28.3 to -38.2)	
0.950	0.240 J
10.4	104

MW-134 (-39.6 to -48.6)	
1.49	<0.153
0.287 J	68.6

IW-21B (-10.1 to -25.1)	
1.51	148
4,600	1,200

MW-143 (-27.7 to -37.6)	
<0.199	<0.153
129	193

IW-11D (-41.8 to -56.8)	
18.9	282
1,640	34.1

IW-3D (-40.6 to -55.6)	
4,240	4,600
9,860	37.1

MW111 (-33.5 to -43.5)	
0.618	<0.153
16.5	121

W-MW-02 (-26.5 to -36.5)	
<0.199	<0.153
4.72	4.95

IW-33B (-10.3 to -25.3)	
31.6	1,800
18,200	2,410

IW-9C (-29.5 to -40.9)	
3.15	49.7
20,400	3,780

MW-145 (-26.1 to -36.1)	
0.305 J	0.212 J
2.29	3.88

W-MW-01 (-25.1 to -35.1)	
5.33	1.68
1.31	8.79

MW-148 (-25.7 to 35.7)	
<0.199	<0.153
0.216 J	<0.118

IW-51B (-11.1 to -26.1)	
0.437	0.817
4.6	20.5

MW-132 (-29.9 to -39.9)	
2,830	840
3,300	10.2

MW-139 (-30.2 to -40.2)	
<0.199	<0.153
0.175 J	<0.118

MW126 MW-134 MW-150 MW-157 MW-143 MW130 MW112 MW-152 MW-136 MW-147 MW-148 MW-145 MW-139 MW111 W-MW-02 W-MW-01 MW-132

IW-1C IW-3B IW-4C IW-17B IW-8B IW-22B MW-135 IW-24B IW-1D IW-11D IW-33B IW-9C IW-3D IW-6B IW-21B IW-28B IW-13C IW-37B IW-8D IW-19C IW-15C IW-20C IW-47B IW-49B IW-51B IW-45B IW-8C MW-132

Explanation

- MW126 — Intermediate B Zone Monitoring Well
- IW-6B — Injection Well Location
- Sanitary Sewer Main
- Storm Drain Main
- Combined Main
- King County Main
- Approximate Extent of PCE above 2.4 µg/L
- Approximate Extent of TCE above 1 µg/L
- Approximate Extent of cDCE above 16 µg/L
- Approximate Extent of VC above 0.2 µg/L
- All extents queried where uncertain

Notes:
All wells sampled in the second quarter of 2018 except those marked with an *, which were sampled June 2017
All results shown in micrograms per liter (µg/L)
<0.153 = Not detected at or above the indicated laboratory reporting limit
Detections shown in **bold**
Concentrations above the relevant screening level are shaded
J = Estimated value
PCE = Tetrachloroethene TCE= Trichloroethene
cDCE = cis-1,2-Dichloroethene VC = Vinyl Chloride
Well screen elevations shown in parenthesis

N

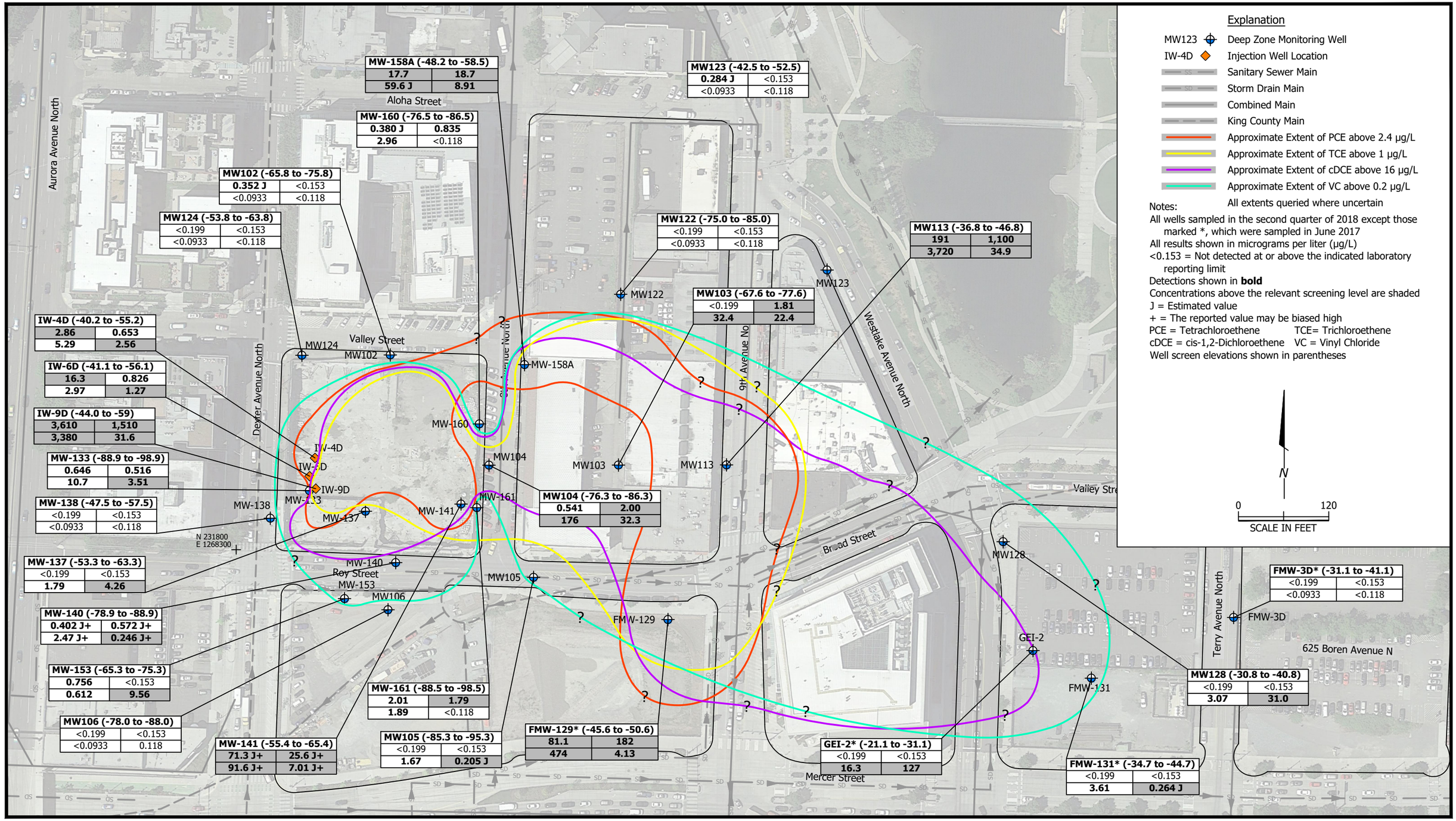
0 60
SCALE IN FEET

PES Environmental, Inc.
Engineering & Environmental Services

2018 CVOCs in Groundwater
Intermediate B Zone
Former American Linen Supply
700 Dexter Avenue North
Seattle, Washington

FIGURE
29

1413.001.02.004	141300102404_IAWP_29	WRH	8/18
JOB NUMBER	DRAWING NUMBER	REVIEWED BY	DATE

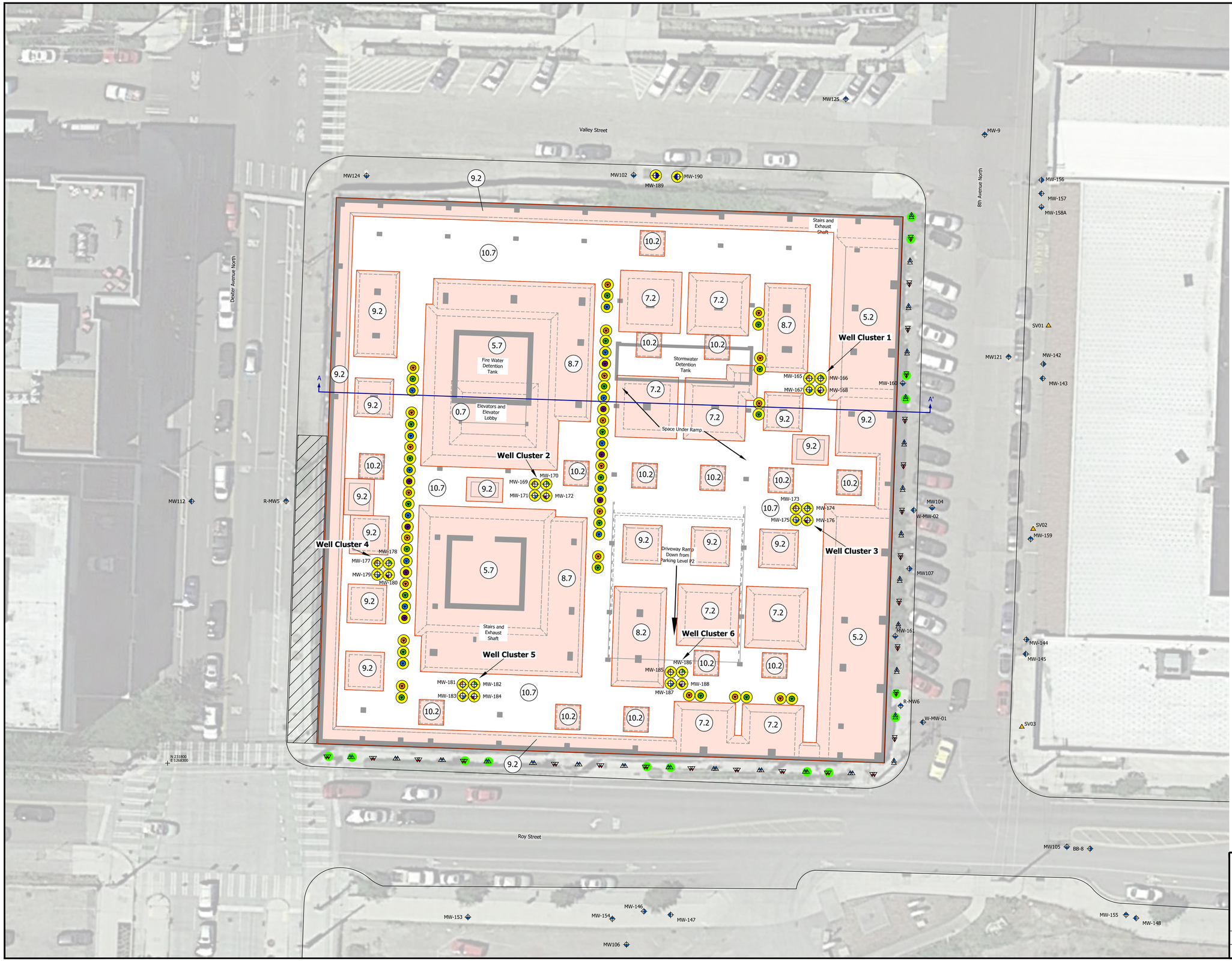


PES Environmental, Inc.
Engineering & Environmental Services

2018 CVOCs in Groundwater
Deep Zone
Former American Linen Supply
700 Dexter Avenue North
Seattle, Washington

FIGURE
30

1413.001.02.004	141300102404_IAWP_30	WRH	8/18
JOB NUMBER	DRAWING NUMBER	REVIEWED BY	DATE



Explanation

- Foundation No-Penetration Zone
- Dexter Avenue Contingency Injection Well Area
- Proposed Treatment Zone A Injection Well
- Proposed Treatment Zone B Injection Well
- Proposed Treatment Zone C Injection Well
- Proposed Treatment Zone D Injection Well
- Proposed Treatment Zone A Groundwater Monitoring Well
- Proposed Treatment Zone B Groundwater Monitoring Well
- Proposed Treatment Zone C Groundwater Monitoring Well
- Proposed Treatment Zone D Groundwater Monitoring Well
- Proposed Intermediate A Groundwater Monitoring Well
- Proposed Intermediate B Groundwater Monitoring Well
- MW101 — Shallow Zone Monitoring Well
- MW107 — Intermediate A Zone Monitoring Well
- W-MW-02 — Intermediate B Zone Monitoring Well
- MW105 — Deep Zone Monitoring Well
- Type 1 Perimeter Injection Well
- Type 2 Perimeter Injection Well
- Perimeter Injection wells to be sampled prior to injecting EVO
- SV01 — Soil Gas Monitoring Point
- N 231800 / E 1268300 — Coordinate Reference Point (NAD83, Washington State Plane North, US Feet)
- A A' — Cross-Section Location (Arrows show direction of view)
- (9.2) Thickened Slab Section Elevation Designation

	Screen Interval	Number of Wells
Injection Wells		
Treatment Zone A	-11 ft to +4 ft	21
Treatment Zone B	-25 ft to -10 ft	21
Treatment Zone C	-40 ft to -25 ft	13
Treatment Zone D	-55 ft to - 40 ft	8
Total Injection Wells		63
Monitoring Wells		
Intermediate A	-10 ft to 0 ft	1
Intermediate B	-30 ft to -20 ft	1
Treatment Zone A	-8 ft to +2 ft	6
Treatment Zone B	-22 ft to -12 ft	6
Treatment Zone C	-37 ft to -27 ft	6
Treatment Zone D	-52 ft to -42 ft	6
Total Monitoring Wells		26

N

0 20

SCALE IN FEET

Structural Drawings: Sheet S30/P.3 "Level P3/Foundation Plan" prepared by Magnussen Klemencic Associates

PES Environmental, Inc.
Engineering & Environmental Services

Contingent Action Injection and Monitoring Well Locations
Contingent Action Addendum
Former American Linen Supply
700 Dexter Avenue North
Seattle, Washington

DRAWING
2

1413.001.02.403	141300102403_CAA_D2_v4	DRAFT	1/19
DWG NUMBER	DRAWING NUMBER	REVIEWED BY	DATE

APPENDIX D

Soil Laboratory Reports and Data Validation Memoranda

MEMORANDUM

TO: Project File **DATE:** November 16, 2018

FROM: Jessie Compeau

SUBJECT: Laboratory Data Validation Review

PROJECT: American Linen Data Validation

PROJECT #: 1413.001.05.304

TASK: October, 2018 – Soil Samples

LAB: Pace Sample Delivery Groups (SDGs): L1034970, L1035515, L1036155, L1036161, L1036473, L1036481 and L1036740

One hundred and ten (110) soil samples including one (1) field duplicate, and two (2) trip blanks were collected as part of a sampling event at the Former American Linen Supply Site, in Seattle, Washington. Samples were collected between October 15th and 19th, 2018. The samples were shipped and delivered to Pace Analytical (formerly ESC Lab Sciences (ESC)) of Mount Juliet, TN for laboratory analysis. Selected samples were analyzed for the following:

- Volatile organic compounds (VOCs) by United States Environmental Protection Agency (USEPA) Method 8260C; and
- Total Solids by Standard Methods 2540 G-2011.

Associated soil sample data are reported in seven Pace SDGs (L1034970, L1035515, L1036155, L1036161, L1036473, L1036481 and L1036740). The quality assurance review of the sample data are summarized below.

DATA QUALIFICATIONS

Guidelines established by USEPA for a limited data validation review of analytical data along with Pace Analytical (Pace) control limit criteria were used to validate the data. The comments presented in this memorandum refer to the laboratory's performance in meeting the quality control criteria outlined in the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (USEPA, 2017).

DATA VALIDATION

Completeness

All samples were collected and analyzed as requested with the following discussion:

- Review of associated chain of custodies show that multiple soil samples were collected and placed on hold by PES. No action was taken other than to note this.

Sample Collection and Preservation

Samples were collected in laboratory-supplied sample containers preserved as appropriate for the individual analyses conducted. The samples were packed on ice in coolers and delivered by courier to the analytical laboratory. The laboratory reported that the coolers were received at a cooler temperature less than the recommended temperature preservation less than 6°C. No data were qualified based upon the sample collection and preservation information.

Holding Times

USEPA Method 8260C:
All samples were analyzed for VOCs within the EPA recommended holding time of fourteen days for soils from the date of collection. All holding time criteria were met.

Total Solids by SM 2540 G 2011:
Samples were analyzed within the USEPA recommended holding time of seven days for total solids.

Initial and Continuing Calibration

Calibration data for this project are not required for this deliverable however PACE's notes indicate the following:

- SDG L1034970 - *USEPA Method 8260C:* Continuing calibration verification (CCV) issues were noted by Pace for tetrachloroethene associated with analytical batch WG1184188 (analyzed on October 21, 2018). The compound is qualified by the laboratory "J0" to indicate that percent difference CCV is outside of laboratory acceptance criteria. **Associated results with laboratory qualified (J0) results are estimated and qualified (J/UJ).**

- SDG L1034970 - *USEPA Method 8260C:* Continuing calibration verification (CCV) issues were noted by Pace for methyl tert-butyl ether associated with analytical batch WG1181654 (analyzed on October 16, 2018). The compound is qualified by the laboratory "J0" to indicate that percent difference CCV is outside of laboratory acceptance criteria. **Associated results with laboratory qualified (J0) results are estimated and qualified (UJ).**

- SDG L1034970 - *USEPA Method 8260C:* Continuing calibration verification (CCV) issues were noted by Pace for multiple compounds associated with analytical batch WG1183157 (analyzed on October 19, 2018). The compounds are qualified by the laboratory "J0" to indicate that percent difference CCVs are outside of laboratory acceptance criteria. **Associated samples results with laboratory qualified (J0) results are estimated and qualified (J/UJ).**

- SDGs L1035515 and L1036155 - *USEPA Method 8260C:* Continuing calibration verification (CCV) issues were noted by Pace for carbon disulfide, ethylbenzene, and n-hexane associated with analytical batch WG1183540 (analyzed on October 19, 2018). The compounds are qualified by the laboratory "J0" to indicate that percent difference

CCVs are outside of laboratory acceptance criteria. **Associated results with laboratory qualified (J0) results are estimated and qualified (J/UJ).**

- SDGs L1036155 and L1036161 - *USEPA Method 8260C:* Continuing calibration verification (CCV) issues are noted by Pace for tetrachloroethene associated with analytical batch WG1185221 (analyzed on October 23, 2018). The compound is qualified by the laboratory "J0" to indicate that percent difference CCV is outside of laboratory acceptance criteria. **Associated results with laboratory qualified (J0) results are estimated and qualified (J/UJ).**

- SDG L1036473 - *USEPA Method 8260C:* Continuing calibration verification (CCV) issues are noted by Pace for tetrachloroethene associated with analytical batch WG1185319 (analyzed on October 24, 2018). The compound is qualified by the laboratory "J0" to indicate that percent difference CCV is outside of laboratory acceptance criteria. **Associated results with laboratory qualified (J0) results are estimated and qualified (J/UJ).**

- SDG L1036740 - *USEPA Method 8260C:* Continuing calibration verification (CCV) issue is noted by Pace for 2-butanone (MEK) associated with analytical batch WG1186927 (analyzed on October 26, 2018). The compound is qualified by the laboratory "J0" to indicate that percent difference CCV is outside of laboratory acceptance criteria. **Associated sample B-254A-27 result with laboratory qualified (J0) result for 2-butanone (MEK) is estimated and qualified (J/UJ).**

Method Blank Results

USEPA Method 8260C:
Laboratory method blanks were included with the analytical batches per method requirement. The target analytes were not detected in the method blanks at or above the reported detection limits (RDLs) with the following exceptions:

- SDG L1034970 - Analytical batch WG1181551: Low levels of hexachloro-1,3-butadiene, naphthalene, and 1,2,3-trichlorobenzene are detected in the method blank associated with the trip blank. No action was taken since these compounds are not detected in the associated trip blank.

- SDG L1034970 - Analytical batch WG1181654: Low levels of chloroform are detected in the method blank associated with four samples. **Chloroform results in two samples B-250-24 and B-251-25 are qualified as not detected (U) due to method blank contamination.** No action is required for the remaining two samples (B-249-20 and B-252-29) since chloroform is not detected.

- SDG L1034970 - Analytical batch WG1183157: Low levels of chloroform and methylene chloride are detected in the method blank associated with a number of samples. **The chloroform results in eight samples (B-251-8, B-251-10, B-251-15, B-251-20, B-251-25, B-252-2.5, B-252-10, and B-252-15) are detected below the RDL and are qualified as not detected (U) due to method blank contamination. The**

methylene chloride result in sample B-252-2.5 is qualified as not detected (U) due to method blank contamination.

- SDG L1035515 - Analytical batch WG1183540: Low levels of 2-butanone (MEK) and methylene chloride are detected in the method blank associated with the samples. **The 2-butanone (MEK) results below the RDL (laboratory qualified "BJ") in the associated samples are qualified as not detected (U) due to method blank contamination. The 2-butanone (MEK) results above the RDL (laboratory qualified "B") in the associated samples are qualified as estimated (J) due to method blank contamination.** No action is taken for methylene chloride since it is not detected in the associated samples.

- SDGs L1035515 and L1036155 - Analytical batch WG1184696: A low level of 1,2,3-trichlorobenzene is detected in the method blank associated the samples. No action is taken since 1,2,3-trichlorobenzene is not detected in the associated samples.

- SDGs L1036155 and L1036473 - Analytical batch WG1185221: A low level of n-hexane is detected in the method blank associated the samples. No action is taken since n-hexane is not detected in the associated samples.

- SDG L1036155 - Analytical batch WG1184313: Low levels of chloroform and 1,2,3-trichlorobenzene are detected in the method blank associated with the samples. **The chloroform results below the RDL (laboratory qualified "BJ") in the associated samples are qualified as not detected (U) due to method blank contamination. The chloroform results above the RDL (laboratory qualified "B") in the associated samples are qualified as estimated (J) due to method blank contamination.** No action is taken for 1,2,3-trichlorobenzene as it is not detected in the associated samples.

- SDG L1036161 - Analytical batch WG1184455: A low level of chloroform is detected in the method blank associated with the samples. No action is taken for chloroform as it is not detected in the associated samples.

- SDG L1036473 - Analytical batch WG1184455: A low level of chloroform is detected in the method blank associated with eleven samples. **The chloroform results below the RDL (laboratory qualified "BJ") in the associated samples are qualified as not detected (U) due to method blank contamination. The chloroform results above the RDL (laboratory qualified "B") in the associated samples are qualified as estimated (J) due to method blank contamination.**

- SDG L1036473 - Analytical batch WG1184727: A low level of chloroform is detected in the method blank associated with nineteen samples. **The chloroform results below the RDL (laboratory qualified "BJ") in the associated samples are qualified as not detected (U) due to method blank contamination. The chloroform results above the RDL (laboratory qualified "B") in the associated samples are qualified as estimated (J) due to method blank contamination.**

- SDGs L1036481 and L1036473 - Analytical batch WG1186559: A low level of methylene chloride is detected in the method blank associated with the samples. No action is taken for methylene chloride as it is not detected in the associated samples.

- SDG L1036740 - Analytical batch WG1188021: A low level of 2-butanone (MEK) is detected in the method blank associated with sample B-254A-35. **The 2-butanone (MEK) result is below the RDL (laboratory qualified "BJ") in associated sample B-254A-35 is qualified as not detected (U) due to method blank contamination. Refer to the discussion under Surrogate Recovery for additional information on sample B-254A-35.**

Total Solids by SM 2540 G 2011:
Laboratory method blanks were included with the analytical batches per method requirement. The target analytes (% solids) were not detected at a significant level in the method blanks and sample results are not impacted.

Trip Blank Results

USEPA Method 8260C:
Two trip blanks were collected and analyzed. The target analytes were not detected in the trip blanks (refer to SDGs L1034970 and L1036155) at or above the RDLs with the following exception:

- SDG L1034970 - Analytical batch WG1181551: A low level of acetone is detected in the trip blank. A low level of acetone is detected in associated sample B-251-20. **The acetone detection in sample B-251-20 is qualified as not detected (U) due to trip blank contamination.**

Field, Rinsate, or Equipment Blank Results

Field, rinsate, or equipment blanks were not collected.

Field Duplicate Analyses

Field duplicate sample pairs are as follows:

SDG L1036161: Samples IW-58A-38 and B-929-38

- Field duplicate pairs were submitted and analyzed for VOCs and percent solids. Percent solids and VOC target analyte results are comparable and within a relative percent difference (RPD) of 30% ($\pm$ 2x RDL for soil results <5X the RDL) for the field duplicates with the following exceptions:

    - **Trans-1,2-dichloroethene and trichloroethene results are not comparable (absolute differences >2X RDL) and field duplicate sample (IW-58A-38 and B-929-38) results for these compounds are estimated and qualified (J).**

Laboratory Duplicate Analyses

USEPA Method 8260C:
A laboratory duplicate sample was not analyzed. Refer to laboratory control sample/sample duplicate (LCS/LCSD) or matrix spike/matrix spike duplicates (MS/MSDs) results for precision data.

Total Solids by SM 2540 G 2011:
Laboratory duplicate sample analyses were performed on client and/or on non-client samples within the analytical batches. The primary/duplicate RPDs for total solids analyses are within the laboratory control limit of 5%.

Surrogate Recoveries

USEPA Method 8260C:
The surrogate recovery results for the samples, laboratory control samples, matrix spike samples, trip blanks, and the method blanks are within the laboratory surrogate control limits for all of the analyses with the following exception:

- SDG L1034970 - Analytical batch WG1183157 (October 20, 2018 analysis). Toluene-d8 surrogate recovery for sample B-252-19 is high, above criteria, and is qualified (J1) by the laboratory. **All positive detections associated with analytical batch WG1183157 in sample B-252-19 are estimated and qualified (J).**

- SDG L1035515 - Analytical batch WG1185916 (October 24, 2018 analysis). Toluene surrogate recovery for sample B-256-5 is high and above criteria and qualified (J1) by the laboratory. **Trichloroethene result for sample B-256-5 is estimated and qualified (J/UJ).**

- SDG L1036155 - Analytical batch WG1185140 (October 23, 2018 analysis). *4-Bromofluorobenzene* surrogate recovery for sample B-260-8 is below criteria (but greater than 10% recovery) and qualified (J2) by the laboratory. **Associated compound (benzene, di-isopropyl ether, methyl tert-butyl ether, tetrachloroethene, 1,2,4-trichlorobenzene, and trichloroethene) results for sample B-260-8 are estimated and qualified (J/UJ).** Refer to Other Quality Control issues for sample B-260-8 tetrachloroethene, internal standard recovery issue, and final qualification.

- SDG L1036473 - Analytical batch WG1184727 (October 22, 2018 analysis): Toluene-d8 surrogate recovery for sample B-253A-15 is high, above criteria, and is qualified (J1) by the laboratory. **All positive detections associated with analytical batch WG1184727 in sample B-253A-15 are estimated and qualified (J).**

- SDG L1036740 - Analytical batch WG1188021 (October 29, 2018 analysis). Toluene surrogate recovery for sample B-254A-35 is low and below criteria (but greater than 10% recovery) and qualified (J2) by the laboratory. **All associated analytical batch (WG1188021) results for sample B-254A-35 are estimated and qualified (J/UJ) except for the 2-butanone (MEK) detection which is qualified as not detected (U) due to blank contamination.**

Laboratory Control Samples

USEPA Method 8260C:

Laboratory control sample and laboratory control sample duplicate (LCS/LCSD) were analyzed by USEPA Method 8260C method. In some cases only LCS data are provided and no measure of precision is provided. No action is taken other than to note that overall a sufficient measure of precision was provided by the laboratory. The LCS or LCS/LCSD %Rs and RPDs for the all target compounds are within the laboratory control criteria for soils with the following discussions and exceptions:

- SDG L1034970 - Analytical batch WG1181654: LCS recovery for dibromomethane, 1,1,2,2-tetrachloroethane, and 1,1,2-trichloroethane are above laboratory control limit criteria and laboratory qualified (J4). These compounds are not detected in the associated samples. **Dibromomethane, 1,1,2,2-tetrachloroethane, and 1,1,2-trichloroethane are considered not detected (U) in the associated samples due to the elevated LCS recoveries.**

- SDG L1034970 - Analytical batch WG1182742: LCS recovery for dibromomethane, tetrachloroethene, and 1,1,2-trichloroethane are above control limit criteria and laboratory qualified (J4). **All associated positive detections for these compounds are estimated and qualified (J) and all associated non-detects are considered not detected (U) for the associated samples due to the elevated LCS recoveries.**

- SDG L1034970 - Analytical batch WG1182742: LCS recovery for 1,2,4-trimethylbenzene is recovered slightly below criteria and laboratory qualified (J4). **All associated sample results for 1,2,4-trimethylbenzene are estimated and qualified (J/UJ) due to a low LCS recovery.**

- SDG L1035515 - Analytical batch WG1183540: LCS recoveries for trans-1,3-dichloropropene, n-hexane, 2-butanone (MEK), and vinyl chloride are above control limit criteria and laboratory qualified (J4). **All associated positive detections for these compounds are estimated and qualified (J) and all associated non-detects are considered not detected (U) in the associated samples due to the elevated LCS recoveries.**

- SDGs L1035515 and L1036155 - Analytical batch WG1184696: LCS recovery for dichlorodifluoromethane (CFC-12) is recovered above criteria and laboratory qualified (J4). The compound is not detected in the associated samples. **Dichlorodifluoromethane (CFC-12) is considered not detected (U) in the associated samples due to the elevated LCS recovery.**

- SDG L1036155 - Analytical batch WG1183421: LCS recovery for 2,2-dichloropropane is recovered above criteria and laboratory qualified (J4). The compound is not detected in the associated samples. 2,2-Dichloropropane **is considered not detected (U) in the associated samples due to the elevated LCS recovery.**

- SDG L1036155 - Analytical batch WG1183540: LCS recoveries for trans-1,3-dichloropropene, n-hexane, and 2-butanone (MEK) are above control limit criteria and laboratory qualified (J4). **All associated positive detections for these compounds are estimated and qualified (J) and all associated non-detects are considered not detected (U) in the associated samples due to the elevated LCS recoveries.**

- SDGs L1036155, L1036161 and L1036473 - Analytical batch WG1184455: LCS recoveries for trans-1,3-dichloropropene and 1,1,1,2-tetrachloroethane are above control limit criteria and laboratory qualified (J4). These compounds are not detected in the associated samples. **All associated non-detects are considered not detected (U) in the associated samples due to the elevated LCS recoveries.**

- SDG L1036740 - Analytical batch WG1186927: LCS recovery for 1,1-dichloropropene is recovered above criteria and laboratory qualified (J4). This compound is not detected in the associated samples. **1,1-Dichloropropene is considered not detected (U) in the associated samples due to the elevated LCS recovery.**

- SDG L1036740- Analytical batch WG1188021: LCS recovery for 2,2-dichloropropane is recovered above criteria and laboratory qualified (J4). This compound is not detected in the associated samples. **2,2-Dichloropropane is considered not detected (U) in the associated samples due to the elevated LCS recovery.**

Total Solids by SM 2540 G 2011:
The LCS %Rs for total solids are within the laboratory control criteria for soils.

Matrix Spike/Matrix Spike Duplicates

USEPA Method 8260C:
Matrix spike/matrix spike duplicate (MS/MSD) analyses were performed on a non-client sample. In cases where MS/MSDs were not performed refer to LCS/LCSDs for accuracy and precision data. MS/MSD % Rs and RPDs are acceptable with the following exceptions:

- SDG L1034970 - Analytical batch WG1181654: Soil MS/MSDs associated with the samples were performed on a non-client sample within the analytical batch. Multiple MS/MSD compounds on one of the spikes are recovered within control limits but recovered wide with elevated RPDs and are laboratory qualified (J3). Several MS/MSD recoveries were recovered less than 10% and laboratory qualified (J6). No action was taken other than to note that the spike was performed on a non-client sample. Refer to the LCS and field duplicate results (SDG L1036161) for accuracy and precision data.

- SDG L1034970 - Analytical batch WG1182742: MS/MSD spike analyses were performed on a client sample B-251-5. Acrylonitrile and vinyl acetate are recovered within control limits but recovered wide with an elevated RPD and laboratory qualified (J3). No action was taken on this basis since recoveries are within. MS/MSD recoveries for tetrachloroethene are not reported since the sample amount was far greater (>5X) than the spike amount and exceeded the upper calibration range. No action was taken other than to note this. MS/MSD recoveries for vinyl chloride are recovered low (<10%) and

laboratory qualified (J6). **Sample B-251-5 vinyl chloride result is rejected (R) due to low spike recoveries.**

- SDG L1034970 - Analytical batch WG1183157: MS/MSD spike analyses were performed on a client sample B-267-10. MS/MSD recoveries for tetrachloroethene are not reported since the sample amount was far greater (>5X) than the spike amount. No action was taken other than to note this.

- SDG L1036473 - Analytical batch WG1184727: MS/MSD spike analyses were performed on a client sample B-252-25. MS/MSD recoveries for tetrachloroethene are not reported since the sample amount was far greater (>5X) than the spike amount. No action was taken other than to note this. 1,1,1-Trichloroethane is recovered within control limits but recovered wide with an elevated RPD and laboratory qualified (J3). No action was taken on this basis since recoveries are within.

- SDG L1036740 - Analytical batch WG1186927: Soil MS/MSDs associated with the samples were performed on a non-client sample within the analytical batch. Multiple MS/MSD compounds on one of the spikes are recovered within control limits but recovered wide with elevated RPDs and are laboratory qualified (J3). Multiple MS/MSD recoveries were recovered less than 10% and laboratory qualified (J6). MSD recovery for trichlorofluoromethane is recovered high and laboratory qualified (J5) due to matrix interference. MS/MSD recoveries for 1,2,4-trimethylbenzene are not reported since the sample amount was far greater (>5X) than the spike amount. No action was taken other than to note this. No action was taken other than to note that the spike was performed on a non-client sample. Refer to the LCS and field duplicate results (SDG L1036161) for accuracy and precision data.

Other Quality Control Issues

No laboratory quality control issues were identified in the laboratory reports with the following exceptions and discussions:

- SDG L1036155 - Analytical batch WG1185140 (October 23, 2018 analysis): Associated internal standard recoveries are poor due to matrix interference for four samples (B-260-8, B-261-5, B-261-10, and B-261-20) and the tetrachloroethene results are laboratory qualified (V3). **Associated tetrachloroethene results for these samples are estimated biased high (J+) and no action is taken for the remaining results associated with WG1185140 (benzene, di-isopropyl ether, methyl tert-butyl ether, 1,2,4-trichlorobenzene, and trichloroethene).** Sample B-260-8 tetrachloroethene result is estimated and qualified (J) due to a low surrogate recovery however this qualification is superseded by an estimated biased high qualifier (J+) due to the poor internal standard recovery.

- Electronic data deliverables (EDDs) for these SDGs were provided by the laboratory and data validator qualifiers were entered into the EDDs. In some cases different chemical synonyms are used between the EDD and the hardcopy however associated Chemical

Abstracts Service (CAS) numbers are provided in the EDD to confirm chemical identifications. Additional information was requested from the laboratory to cross reference the EDD versus final laboratory data.

Quantitation Limits

The RDLs used for this sample group are acceptable for the project. Several samples were diluted due to elevated concentrations of various target analytes. PACE sample narrative notes indicate that for multiple soil samples the target compounds were too high to run the samples at a lower dilution. In some cases diluted target analytes are non-detects. No action was taken other than to note this.

Detections between the method detection limit (MDL) and RDL are estimated (J) by the laboratory and qualified (J) by the data validator to re-emphasize that the detection is estimated.

Data Assessment

The laboratory data reported for this project were reviewed based on the criteria outlined in:

- USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (USEPA, 2017).

Data qualifiers are assigned and laboratory report pages with qualifiers are attached. All data, including qualified data, are judged to be acceptable for their intended use with the following exception:

- **SDG L1034970: Sample B-251-5 vinyl chloride result is rejected (R) due to low spike recoveries.**

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	95.7		1	10/19/2018 15:14	WG1183341

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0143	0.0261	1	10/21/2018 13:56	WG1184188
Acrylonitrile	U		0.00199	0.0131	1	10/18/2018 15:48	WG1182742
Benzene	U		0.000418	0.00105	1	10/18/2018 15:48	WG1182742
Bromobenzene	U		0.00110	0.0131	1	10/18/2018 15:48	WG1182742
Bromodichloromethane	U		0.000823	0.00261	1	10/18/2018 15:48	WG1182742
Bromochloromethane	U		0.00118	0.00523	1	10/18/2018 15:48	WG1182742
Bromoform	U		0.00625	0.0261	1	10/18/2018 15:48	WG1182742
Bromomethane	U		0.00387	0.0131	1	10/18/2018 15:48	WG1182742
n-Butylbenzene	U		0.00401	0.0131	1	10/18/2018 15:48	WG1182742
sec-Butylbenzene	U		0.00264	0.0131	1	10/18/2018 15:48	WG1182742
tert-Butylbenzene	U		0.00162	0.00523	1	10/18/2018 15:48	WG1182742
Carbon disulfide	U		0.00424	0.0131	1	10/18/2018 15:48	WG1182742
Carbon tetrachloride	U		0.00113	0.00523	1	10/18/2018 15:48	WG1182742
Chlorobenzene	U		0.000599	0.00261	1	10/18/2018 15:48	WG1182742
Chlorodibromomethane	U		0.000470	0.00261	1	10/18/2018 15:48	WG1182742
Chloroethane	U		0.00113	0.00523	1	10/18/2018 15:48	WG1182742
Chloroform	0.000568 J	J	0.000434	0.00261	1	10/18/2018 15:48	WG1182742
Chloromethane	U		0.00145	0.0131	1	10/18/2018 15:48	WG1182742
2-Chlorotoluene	U		0.000961	0.00261	1	10/18/2018 15:48	WG1182742
4-Chlorotoluene	U		0.00118	0.00523	1	10/18/2018 15:48	WG1182742
1,2-Dibromo-3-Chloropropane	U		0.00533	0.0261	1	10/18/2018 15:48	WG1182742
1,2-Dibromoethane	U		0.000549	0.00261	1	10/18/2018 15:48	WG1182742
Dibromomethane	U U	J4	0.00105	0.00523	1	10/18/2018 15:48	WG1182742
1,2-Dichlorobenzene	U		0.00152	0.00523	1	10/18/2018 15:48	WG1182742
1,3-Dichlorobenzene	U		0.00178	0.00523	1	10/18/2018 15:48	WG1182742
1,4-Dichlorobenzene	U		0.00206	0.00523	1	10/18/2018 15:48	WG1182742
Dichlorodifluoromethane	U		0.000855	0.00261	1	10/18/2018 15:48	WG1182742
1,1-Dichloroethane	U		0.000601	0.00261	1	10/18/2018 15:48	WG1182742
1,2-Dichloroethane	U		0.000496	0.00261	1	10/18/2018 15:48	WG1182742
1,1-Dichloroethene	U		0.000523	0.00261	1	10/18/2018 15:48	WG1182742
cis-1,2-Dichloroethene	0.0102		0.000721	0.00261	1	10/18/2018 15:48	WG1182742
trans-1,2-Dichloroethene	U		0.00149	0.00523	1	10/18/2018 15:48	WG1182742
1,2-Dichloropropane	U		0.00133	0.00523	1	10/18/2018 15:48	WG1182742
1,1-Dichloropropene	U		0.000732	0.00261	1	10/18/2018 15:48	WG1182742
1,3-Dichloropropane	U		0.00183	0.00523	1	10/18/2018 15:48	WG1182742
cis-1,3-Dichloropropene	U		0.000709	0.00261	1	10/18/2018 15:48	WG1182742
trans-1,3-Dichloropropene	U		0.00160	0.00523	1	10/18/2018 15:48	WG1182742
trans-1,4-Dichloro-2-butene	U		0.00146	0.00523	1	10/18/2018 15:48	WG1182742
2,2-Dichloropropane	U		0.000829	0.00261	1	10/18/2018 15:48	WG1182742
Di-isopropyl ether	U		0.000366	0.00105	1	10/18/2018 15:48	WG1182742
Ethylbenzene	U		0.000554	0.00261	1	10/18/2018 15:48	WG1182742
Hexachloro-1,3-butadiene	U		0.0133	0.0261	1	10/18/2018 15:48	WG1182742
2-Hexanone	U		0.0105	0.0261	1	10/18/2018 15:48	WG1182742
n-Hexane	0.00139 J	J	0.00111	0.00523	1	10/18/2018 15:48	WG1182742
Iodomethane	U		0.00632	0.0131	1	10/18/2018 15:48	WG1182742
Isopropylbenzene	U		0.000902	0.00261	1	10/18/2018 15:48	WG1182742
p-Isopropyltoluene	U		0.00243	0.00523	1	10/18/2018 15:48	WG1182742
2-Butanone (MEK)	U		0.0131	0.0261	1	10/18/2018 15:48	WG1182742
Methylene Chloride	U		0.00694	0.0261	1	10/18/2018 15:48	WG1182742
4-Methyl-2-pentanone (MIBK)	U		0.0105	0.0261	1	10/18/2018 15:48	WG1182742

JC 11/16/18

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

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

Analyte	Result (dry) mg/kg		Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U			0.000308	0.00105	1	10/18/2018 15:48	WG1182742
Naphthalene	U			0.00326	0.0131	1	10/18/2018 15:48	WG1182742
n-Propylbenzene	U			0.00123	0.00523	1	10/18/2018 15:48	WG1182742
Styrene	U			0.00285	0.0131	1	10/18/2018 15:48	WG1182742
1,1,1,2-Tetrachloroethane	U			0.000523	0.00261	1	10/18/2018 15:48	WG1182742
1,1,2,2-Tetrachloroethane	U			0.000408	0.00261	1	10/18/2018 15:48	WG1182742
1,1,2-Trichlorotrifluoroethane	U			0.000705	0.00261	1	10/18/2018 15:48	WG1182742
Tetrachloroethene	0.122	J	J4	0.000732	0.00261	1	10/18/2018 15:48	WG1182742
Toluene	U			0.00131	0.00523	1	10/18/2018 15:48	WG1182742
1,2,3-Trichlorobenzene	U			0.000653	0.00261	1	10/18/2018 15:48	WG1182742
1,2,4-Trichlorobenzene	U			0.00504	0.0131	1	10/18/2018 15:48	WG1182742
1,1,1-Trichloroethane	U			0.000287	0.00261	1	10/18/2018 15:48	WG1182742
1,1,2-Trichloroethane	U	U	J4	0.000923	0.00261	1	10/18/2018 15:48	WG1182742
Trichloroethene	0.0109			0.000418	0.00105	1	10/18/2018 15:48	WG1182742
Trichlorofluoromethane	U			0.000523	0.00261	1	10/18/2018 15:48	WG1182742
1,2,3-Trichloropropane	U			0.00533	0.0131	1	10/18/2018 15:48	WG1182742
1,2,4-Trimethylbenzene	U	UJ	J4	0.00121	0.00523	1	10/18/2018 15:48	WG1182742
1,2,3-Trimethylbenzene	U			0.00120	0.00523	1	10/18/2018 15:48	WG1182742
1,3,5-Trimethylbenzene	U			0.00113	0.00523	1	10/18/2018 15:48	WG1182742
Vinyl acetate	U			0.00368	0.0131	1	10/18/2018 15:48	WG1182742
Vinyl chloride	U			0.000714	0.00261	1	10/18/2018 15:48	WG1182742
Xylenes, Total	U			0.00500	0.00679	1	10/18/2018 15:48	WG1182742
(S) Toluene-d8	*117*				*75.0-131*		*10/18/2018 15:48*	WG1182742
(S) Toluene-d8	*100*				*75.0-131*		*10/21/2018 13:56*	WG1184188
(S) Dibromofluoromethane	*79.3*				*65.0-129*		*10/18/2018 15:48*	WG1182742
(S) Dibromofluoromethane	*112*				*65.0-129*		*10/21/2018 13:56*	WG1184188
(S) 4-Bromofluorobenzene	*88.7*				*67.0-138*		*10/18/2018 15:48*	WG1182742
(S) 4-Bromofluorobenzene	*117*				*67.0-138*		*10/21/2018 13:56*	WG1184188

JC 11/16/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	88.6		1	10/19/2018 15:14	WG1183341

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0155	0.0282	1	10/21/2018 14:16	WG1184188
Acrylonitrile	U		0.00214	0.0141	1	10/18/2018 16:08	WG1182742
Benzene	U		0.000451	0.00113	1	10/18/2018 16:08	WG1182742
Bromobenzene	U		0.00118	0.0141	1	10/18/2018 16:08	WG1182742
Bromodichloromethane	U		0.000889	0.00282	1	10/18/2018 16:08	WG1182742
Bromochloromethane	U		0.00128	0.00564	1	10/18/2018 16:08	WG1182742
Bromoform	U		0.00675	0.0282	1	10/18/2018 16:08	WG1182742
Bromomethane	U		0.00418	0.0141	1	10/18/2018 16:08	WG1182742
n-Butylbenzene	U		0.00433	0.0141	1	10/18/2018 16:08	WG1182742
sec-Butylbenzene	U		0.00285	0.0141	1	10/18/2018 16:08	WG1182742
tert-Butylbenzene	U		0.00175	0.00564	1	10/18/2018 16:08	WG1182742
Carbon disulfide	U		0.00458	0.0141	1	10/18/2018 16:08	WG1182742
Carbon tetrachloride	U		0.00122	0.00564	1	10/18/2018 16:08	WG1182742
Chlorobenzene	U		0.000647	0.00282	1	10/18/2018 16:08	WG1182742
Chlorodibromomethane	U		0.000508	0.00282	1	10/18/2018 16:08	WG1182742
Chloroethane	U		0.00122	0.00564	1	10/18/2018 16:08	WG1182742
Chloroform	0.000675	J J	0.000468	0.00282	1	10/18/2018 16:08	WG1182742
Chloromethane	U		0.00157	0.0141	1	10/18/2018 16:08	WG1182742
2-Chlorotoluene	U		0.00104	0.00282	1	10/18/2018 16:08	WG1182742
4-Chlorotoluene	U		0.00128	0.00564	1	10/18/2018 16:08	WG1182742
1,2-Dibromo-3-Chloropropane	U		0.00576	0.0282	1	10/18/2018 16:08	WG1182742
1,2-Dibromoethane	U		0.000592	0.00282	1	10/18/2018 16:08	WG1182742
Dibromomethane	U	U J4	0.00113	0.00564	1	10/18/2018 16:08	WG1182742
1,2-Dichlorobenzene	U		0.00164	0.00564	1	10/18/2018 16:08	WG1182742
1,3-Dichlorobenzene	U		0.00192	0.00564	1	10/18/2018 16:08	WG1182742
1,4-Dichlorobenzene	U		0.00222	0.00564	1	10/18/2018 16:08	WG1182742
Dichlorodifluoromethane	U		0.000923	0.00282	1	10/18/2018 16:08	WG1182742
1,1-Dichloroethane	U		0.000649	0.00282	1	10/18/2018 16:08	WG1182742
1,2-Dichloroethane	U		0.000536	0.00282	1	10/18/2018 16:08	WG1182742
1,1-Dichloroethene	U		0.000564	0.00282	1	10/18/2018 16:08	WG1182742
cis-1,2-Dichloroethene	0.0287		0.000779	0.00282	1	10/18/2018 16:08	WG1182742
trans-1,2-Dichloroethene	U		0.00161	0.00564	1	10/18/2018 16:08	WG1182742
1,2-Dichloropropane	U		0.00143	0.00564	1	10/18/2018 16:08	WG1182742
1,1-Dichloropropene	U		0.000790	0.00282	1	10/18/2018 16:08	WG1182742
1,3-Dichloropropane	U		0.00197	0.00564	1	10/18/2018 16:08	WG1182742
cis-1,3-Dichloropropene	U		0.000765	0.00282	1	10/18/2018 16:08	WG1182742
trans-1,3-Dichloropropene	U		0.00173	0.00564	1	10/18/2018 16:08	WG1182742
trans-1,4-Dichloro-2-butene	U		0.00158	0.00564	1	10/18/2018 16:08	WG1182742
2,2-Dichloropropane	U		0.000895	0.00282	1	10/18/2018 16:08	WG1182742
Di-isopropyl ether	U		0.000395	0.00113	1	10/18/2018 16:08	WG1182742
Ethylbenzene	U		0.000598	0.00282	1	10/18/2018 16:08	WG1182742
Hexachloro-1,3-butadiene	U		0.0143	0.0282	1	10/18/2018 16:08	WG1182742
2-Hexanone	U		0.0113	0.0282	1	10/18/2018 16:08	WG1182742
n-Hexane	U		0.00120	0.00564	1	10/18/2018 16:08	WG1182742
Iodomethane	U		0.00683	0.0141	1	10/18/2018 16:08	WG1182742
Isopropylbenzene	U		0.000974	0.00282	1	10/18/2018 16:08	WG1182742
p-Isopropyltoluene	U		0.00263	0.00564	1	10/18/2018 16:08	WG1182742
2-Butanone (MEK)	U		0.0141	0.0282	1	10/18/2018 16:08	WG1182742
Methylene Chloride	U		0.00749	0.0282	1	10/18/2018 16:08	WG1182742
4-Methyl-2-pentanone (MIBK)	U		0.0113	0.0282	1	10/18/2018 16:08	WG1182742

JC 11/16/18

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000333	0.00113	1	10/18/2018 16:08	WG1182742
Naphthalene	U		0.00352	0.0141	1	10/18/2018 16:08	WG1182742
n-Propylbenzene	U		0.00133	0.00564	1	10/18/2018 16:08	WG1182742
Styrene	U		0.00308	0.0141	1	10/18/2018 16:08	WG1182742
1,1,1,2-Tetrachloroethane	U		0.000564	0.00282	1	10/18/2018 16:08	WG1182742
1,1,2,2-Tetrachloroethane	U		0.000440	0.00282	1	10/18/2018 16:08	WG1182742
1,1,2-Trichlorotrifluoroethane	U		0.000762	0.00282	1	10/18/2018 16:08	WG1182742
Tetrachloroethene	0.949 J	J4	0.000790	0.00282	1	10/18/2018 16:08	WG1182742
Toluene	U		0.00141	0.00564	1	10/18/2018 16:08	WG1182742
1,2,3-Trichlorobenzene	U		0.000705	0.00282	1	10/18/2018 16:08	WG1182742
1,2,4-Trichlorobenzene	U		0.00544	0.0141	1	10/18/2018 16:08	WG1182742
1,1,1-Trichloroethane	U		0.000310	0.00282	1	10/18/2018 16:08	WG1182742
1,1,2-Trichloroethane	U U	J4	0.000996	0.00282	1	10/18/2018 16:08	WG1182742
Trichloroethene	0.0828		0.000451	0.00113	1	10/18/2018 16:08	WG1182742
Trichlorofluoromethane	U		0.000564	0.00282	1	10/18/2018 16:08	WG1182742
1,2,3-Trichloropropane	U		0.00576	0.0141	1	10/18/2018 16:08	WG1182742
1,2,4-Trimethylbenzene	U UJ	J4	0.00131	0.00564	1	10/18/2018 16:08	WG1182742
1,2,3-Trimethylbenzene	U		0.00130	0.00564	1	10/18/2018 16:08	WG1182742
1,3,5-Trimethylbenzene	U		0.00122	0.00564	1	10/18/2018 16:08	WG1182742
Vinyl acetate	U		0.00397	0.0141	1	10/18/2018 16:08	WG1182742
Vinyl chloride	U		0.000771	0.00282	1	10/18/2018 16:08	WG1182742
Xylenes, Total	U		0.00539	0.00733	1	10/18/2018 16:08	WG1182742
(S) Toluene-d8	*117*			*75.0-131*		*10/18/2018 16:08*	WG1182742
(S) Toluene-d8	*99.7*			*75.0-131*		*10/21/2018 14:16*	WG1184188
(S) Dibromofluoromethane	*79.2*			*65.0-129*		*10/18/2018 16:08*	WG1182742
(S) Dibromofluoromethane	*113*			*65.0-129*		*10/21/2018 14:16*	WG1184188
(S) 4-Bromofluorobenzene	*88.7*			*67.0-138*		*10/18/2018 16:08*	WG1182742
(S) 4-Bromofluorobenzene	*118*			*67.0-138*		*10/21/2018 14:16*	WG1184188

JC 11/16/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	86.3		1	10/19/2018 15:14	WG1183341

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.127	0.232	8	10/21/2018 16:15	WG1184188
Acrylonitrile	U		0.00220	0.0145	1	10/18/2018 16:28	WG1182742
Benzene	U		0.000463	0.00116	1	10/18/2018 16:28	WG1182742
Bromobenzene	U		0.00122	0.0145	1	10/18/2018 16:28	WG1182742
Bromodichloromethane	U		0.000913	0.00290	1	10/18/2018 16:28	WG1182742
Bromochloromethane	U		0.00131	0.00579	1	10/18/2018 16:28	WG1182742
Bromoform	U		0.00693	0.0290	1	10/18/2018 16:28	WG1182742
Bromomethane	U		0.00429	0.0145	1	10/18/2018 16:28	WG1182742
n-Butylbenzene	0.0247		0.00445	0.0145	1	10/18/2018 16:28	WG1182742
sec-Butylbenzene	U		0.00293	0.0145	1	10/18/2018 16:28	WG1182742
tert-Butylbenzene	U		0.00180	0.00579	1	10/18/2018 16:28	WG1182742
Carbon disulfide	U		0.00470	0.0145	1	10/18/2018 16:28	WG1182742
Carbon tetrachloride	U		0.00125	0.00579	1	10/18/2018 16:28	WG1182742
Chlorobenzene	U		0.000664	0.00290	1	10/18/2018 16:28	WG1182742
Chlorodibromomethane	U		0.000521	0.00290	1	10/18/2018 16:28	WG1182742
Chloroethane	U		0.00125	0.00579	1	10/18/2018 16:28	WG1182742
Chloroform	0.000777	J	0.000481	0.00290	1	10/18/2018 16:28	WG1182742
Chloromethane	U		0.00161	0.0145	1	10/18/2018 16:28	WG1182742
2-Chlorotoluene	U		0.00107	0.00290	1	10/18/2018 16:28	WG1182742
4-Chlorotoluene	U		0.00131	0.00579	1	10/18/2018 16:28	WG1182742
1,2-Dibromo-3-Chloropropane	U		0.00591	0.0290	1	10/18/2018 16:28	WG1182742
1,2-Dibromoethane	U		0.000608	0.00290	1	10/18/2018 16:28	WG1182742
Dibromomethane	U	U J4	0.00116	0.00579	1	10/18/2018 16:28	WG1182742
1,2-Dichlorobenzene	U		0.00168	0.00579	1	10/18/2018 16:28	WG1182742
1,3-Dichlorobenzene	U		0.00197	0.00579	1	10/18/2018 16:28	WG1182742
1,4-Dichlorobenzene	U		0.00228	0.00579	1	10/18/2018 16:28	WG1182742
Dichlorodifluoromethane	U		0.000947	0.00290	1	10/18/2018 16:28	WG1182742
1,1-Dichloroethane	U		0.000666	0.00290	1	10/18/2018 16:28	WG1182742
1,2-Dichloroethane	U		0.000550	0.00290	1	10/18/2018 16:28	WG1182742
1,1-Dichloroethene	U		0.000579	0.00290	1	10/18/2018 16:28	WG1182742
cis-1,2-Dichloroethene	0.0692		0.000799	0.00290	1	10/18/2018 16:28	WG1182742
trans-1,2-Dichloroethene	U		0.00166	0.00579	1	10/18/2018 16:28	WG1182742
1,2-Dichloropropane	U		0.00147	0.00579	1	10/18/2018 16:28	WG1182742
1,1-Dichloropropene	U		0.000811	0.00290	1	10/18/2018 16:28	WG1182742
1,3-Dichloropropane	U		0.00203	0.00579	1	10/18/2018 16:28	WG1182742
cis-1,3-Dichloropropene	U		0.000785	0.00290	1	10/18/2018 16:28	WG1182742
trans-1,3-Dichloropropene	U		0.00177	0.00579	1	10/18/2018 16:28	WG1182742
trans-1,4-Dichloro-2-butene	U		0.00162	0.00579	1	10/18/2018 16:28	WG1182742
2,2-Dichloropropane	U		0.000918	0.00290	1	10/18/2018 16:28	WG1182742
Di-isopropyl ether	U		0.000405	0.00116	1	10/18/2018 16:28	WG1182742
Ethylbenzene	0.00143	J	0.000614	0.00290	1	10/18/2018 16:28	WG1182742
Hexachloro-1,3-butadiene	U		0.0147	0.0290	1	10/18/2018 16:28	WG1182742
2-Hexanone	U		0.0116	0.0290	1	10/18/2018 16:28	WG1182742
n-Hexane	0.00123	J	0.00123	0.00579	1	10/18/2018 16:28	WG1182742
Iodomethane	U		0.00701	0.0145	1	10/18/2018 16:28	WG1182742
Isopropylbenzene	U		0.000999	0.00290	1	10/18/2018 16:28	WG1182742
p-Isopropyltoluene	U		0.00270	0.00579	1	10/18/2018 16:28	WG1182742
2-Butanone (MEK)	U		0.0145	0.0290	1	10/18/2018 16:28	WG1182742
Methylene Chloride	U		0.00769	0.0290	1	10/18/2018 16:28	WG1182742
4-Methyl-2-pentanone (MIBK)	U		0.0116	0.0290	1	10/18/2018 16:28	WG1182742

JC 11/16/18

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

Analyte	Result (dry) mg/kg		Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U			0.000342	0.00116	1	10/18/2018 16:28	WG1182742
Naphthalene	0.191			0.00361	0.0145	1	10/18/2018 16:28	WG1182742
n-Propylbenzene	0.00402	J	J	0.00137	0.00579	1	10/18/2018 16:28	WG1182742
Styrene	U			0.00316	0.0145	1	10/18/2018 16:28	WG1182742
1,1,1,2-Tetrachloroethane	U			0.000579	0.00290	1	10/18/2018 16:28	WG1182742
1,1,2,2-Tetrachloroethane	U			0.000452	0.00290	1	10/18/2018 16:28	WG1182742
1,1,2-Trichlorotrifluoroethane	U			0.000782	0.00290	1	10/18/2018 16:28	WG1182742
Tetrachloroethene	1.97	J	J0	0.00649	0.0232	8	10/21/2018 16:15	WG1184188
Toluene	0.00236	J	J	0.00145	0.00579	1	10/18/2018 16:28	WG1182742
1,2,3-Trichlorobenzene	U			0.000724	0.00290	1	10/18/2018 16:28	WG1182742
1,2,4-Trichlorobenzene	U			0.00558	0.0145	1	10/18/2018 16:28	WG1182742
1,1,1-Trichloroethane	U			0.000318	0.00290	1	10/18/2018 16:28	WG1182742
1,1,2-Trichloroethane	U	U	J4	0.00102	0.00290	1	10/18/2018 16:28	WG1182742
Trichloroethene	0.214			0.000463	0.00116	1	10/18/2018 16:28	WG1182742
Trichlorofluoromethane	U			0.000579	0.00290	1	10/18/2018 16:28	WG1182742
1,2,3-Trichloropropane	U			0.00591	0.0145	1	10/18/2018 16:28	WG1182742
1,2,4-Trimethylbenzene	0.0425	J	J4	0.00134	0.00579	1	10/18/2018 16:28	WG1182742
1,2,3-Trimethylbenzene	0.0203			0.00133	0.00579	1	10/18/2018 16:28	WG1182742
1,3,5-Trimethylbenzene	0.0118			0.00125	0.00579	1	10/18/2018 16:28	WG1182742
Vinyl acetate	U			0.00408	0.0145	1	10/18/2018 16:28	WG1182742
Vinyl chloride	U			0.000791	0.00290	1	10/18/2018 16:28	WG1182742
Xylenes, Total	0.00973			0.00554	0.00753	1	10/18/2018 16:28	WG1182742
(S) Toluene-d8	*119*				*75.0-131*		*10/18/2018 16:28*	WG1182742
(S) Toluene-d8	*100*				*75.0-131*		*10/21/2018 16:15*	WG1184188
(S) Dibromofluoromethane	*78.2*				*65.0-129*		*10/18/2018 16:28*	WG1182742
(S) Dibromofluoromethane	*117*				*65.0-129*		*10/21/2018 16:15*	WG1184188
(S) 4-Bromofluorobenzene	*93.9*				*67.0-138*		*10/18/2018 16:28*	WG1182742
(S) 4-Bromofluorobenzene	*120*				*67.0-138*		*10/21/2018 16:15*	WG1184188

JC 11/16/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	88.3		1	10/19/2018 15:14	WG1183341

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.621	1.13	40	10/21/2018 16:35	WG1184188
Acrylonitrile	U		0.00215	0.0142	1	10/18/2018 16:48	WG1182742
Benzene	U		0.000453	0.00113	1	10/18/2018 16:48	WG1182742
Bromobenzene	U		0.00119	0.0142	1	10/18/2018 16:48	WG1182742
Bromodichloromethane	U		0.000892	0.00283	1	10/18/2018 16:48	WG1182742
Bromochloromethane	U		0.00128	0.00566	1	10/18/2018 16:48	WG1182742
Bromoform	U		0.00677	0.0283	1	10/18/2018 16:48	WG1182742
Bromomethane	U		0.00419	0.0142	1	10/18/2018 16:48	WG1182742
n-Butylbenzene	U		0.00435	0.0142	1	10/18/2018 16:48	WG1182742
sec-Butylbenzene	U		0.00286	0.0142	1	10/18/2018 16:48	WG1182742
tert-Butylbenzene	U		0.00176	0.00566	1	10/18/2018 16:48	WG1182742
Carbon disulfide	U		0.00460	0.0142	1	10/18/2018 16:48	WG1182742
Carbon tetrachloride	U		0.00122	0.00566	1	10/18/2018 16:48	WG1182742
Chlorobenzene	U		0.000649	0.00283	1	10/18/2018 16:48	WG1182742
Chlorodibromomethane	U		0.000510	0.00283	1	10/18/2018 16:48	WG1182742
Chloroethane	U		0.00122	0.00566	1	10/18/2018 16:48	WG1182742
Chloroform	0.000636	J	0.000470	0.00283	1	10/18/2018 16:48	WG1182742
Chloromethane	U		0.00157	0.0142	1	10/18/2018 16:48	WG1182742
2-Chlorotoluene	U		0.00104	0.00283	1	10/18/2018 16:48	WG1182742
4-Chlorotoluene	U		0.00128	0.00566	1	10/18/2018 16:48	WG1182742
1,2-Dibromo-3-Chloropropane	U		0.00577	0.0283	1	10/18/2018 16:48	WG1182742
1,2-Dibromoethane	U		0.000594	0.00283	1	10/18/2018 16:48	WG1182742
Dibromomethane	U	U	0.00113	0.00566	1	10/18/2018 16:48	WG1182742
1,2-Dichlorobenzene	U		0.00164	0.00566	1	10/18/2018 16:48	WG1182742
1,3-Dichlorobenzene	U		0.00192	0.00566	1	10/18/2018 16:48	WG1182742
1,4-Dichlorobenzene	U		0.00223	0.00566	1	10/18/2018 16:48	WG1182742
Dichlorodifluoromethane	U		0.000926	0.00283	1	10/18/2018 16:48	WG1182742
1,1-Dichloroethane	U		0.000651	0.00283	1	10/18/2018 16:48	WG1182742
1,2-Dichloroethane	U		0.000538	0.00283	1	10/18/2018 16:48	WG1182742
1,1-Dichloroethene	U		0.000566	0.00283	1	10/18/2018 16:48	WG1182742
cis-1,2-Dichloroethene	0.0459		0.000781	0.00283	1	10/18/2018 16:48	WG1182742
trans-1,2-Dichloroethene	U		0.00162	0.00566	1	10/18/2018 16:48	WG1182742
1,2-Dichloropropane	U		0.00144	0.00566	1	10/18/2018 16:48	WG1182742
1,1-Dichloropropene	U		0.000793	0.00283	1	10/18/2018 16:48	WG1182742
1,3-Dichloropropane	U		0.00198	0.00566	1	10/18/2018 16:48	WG1182742
cis-1,3-Dichloropropene	U		0.000768	0.00283	1	10/18/2018 16:48	WG1182742
trans-1,3-Dichloropropene	U		0.00173	0.00566	1	10/18/2018 16:48	WG1182742
trans-1,4-Dichloro-2-butene	U		0.00159	0.00566	1	10/18/2018 16:48	WG1182742
2,2-Dichloropropane	U		0.000898	0.00283	1	10/18/2018 16:48	WG1182742
Di-isopropyl ether	U		0.000396	0.00113	1	10/18/2018 16:48	WG1182742
Ethylbenzene	U		0.000600	0.00283	1	10/18/2018 16:48	WG1182742
Hexachloro-1,3-butadiene	U		0.0144	0.0283	1	10/18/2018 16:48	WG1182742
2-Hexanone	U		0.0113	0.0283	1	10/18/2018 16:48	WG1182742
n-Hexane	U		0.00120	0.00566	1	10/18/2018 16:48	WG1182742
Iodomethane	U		0.00685	0.0142	1	10/18/2018 16:48	WG1182742
Isopropylbenzene	U		0.000977	0.00283	1	10/18/2018 16:48	WG1182742
p-Isopropyltoluene	U		0.00264	0.00566	1	10/18/2018 16:48	WG1182742
2-Butanone (MEK)	U		0.0142	0.0283	1	10/18/2018 16:48	WG1182742
Methylene Chloride	U		0.00752	0.0283	1	10/18/2018 16:48	WG1182742
4-Methyl-2-pentanone (MIBK)	U		0.0113	0.0283	1	10/18/2018 16:48	WG1182742

J4

JC 11/16/18

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

Analyte	Result (dry) mg/kg		Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U			0.000334	0.00113	1	10/18/2018 16:48	WG1182742
Naphthalene	U			0.00353	0.0142	1	10/18/2018 16:48	WG1182742
n-Propylbenzene	U			0.00134	0.00566	1	10/18/2018 16:48	WG1182742
Styrene	U			0.00309	0.0142	1	10/18/2018 16:48	WG1182742
1,1,1,2-Tetrachloroethane	U			0.000566	0.00283	1	10/18/2018 16:48	WG1182742
1,1,2,2-Tetrachloroethane	U			0.000442	0.00283	1	10/18/2018 16:48	WG1182742
1,1,2-Trichlorotrifluoroethane	U			0.000764	0.00283	1	10/18/2018 16:48	WG1182742
Tetrachloroethene	8.35	J	J0	0.0317	0.113	40	10/21/2018 16:35	WG1184188
Toluene	U			0.00142	0.00566	1	10/18/2018 16:48	WG1182742
1,2,3-Trichlorobenzene	U			0.000708	0.00283	1	10/18/2018 16:48	WG1182742
1,2,4-Trichlorobenzene	U			0.00546	0.0142	1	10/18/2018 16:48	WG1182742
1,1,1-Trichloroethane	U			0.000311	0.00283	1	10/18/2018 16:48	WG1182742
1,1,2-Trichloroethane	U	U	J4	0.00100	0.00283	1	10/18/2018 16:48	WG1182742
Trichloroethene	0.150			0.000453	0.00113	1	10/18/2018 16:48	WG1182742
Trichlorofluoromethane	U			0.000566	0.00283	1	10/18/2018 16:48	WG1182742
1,2,3-Trichloropropane	U			0.00577	0.0142	1	10/18/2018 16:48	WG1182742
1,2,4-Trimethylbenzene	U	UJ	J4	0.00131	0.00566	1	10/18/2018 16:48	WG1182742
1,2,3-Trimethylbenzene	U			0.00130	0.00566	1	10/18/2018 16:48	WG1182742
1,3,5-Trimethylbenzene	U			0.00122	0.00566	1	10/18/2018 16:48	WG1182742
Vinyl acetate	U			0.00399	0.0142	1	10/18/2018 16:48	WG1182742
Vinyl chloride	U			0.000773	0.00283	1	10/18/2018 16:48	WG1182742
Xylenes, Total	U			0.00541	0.00736	1	10/18/2018 16:48	WG1182742
(S) Toluene-d8	*117*				*75.0-131*		*10/18/2018 16:48*	WG1182742
(S) Toluene-d8	*98.2*				*75.0-131*		*10/21/2018 16:35*	WG1184188
(S) Dibromofluoromethane	*79.4*				*65.0-129*		*10/18/2018 16:48*	WG1182742
(S) Dibromofluoromethane	*117*				*65.0-129*		*10/21/2018 16:35*	WG1184188
(S) 4-Bromofluorobenzene	*105*				*67.0-138*		*10/18/2018 16:48*	WG1182742
(S) 4-Bromofluorobenzene	*126*				*67.0-138*		*10/21/2018 16:35*	WG1184188

JC 11/16/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	84.6		1	10/16/2018 14:25	WG1181703

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch	
	mg/kg		mg/kg	mg/kg		date / time		
Acetone	U		11.3	20.7	700	10/17/2018 13:12	WG1182096	
Acrylonitrile	U		0.00224	0.0148	1	10/16/2018 19:01	WG1181654	
Benzene	U		0.000473	0.00118	1	10/16/2018 19:01	WG1181654	
Bromobenzene	U		0.00124	0.0148	1	10/16/2018 19:01	WG1181654	
Bromodichloromethane	U		0.000931	0.00295	1	10/16/2018 19:01	WG1181654	
Bromochloromethane	U		0.00134	0.00591	1	10/16/2018 19:01	WG1181654	
Bromoform	U		0.00707	0.0295	1	10/16/2018 19:01	WG1181654	
Bromomethane	U		0.00437	0.0148	1	10/16/2018 19:01	WG1181654	
n-Butylbenzene	U		0.00454	0.0148	1	10/16/2018 19:01	WG1181654	
sec-Butylbenzene	U		0.00299	0.0148	1	10/16/2018 19:01	WG1181654	
tert-Butylbenzene	U		0.00183	0.00591	1	10/16/2018 19:01	WG1181654	
Carbon disulfide	U		0.00480	0.0148	1	10/16/2018 19:01	WG1181654	
Carbon tetrachloride	U		0.00128	0.00591	1	10/16/2018 19:01	WG1181654	
Chlorobenzene	U		0.000677	0.00295	1	10/16/2018 19:01	WG1181654	
Chlorodibromomethane	U		0.000532	0.00295	1	10/16/2018 19:01	WG1181654	
Chloroethane	U		0.00128	0.00591	1	10/16/2018 19:01	WG1181654	
Chloroform	U		0.000490	0.00295	1	10/16/2018 19:01	WG1181654	
Chloromethane	U		0.00164	0.0148	1	10/16/2018 19:01	WG1181654	
2-Chlorotoluene	U		0.00109	0.00295	1	10/16/2018 19:01	WG1181654	
4-Chlorotoluene	U		0.00134	0.00591	1	10/16/2018 19:01	WG1181654	
1,2-Dibromo-3-Chloropropane	U		0.00603	0.0295	1	10/16/2018 19:01	WG1181654	
1,2-Dibromoethane	U		0.000620	0.00295	1	10/16/2018 19:01	WG1181654	
Dibromomethane	U U	J4	0.00118	0.00591	1	10/16/2018 19:01	WG1181654	
1,2-Dichlorobenzene	U		0.00171	0.00591	1	10/16/2018 19:01	WG1181654	JC 11/16/18
1,3-Dichlorobenzene	U		0.00201	0.00591	1	10/16/2018 19:01	WG1181654	
1,4-Dichlorobenzene	U		0.00233	0.00591	1	10/16/2018 19:01	WG1181654	
Dichlorodifluoromethane	U		0.000966	0.00295	1	10/16/2018 19:01	WG1181654	
1,1-Dichloroethane	U		0.000679	0.00295	1	10/16/2018 19:01	WG1181654	
1,2-Dichloroethane	U		0.000561	0.00295	1	10/16/2018 19:01	WG1181654	
1,1-Dichloroethene	U		0.000591	0.00295	1	10/16/2018 19:01	WG1181654	
cis-1,2-Dichloroethene	0.558		0.000815	0.00295	1	10/16/2018 19:01	WG1181654	
trans-1,2-Dichloroethene	0.00420 J	J	0.00169	0.00591	1	10/16/2018 19:01	WG1181654	
1,2-Dichloropropane	U		0.00150	0.00591	1	10/16/2018 19:01	WG1181654	
1,1-Dichloropropene	U		0.000827	0.00295	1	10/16/2018 19:01	WG1181654	
1,3-Dichloropropane	U		0.00207	0.00591	1	10/16/2018 19:01	WG1181654	
cis-1,3-Dichloropropene	U		0.000801	0.00295	1	10/16/2018 19:01	WG1181654	
trans-1,3-Dichloropropene	U		0.00181	0.00591	1	10/16/2018 19:01	WG1181654	
trans-1,4-Dichloro-2-butene	U		0.00165	0.00591	1	10/16/2018 19:01	WG1181654	
2,2-Dichloropropane	U		0.000937	0.00295	1	10/16/2018 19:01	WG1181654	
Di-isopropyl ether	U		0.000414	0.00118	1	10/16/2018 19:01	WG1181654	
Ethylbenzene	U		0.000626	0.00295	1	10/16/2018 19:01	WG1181654	
Hexachloro-1,3-butadiene	U		0.0150	0.0295	1	10/16/2018 19:01	WG1181654	
2-Hexanone	U		0.0118	0.0295	1	10/16/2018 19:01	WG1181654	
n-Hexane	U		0.00125	0.00591	1	10/16/2018 19:01	WG1181654	
Iodomethane	U		0.00715	0.0148	1	10/16/2018 19:01	WG1181654	
Isopropylbenzene	U		0.00102	0.00295	1	10/16/2018 19:01	WG1181654	
p-Isopropyltoluene	U		0.00275	0.00591	1	10/16/2018 19:01	WG1181654	
2-Butanone (MEK)	U		0.0148	0.0295	1	10/16/2018 19:01	WG1181654	
Methylene Chloride	U		0.00785	0.0295	1	10/16/2018 19:01	WG1181654	
4-Methyl-2-pentanone (MIBK)	U		0.0118	0.0295	1	10/16/2018 19:01	WG1181654	

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

Analyte	Result (dry) mg/kg		Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch	
Methyl tert-butyl ether	U	UJ	J0	0.000349	0.00118	1	10/16/2018 19:01	WG1181654	
Naphthalene	U			0.00369	0.0148	1	10/16/2018 19:01	WG1181654	
n-Propylbenzene	U			0.00139	0.00591	1	10/16/2018 19:01	WG1181654	
Styrene	U			0.00323	0.0148	1	10/16/2018 19:01	WG1181654	
1,1,1,2-Tetrachloroethane	U			0.000591	0.00295	1	10/16/2018 19:01	WG1181654	
1,1,2,2-Tetrachloroethane	U	U	J4	0.000461	0.00295	1	10/16/2018 19:01	WG1181654	
1,1,2-Trichlorotrifluoroethane	U			0.000798	0.00295	1	10/16/2018 19:01	WG1181654	
Tetrachloroethene	10.3			0.579	2.07	700	10/17/2018 13:12	WG1182096	
Toluene	U			0.00148	0.00591	1	10/16/2018 19:01	WG1181654	
1,2,3-Trichlorobenzene	U			0.000738	0.00295	1	10/16/2018 19:01	WG1181654	
1,2,4-Trichlorobenzene	U			0.00569	0.0148	1	10/16/2018 19:01	WG1181654	
1,1,1-Trichloroethane	U			0.000325	0.00295	1	10/16/2018 19:01	WG1181654	
1,1,2-Trichloroethane	U	U	J4	0.00104	0.00295	1	10/16/2018 19:01	WG1181654	
Trichloroethene	0.661			0.000473	0.00118	1	10/16/2018 19:01	WG1181654	
Trichlorofluoromethane	U			0.000591	0.00295	1	10/16/2018 19:01	WG1181654	JC 11/16/18
1,2,3-Trichloropropane	U			0.00603	0.0148	1	10/16/2018 19:01	WG1181654	
1,2,4-Trimethylbenzene	U			0.00137	0.00591	1	10/16/2018 19:01	WG1181654	
1,2,3-Trimethylbenzene	U			0.00136	0.00591	1	10/16/2018 19:01	WG1181654	
1,3,5-Trimethylbenzene	U			0.00128	0.00591	1	10/16/2018 19:01	WG1181654	
Vinyl acetate	U			0.00416	0.0148	1	10/16/2018 19:01	WG1181654	
Vinyl chloride	U			0.000807	0.00295	1	10/16/2018 19:01	WG1181654	
Xylenes, Total	U			0.00565	0.00768	1	10/16/2018 19:01	WG1181654	
(S) Toluene-d8	*118*				*75.0-131*		*10/16/2018 19:01*	WG1181654	
(S) Toluene-d8	*99.4*				*75.0-131*		*10/17/2018 13:12*	WG1182096	
(S) Dibromofluoromethane	*74.9*				*65.0-129*		*10/16/2018 19:01*	WG1181654	
(S) Dibromofluoromethane	*119*				*65.0-129*		*10/17/2018 13:12*	WG1182096	
(S) 4-Bromofluorobenzene	*88.6*				*67.0-138*		*10/16/2018 19:01*	WG1181654	
(S) 4-Bromofluorobenzene	*119*				*67.0-138*		*10/17/2018 13:12*	WG1182096	

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	90.6		1	10/19/2018 15:14	WG1183341

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0151	0.0276	1	10/21/2018 14:36	WG1184188
Acrylonitrile	U		0.00210	0.0138	1	10/18/2018 17:07	WG1182742
Benzene	U		0.000442	0.00110	1	10/18/2018 17:07	WG1182742
Bromobenzene	U		0.00116	0.0138	1	10/18/2018 17:07	WG1182742
Bromodichloromethane	U		0.000870	0.00276	1	10/18/2018 17:07	WG1182742
Bromochloromethane	U		0.00125	0.00552	1	10/18/2018 17:07	WG1182742
Bromoform	U		0.00660	0.0276	1	10/18/2018 17:07	WG1182742
Bromomethane	U		0.00409	0.0138	1	10/18/2018 17:07	WG1182742
n-Butylbenzene	U		0.00424	0.0138	1	10/18/2018 17:07	WG1182742
sec-Butylbenzene	U		0.00279	0.0138	1	10/18/2018 17:07	WG1182742
tert-Butylbenzene	U		0.00171	0.00552	1	10/18/2018 17:07	WG1182742
Carbon disulfide	U		0.00448	0.0138	1	10/18/2018 17:07	WG1182742
Carbon tetrachloride	U		0.00119	0.00552	1	10/18/2018 17:07	WG1182742
Chlorobenzene	U		0.000633	0.00276	1	10/18/2018 17:07	WG1182742
Chlorodibromomethane	U		0.000497	0.00276	1	10/18/2018 17:07	WG1182742
Chloroethane	U		0.00119	0.00552	1	10/18/2018 17:07	WG1182742
Chloroform	0.000710	J J	0.000458	0.00276	1	10/18/2018 17:07	WG1182742
Chloromethane	U		0.00153	0.0138	1	10/18/2018 17:07	WG1182742
2-Chlorotoluene	U		0.00102	0.00276	1	10/18/2018 17:07	WG1182742
4-Chlorotoluene	U		0.00125	0.00552	1	10/18/2018 17:07	WG1182742
1,2-Dibromo-3-Chloropropane	U		0.00563	0.0276	1	10/18/2018 17:07	WG1182742
1,2-Dibromoethane	U		0.000580	0.00276	1	10/18/2018 17:07	WG1182742
Dibromomethane	U U	J4	0.00110	0.00552	1	10/18/2018 17:07	WG1182742
1,2-Dichlorobenzene	U		0.00160	0.00552	1	10/18/2018 17:07	WG1182742
1,3-Dichlorobenzene	U		0.00188	0.00552	1	10/18/2018 17:07	WG1182742
1,4-Dichlorobenzene	U		0.00218	0.00552	1	10/18/2018 17:07	WG1182742
Dichlorodifluoromethane	U		0.000903	0.00276	1	10/18/2018 17:07	WG1182742
1,1-Dichloroethane	U		0.000635	0.00276	1	10/18/2018 17:07	WG1182742
1,2-Dichloroethane	U		0.000524	0.00276	1	10/18/2018 17:07	WG1182742
1,1-Dichloroethene	U		0.000552	0.00276	1	10/18/2018 17:07	WG1182742
cis-1,2-Dichloroethene	0.00164	J J	0.000762	0.00276	1	10/18/2018 17:07	WG1182742
trans-1,2-Dichloroethene	U		0.00158	0.00552	1	10/18/2018 17:07	WG1182742
1,2-Dichloropropane	U		0.00140	0.00552	1	10/18/2018 17:07	WG1182742
1,1-Dichloropropene	U		0.000773	0.00276	1	10/18/2018 17:07	WG1182742
1,3-Dichloropropane	U		0.00193	0.00552	1	10/18/2018 17:07	WG1182742
cis-1,3-Dichloropropene	U		0.000749	0.00276	1	10/18/2018 17:07	WG1182742
trans-1,3-Dichloropropene	U		0.00169	0.00552	1	10/18/2018 17:07	WG1182742
trans-1,4-Dichloro-2-butene	U		0.00155	0.00552	1	10/18/2018 17:07	WG1182742
2,2-Dichloropropane	U		0.000876	0.00276	1	10/18/2018 17:07	WG1182742
Di-isopropyl ether	U		0.000386	0.00110	1	10/18/2018 17:07	WG1182742
Ethylbenzene	U		0.000585	0.00276	1	10/18/2018 17:07	WG1182742
Hexachloro-1,3-butadiene	U		0.0140	0.0276	1	10/18/2018 17:07	WG1182742
2-Hexanone	U		0.0110	0.0276	1	10/18/2018 17:07	WG1182742
n-Hexane	0.00136	J J	0.00117	0.00552	1	10/18/2018 17:07	WG1182742
Iodomethane	U		0.00668	0.0138	1	10/18/2018 17:07	WG1182742
Isopropylbenzene	U		0.000953	0.00276	1	10/18/2018 17:07	WG1182742
p-Isopropyltoluene	U		0.00257	0.00552	1	10/18/2018 17:07	WG1182742
2-Butanone (MEK)	U		0.0138	0.0276	1	10/18/2018 17:07	WG1182742
Methylene Chloride	U		0.00733	0.0276	1	10/18/2018 17:07	WG1182742
4-Methyl-2-pentanone (MIBK)	U		0.0110	0.0276	1	10/18/2018 17:07	WG1182742

JC 11/16/18

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

Analyte	Result (dry) mg/kg		Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch	
Methyl tert-butyl ether	U			0.000326	0.00110	1	10/18/2018 17:07	WG1182742	
Naphthalene	U			0.00345	0.0138	1	10/18/2018 17:07	WG1182742	
n-Propylbenzene	U			0.00130	0.00552	1	10/18/2018 17:07	WG1182742	
Styrene	U			0.00301	0.0138	1	10/18/2018 17:07	WG1182742	
1,1,1,2-Tetrachloroethane	U			0.000552	0.00276	1	10/18/2018 17:07	WG1182742	
1,1,2,2-Tetrachloroethane	U			0.000431	0.00276	1	10/18/2018 17:07	WG1182742	
1,1,2-Trichlorotrifluoroethane	U			0.000745	0.00276	1	10/18/2018 17:07	WG1182742	
Tetrachloroethene	0.701	J	J4	0.000773	0.00276	1	10/18/2018 17:07	WG1182742	
Toluene	U			0.00138	0.00552	1	10/18/2018 17:07	WG1182742	
1,2,3-Trichlorobenzene	U			0.000690	0.00276	1	10/18/2018 17:07	WG1182742	
1,2,4-Trichlorobenzene	U			0.00532	0.0138	1	10/18/2018 17:07	WG1182742	
1,1,1-Trichloroethane	U			0.000304	0.00276	1	10/18/2018 17:07	WG1182742	
1,1,2-Trichloroethane	U	U	J4	0.000975	0.00276	1	10/18/2018 17:07	WG1182742	
Trichloroethene	0.00576			0.000442	0.00110	1	10/18/2018 17:07	WG1182742	
Trichlorofluoromethane	U			0.000552	0.00276	1	10/18/2018 17:07	WG1182742	
1,2,3-Trichloropropane	U			0.00563	0.0138	1	10/18/2018 17:07	WG1182742	
1,2,4-Trimethylbenzene	U	UJ	J4	0.00128	0.00552	1	10/18/2018 17:07	WG1182742	
1,2,3-Trimethylbenzene	U			0.00127	0.00552	1	10/18/2018 17:07	WG1182742	
1,3,5-Trimethylbenzene	U			0.00119	0.00552	1	10/18/2018 17:07	WG1182742	
Vinyl acetate	U			0.00389	0.0138	1	10/18/2018 17:07	WG1182742	
Vinyl chloride	U			0.000754	0.00276	1	10/18/2018 17:07	WG1182742	JC 11/16/18
Xylenes, Total	U			0.00528	0.00718	1	10/18/2018 17:07	WG1182742	
(S) Toluene-d8	*118*				*75.0-131*		*10/18/2018 17:07*	WG1182742	
(S) Toluene-d8	*100*				*75.0-131*		*10/21/2018 14:36*	WG1184188	
(S) Dibromofluoromethane	*78.3*				*65.0-129*		*10/18/2018 17:07*	WG1182742	
(S) Dibromofluoromethane	*113*				*65.0-129*		*10/21/2018 14:36*	WG1184188	
(S) 4-Bromofluorobenzene	*87.0*				*67.0-138*		*10/18/2018 17:07*	WG1182742	
(S) 4-Bromofluorobenzene	*120*				*67.0-138*		*10/21/2018 14:36*	WG1184188	

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	89.8		1	10/19/2018 13:51	WG1183343

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch	
	mg/kg		mg/kg	mg/kg		date / time		
Acetone	U		0.122	0.223	8	10/21/2018 16:55	WG1184188	
Acrylonitrile	U		0.00212	0.0139	1	10/18/2018 17:27	WG1182742	
Benzene	U		0.000445	0.00111	1	10/18/2018 17:27	WG1182742	
Bromobenzene	U		0.00117	0.0139	1	10/18/2018 17:27	WG1182742	
Bromodichloromethane	U		0.000877	0.00278	1	10/18/2018 17:27	WG1182742	
Bromochloromethane	U		0.00126	0.00557	1	10/18/2018 17:27	WG1182742	
Bromoform	U		0.00666	0.0278	1	10/18/2018 17:27	WG1182742	
Bromomethane	U		0.00412	0.0139	1	10/18/2018 17:27	WG1182742	
n-Butylbenzene	U		0.00428	0.0139	1	10/18/2018 17:27	WG1182742	
sec-Butylbenzene	U		0.00282	0.0139	1	10/18/2018 17:27	WG1182742	
tert-Butylbenzene	U		0.00173	0.00557	1	10/18/2018 17:27	WG1182742	
Carbon disulfide	U		0.00452	0.0139	1	10/18/2018 17:27	WG1182742	
Carbon tetrachloride	U		0.00120	0.00557	1	10/18/2018 17:27	WG1182742	
Chlorobenzene	U		0.000638	0.00278	1	10/18/2018 17:27	WG1182742	
Chlorodibromomethane	U		0.000501	0.00278	1	10/18/2018 17:27	WG1182742	
Chloroethane	U		0.00120	0.00557	1	10/18/2018 17:27	WG1182742	
Chloroform	U		0.000462	0.00278	1	10/18/2018 17:27	WG1182742	
Chloromethane	U		0.00155	0.0139	1	10/18/2018 17:27	WG1182742	
2-Chlorotoluene	U		0.00102	0.00278	1	10/18/2018 17:27	WG1182742	
4-Chlorotoluene	U		0.00126	0.00557	1	10/18/2018 17:27	WG1182742	
1,2-Dibromo-3-Chloropropane	U		0.00568	0.0278	1	10/18/2018 17:27	WG1182742	
1,2-Dibromoethane	U		0.000585	0.00278	1	10/18/2018 17:27	WG1182742	
Dibromomethane	U	U J4	0.00111	0.00557	1	10/18/2018 17:27	WG1182742	
1,2-Dichlorobenzene	U		0.00161	0.00557	1	10/18/2018 17:27	WG1182742	
1,3-Dichlorobenzene	U		0.00189	0.00557	1	10/18/2018 17:27	WG1182742	
1,4-Dichlorobenzene	U		0.00219	0.00557	1	10/18/2018 17:27	WG1182742	
Dichlorodifluoromethane	U		0.000911	0.00278	1	10/18/2018 17:27	WG1182742	JC 11/16/18
1,1-Dichloroethane	U		0.000640	0.00278	1	10/18/2018 17:27	WG1182742	
1,2-Dichloroethane	U		0.000529	0.00278	1	10/18/2018 17:27	WG1182742	
1,1-Dichloroethene	U		0.000557	0.00278	1	10/18/2018 17:27	WG1182742	
cis-1,2-Dichloroethene	0.00387		0.000768	0.00278	1	10/18/2018 17:27	WG1182742	
trans-1,2-Dichloroethene	U		0.00159	0.00557	1	10/18/2018 17:27	WG1182742	
1,2-Dichloropropane	U		0.00141	0.00557	1	10/18/2018 17:27	WG1182742	
1,1-Dichloropropene	U		0.000779	0.00278	1	10/18/2018 17:27	WG1182742	
1,3-Dichloropropane	U		0.00195	0.00557	1	10/18/2018 17:27	WG1182742	
cis-1,3-Dichloropropene	U		0.000755	0.00278	1	10/18/2018 17:27	WG1182742	
trans-1,3-Dichloropropene	U		0.00170	0.00557	1	10/18/2018 17:27	WG1182742	
trans-1,4-Dichloro-2-butene	U		0.00156	0.00557	1	10/18/2018 17:27	WG1182742	
2,2-Dichloropropane	U		0.000883	0.00278	1	10/18/2018 17:27	WG1182742	
Di-isopropyl ether	U		0.000390	0.00111	1	10/18/2018 17:27	WG1182742	
Ethylbenzene	U		0.000590	0.00278	1	10/18/2018 17:27	WG1182742	
Hexachloro-1,3-butadiene	U		0.0141	0.0278	1	10/18/2018 17:27	WG1182742	
2-Hexanone	U		0.0111	0.0278	1	10/18/2018 17:27	WG1182742	
n-Hexane	U		0.00118	0.00557	1	10/18/2018 17:27	WG1182742	
Iodomethane	U		0.00674	0.0139	1	10/18/2018 17:27	WG1182742	
Isopropylbenzene	U		0.000961	0.00278	1	10/18/2018 17:27	WG1182742	
p-Isopropyltoluene	U		0.00259	0.00557	1	10/18/2018 17:27	WG1182742	
2-Butanone (MEK)	U		0.0139	0.0278	1	10/18/2018 17:27	WG1182742	
Methylene Chloride	U		0.00739	0.0278	1	10/18/2018 17:27	WG1182742	
4-Methyl-2-pentanone (MIBK)	U		0.0111	0.0278	1	10/18/2018 17:27	WG1182742	

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

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

Analyte	Result (dry) mg/kg		Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U			0.000328	0.00111	1	10/18/2018 17:27	WG1182742
Naphthalene	U			0.00347	0.0139	1	10/18/2018 17:27	WG1182742
n-Propylbenzene	U			0.00131	0.00557	1	10/18/2018 17:27	WG1182742
Styrene	U			0.00304	0.0139	1	10/18/2018 17:27	WG1182742
1,1,1,2-Tetrachloroethane	U			0.000557	0.00278	1	10/18/2018 17:27	WG1182742
1,1,2,2-Tetrachloroethane	U			0.000434	0.00278	1	10/18/2018 17:27	WG1182742
1,1,2-Trichlorotrifluoroethane	U			0.000752	0.00278	1	10/18/2018 17:27	WG1182742
Tetrachloroethene	1.81	J	J0	0.00624	0.0223	8	10/21/2018 16:55	WG1184188
Toluene	U			0.00139	0.00557	1	10/18/2018 17:27	WG1182742
1,2,3-Trichlorobenzene	U			0.000696	0.00278	1	10/18/2018 17:27	WG1182742
1,2,4-Trichlorobenzene	U			0.00537	0.0139	1	10/18/2018 17:27	WG1182742
1,1,1-Trichloroethane	U			0.000306	0.00278	1	10/18/2018 17:27	WG1182742
1,1,2-Trichloroethane	U	U	J4	0.000983	0.00278	1	10/18/2018 17:27	WG1182742
Trichloroethene	0.0269			0.000445	0.00111	1	10/18/2018 17:27	WG1182742
Trichlorofluoromethane	U			0.000557	0.00278	1	10/18/2018 17:27	WG1182742
1,2,3-Trichloropropane	U			0.00568	0.0139	1	10/18/2018 17:27	WG1182742
1,2,4-Trimethylbenzene	U	UJ	J4	0.00129	0.00557	1	10/18/2018 17:27	WG1182742
1,2,3-Trimethylbenzene	U			0.00128	0.00557	1	10/18/2018 17:27	WG1182742
1,3,5-Trimethylbenzene	U			0.00120	0.00557	1	10/18/2018 17:27	WG1182742
Vinyl acetate	U			0.00392	0.0139	1	10/18/2018 17:27	WG1182742
Vinyl chloride	U			0.000760	0.00278	1	10/18/2018 17:27	WG1182742
Xylenes, Total	U			0.00532	0.00724	1	10/18/2018 17:27	WG1182742
(S) Toluene-d8	*118*				*75.0-131*		*10/18/2018 17:27*	WG1182742
(S) Toluene-d8	*101*				*75.0-131*		*10/21/2018 16:55*	WG1184188
(S) Dibromofluoromethane	*76.6*				*65.0-129*		*10/18/2018 17:27*	WG1182742
(S) Dibromofluoromethane	*117*				*65.0-129*		*10/21/2018 16:55*	WG1184188
(S) 4-Bromofluorobenzene	*105*				*67.0-138*		*10/18/2018 17:27*	WG1182742
(S) 4-Bromofluorobenzene	*124*				*67.0-138*		*10/21/2018 16:55*	WG1184188

JC 11/16/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	89.9		1	10/19/2018 13:51	WG1183343

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		1.22	2.22	80	10/21/2018 17:15	WG1184188
Acrylonitrile	U		0.00211	0.0139	1	10/18/2018 17:47	WG1182742
Benzene	U		0.000445	0.00111	1	10/18/2018 17:47	WG1182742
Bromobenzene	U		0.00117	0.0139	1	10/18/2018 17:47	WG1182742
Bromodichloromethane	U		0.000877	0.00278	1	10/18/2018 17:47	WG1182742
Bromochloromethane	U		0.00126	0.00556	1	10/18/2018 17:47	WG1182742
Bromoform	U		0.00665	0.0278	1	10/18/2018 17:47	WG1182742
Bromomethane	U		0.00412	0.0139	1	10/18/2018 17:47	WG1182742
n-Butylbenzene	U		0.00427	0.0139	1	10/18/2018 17:47	WG1182742
sec-Butylbenzene	U		0.00281	0.0139	1	10/18/2018 17:47	WG1182742
tert-Butylbenzene	U		0.00172	0.00556	1	10/18/2018 17:47	WG1182742
Carbon disulfide	U		0.00452	0.0139	1	10/18/2018 17:47	WG1182742
Carbon tetrachloride	U		0.00120	0.00556	1	10/18/2018 17:47	WG1182742
Chlorobenzene	U		0.000637	0.00278	1	10/18/2018 17:47	WG1182742
Chlorodibromomethane	U		0.000501	0.00278	1	10/18/2018 17:47	WG1182742
Chloroethane	U		0.00120	0.00556	1	10/18/2018 17:47	WG1182742
Chloroform	0.000645 J	J	0.000462	0.00278	1	10/18/2018 17:47	WG1182742
Chloromethane	U		0.00155	0.0139	1	10/18/2018 17:47	WG1182742
2-Chlorotoluene	U		0.00102	0.00278	1	10/18/2018 17:47	WG1182742
4-Chlorotoluene	U		0.00126	0.00556	1	10/18/2018 17:47	WG1182742
1,2-Dibromo-3-Chloropropane	U		0.00567	0.0278	1	10/18/2018 17:47	WG1182742
1,2-Dibromoethane	U		0.000584	0.00278	1	10/18/2018 17:47	WG1182742
Dibromomethane	U U	J4	0.00111	0.00556	1	10/18/2018 17:47	WG1182742
1,2-Dichlorobenzene	U		0.00161	0.00556	1	10/18/2018 17:47	WG1182742
1,3-Dichlorobenzene	U		0.00189	0.00556	1	10/18/2018 17:47	WG1182742
1,4-Dichlorobenzene	U		0.00219	0.00556	1	10/18/2018 17:47	WG1182742
Dichlorodifluoromethane	U		0.000910	0.00278	1	10/18/2018 17:47	WG1182742
1,1-Dichloroethane	U		0.000640	0.00278	1	10/18/2018 17:47	WG1182742
1,2-Dichloroethane	U		0.000528	0.00278	1	10/18/2018 17:47	WG1182742
1,1-Dichloroethene	U		0.000556	0.00278	1	10/18/2018 17:47	WG1182742
cis-1,2-Dichloroethene	0.123		0.000768	0.00278	1	10/18/2018 17:47	WG1182742
trans-1,2-Dichloroethene	0.00166 J	J	0.00159	0.00556	1	10/18/2018 17:47	WG1182742
1,2-Dichloropropane	U		0.00141	0.00556	1	10/18/2018 17:47	WG1182742
1,1-Dichloropropene	U		0.000779	0.00278	1	10/18/2018 17:47	WG1182742
1,3-Dichloropropane	U		0.00195	0.00556	1	10/18/2018 17:47	WG1182742
cis-1,3-Dichloropropene	U		0.000754	0.00278	1	10/18/2018 17:47	WG1182742
trans-1,3-Dichloropropene	U		0.00170	0.00556	1	10/18/2018 17:47	WG1182742
trans-1,4-Dichloro-2-butene	U		0.00156	0.00556	1	10/18/2018 17:47	WG1182742
2,2-Dichloropropane	U		0.000882	0.00278	1	10/18/2018 17:47	WG1182742
Di-isopropyl ether	U		0.000389	0.00111	1	10/18/2018 17:47	WG1182742
Ethylbenzene	U		0.000590	0.00278	1	10/18/2018 17:47	WG1182742
Hexachloro-1,3-butadiene	U		0.0141	0.0278	1	10/18/2018 17:47	WG1182742
2-Hexanone	U		0.0111	0.0278	1	10/18/2018 17:47	WG1182742
n-Hexane	0.00119 J	J	0.00118	0.00556	1	10/18/2018 17:47	WG1182742
Iodomethane	U		0.00673	0.0139	1	10/18/2018 17:47	WG1182742
Isopropylbenzene	U		0.000960	0.00278	1	10/18/2018 17:47	WG1182742
p-Isopropyltoluene	U		0.00259	0.00556	1	10/18/2018 17:47	WG1182742
2-Butanone (MEK)	U		0.0139	0.0278	1	10/18/2018 17:47	WG1182742
Methylene Chloride	U		0.00739	0.0278	1	10/18/2018 17:47	WG1182742
4-Methyl-2-pentanone (MIBK)	U		0.0111	0.0278	1	10/18/2018 17:47	WG1182742

JC 11/16/18

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

Analyte	Result (dry) mg/kg		Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U			0.000328	0.00111	1	10/18/2018 17:47	WG1182742
Naphthalene	U			0.00347	0.0139	1	10/18/2018 17:47	WG1182742
n-Propylbenzene	U			0.00131	0.00556	1	10/18/2018 17:47	WG1182742
Styrene	U			0.00304	0.0139	1	10/18/2018 17:47	WG1182742
1,1,1,2-Tetrachloroethane	U			0.000556	0.00278	1	10/18/2018 17:47	WG1182742
1,1,2,2-Tetrachloroethane	U			0.000434	0.00278	1	10/18/2018 17:47	WG1182742
1,1,2-Trichlorotrifluoroethane	U			0.000751	0.00278	1	10/18/2018 17:47	WG1182742
Tetrachloroethene	21.7	J	J0	0.0623	0.222	80	10/21/2018 17:15	WG1184188
Toluene	U			0.00139	0.00556	1	10/18/2018 17:47	WG1182742
1,2,3-Trichlorobenzene	U			0.000695	0.00278	1	10/18/2018 17:47	WG1182742
1,2,4-Trichlorobenzene	U			0.00536	0.0139	1	10/18/2018 17:47	WG1182742
1,1,1-Trichloroethane	U			0.000306	0.00278	1	10/18/2018 17:47	WG1182742
1,1,2-Trichloroethane	U	U	J4	0.000982	0.00278	1	10/18/2018 17:47	WG1182742
Trichloroethene	0.0762			0.000445	0.00111	1	10/18/2018 17:47	WG1182742
Trichlorofluoromethane	U			0.000556	0.00278	1	10/18/2018 17:47	WG1182742
1,2,3-Trichloropropane	U			0.00567	0.0139	1	10/18/2018 17:47	WG1182742
1,2,4-Trimethylbenzene	U	UJ	J4	0.00129	0.00556	1	10/18/2018 17:47	WG1182742
1,2,3-Trimethylbenzene	U			0.00128	0.00556	1	10/18/2018 17:47	WG1182742
1,3,5-Trimethylbenzene	U			0.00120	0.00556	1	10/18/2018 17:47	WG1182742
Vinyl acetate	U			0.00392	0.0139	1	10/18/2018 17:47	WG1182742
Vinyl chloride	U			0.000760	0.00278	1	10/18/2018 17:47	WG1182742
Xylenes, Total	U			0.00532	0.00723	1	10/18/2018 17:47	WG1182742
(S) Toluene-d8	*118*				*75.0-131*		*10/18/2018 17:47*	WG1182742
(S) Toluene-d8	*98.7*				*75.0-131*		*10/21/2018 17:15*	WG1184188
(S) Dibromofluoromethane	*79.0*				*65.0-129*		*10/18/2018 17:47*	WG1182742
(S) Dibromofluoromethane	*119*				*65.0-129*		*10/21/2018 17:15*	WG1184188
(S) 4-Bromofluorobenzene	*89.3*				*67.0-138*		*10/18/2018 17:47*	WG1182742
(S) 4-Bromofluorobenzene	*125*				*67.0-138*		*10/21/2018 17:15*	WG1184188

JC 11/16/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	89.0		1	10/19/2018 13:51	WG1183343

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		1.24	2.25	80	10/21/2018 17:35	WG1184188
Acrylonitrile	U		0.00213	0.0140	1	10/18/2018 18:07	WG1182742
Benzene	U		0.000449	0.00112	1	10/18/2018 18:07	WG1182742
Bromobenzene	U		0.00118	0.0140	1	10/18/2018 18:07	WG1182742
Bromodichloromethane	U		0.000885	0.00281	1	10/18/2018 18:07	WG1182742
Bromochloromethane	U		0.00127	0.00562	1	10/18/2018 18:07	WG1182742
Bromoform	U		0.00672	0.0281	1	10/18/2018 18:07	WG1182742
Bromomethane	U		0.00416	0.0140	1	10/18/2018 18:07	WG1182742
n-Butylbenzene	U		0.00431	0.0140	1	10/18/2018 18:07	WG1182742
sec-Butylbenzene	U		0.00284	0.0140	1	10/18/2018 18:07	WG1182742
tert-Butylbenzene	U		0.00174	0.00562	1	10/18/2018 18:07	WG1182742
Carbon disulfide	U		0.00456	0.0140	1	10/18/2018 18:07	WG1182742
Carbon tetrachloride	U		0.00121	0.00562	1	10/18/2018 18:07	WG1182742
Chlorobenzene	U		0.000644	0.00281	1	10/18/2018 18:07	WG1182742
Chlorodibromomethane	U		0.000505	0.00281	1	10/18/2018 18:07	WG1182742
Chloroethane	U		0.00121	0.00562	1	10/18/2018 18:07	WG1182742
Chloroform	0.000708 J	J	0.000466	0.00281	1	10/18/2018 18:07	WG1182742
Chloromethane	U		0.00156	0.0140	1	10/18/2018 18:07	WG1182742
2-Chlorotoluene	U		0.00103	0.00281	1	10/18/2018 18:07	WG1182742
4-Chlorotoluene	U		0.00127	0.00562	1	10/18/2018 18:07	WG1182742
1,2-Dibromo-3-Chloropropane	U		0.00573	0.0281	1	10/18/2018 18:07	WG1182742
1,2-Dibromoethane	U		0.000590	0.00281	1	10/18/2018 18:07	WG1182742
Dibromomethane	U U	J4	0.00112	0.00562	1	10/18/2018 18:07	WG1182742
1,2-Dichlorobenzene	U		0.00163	0.00562	1	10/18/2018 18:07	WG1182742
1,3-Dichlorobenzene	U		0.00191	0.00562	1	10/18/2018 18:07	WG1182742
1,4-Dichlorobenzene	U		0.00221	0.00562	1	10/18/2018 18:07	WG1182742
Dichlorodifluoromethane	U		0.000919	0.00281	1	10/18/2018 18:07	WG1182742
1,1-Dichloroethane	U		0.000646	0.00281	1	10/18/2018 18:07	WG1182742
1,2-Dichloroethane	U		0.000534	0.00281	1	10/18/2018 18:07	WG1182742
1,1-Dichloroethene	U		0.000562	0.00281	1	10/18/2018 18:07	WG1182742
cis-1,2-Dichloroethene	0.288		0.000775	0.00281	1	10/18/2018 18:07	WG1182742
trans-1,2-Dichloroethene	0.00285 J	J	0.00161	0.00562	1	10/18/2018 18:07	WG1182742 JC 11/16/18
1,2-Dichloropropane	U		0.00143	0.00562	1	10/18/2018 18:07	WG1182742
1,1-Dichloropropene	U		0.000786	0.00281	1	10/18/2018 18:07	WG1182742
1,3-Dichloropropane	U		0.00197	0.00562	1	10/18/2018 18:07	WG1182742
cis-1,3-Dichloropropene	U		0.000762	0.00281	1	10/18/2018 18:07	WG1182742
trans-1,3-Dichloropropene	U		0.00172	0.00562	1	10/18/2018 18:07	WG1182742
trans-1,4-Dichloro-2-butene	U		0.00157	0.00562	1	10/18/2018 18:07	WG1182742
2,2-Dichloropropane	U		0.000891	0.00281	1	10/18/2018 18:07	WG1182742
Di-isopropyl ether	U		0.000393	0.00112	1	10/18/2018 18:07	WG1182742
Ethylbenzene	U		0.000595	0.00281	1	10/18/2018 18:07	WG1182742
Hexachloro-1,3-butadiene	U		0.0143	0.0281	1	10/18/2018 18:07	WG1182742
2-Hexanone	U		0.0112	0.0281	1	10/18/2018 18:07	WG1182742
n-Hexane	U		0.00119	0.00562	1	10/18/2018 18:07	WG1182742
Iodomethane	U		0.00680	0.0140	1	10/18/2018 18:07	WG1182742
Isopropylbenzene	U		0.000969	0.00281	1	10/18/2018 18:07	WG1182742
p-Isopropyltoluene	U		0.00262	0.00562	1	10/18/2018 18:07	WG1182742
2-Butanone (MEK)	U		0.0140	0.0281	1	10/18/2018 18:07	WG1182742
Methylene Chloride	U		0.00746	0.0281	1	10/18/2018 18:07	WG1182742
4-Methyl-2-pentanone (MIBK)	U		0.0112	0.0281	1	10/18/2018 18:07	WG1182742

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

Analyte	Result (dry) mg/kg		Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U			0.000331	0.00112	1	10/18/2018 18:07	WG1182742
Naphthalene	U			0.00350	0.0140	1	10/18/2018 18:07	WG1182742
n-Propylbenzene	U			0.00133	0.00562	1	10/18/2018 18:07	WG1182742
Styrene	U			0.00307	0.0140	1	10/18/2018 18:07	WG1182742
1,1,1,2-Tetrachloroethane	U			0.000562	0.00281	1	10/18/2018 18:07	WG1182742
1,1,2,2-Tetrachloroethane	U			0.000438	0.00281	1	10/18/2018 18:07	WG1182742
1,1,2-Trichlorotrifluoroethane	U			0.000758	0.00281	1	10/18/2018 18:07	WG1182742
Tetrachloroethene	18.2	J	J0	0.0629	0.225	80	10/21/2018 17:35	WG1184188
Toluene	U			0.00140	0.00562	1	10/18/2018 18:07	WG1182742
1,2,3-Trichlorobenzene	U			0.000702	0.00281	1	10/18/2018 18:07	WG1182742
1,2,4-Trichlorobenzene	U			0.00541	0.0140	1	10/18/2018 18:07	WG1182742
1,1,1-Trichloroethane	U			0.000309	0.00281	1	10/18/2018 18:07	WG1182742
1,1,2-Trichloroethane	U	U	J4	0.000992	0.00281	1	10/18/2018 18:07	WG1182742
Trichloroethene	0.553			0.000449	0.00112	1	10/18/2018 18:07	WG1182742
Trichlorofluoromethane	U			0.000562	0.00281	1	10/18/2018 18:07	WG1182742
1,2,3-Trichloropropane	U			0.00573	0.0140	1	10/18/2018 18:07	WG1182742
1,2,4-Trimethylbenzene	U	UJ	J4	0.00130	0.00562	1	10/18/2018 18:07	WG1182742
1,2,3-Trimethylbenzene	U			0.00129	0.00562	1	10/18/2018 18:07	WG1182742
1,3,5-Trimethylbenzene	U			0.00121	0.00562	1	10/18/2018 18:07	WG1182742
Vinyl acetate	U			0.00395	0.0140	1	10/18/2018 18:07	WG1182742
Vinyl chloride	U			0.000767	0.00281	1	10/18/2018 18:07	WG1182742
Xylenes, Total	U			0.00537	0.00730	1	10/18/2018 18:07	WG1182742
(S) Toluene-d8	*118*				*75.0-131*		*10/18/2018 18:07*	WG1182742
(S) Toluene-d8	*98.4*				*75.0-131*		*10/21/2018 17:35*	WG1184188
(S) Dibromofluoromethane	*79.5*				*65.0-129*		*10/18/2018 18:07*	WG1182742
(S) Dibromofluoromethane	*116*				*65.0-129*		*10/21/2018 17:35*	WG1184188
(S) 4-Bromofluorobenzene	*98.9*				*67.0-138*		*10/18/2018 18:07*	WG1182742
(S) 4-Bromofluorobenzene	*127*				*67.0-138*		*10/21/2018 17:35*	WG1184188

JC 11/16/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	86.3		1	10/19/2018 13:51	WG1183343

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.635	1.16	40	10/21/2018 17:55	WG1184188
Acrylonitrile	U		0.00220	0.0145	1	10/18/2018 18:27	WG1182742
Benzene	U		0.000463	0.00116	1	10/18/2018 18:27	WG1182742
Bromobenzene	U		0.00122	0.0145	1	10/18/2018 18:27	WG1182742
Bromodichloromethane	U		0.000913	0.00290	1	10/18/2018 18:27	WG1182742
Bromochloromethane	U		0.00131	0.00579	1	10/18/2018 18:27	WG1182742
Bromoform	U		0.00693	0.0290	1	10/18/2018 18:27	WG1182742
Bromomethane	U		0.00429	0.0145	1	10/18/2018 18:27	WG1182742
n-Butylbenzene	U		0.00445	0.0145	1	10/18/2018 18:27	WG1182742
sec-Butylbenzene	U		0.00293	0.0145	1	10/18/2018 18:27	WG1182742
tert-Butylbenzene	U		0.00180	0.00579	1	10/18/2018 18:27	WG1182742
Carbon disulfide	U		0.00470	0.0145	1	10/18/2018 18:27	WG1182742
Carbon tetrachloride	U		0.00125	0.00579	1	10/18/2018 18:27	WG1182742
Chlorobenzene	U		0.000664	0.00290	1	10/18/2018 18:27	WG1182742
Chlorodibromomethane	U		0.000521	0.00290	1	10/18/2018 18:27	WG1182742
Chloroethane	U		0.00125	0.00579	1	10/18/2018 18:27	WG1182742
Chloroform	0.000752	J J	0.000481	0.00290	1	10/18/2018 18:27	WG1182742
Chloromethane	U		0.00161	0.0145	1	10/18/2018 18:27	WG1182742
2-Chlorotoluene	U		0.00107	0.00290	1	10/18/2018 18:27	WG1182742
4-Chlorotoluene	U		0.00131	0.00579	1	10/18/2018 18:27	WG1182742
1,2-Dibromo-3-Chloropropane	U		0.00591	0.0290	1	10/18/2018 18:27	WG1182742
1,2-Dibromoethane	U		0.000608	0.00290	1	10/18/2018 18:27	WG1182742
Dibromomethane	U	U J4	0.00116	0.00579	1	10/18/2018 18:27	WG1182742
1,2-Dichlorobenzene	U		0.00168	0.00579	1	10/18/2018 18:27	WG1182742
1,3-Dichlorobenzene	U		0.00197	0.00579	1	10/18/2018 18:27	WG1182742
1,4-Dichlorobenzene	U		0.00228	0.00579	1	10/18/2018 18:27	WG1182742
Dichlorodifluoromethane	U		0.000947	0.00290	1	10/18/2018 18:27	WG1182742
1,1-Dichloroethane	U		0.000666	0.00290	1	10/18/2018 18:27	WG1182742
1,2-Dichloroethane	U		0.000550	0.00290	1	10/18/2018 18:27	WG1182742
1,1-Dichloroethene	0.00138	J J	0.000579	0.00290	1	10/18/2018 18:27	WG1182742
cis-1,2-Dichloroethene	0.833		0.000799	0.00290	1	10/18/2018 18:27	WG1182742
trans-1,2-Dichloroethene	0.00435	J J	0.00166	0.00579	1	10/18/2018 18:27	WG1182742
1,2-Dichloropropane	U		0.00147	0.00579	1	10/18/2018 18:27	WG1182742
1,1-Dichloropropene	U		0.000811	0.00290	1	10/18/2018 18:27	WG1182742
1,3-Dichloropropane	U		0.00203	0.00579	1	10/18/2018 18:27	WG1182742
cis-1,3-Dichloropropene	U		0.000785	0.00290	1	10/18/2018 18:27	WG1182742
trans-1,3-Dichloropropene	U		0.00177	0.00579	1	10/18/2018 18:27	WG1182742
trans-1,4-Dichloro-2-butene	U		0.00162	0.00579	1	10/18/2018 18:27	WG1182742 JC 11/16/18
2,2-Dichloropropane	U		0.000919	0.00290	1	10/18/2018 18:27	WG1182742
Di-isopropyl ether	U		0.000405	0.00116	1	10/18/2018 18:27	WG1182742
Ethylbenzene	U		0.000614	0.00290	1	10/18/2018 18:27	WG1182742
Hexachloro-1,3-butadiene	U		0.0147	0.0290	1	10/18/2018 18:27	WG1182742
2-Hexanone	U		0.0116	0.0290	1	10/18/2018 18:27	WG1182742
n-Hexane	0.00134	J J	0.00123	0.00579	1	10/18/2018 18:27	WG1182742
Iodomethane	U		0.00701	0.0145	1	10/18/2018 18:27	WG1182742
Isopropylbenzene	U		0.00100	0.00290	1	10/18/2018 18:27	WG1182742
p-Isopropyltoluene	U		0.00270	0.00579	1	10/18/2018 18:27	WG1182742
2-Butanone (MEK)	U		0.0145	0.0290	1	10/18/2018 18:27	WG1182742
Methylene Chloride	U		0.00769	0.0290	1	10/18/2018 18:27	WG1182742
4-Methyl-2-pentanone (MIBK)	U		0.0116	0.0290	1	10/18/2018 18:27	WG1182742

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

Analyte	Result (dry) mg/kg		Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U			0.000342	0.00116	1	10/18/2018 18:27	WG1182742
Naphthalene	U			0.00361	0.0145	1	10/18/2018 18:27	WG1182742
n-Propylbenzene	U			0.00137	0.00579	1	10/18/2018 18:27	WG1182742
Styrene	U			0.00316	0.0145	1	10/18/2018 18:27	WG1182742
1,1,1,2-Tetrachloroethane	U			0.000579	0.00290	1	10/18/2018 18:27	WG1182742
1,1,2,2-Tetrachloroethane	U			0.000452	0.00290	1	10/18/2018 18:27	WG1182742
1,1,2-Trichlorotrifluoroethane	U			0.000782	0.00290	1	10/18/2018 18:27	WG1182742
Tetrachloroethene	8.68	J	J0	0.0324	0.116	40	10/21/2018 17:55	WG1184188
Toluene	U			0.00145	0.00579	1	10/18/2018 18:27	WG1182742
1,2,3-Trichlorobenzene	U			0.000724	0.00290	1	10/18/2018 18:27	WG1182742
1,2,4-Trichlorobenzene	U			0.00558	0.0145	1	10/18/2018 18:27	WG1182742
1,1,1-Trichloroethane	U			0.000319	0.00290	1	10/18/2018 18:27	WG1182742
1,1,2-Trichloroethane	U	U	J4	0.00102	0.00290	1	10/18/2018 18:27	WG1182742
Trichloroethene	0.528			0.000463	0.00116	1	10/18/2018 18:27	WG1182742
Trichlorofluoromethane	U			0.000579	0.00290	1	10/18/2018 18:27	WG1182742
1,2,3-Trichloropropane	U			0.00591	0.0145	1	10/18/2018 18:27	WG1182742
1,2,4-Trimethylbenzene	U	UJ	J4	0.00134	0.00579	1	10/18/2018 18:27	WG1182742
1,2,3-Trimethylbenzene	U			0.00133	0.00579	1	10/18/2018 18:27	WG1182742
1,3,5-Trimethylbenzene	U			0.00125	0.00579	1	10/18/2018 18:27	WG1182742
Vinyl acetate	U			0.00408	0.0145	1	10/18/2018 18:27	WG1182742
Vinyl chloride	0.00304			0.000791	0.00290	1	10/18/2018 18:27	WG1182742
Xylenes, Total	U			0.00554	0.00753	1	10/18/2018 18:27	WG1182742
(S) Toluene-d8	*117*				*75.0-131*		*10/18/2018 18:27*	WG1182742
(S) Toluene-d8	*100*				*75.0-131*		*10/21/2018 17:55*	WG1184188
(S) Dibromofluoromethane	*77.8*				*65.0-129*		*10/18/2018 18:27*	WG1182742
(S) Dibromofluoromethane	*118*				*65.0-129*		*10/21/2018 17:55*	WG1184188
(S) 4-Bromofluorobenzene	*102*				*67.0-138*		*10/18/2018 18:27*	WG1182742
(S) 4-Bromofluorobenzene	*125*				*67.0-138*		*10/21/2018 17:55*	WG1184188

JC 11/16/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	91.4		1	10/16/2018 14:25	WG1181703

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		10.0	18.3	670	10/17/2018 13:32	WG1182096
Acrylonitrile	U		0.00208	0.0137	1	10/16/2018 19:21	WG1181654
Benzene	U		0.000438	0.00109	1	10/16/2018 19:21	WG1181654
Bromobenzene	U		0.00115	0.0137	1	10/16/2018 19:21	WG1181654
Bromodichloromethane	U		0.000862	0.00273	1	10/16/2018 19:21	WG1181654
Bromochloromethane	U		0.00124	0.00547	1	10/16/2018 19:21	WG1181654
Bromoform	U		0.00654	0.0273	1	10/16/2018 19:21	WG1181654
Bromomethane	U		0.00405	0.0137	1	10/16/2018 19:21	WG1181654
n-Butylbenzene	U		0.00420	0.0137	1	10/16/2018 19:21	WG1181654
sec-Butylbenzene	U		0.00277	0.0137	1	10/16/2018 19:21	WG1181654
tert-Butylbenzene	U		0.00170	0.00547	1	10/16/2018 19:21	WG1181654
Carbon disulfide	U		0.00444	0.0137	1	10/16/2018 19:21	WG1181654
Carbon tetrachloride	U		0.00118	0.00547	1	10/16/2018 19:21	WG1181654
Chlorobenzene	U		0.000627	0.00273	1	10/16/2018 19:21	WG1181654
Chlorodibromomethane	U		0.000492	0.00273	1	10/16/2018 19:21	WG1181654
Chloroethane	U		0.00118	0.00547	1	10/16/2018 19:21	WG1181654
Chloroform	0.000592	U B J	0.000454	0.00273	1	10/16/2018 19:21	WG1181654
Chloromethane	U		0.00152	0.0137	1	10/16/2018 19:21	WG1181654
2-Chlorotoluene	U		0.00101	0.00273	1	10/16/2018 19:21	WG1181654
4-Chlorotoluene	U		0.00124	0.00547	1	10/16/2018 19:21	WG1181654
1,2-Dibromo-3-Chloropropane	U		0.00558	0.0273	1	10/16/2018 19:21	WG1181654
1,2-Dibromoethane	U		0.000574	0.00273	1	10/16/2018 19:21	WG1181654
Dibromomethane	U	U J4	0.00109	0.00547	1	10/16/2018 19:21	WG1181654
1,2-Dichlorobenzene	U		0.00159	0.00547	1	10/16/2018 19:21	WG1181654
1,3-Dichlorobenzene	U		0.00186	0.00547	1	10/16/2018 19:21	WG1181654
1,4-Dichlorobenzene	U		0.00215	0.00547	1	10/16/2018 19:21	WG1181654
Dichlorodifluoromethane	U		0.000895	0.00273	1	10/16/2018 19:21	WG1181654
1,1-Dichloroethane	U		0.000629	0.00273	1	10/16/2018 19:21	WG1181654
1,2-Dichloroethane	U		0.000520	0.00273	1	10/16/2018 19:21	WG1181654
1,1-Dichloroethene	0.00105	J J	0.000547	0.00273	1	10/16/2018 19:21	WG1181654
cis-1,2-Dichloroethene	0.614		0.000755	0.00273	1	10/16/2018 19:21	WG1181654
trans-1,2-Dichloroethene	0.00344	J J	0.00156	0.00547	1	10/16/2018 19:21	WG1181654
1,2-Dichloropropane	U		0.00139	0.00547	1	10/16/2018 19:21	WG1181654
1,1-Dichloropropene	U		0.000766	0.00273	1	10/16/2018 19:21	WG1181654
1,3-Dichloropropane	U		0.00191	0.00547	1	10/16/2018 19:21	WG1181654
cis-1,3-Dichloropropene	U		0.000742	0.00273	1	10/16/2018 19:21	WG1181654
trans-1,3-Dichloropropene	U		0.00167	0.00547	1	10/16/2018 19:21	WG1181654
trans-1,4-Dichloro-2-butene	U		0.00153	0.00547	1	10/16/2018 19:21	WG1181654
2,2-Dichloropropane	U		0.000867	0.00273	1	10/16/2018 19:21	WG1181654
Di-isopropyl ether	U		0.000383	0.00109	1	10/16/2018 19:21	WG1181654
Ethylbenzene	U		0.000580	0.00273	1	10/16/2018 19:21	WG1181654
Hexachloro-1,3-butadiene	U		0.0139	0.0273	1	10/16/2018 19:21	WG1181654
2-Hexanone	U		0.0109	0.0273	1	10/16/2018 19:21	WG1181654
n-Hexane	U		0.00116	0.00547	1	10/16/2018 19:21	WG1181654
Iodomethane	U		0.00662	0.0137	1	10/16/2018 19:21	WG1181654
Isopropylbenzene	U		0.000944	0.00273	1	10/16/2018 19:21	WG1181654
p-Isopropyltoluene	U		0.00255	0.00547	1	10/16/2018 19:21	WG1181654
2-Butanone (MEK)	U		0.0137	0.0273	1	10/16/2018 19:21	WG1181654
Methylene Chloride	U		0.00726	0.0273	1	10/16/2018 19:21	WG1181654
4-Methyl-2-pentanone (MIBK)	U		0.0109	0.0273	1	10/16/2018 19:21	WG1181654

JC 11/16/18

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

Analyte	Result (dry) mg/kg		Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U	UJ	J0	0.000323	0.00109	1	10/16/2018 19:21	WG1181654
Naphthalene	U			0.00341	0.0137	1	10/16/2018 19:21	WG1181654
n-Propylbenzene	U			0.00129	0.00547	1	10/16/2018 19:21	WG1181654
Styrene	U			0.00299	0.0137	1	10/16/2018 19:21	WG1181654
1,1,1,2-Tetrachloroethane	U			0.000547	0.00273	1	10/16/2018 19:21	WG1181654
1,1,2,2-Tetrachloroethane	U	U	J4	0.000427	0.00273	1	10/16/2018 19:21	WG1181654
1,1,2-Trichlorotrifluoroethane	U			0.000738	0.00273	1	10/16/2018 19:21	WG1181654
Tetrachloroethene	7.69			0.513	1.83	670	10/17/2018 13:32	WG1182096
Toluene	U			0.00137	0.00547	1	10/16/2018 19:21	WG1181654
1,2,3-Trichlorobenzene	U			0.000684	0.00273	1	10/16/2018 19:21	WG1181654
1,2,4-Trichlorobenzene	U			0.00527	0.0137	1	10/16/2018 19:21	WG1181654
1,1,1-Trichloroethane	U			0.000301	0.00273	1	10/16/2018 19:21	WG1181654
1,1,2-Trichloroethane	U	U	J4	0.000966	0.00273	1	10/16/2018 19:21	WG1181654
Trichloroethene	0.407			0.000438	0.00109	1	10/16/2018 19:21	WG1181654
Trichlorofluoromethane	U			0.000547	0.00273	1	10/16/2018 19:21	WG1181654
1,2,3-Trichloropropane	U			0.00558	0.0137	1	10/16/2018 19:21	WG1181654
1,2,4-Trimethylbenzene	0.00130	J	J	0.00127	0.00547	1	10/16/2018 19:21	WG1181654
1,2,3-Trimethylbenzene	U			0.00126	0.00547	1	10/16/2018 19:21	WG1181654
1,3,5-Trimethylbenzene	U			0.00118	0.00547	1	10/16/2018 19:21	WG1181654
Vinyl acetate	U			0.00385	0.0137	1	10/16/2018 19:21	WG1181654
Vinyl chloride	0.00318			0.000747	0.00273	1	10/16/2018 19:21	WG1181654
Xylenes, Total	U			0.00523	0.00711	1	10/16/2018 19:21	WG1181654
(S) Toluene-d8	*118*				*75.0-131*		*10/16/2018 19:21*	WG1181654
(S) Toluene-d8	*101*				*75.0-131*		*10/17/2018 13:32*	WG1182096
(S) Dibromofluoromethane	*77.0*				*65.0-129*		*10/16/2018 19:21*	WG1181654
(S) Dibromofluoromethane	*120*				*65.0-129*		*10/17/2018 13:32*	WG1182096
(S) 4-Bromofluorobenzene	*102*				*67.0-138*		*10/16/2018 19:21*	WG1181654
(S) 4-Bromofluorobenzene	*117*				*67.0-138*		*10/17/2018 13:32*	WG1182096

JC 11/16/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	95.2		1	10/19/2018 13:51	WG1183343

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

Analyte	Result (dry)		Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch	
	mg/kg			mg/kg	mg/kg		date / time		
Acetone	U			0.0144	0.0263	1	10/21/2018 14:55	WG1184188	
Acrylonitrile	U	U	J3	0.00200	0.0131	1	10/18/2018 18:47	WG1182742	
Benzene	U			0.000420	0.00105	1	10/18/2018 18:47	WG1182742	
Bromobenzene	U			0.00110	0.0131	1	10/18/2018 18:47	WG1182742	
Bromodichloromethane	U			0.000828	0.00263	1	10/18/2018 18:47	WG1182742	
Bromochloromethane	U			0.00119	0.00525	1	10/18/2018 18:47	WG1182742	
Bromoform	U			0.00628	0.0263	1	10/18/2018 18:47	WG1182742	
Bromomethane	U			0.00389	0.0131	1	10/18/2018 18:47	WG1182742	
n-Butylbenzene	U			0.00403	0.0131	1	10/18/2018 18:47	WG1182742	
sec-Butylbenzene	U			0.00266	0.0131	1	10/18/2018 18:47	WG1182742	
tert-Butylbenzene	U			0.00163	0.00525	1	10/18/2018 18:47	WG1182742	
Carbon disulfide	U			0.00427	0.0131	1	10/18/2018 18:47	WG1182742	
Carbon tetrachloride	U			0.00113	0.00525	1	10/18/2018 18:47	WG1182742	
Chlorobenzene	U			0.000602	0.00263	1	10/18/2018 18:47	WG1182742	
Chlorodibromomethane	U			0.000473	0.00263	1	10/18/2018 18:47	WG1182742	
Chloroethane	U			0.00113	0.00525	1	10/18/2018 18:47	WG1182742	
Chloroform	0.000670	J	J	0.000436	0.00263	1	10/18/2018 18:47	WG1182742	
Chloromethane	U			0.00146	0.0131	1	10/18/2018 18:47	WG1182742	
2-Chlorotoluene	U			0.000967	0.00263	1	10/18/2018 18:47	WG1182742	
4-Chlorotoluene	U			0.00119	0.00525	1	10/18/2018 18:47	WG1182742	
1,2-Dibromo-3-Chloropropane	U			0.00536	0.0263	1	10/18/2018 18:47	WG1182742	
1,2-Dibromoethane	U			0.000552	0.00263	1	10/18/2018 18:47	WG1182742	
Dibromomethane	U	U	J4	0.00105	0.00525	1	10/18/2018 18:47	WG1182742	
1,2-Dichlorobenzene	U			0.00152	0.00525	1	10/18/2018 18:47	WG1182742	
1,3-Dichlorobenzene	U			0.00179	0.00525	1	10/18/2018 18:47	WG1182742	
1,4-Dichlorobenzene	U			0.00207	0.00525	1	10/18/2018 18:47	WG1182742	
Dichlorodifluoromethane	U			0.000859	0.00263	1	10/18/2018 18:47	WG1182742	
1,1-Dichloroethane	U			0.000604	0.00263	1	10/18/2018 18:47	WG1182742	
1,2-Dichloroethane	U			0.000499	0.00263	1	10/18/2018 18:47	WG1182742	
1,1-Dichloroethene	U			0.000525	0.00263	1	10/18/2018 18:47	WG1182742	
cis-1,2-Dichloroethene	0.0153			0.000725	0.00263	1	10/21/2018 14:55	WG1184188	
trans-1,2-Dichloroethene	U			0.00150	0.00525	1	10/18/2018 18:47	WG1182742	
1,2-Dichloropropane	U			0.00133	0.00525	1	10/18/2018 18:47	WG1182742	
1,1-Dichloropropene	U			0.000735	0.00263	1	10/18/2018 18:47	WG1182742	
1,3-Dichloropropane	U			0.00184	0.00525	1	10/18/2018 18:47	WG1182742	
cis-1,3-Dichloropropene	U			0.000712	0.00263	1	10/18/2018 18:47	WG1182742	
trans-1,3-Dichloropropene	U			0.00161	0.00525	1	10/18/2018 18:47	WG1182742	
trans-1,4-Dichloro-2-butene	U			0.00147	0.00525	1	10/18/2018 18:47	WG1182742	
2,2-Dichloropropane	U			0.000833	0.00263	1	10/18/2018 18:47	WG1182742	
Di-isopropyl ether	U			0.000368	0.00105	1	10/18/2018 18:47	WG1182742	JC 11/16/18
Ethylbenzene	U			0.000557	0.00263	1	10/18/2018 18:47	WG1182742	
Hexachloro-1,3-butadiene	U			0.0133	0.0263	1	10/18/2018 18:47	WG1182742	
2-Hexanone	U			0.0105	0.0263	1	10/18/2018 18:47	WG1182742	
n-Hexane	U			0.00111	0.00525	1	10/18/2018 18:47	WG1182742	
Iodomethane	U			0.00636	0.0131	1	10/18/2018 18:47	WG1182742	
Isopropylbenzene	U			0.000907	0.00263	1	10/18/2018 18:47	WG1182742	
p-Isopropyltoluene	U			0.00245	0.00525	1	10/18/2018 18:47	WG1182742	
2-Butanone (MEK)	U			0.0131	0.0263	1	10/18/2018 18:47	WG1182742	
Methylene Chloride	U			0.00698	0.0263	1	10/18/2018 18:47	WG1182742	
4-Methyl-2-pentanone (MIBK)	U			0.0105	0.0263	1	10/18/2018 18:47	WG1182742	

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000310	0.00105	1	10/18/2018 18:47	WG1182742
Naphthalene	U		0.00328	0.0131	1	10/18/2018 18:47	WG1182742
n-Propylbenzene	U		0.00124	0.00525	1	10/18/2018 18:47	WG1182742
Styrene	U		0.00287	0.0131	1	10/18/2018 18:47	WG1182742
1,1,1,2-Tetrachloroethane	U		0.000525	0.00263	1	10/18/2018 18:47	WG1182742
1,1,2,2-Tetrachloroethane	U		0.000410	0.00263	1	10/18/2018 18:47	WG1182742
1,1,2-Trichlorotrifluoroethane	U		0.000709	0.00263	1	10/18/2018 18:47	WG1182742
Tetrachloroethene	0.0286		0.000735	0.00263	1	10/21/2018 14:55	WG1184188
Toluene	U		0.00131	0.00525	1	10/18/2018 18:47	WG1182742
1,2,3-Trichlorobenzene	U		0.000657	0.00263	1	10/18/2018 18:47	WG1182742
1,2,4-Trichlorobenzene	U		0.00506	0.0131	1	10/18/2018 18:47	WG1182742
1,1,1-Trichloroethane	U		0.000289	0.00263	1	10/18/2018 18:47	WG1182742
1,1,2-Trichloroethane	U U	J4	0.000928	0.00263	1	10/18/2018 18:47	WG1182742
Trichloroethene	0.146		0.000420	0.00105	1	10/22/2018 11:39	WG1184438
Trichlorofluoromethane	U		0.000525	0.00263	1	10/18/2018 18:47	WG1182742
1,2,3-Trichloropropane	U		0.00536	0.0131	1	10/18/2018 18:47	WG1182742
1,2,4-Trimethylbenzene	U UJ	J4	0.00122	0.00525	1	10/18/2018 18:47	WG1182742
1,2,3-Trimethylbenzene	U		0.00121	0.00525	1	10/18/2018 18:47	WG1182742
1,3,5-Trimethylbenzene	U		0.00113	0.00525	1	10/18/2018 18:47	WG1182742
Vinyl acetate	U U	J3	0.00370	0.0131	1	10/18/2018 18:47	WG1182742
Vinyl chloride	U R	J6	0.000718	0.00263	1	10/18/2018 18:47	WG1182742
Xylenes, Total	U		0.00502	0.00683	1	10/18/2018 18:47	WG1182742
(S) Toluene-d8	*118*			*75.0-131*		*10/18/2018 18:47*	WG1182742
(S) Toluene-d8	*100*			*75.0-131*		*10/21/2018 14:55*	WG1184188
(S) Toluene-d8	*113*			*75.0-131*		*10/22/2018 11:39*	WG1184438
(S) Dibromofluoromethane	*76.0*			*65.0-129*		*10/18/2018 18:47*	WG1182742
(S) Dibromofluoromethane	*112*			*65.0-129*		*10/21/2018 14:55*	WG1184188
(S) Dibromofluoromethane	*87.3*			*65.0-129*		*10/22/2018 11:39*	WG1184438
(S) 4-Bromofluorobenzene	*88.8*			*67.0-138*		*10/18/2018 18:47*	WG1182742
(S) 4-Bromofluorobenzene	*118*			*67.0-138*		*10/21/2018 14:55*	WG1184188
(S) 4-Bromofluorobenzene	*88.0*			*67.0-138*		*10/22/2018 11:39*	WG1184438

JC 11/16/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	90.2		1	10/19/2018 13:51	WG1183343

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch	
	mg/kg		mg/kg	mg/kg		date / time		
Acetone	U		0.0152	0.0277	1	10/19/2018 21:50	WG1183157	
Acrylonitrile	U		0.00211	0.0139	1	10/19/2018 21:50	WG1183157	
Benzene	U		0.000444	0.00111	1	10/19/2018 21:50	WG1183157	
Bromobenzene	U		0.00116	0.0139	1	10/19/2018 21:50	WG1183157	
Bromodichloromethane	U		0.000874	0.00277	1	10/19/2018 21:50	WG1183157	
Bromochloromethane	U		0.00125	0.00555	1	10/19/2018 21:50	WG1183157	
Bromoform	U	UJ J0	0.00663	0.0277	1	10/19/2018 21:50	WG1183157	
Bromomethane	U		0.00410	0.0139	1	10/19/2018 21:50	WG1183157	
n-Butylbenzene	U		0.00426	0.0139	1	10/19/2018 21:50	WG1183157	
sec-Butylbenzene	U		0.00281	0.0139	1	10/19/2018 21:50	WG1183157	
tert-Butylbenzene	U		0.00172	0.00555	1	10/19/2018 21:50	WG1183157	
Carbon disulfide	U	UJ J0	0.00450	0.0139	1	10/19/2018 21:50	WG1183157	
Carbon tetrachloride	U		0.00120	0.00555	1	10/19/2018 21:50	WG1183157	
Chlorobenzene	U		0.000636	0.00277	1	10/19/2018 21:50	WG1183157	
Chlorodibromomethane	U		0.000499	0.00277	1	10/19/2018 21:50	WG1183157	
Chloroethane	U		0.00120	0.00555	1	10/19/2018 21:50	WG1183157	
Chloroform	0.000707	U B J	0.000460	0.00277	1	10/19/2018 21:50	WG1183157	
Chloromethane	U		0.00154	0.0139	1	10/19/2018 21:50	WG1183157	
2-Chlorotoluene	U		0.00102	0.00277	1	10/19/2018 21:50	WG1183157	
4-Chlorotoluene	U		0.00125	0.00555	1	10/19/2018 21:50	WG1183157	
1,2-Dibromo-3-Chloropropane	U	UJ J0	0.00566	0.0277	1	10/19/2018 21:50	WG1183157	
1,2-Dibromoethane	U		0.000582	0.00277	1	10/19/2018 21:50	WG1183157	
Dibromomethane	U		0.00111	0.00555	1	10/19/2018 21:50	WG1183157	
1,2-Dichlorobenzene	U		0.00161	0.00555	1	10/19/2018 21:50	WG1183157	
1,3-Dichlorobenzene	U		0.00189	0.00555	1	10/19/2018 21:50	WG1183157	
1,4-Dichlorobenzene	U		0.00219	0.00555	1	10/19/2018 21:50	WG1183157	
Dichlorodifluoromethane	U		0.000907	0.00277	1	10/19/2018 21:50	WG1183157	
1,1-Dichloroethane	U		0.000638	0.00277	1	10/19/2018 21:50	WG1183157	
1,2-Dichloroethane	U		0.000527	0.00277	1	10/19/2018 21:50	WG1183157	
1,1-Dichloroethene	U		0.000555	0.00277	1	10/19/2018 21:50	WG1183157	JC 11/16/18
cis-1,2-Dichloroethene	0.0879		0.000765	0.00277	1	10/19/2018 21:50	WG1183157	
trans-1,2-Dichloroethene	U		0.00159	0.00555	1	10/19/2018 21:50	WG1183157	
1,2-Dichloropropane	U		0.00141	0.00555	1	10/22/2018 16:23	WG1184604	
1,1-Dichloropropene	U		0.000776	0.00277	1	10/19/2018 21:50	WG1183157	
1,3-Dichloropropane	U		0.00194	0.00555	1	10/19/2018 21:50	WG1183157	
cis-1,3-Dichloropropene	U		0.000752	0.00277	1	10/19/2018 21:50	WG1183157	
trans-1,3-Dichloropropene	U		0.00170	0.00555	1	10/19/2018 21:50	WG1183157	
trans-1,4-Dichloro-2-butene	U		0.00155	0.00555	1	10/19/2018 21:50	WG1183157	
2,2-Dichloropropane	U		0.000880	0.00277	1	10/19/2018 21:50	WG1183157	
Di-isopropyl ether	U		0.000388	0.00111	1	10/19/2018 21:50	WG1183157	
Ethylbenzene	U		0.000588	0.00277	1	10/19/2018 21:50	WG1183157	
Hexachloro-1,3-butadiene	U	UJ J0	0.0141	0.0277	1	10/19/2018 21:50	WG1183157	
2-Hexanone	U		0.0111	0.0277	1	10/19/2018 21:50	WG1183157	
n-Hexane	U		0.00118	0.00555	1	10/19/2018 21:50	WG1183157	
Iodomethane	U		0.00671	0.0139	1	10/19/2018 21:50	WG1183157	
Isopropylbenzene	U		0.000957	0.00277	1	10/19/2018 21:50	WG1183157	
p-Isopropyltoluene	U		0.00258	0.00555	1	10/19/2018 21:50	WG1183157	
2-Butanone (MEK)	0.0603	J J0	0.0139	0.0277	1	10/22/2018 16:23	WG1184604	
Methylene Chloride	U		0.00737	0.0277	1	10/19/2018 21:50	WG1183157	
4-Methyl-2-pentanone (MIBK)	U		0.0111	0.0277	1	10/19/2018 21:50	WG1183157	

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

Analyte	Result (dry) mg/kg		Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U			0.000327	0.00111	1	10/19/2018 21:50	WG1183157
Naphthalene	U			0.00346	0.0139	1	10/19/2018 21:50	WG1183157
n-Propylbenzene	U			0.00131	0.00555	1	10/19/2018 21:50	WG1183157
Styrene	U	UJ	J0	0.00303	0.0139	1	10/19/2018 21:50	WG1183157
1,1,1,2-Tetrachloroethane	U			0.000555	0.00277	1	10/19/2018 21:50	WG1183157
1,1,2,2-Tetrachloroethane	U			0.000433	0.00277	1	10/19/2018 21:50	WG1183157
1,1,2-Trichlorotrifluoroethane	U			0.000749	0.00277	1	10/19/2018 21:50	WG1183157
Tetrachloroethene	0.230			0.000776	0.00277	1	10/19/2018 21:50	WG1183157
Toluene	U			0.00139	0.00555	1	10/19/2018 21:50	WG1183157
1,2,3-Trichlorobenzene	U			0.000693	0.00277	1	10/19/2018 21:50	WG1183157
1,2,4-Trichlorobenzene	U			0.00535	0.0139	1	10/19/2018 21:50	WG1183157
1,1,1-Trichloroethane	U			0.000305	0.00277	1	10/19/2018 21:50	WG1183157
1,1,2-Trichloroethane	0.00157	J	J	0.000979	0.00277	1	10/22/2018 16:23	WG1184604
Trichloroethene	0.135			0.000444	0.00111	1	10/19/2018 21:50	WG1183157
Trichlorofluoromethane	U			0.000555	0.00277	1	10/19/2018 21:50	WG1183157
1,2,3-Trichloropropane	U			0.00566	0.0139	1	10/19/2018 21:50	WG1183157
1,2,4-Trimethylbenzene	U			0.00129	0.00555	1	10/19/2018 21:50	WG1183157
1,2,3-Trimethylbenzene	U			0.00128	0.00555	1	10/19/2018 21:50	WG1183157
1,3,5-Trimethylbenzene	U			0.00120	0.00555	1	10/19/2018 21:50	WG1183157
Vinyl acetate	U			0.00390	0.0139	1	10/19/2018 21:50	WG1183157
Vinyl chloride	U			0.000758	0.00277	1	10/19/2018 21:50	WG1183157
Xylenes, Total	U			0.00530	0.00721	1	10/19/2018 21:50	WG1183157
(S) Toluene-d8	*127*				*75.0-131*		*10/19/2018 21:50*	WG1183157
(S) Toluene-d8	*97.8*				*75.0-131*		*10/22/2018 16:23*	WG1184604
(S) Dibromofluoromethane	*96.3*				*65.0-129*		*10/19/2018 21:50*	WG1183157
(S) Dibromofluoromethane	*114*				*65.0-129*		*10/22/2018 16:23*	WG1184604
(S) 4-Bromofluorobenzene	*97.7*				*67.0-138*		*10/19/2018 21:50*	WG1183157
(S) 4-Bromofluorobenzene	*117*				*67.0-138*		*10/22/2018 16:23*	WG1184604

JC 11/16/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	89.9		1	10/19/2018 13:51	WG1183343

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0152	0.0278	1	10/19/2018 22:11	WG1183157
Acrylonitrile	U		0.00211	0.0139	1	10/19/2018 22:11	WG1183157
Benzene	U		0.000445	0.00111	1	10/19/2018 22:11	WG1183157
Bromobenzene	U		0.00117	0.0139	1	10/19/2018 22:11	WG1183157
Bromodichloromethane	U		0.000877	0.00278	1	10/19/2018 22:11	WG1183157
Bromochloromethane	U		0.00126	0.00556	1	10/19/2018 22:11	WG1183157
Bromoform	U	UJ J0	0.00665	0.0278	1	10/19/2018 22:11	WG1183157
Bromomethane	U		0.00412	0.0139	1	10/19/2018 22:11	WG1183157
n-Butylbenzene	U		0.00427	0.0139	1	10/19/2018 22:11	WG1183157
sec-Butylbenzene	U		0.00281	0.0139	1	10/19/2018 22:11	WG1183157
tert-Butylbenzene	U		0.00172	0.00556	1	10/19/2018 22:11	WG1183157
Carbon disulfide	U	UJ J0	0.00452	0.0139	1	10/19/2018 22:11	WG1183157
Carbon tetrachloride	U		0.00120	0.00556	1	10/19/2018 22:11	WG1183157
Chlorobenzene	U		0.000637	0.00278	1	10/19/2018 22:11	WG1183157
Chlorodibromomethane	U		0.000501	0.00278	1	10/19/2018 22:11	WG1183157
Chloroethane	U		0.00120	0.00556	1	10/19/2018 22:11	WG1183157
Chloroform	0.000940	U B J	0.000462	0.00278	1	10/19/2018 22:11	WG1183157
Chloromethane	U		0.00155	0.0139	1	10/19/2018 22:11	WG1183157
2-Chlorotoluene	U		0.00102	0.00278	1	10/19/2018 22:11	WG1183157
4-Chlorotoluene	U		0.00126	0.00556	1	10/19/2018 22:11	WG1183157
1,2-Dibromo-3-Chloropropane	U	UJ J0	0.00567	0.0278	1	10/19/2018 22:11	WG1183157
1,2-Dibromoethane	U		0.000584	0.00278	1	10/19/2018 22:11	WG1183157
Dibromomethane	U		0.00111	0.00556	1	10/19/2018 22:11	WG1183157
1,2-Dichlorobenzene	U		0.00161	0.00556	1	10/19/2018 22:11	WG1183157
1,3-Dichlorobenzene	U		0.00189	0.00556	1	10/19/2018 22:11	WG1183157
1,4-Dichlorobenzene	U		0.00219	0.00556	1	10/19/2018 22:11	WG1183157
Dichlorodifluoromethane	U		0.000910	0.00278	1	10/19/2018 22:11	WG1183157
1,1-Dichloroethane	U		0.000640	0.00278	1	10/19/2018 22:11	WG1183157
1,2-Dichloroethane	U		0.000528	0.00278	1	10/19/2018 22:11	WG1183157
1,1-Dichloroethene	U		0.000556	0.00278	1	10/19/2018 22:11	WG1183157
cis-1,2-Dichloroethene	0.0191		0.000768	0.00278	1	10/19/2018 22:11	WG1183157
trans-1,2-Dichloroethene	U		0.00159	0.00556	1	10/19/2018 22:11	WG1183157
1,2-Dichloropropane	U		0.0565	0.222	40	10/22/2018 20:23	WG1184604
1,1-Dichloropropene	U		0.000779	0.00278	1	10/19/2018 22:11	WG1183157
1,3-Dichloropropane	U		0.00195	0.00556	1	10/19/2018 22:11	WG1183157
cis-1,3-Dichloropropene	U		0.000754	0.00278	1	10/19/2018 22:11	WG1183157
trans-1,3-Dichloropropene	U		0.00170	0.00556	1	10/19/2018 22:11	WG1183157
trans-1,4-Dichloro-2-butene	U		0.00156	0.00556	1	10/19/2018 22:11	WG1183157
2,2-Dichloropropane	U		0.000882	0.00278	1	10/19/2018 22:11	WG1183157
Di-isopropyl ether	U		0.000389	0.00111	1	10/19/2018 22:11	WG1183157
Ethylbenzene	U		0.000590	0.00278	1	10/19/2018 22:11	WG1183157
Hexachloro-1,3-butadiene	U	UJ J0	0.0141	0.0278	1	10/19/2018 22:11	WG1183157
2-Hexanone	U		0.0111	0.0278	1	10/19/2018 22:11	WG1183157
n-Hexane	U		0.00118	0.00556	1	10/19/2018 22:11	WG1183157
Iodomethane	U		0.00673	0.0139	1	10/19/2018 22:11	WG1183157
Isopropylbenzene	U		0.000960	0.00278	1	10/19/2018 22:11	WG1183157
p-Isopropyltoluene	U		0.00259	0.00556	1	10/19/2018 22:11	WG1183157
2-Butanone (MEK)	U	UJ J0	0.556	1.11	40	10/22/2018 20:23	WG1184604
Methylene Chloride	U		0.00739	0.0278	1	10/19/2018 22:11	WG1183157
4-Methyl-2-pentanone (MIBK)	U		0.0111	0.0278	1	10/19/2018 22:11	WG1183157

JC 11/16/18

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000328	0.00111	1	10/19/2018 22:11	WG1183157
Naphthalene	U		0.00347	0.0139	1	10/19/2018 22:11	WG1183157
n-Propylbenzene	U		0.00131	0.00556	1	10/19/2018 22:11	WG1183157
Styrene	U	UJ J0	0.00304	0.0139	1	10/19/2018 22:11	WG1183157
1,1,1,2-Tetrachloroethane	U		0.000556	0.00278	1	10/19/2018 22:11	WG1183157
1,1,2,2-Tetrachloroethane	U		0.000434	0.00278	1	10/19/2018 22:11	WG1183157
1,1,2-Trichlorotrifluoroethane	U		0.000751	0.00278	1	10/19/2018 22:11	WG1183157
Tetrachloroethene	10.3		0.0311	0.111	40	10/22/2018 20:23	WG1184604
Toluene	U		0.00139	0.00556	1	10/19/2018 22:11	WG1183157
1,2,3-Trichlorobenzene	U		0.000695	0.00278	1	10/19/2018 22:11	WG1183157
1,2,4-Trichlorobenzene	U		0.00536	0.0139	1	10/19/2018 22:11	WG1183157
1,1,1-Trichloroethane	U		0.000306	0.00278	1	10/19/2018 22:11	WG1183157
1,1,2-Trichloroethane	U		0.0393	0.111	40	10/22/2018 20:23	WG1184604
Trichloroethene	0.0501		0.000445	0.00111	1	10/19/2018 22:11	WG1183157
Trichlorofluoromethane	U		0.000556	0.00278	1	10/19/2018 22:11	WG1183157
1,2,3-Trichloropropane	U		0.00567	0.0139	1	10/19/2018 22:11	WG1183157
1,2,4-Trimethylbenzene	U		0.00129	0.00556	1	10/19/2018 22:11	WG1183157
1,2,3-Trimethylbenzene	U		0.00128	0.00556	1	10/19/2018 22:11	WG1183157
1,3,5-Trimethylbenzene	U		0.00120	0.00556	1	10/19/2018 22:11	WG1183157
Vinyl acetate	U		0.00392	0.0139	1	10/19/2018 22:11	WG1183157
Vinyl chloride	U		0.000760	0.00278	1	10/19/2018 22:11	WG1183157
Xylenes, Total	U		0.00532	0.00723	1	10/19/2018 22:11	WG1183157
(S) Toluene-d8	*123*			*75.0-131*		*10/19/2018 22:11*	WG1183157
(S) Toluene-d8	*98.0*			*75.0-131*		*10/22/2018 20:23*	WG1184604
(S) Dibromofluoromethane	*94.8*			*65.0-129*		*10/19/2018 22:11*	WG1183157
(S) Dibromofluoromethane	*116*			*65.0-129*		*10/22/2018 20:23*	WG1184604
(S) 4-Bromofluorobenzene	*91.5*			*67.0-138*		*10/19/2018 22:11*	WG1183157
(S) 4-Bromofluorobenzene	*123*			*67.0-138*		*10/22/2018 20:23*	WG1184604

Sample Narrative:

L1034970-14 WG1183157, WG1184604: Not all compounds reportable at lower dilution.

L1034970-14 WG1183157, WG1184604: Cannot be re-analyzed at a lower dilution due to high levels of target analytes.

JC 11/16/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	88.4		1	10/19/2018 13:51	WG1183343

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch	
	mg/kg		mg/kg	mg/kg		date / time		
Acetone	U		0.0155	0.0283	1	10/19/2018 22:31	WG1183157	
Acrylonitrile	U		0.00215	0.0141	1	10/19/2018 22:31	WG1183157	
Benzene	U		0.000452	0.00113	1	10/19/2018 22:31	WG1183157	
Bromobenzene	U		0.00119	0.0141	1	10/19/2018 22:31	WG1183157	
Bromodichloromethane	U		0.000891	0.00283	1	10/19/2018 22:31	WG1183157	
Bromochloromethane	U		0.00128	0.00565	1	10/19/2018 22:31	WG1183157	
Bromoform	U	UJ J0	0.00676	0.0283	1	10/19/2018 22:31	WG1183157	
Bromomethane	U		0.00418	0.0141	1	10/19/2018 22:31	WG1183157	
n-Butylbenzene	U		0.00434	0.0141	1	10/19/2018 22:31	WG1183157	
sec-Butylbenzene	U		0.00286	0.0141	1	10/19/2018 22:31	WG1183157	
tert-Butylbenzene	U		0.00175	0.00565	1	10/19/2018 22:31	WG1183157	
Carbon disulfide	U	UJ J0	0.00459	0.0141	1	10/19/2018 22:31	WG1183157	
Carbon tetrachloride	U		0.00122	0.00565	1	10/19/2018 22:31	WG1183157	
Chlorobenzene	U		0.000648	0.00283	1	10/19/2018 22:31	WG1183157	
Chlorodibromomethane	U		0.000509	0.00283	1	10/19/2018 22:31	WG1183157	
Chloroethane	U		0.00122	0.00565	1	10/19/2018 22:31	WG1183157	
Chloroform	0.000654	U B J	0.000469	0.00283	1	10/19/2018 22:31	WG1183157	
Chloromethane	U		0.00157	0.0141	1	10/19/2018 22:31	WG1183157	
2-Chlorotoluene	U		0.00104	0.00283	1	10/19/2018 22:31	WG1183157	
4-Chlorotoluene	U		0.00128	0.00565	1	10/19/2018 22:31	WG1183157	
1,2-Dibromo-3-Chloropropane	U	UJ J0	0.00577	0.0283	1	10/19/2018 22:31	WG1183157	
1,2-Dibromoethane	U		0.000594	0.00283	1	10/19/2018 22:31	WG1183157	
Dibromomethane	U		0.00113	0.00565	1	10/19/2018 22:31	WG1183157	
1,2-Dichlorobenzene	U		0.00164	0.00565	1	10/19/2018 22:31	WG1183157	
1,3-Dichlorobenzene	U		0.00192	0.00565	1	10/19/2018 22:31	WG1183157	
1,4-Dichlorobenzene	U		0.00223	0.00565	1	10/19/2018 22:31	WG1183157	
Dichlorodifluoromethane	U		0.000925	0.00283	1	10/19/2018 22:31	WG1183157	JC 11/16/18
1,1-Dichloroethane	U		0.000650	0.00283	1	10/19/2018 22:31	WG1183157	
1,2-Dichloroethane	U		0.000537	0.00283	1	10/19/2018 22:31	WG1183157	
1,1-Dichloroethene	U		0.000565	0.00283	1	10/19/2018 22:31	WG1183157	
cis-1,2-Dichloroethene	0.0366		0.000780	0.00283	1	10/19/2018 22:31	WG1183157	
trans-1,2-Dichloroethene	U		0.00162	0.00565	1	10/19/2018 22:31	WG1183157	
1,2-Dichloropropane	U		0.0574	0.226	40	10/22/2018 20:44	WG1184604	
1,1-Dichloropropene	U		0.000791	0.00283	1	10/19/2018 22:31	WG1183157	
1,3-Dichloropropane	U		0.00198	0.00565	1	10/19/2018 22:31	WG1183157	
cis-1,3-Dichloropropene	U		0.000767	0.00283	1	10/19/2018 22:31	WG1183157	
trans-1,3-Dichloropropene	U		0.00173	0.00565	1	10/19/2018 22:31	WG1183157	
trans-1,4-Dichloro-2-butene	U		0.00158	0.00565	1	10/19/2018 22:31	WG1183157	
2,2-Dichloropropane	U		0.000897	0.00283	1	10/19/2018 22:31	WG1183157	
Di-isopropyl ether	U		0.000396	0.00113	1	10/19/2018 22:31	WG1183157	
Ethylbenzene	U		0.000599	0.00283	1	10/19/2018 22:31	WG1183157	
Hexachloro-1,3-butadiene	U	UJ J0	0.0144	0.0283	1	10/19/2018 22:31	WG1183157	
2-Hexanone	U		0.0113	0.0283	1	10/19/2018 22:31	WG1183157	
n-Hexane	U		0.00120	0.00565	1	10/19/2018 22:31	WG1183157	
Iodomethane	U		0.00684	0.0141	1	10/19/2018 22:31	WG1183157	
Isopropylbenzene	U		0.000976	0.00283	1	10/19/2018 22:31	WG1183157	
p-Isopropyltoluene	U		0.00263	0.00565	1	10/19/2018 22:31	WG1183157	
2-Butanone (MEK)	U	UJ J0	0.565	1.13	40	10/22/2018 20:44	WG1184604	
Methylene Chloride	U		0.00751	0.0283	1	10/19/2018 22:31	WG1183157	
4-Methyl-2-pentanone (MIBK)	U		0.0113	0.0283	1	10/19/2018 22:31	WG1183157	

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000334	0.00113	1	10/19/2018 22:31	WG1183157
Naphthalene	U		0.00353	0.0141	1	10/19/2018 22:31	WG1183157
n-Propylbenzene	U		0.00133	0.00565	1	10/19/2018 22:31	WG1183157
Styrene	U	UJ J0	0.00309	0.0141	1	10/19/2018 22:31	WG1183157
1,1,1,2-Tetrachloroethane	U		0.000565	0.00283	1	10/19/2018 22:31	WG1183157
1,1,2,2-Tetrachloroethane	U		0.000441	0.00283	1	10/19/2018 22:31	WG1183157
1,1,2-Trichlorotrifluoroethane	U		0.000763	0.00283	1	10/19/2018 22:31	WG1183157
Tetrachloroethene	12.0		0.0317	0.113	40	10/22/2018 20:44	WG1184604
Toluene	U		0.00141	0.00565	1	10/19/2018 22:31	WG1183157
1,2,3-Trichlorobenzene	U		0.000707	0.00283	1	10/19/2018 22:31	WG1183157
1,2,4-Trichlorobenzene	U		0.00545	0.0141	1	10/19/2018 22:31	WG1183157
1,1,1-Trichloroethane	U		0.000311	0.00283	1	10/19/2018 22:31	WG1183157
1,1,2-Trichloroethane	U		0.0399	0.113	40	10/22/2018 20:44	WG1184604
Trichloroethene	0.102		0.000452	0.00113	1	10/19/2018 22:31	WG1183157
Trichlorofluoromethane	U		0.000565	0.00283	1	10/19/2018 22:31	WG1183157
1,2,3-Trichloropropane	U		0.00577	0.0141	1	10/19/2018 22:31	WG1183157
1,2,4-Trimethylbenzene	U		0.00131	0.00565	1	10/19/2018 22:31	WG1183157
1,2,3-Trimethylbenzene	U		0.00130	0.00565	1	10/19/2018 22:31	WG1183157
1,3,5-Trimethylbenzene	U		0.00122	0.00565	1	10/19/2018 22:31	WG1183157
Vinyl acetate	U		0.00398	0.0141	1	10/19/2018 22:31	WG1183157
Vinyl chloride	U		0.000772	0.00283	1	10/19/2018 22:31	WG1183157
Xylenes, Total	U		0.00540	0.00735	1	10/19/2018 22:31	WG1183157
(S) Toluene-d8	*123*			*75.0-131*		*10/19/2018 22:31*	WG1183157
(S) Toluene-d8	*99.0*			*75.0-131*		*10/22/2018 20:44*	WG1184604
(S) Dibromofluoromethane	*95.3*			*65.0-129*		*10/19/2018 22:31*	WG1183157
(S) Dibromofluoromethane	*116*			*65.0-129*		*10/22/2018 20:44*	WG1184604
(S) 4-Bromofluorobenzene	*94.3*			*67.0-138*		*10/19/2018 22:31*	WG1183157
(S) 4-Bromofluorobenzene	*120*			*67.0-138*		*10/22/2018 20:44*	WG1184604

Sample Narrative:

L1034970-15 WG1183157, WG1184604: Not all compounds reportable at lower dilution.

L1034970-15 WG1183157, WG1184604: Cannot be re-analyzed at a lower dilution due to high levels of target analytes.

JC 11/16/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	85.4		1	10/19/2018 13:51	WG1183343

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

Analyte	Result (dry)		Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg			mg/kg	mg/kg		date / time	
Acetone	0.0178	U	J	0.0160	0.0293	1	10/19/2018 22:52	WG1183157
Acrylonitrile	U			0.00222	0.0146	1	10/19/2018 22:52	WG1183157
Benzene	U			0.000468	0.00117	1	10/19/2018 22:52	WG1183157
Bromobenzene	U			0.00123	0.0146	1	10/19/2018 22:52	WG1183157
Bromodichloromethane	U			0.000923	0.00293	1	10/19/2018 22:52	WG1183157
Bromochloromethane	U			0.00132	0.00586	1	10/19/2018 22:52	WG1183157
Bromoform	U	UJ	J0	0.00700	0.0293	1	10/19/2018 22:52	WG1183157
Bromomethane	U			0.00433	0.0146	1	10/19/2018 22:52	WG1183157
n-Butylbenzene	U			0.00450	0.0146	1	10/19/2018 22:52	WG1183157
sec-Butylbenzene	U			0.00296	0.0146	1	10/19/2018 22:52	WG1183157
tert-Butylbenzene	U			0.00182	0.00586	1	10/19/2018 22:52	WG1183157
Carbon disulfide	U	UJ	J0	0.00475	0.0146	1	10/19/2018 22:52	WG1183157
Carbon tetrachloride	U			0.00126	0.00586	1	10/19/2018 22:52	WG1183157
Chlorobenzene	U			0.000671	0.00293	1	10/19/2018 22:52	WG1183157
Chlorodibromomethane	U			0.000527	0.00293	1	10/19/2018 22:52	WG1183157
Chloroethane	U			0.00126	0.00586	1	10/19/2018 22:52	WG1183157
Chloroform	0.000952	U	B J	0.000486	0.00293	1	10/19/2018 22:52	WG1183157
Chloromethane	U			0.00163	0.0146	1	10/19/2018 22:52	WG1183157
2-Chlorotoluene	U			0.00108	0.00293	1	10/19/2018 22:52	WG1183157
4-Chlorotoluene	U			0.00132	0.00586	1	10/19/2018 22:52	WG1183157
1,2-Dibromo-3-Chloropropane	U	UJ	J0	0.00597	0.0293	1	10/19/2018 22:52	WG1183157
1,2-Dibromoethane	U			0.000615	0.00293	1	10/19/2018 22:52	WG1183157
Dibromomethane	U			0.00117	0.00586	1	10/19/2018 22:52	WG1183157
1,2-Dichlorobenzene	U			0.00170	0.00586	1	10/19/2018 22:52	WG1183157
1,3-Dichlorobenzene	U			0.00199	0.00586	1	10/19/2018 22:52	WG1183157
1,4-Dichlorobenzene	U			0.00231	0.00586	1	10/19/2018 22:52	WG1183157
Dichlorodifluoromethane	U			0.000958	0.00293	1	10/19/2018 22:52	WG1183157
1,1-Dichloroethane	U			0.000673	0.00293	1	10/19/2018 22:52	WG1183157
1,2-Dichloroethane	U			0.000556	0.00293	1	10/19/2018 22:52	WG1183157
1,1-Dichloroethene	U			0.000586	0.00293	1	10/19/2018 22:52	WG1183157
cis-1,2-Dichloroethene	0.0474			0.000808	0.00293	1	10/19/2018 22:52	WG1183157
trans-1,2-Dichloroethene	U			0.00167	0.00586	1	10/19/2018 22:52	WG1183157
1,2-Dichloropropane	U			0.0595	0.234	40	10/22/2018 21:03	WG1184604
1,1-Dichloropropene	U			0.000820	0.00293	1	10/19/2018 22:52	WG1183157
1,3-Dichloropropane	U			0.00205	0.00586	1	10/19/2018 22:52	WG1183157
cis-1,3-Dichloropropene	U			0.000794	0.00293	1	10/19/2018 22:52	WG1183157
trans-1,3-Dichloropropene	U			0.00179	0.00586	1	10/19/2018 22:52	WG1183157
trans-1,4-Dichloro-2-butene	U			0.00164	0.00586	1	10/19/2018 22:52	WG1183157
2,2-Dichloropropane	U			0.000929	0.00293	1	10/19/2018 22:52	WG1183157
Di-isopropyl ether	U			0.000410	0.00117	1	10/19/2018 22:52	WG1183157
Ethylbenzene	U			0.000621	0.00293	1	10/19/2018 22:52	WG1183157
Hexachloro-1,3-butadiene	U	UJ	J0	0.0149	0.0293	1	10/19/2018 22:52	WG1183157
2-Hexanone	U			0.0117	0.0293	1	10/19/2018 22:52	WG1183157
n-Hexane	U			0.00124	0.00586	1	10/19/2018 22:52	WG1183157
Iodomethane	U			0.00708	0.0146	1	10/19/2018 22:52	WG1183157
Isopropylbenzene	U			0.00101	0.00293	1	10/19/2018 22:52	WG1183157
p-Isopropyltoluene	U			0.00273	0.00586	1	10/19/2018 22:52	WG1183157
2-Butanone (MEK)	U	UJ	J0	0.586	1.17	40	10/22/2018 21:03	WG1184604
Methylene Chloride	U			0.00778	0.0293	1	10/19/2018 22:52	WG1183157
4-Methyl-2-pentanone (MIBK)	U			0.0117	0.0293	1	10/19/2018 22:52	WG1183157

JC 11/16/18

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000345	0.00117	1	10/19/2018 22:52	WG1183157
Naphthalene	U		0.00365	0.0146	1	10/19/2018 22:52	WG1183157
n-Propylbenzene	U		0.00138	0.00586	1	10/19/2018 22:52	WG1183157
Styrene	U	UJ J0	0.00320	0.0146	1	10/19/2018 22:52	WG1183157
1,1,1,2-Tetrachloroethane	U		0.000586	0.00293	1	10/19/2018 22:52	WG1183157
1,1,2,2-Tetrachloroethane	U		0.000457	0.00293	1	10/19/2018 22:52	WG1183157
1,1,2-Trichlorotrifluoroethane	U		0.000790	0.00293	1	10/19/2018 22:52	WG1183157
Tetrachloroethene	6.66		0.0328	0.117	40	10/22/2018 21:03	WG1184604
Toluene	U		0.00146	0.00586	1	10/19/2018 22:52	WG1183157
1,2,3-Trichlorobenzene	U		0.000732	0.00293	1	10/19/2018 22:52	WG1183157
1,2,4-Trichlorobenzene	U		0.00564	0.0146	1	10/19/2018 22:52	WG1183157
1,1,1-Trichloroethane	U		0.000322	0.00293	1	10/19/2018 22:52	WG1183157
1,1,2-Trichloroethane	U		0.0413	0.117	40	10/22/2018 21:03	WG1184604
Trichloroethene	0.154		0.000468	0.00117	1	10/19/2018 22:52	WG1183157
Trichlorofluoromethane	U		0.000586	0.00293	1	10/19/2018 22:52	WG1183157
1,2,3-Trichloropropane	U		0.00597	0.0146	1	10/19/2018 22:52	WG1183157
1,2,4-Trimethylbenzene	U		0.00136	0.00586	1	10/19/2018 22:52	WG1183157
1,2,3-Trimethylbenzene	U		0.00135	0.00586	1	10/19/2018 22:52	WG1183157
1,3,5-Trimethylbenzene	U		0.00126	0.00586	1	10/19/2018 22:52	WG1183157
Vinyl acetate	U		0.00412	0.0146	1	10/19/2018 22:52	WG1183157
Vinyl chloride	U		0.000800	0.00293	1	10/19/2018 22:52	WG1183157
Xylenes, Total	U		0.00560	0.00761	1	10/19/2018 22:52	WG1183157
(S) Toluene-d8	*122*			*75.0-131*		*10/19/2018 22:52*	WG1183157
(S) Toluene-d8	*97.4*			*75.0-131*		*10/22/2018 21:03*	WG1184604
(S) Dibromofluoromethane	*94.6*			*65.0-129*		*10/19/2018 22:52*	WG1183157
(S) Dibromofluoromethane	*117*			*65.0-129*		*10/22/2018 21:03*	WG1184604
(S) 4-Bromofluorobenzene	*92.7*			*67.0-138*		*10/19/2018 22:52*	WG1183157
(S) 4-Bromofluorobenzene	*128*			*67.0-138*		*10/22/2018 21:03*	WG1184604

Sample Narrative:

L1034970-16 WG1183157, WG1184604: Not all compounds reportable at lower dilution.

L1034970-16 WG1183157, WG1184604: Cannot be re-analyzed at a lower dilution due to high levels of target analytes.

JC 11/16/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	87.1		1	10/16/2018 14:25	WG1181703

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		13.1	23.8	830	10/17/2018 13:52	WG1182096
Acrylonitrile	U		0.00218	0.0144	1	10/16/2018 19:40	WG1181654
Benzene	U		0.000459	0.00115	1	10/16/2018 19:40	WG1181654
Bromobenzene	U		0.00121	0.0144	1	10/16/2018 19:40	WG1181654
Bromodichloromethane	U		0.000905	0.00287	1	10/16/2018 19:40	WG1181654
Bromochloromethane	U		0.00130	0.00574	1	10/16/2018 19:40	WG1181654
Bromoform	U		0.00687	0.0287	1	10/16/2018 19:40	WG1181654
Bromomethane	U		0.00425	0.0144	1	10/16/2018 19:40	WG1181654
n-Butylbenzene	U		0.00441	0.0144	1	10/16/2018 19:40	WG1181654
sec-Butylbenzene	U		0.00291	0.0144	1	10/16/2018 19:40	WG1181654
tert-Butylbenzene	U		0.00178	0.00574	1	10/16/2018 19:40	WG1181654
Carbon disulfide	U		0.00466	0.0144	1	10/16/2018 19:40	WG1181654
Carbon tetrachloride	U		0.00124	0.00574	1	10/16/2018 19:40	WG1181654
Chlorobenzene	U		0.000658	0.00287	1	10/16/2018 19:40	WG1181654
Chlorodibromomethane	U		0.000517	0.00287	1	10/16/2018 19:40	WG1181654
Chloroethane	U		0.00124	0.00574	1	10/16/2018 19:40	WG1181654
Chloroform	0.000767	U B J	0.000477	0.00287	1	10/16/2018 19:40	WG1181654
Chloromethane	U		0.00160	0.0144	1	10/16/2018 19:40	WG1181654
2-Chlorotoluene	U		0.00106	0.00287	1	10/16/2018 19:40	WG1181654
4-Chlorotoluene	U		0.00130	0.00574	1	10/16/2018 19:40	WG1181654
1,2-Dibromo-3-Chloropropane	U		0.00586	0.0287	1	10/16/2018 19:40	WG1181654
1,2-Dibromoethane	U		0.000603	0.00287	1	10/16/2018 19:40	WG1181654
Dibromomethane	U	U J4	0.00115	0.00574	1	10/16/2018 19:40	WG1181654
1,2-Dichlorobenzene	U		0.00167	0.00574	1	10/16/2018 19:40	WG1181654
1,3-Dichlorobenzene	U		0.00195	0.00574	1	10/16/2018 19:40	WG1181654
1,4-Dichlorobenzene	U		0.00226	0.00574	1	10/16/2018 19:40	WG1181654
Dichlorodifluoromethane	U		0.000940	0.00287	1	10/16/2018 19:40	WG1181654
1,1-Dichloroethane	U		0.000660	0.00287	1	10/16/2018 19:40	WG1181654
1,2-Dichloroethane	U		0.000546	0.00287	1	10/16/2018 19:40	WG1181654
1,1-Dichloroethene	U		0.000574	0.00287	1	10/16/2018 19:40	WG1181654
cis-1,2-Dichloroethene	0.191		0.000793	0.00287	1	10/16/2018 19:40	WG1181654
trans-1,2-Dichloroethene	U		0.00164	0.00574	1	10/16/2018 19:40	WG1181654
1,2-Dichloropropane	U		0.00146	0.00574	1	10/16/2018 19:40	WG1181654
1,1-Dichloropropene	U		0.000804	0.00287	1	10/16/2018 19:40	WG1181654
1,3-Dichloropropane	U		0.00201	0.00574	1	10/16/2018 19:40	WG1181654
cis-1,3-Dichloropropene	U		0.000779	0.00287	1	10/16/2018 19:40	WG1181654
trans-1,3-Dichloropropene	U		0.00176	0.00574	1	10/16/2018 19:40	WG1181654
trans-1,4-Dichloro-2-butene	U		0.00161	0.00574	1	10/16/2018 19:40	WG1181654
2,2-Dichloropropane	U		0.000911	0.00287	1	10/16/2018 19:40	WG1181654
Di-isopropyl ether	U		0.000402	0.00115	1	10/16/2018 19:40	WG1181654
Ethylbenzene	U		0.000609	0.00287	1	10/16/2018 19:40	WG1181654
Hexachloro-1,3-butadiene	U		0.0146	0.0287	1	10/16/2018 19:40	WG1181654
2-Hexanone	U		0.0115	0.0287	1	10/16/2018 19:40	WG1181654
n-Hexane	0.00180	J J	0.00122	0.00574	1	10/16/2018 19:40	WG1181654
Iodomethane	U		0.00695	0.0144	1	10/16/2018 19:40	WG1181654
Isopropylbenzene	U		0.000991	0.00287	1	10/16/2018 19:40	WG1181654
p-Isopropyltoluene	U		0.00268	0.00574	1	10/16/2018 19:40	WG1181654
2-Butanone (MEK)	U		0.0144	0.0287	1	10/16/2018 19:40	WG1181654
Methylene Chloride	U		0.00763	0.0287	1	10/16/2018 19:40	WG1181654
4-Methyl-2-pentanone (MIBK)	U		0.0115	0.0287	1	10/16/2018 19:40	WG1181654

JC 11/16/18

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

Analyte	Result (dry) mg/kg		Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U	UJ	J0	0.000339	0.00115	1	10/16/2018 19:40	WG1181654
Naphthalene	U			0.00358	0.0144	1	10/16/2018 19:40	WG1181654
n-Propylbenzene	U			0.00136	0.00574	1	10/16/2018 19:40	WG1181654
Styrene	U			0.00314	0.0144	1	10/16/2018 19:40	WG1181654
1,1,1,2-Tetrachloroethane	U			0.000574	0.00287	1	10/16/2018 19:40	WG1181654
1,1,2,2-Tetrachloroethane	U	U	J4	0.000448	0.00287	1	10/16/2018 19:40	WG1181654
1,1,2-Trichlorotrifluoroethane	U			0.000775	0.00287	1	10/16/2018 19:40	WG1181654
Tetrachloroethene	6.09			0.667	2.38	830	10/17/2018 13:52	WG1182096
Toluene	U			0.00144	0.00574	1	10/16/2018 19:40	WG1181654
1,2,3-Trichlorobenzene	U			0.000718	0.00287	1	10/16/2018 19:40	WG1181654
1,2,4-Trichlorobenzene	U			0.00554	0.0144	1	10/16/2018 19:40	WG1181654
1,1,1-Trichloroethane	U			0.000316	0.00287	1	10/16/2018 19:40	WG1181654
1,1,2-Trichloroethane	U	U	J4	0.00101	0.00287	1	10/16/2018 19:40	WG1181654
Trichloroethene	0.512			0.000459	0.00115	1	10/16/2018 19:40	WG1181654
Trichlorofluoromethane	U			0.000574	0.00287	1	10/16/2018 19:40	WG1181654
1,2,3-Trichloropropane	U			0.00586	0.0144	1	10/16/2018 19:40	WG1181654
1,2,4-Trimethylbenzene	U			0.00133	0.00574	1	10/16/2018 19:40	WG1181654
1,2,3-Trimethylbenzene	U			0.00132	0.00574	1	10/16/2018 19:40	WG1181654
1,3,5-Trimethylbenzene	U			0.00124	0.00574	1	10/16/2018 19:40	WG1181654
Vinyl acetate	U			0.00404	0.0144	1	10/16/2018 19:40	WG1181654
Vinyl chloride	U			0.000785	0.00287	1	10/16/2018 19:40	WG1181654
Xylenes, Total	U			0.00549	0.00747	1	10/16/2018 19:40	WG1181654
(S) Toluene-d8	*119*				*75.0-131*		*10/16/2018 19:40*	WG1181654
(S) Toluene-d8	*99.1*				*75.0-131*		*10/17/2018 13:52*	WG1182096
(S) Dibromofluoromethane	*74.6*				*65.0-129*		*10/16/2018 19:40*	WG1181654
(S) Dibromofluoromethane	*120*				*65.0-129*		*10/17/2018 13:52*	WG1182096
(S) 4-Bromofluorobenzene	*98.7*				*67.0-138*		*10/16/2018 19:40*	WG1181654
(S) 4-Bromofluorobenzene	*118*				*67.0-138*		*10/17/2018 13:52*	WG1182096

JC 11/16/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	95.7		1	10/19/2018 13:51	WG1183343

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0143	0.0261	1	10/19/2018 23:12	WG1183157
Acrylonitrile	U		0.00199	0.0131	1	10/19/2018 23:12	WG1183157
Benzene	U		0.000418	0.00104	1	10/19/2018 23:12	WG1183157
Bromobenzene	U		0.00110	0.0131	1	10/19/2018 23:12	WG1183157
Bromodichloromethane	U		0.000823	0.00261	1	10/19/2018 23:12	WG1183157
Bromochloromethane	U		0.00118	0.00522	1	10/19/2018 23:12	WG1183157
Bromoform	U UJ	J0	0.00625	0.0261	1	10/19/2018 23:12	WG1183157
Bromomethane	U		0.00387	0.0131	1	10/19/2018 23:12	WG1183157
n-Butylbenzene	U		0.00401	0.0131	1	10/19/2018 23:12	WG1183157
sec-Butylbenzene	U		0.00264	0.0131	1	10/19/2018 23:12	WG1183157
tert-Butylbenzene	U		0.00162	0.00522	1	10/19/2018 23:12	WG1183157
Carbon disulfide	U UJ	J0	0.00424	0.0131	1	10/19/2018 23:12	WG1183157
Carbon tetrachloride	U		0.00113	0.00522	1	10/19/2018 23:12	WG1183157
Chlorobenzene	U		0.000599	0.00261	1	10/19/2018 23:12	WG1183157
Chlorodibromomethane	U		0.000470	0.00261	1	10/19/2018 23:12	WG1183157
Chloroethane	U		0.00113	0.00522	1	10/19/2018 23:12	WG1183157
Chloroform	0.000887 U	B J	0.000434	0.00261	1	10/19/2018 23:12	WG1183157
Chloromethane	U		0.00145	0.0131	1	10/19/2018 23:12	WG1183157
2-Chlorotoluene	U		0.000961	0.00261	1	10/19/2018 23:12	WG1183157
4-Chlorotoluene	U		0.00118	0.00522	1	10/19/2018 23:12	WG1183157
1,2-Dibromo-3-Chloropropane	U UJ	J0	0.00533	0.0261	1	10/19/2018 23:12	WG1183157
1,2-Dibromoethane	U		0.000549	0.00261	1	10/19/2018 23:12	WG1183157
Dibromomethane	U		0.00104	0.00522	1	10/19/2018 23:12	WG1183157
1,2-Dichlorobenzene	U		0.00151	0.00522	1	10/19/2018 23:12	WG1183157
1,3-Dichlorobenzene	U		0.00178	0.00522	1	10/19/2018 23:12	WG1183157
1,4-Dichlorobenzene	U		0.00206	0.00522	1	10/19/2018 23:12	WG1183157
Dichlorodifluoromethane	U		0.000855	0.00261	1	10/19/2018 23:12	WG1183157
1,1-Dichloroethane	U		0.000601	0.00261	1	10/19/2018 23:12	WG1183157
1,2-Dichloroethane	U		0.000496	0.00261	1	10/19/2018 23:12	WG1183157
1,1-Dichloroethene	U		0.000522	0.00261	1	10/19/2018 23:12	WG1183157
cis-1,2-Dichloroethene	0.0146		0.000721	0.00261	1	10/19/2018 23:12	WG1183157
trans-1,2-Dichloroethene	U		0.00149	0.00522	1	10/19/2018 23:12	WG1183157
1,2-Dichloropropane	U		0.00133	0.00522	1	10/22/2018 16:44	WG1184604
1,1-Dichloropropene	U		0.000731	0.00261	1	10/19/2018 23:12	WG1183157
1,3-Dichloropropane	U		0.00183	0.00522	1	10/19/2018 23:12	WG1183157
cis-1,3-Dichloropropene	U		0.000708	0.00261	1	10/19/2018 23:12	WG1183157
trans-1,3-Dichloropropene	U		0.00160	0.00522	1	10/19/2018 23:12	WG1183157
trans-1,4-Dichloro-2-butene	U		0.00146	0.00522	1	10/19/2018 23:12	WG1183157
2,2-Dichloropropane	U		0.000829	0.00261	1	10/19/2018 23:12	WG1183157
Di-isopropyl ether	U		0.000366	0.00104	1	10/19/2018 23:12	WG1183157
Ethylbenzene	U		0.000554	0.00261	1	10/19/2018 23:12	WG1183157
Hexachloro-1,3-butadiene	U UJ	J0	0.0133	0.0261	1	10/19/2018 23:12	WG1183157
2-Hexanone	U		0.0104	0.0261	1	10/19/2018 23:12	WG1183157
n-Hexane	0.00228 J	J	0.00111	0.00522	1	10/19/2018 23:12	WG1183157
Iodomethane	U		0.00632	0.0131	1	10/19/2018 23:12	WG1183157
Isopropylbenzene	U		0.000902	0.00261	1	10/19/2018 23:12	WG1183157
p-Isopropyltoluene	U		0.00243	0.00522	1	10/19/2018 23:12	WG1183157
2-Butanone (MEK)	0.0516 J	J0	0.0131	0.0261	1	10/22/2018 16:44	WG1184604
Methylene Chloride	0.00853 U	B J	0.00694	0.0261	1	10/19/2018 23:12	WG1183157
4-Methyl-2-pentanone (MIBK)	U		0.0104	0.0261	1	10/19/2018 23:12	WG1183157

JC 11/16/18

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000308	0.00104	1	10/19/2018 23:12	WG1183157
Naphthalene	U		0.00326	0.0131	1	10/19/2018 23:12	WG1183157
n-Propylbenzene	U		0.00123	0.00522	1	10/19/2018 23:12	WG1183157
Styrene	U	UJ J0	0.00285	0.0131	1	10/19/2018 23:12	WG1183157
1,1,1,2-Tetrachloroethane	U		0.000522	0.00261	1	10/19/2018 23:12	WG1183157
1,1,2,2-Tetrachloroethane	U		0.000407	0.00261	1	10/19/2018 23:12	WG1183157
1,1,2-Trichlorotrifluoroethane	U		0.000705	0.00261	1	10/19/2018 23:12	WG1183157
Tetrachloroethene	0.306		0.000731	0.00261	1	10/19/2018 23:12	WG1183157
Toluene	U		0.00131	0.00522	1	10/19/2018 23:12	WG1183157
1,2,3-Trichlorobenzene	U		0.000653	0.00261	1	10/19/2018 23:12	WG1183157
1,2,4-Trichlorobenzene	U		0.00504	0.0131	1	10/19/2018 23:12	WG1183157
1,1,1-Trichloroethane	U		0.000287	0.00261	1	10/19/2018 23:12	WG1183157
1,1,2-Trichloroethane	U		0.000923	0.00261	1	10/22/2018 16:44	WG1184604
Trichloroethene	0.0201		0.000418	0.00104	1	10/19/2018 23:12	WG1183157
Trichlorofluoromethane	U		0.000522	0.00261	1	10/19/2018 23:12	WG1183157
1,2,3-Trichloropropane	U		0.00533	0.0131	1	10/19/2018 23:12	WG1183157
1,2,4-Trimethylbenzene	U		0.00121	0.00522	1	10/19/2018 23:12	WG1183157
1,2,3-Trimethylbenzene	U		0.00120	0.00522	1	10/19/2018 23:12	WG1183157
1,3,5-Trimethylbenzene	U		0.00113	0.00522	1	10/19/2018 23:12	WG1183157
Vinyl acetate	U		0.00368	0.0131	1	10/19/2018 23:12	WG1183157
Vinyl chloride	U		0.000714	0.00261	1	10/19/2018 23:12	WG1183157
Xylenes, Total	U		0.00499	0.00679	1	10/19/2018 23:12	WG1183157
(S) Toluene-d8	*126*			*75.0-131*		*10/19/2018 23:12*	WG1183157
(S) Toluene-d8	*99.9*			*75.0-131*		*10/22/2018 16:44*	WG1184604
(S) Dibromofluoromethane	*93.5*			*65.0-129*		*10/19/2018 23:12*	WG1183157
(S) Dibromofluoromethane	*113*			*65.0-129*		*10/22/2018 16:44*	WG1184604
(S) 4-Bromofluorobenzene	*91.7*			*67.0-138*		*10/19/2018 23:12*	WG1183157
(S) 4-Bromofluorobenzene	*119*			*67.0-138*		*10/22/2018 16:44*	WG1184604

JC 11/16/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	90.2		1	10/22/2018 09:45	WG1183344

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0152	0.0277	1	10/19/2018 23:33	WG1183157
Acrylonitrile	U		0.00211	0.0139	1	10/19/2018 23:33	WG1183157
Benzene	U		0.000443	0.00111	1	10/19/2018 23:33	WG1183157
Bromobenzene	U		0.00116	0.0139	1	10/19/2018 23:33	WG1183157
Bromodichloromethane	U		0.000874	0.00277	1	10/19/2018 23:33	WG1183157
Bromochloromethane	U		0.00125	0.00554	1	10/19/2018 23:33	WG1183157
Bromoform	U	UJ J0	0.00663	0.0277	1	10/19/2018 23:33	WG1183157
Bromomethane	U		0.00410	0.0139	1	10/19/2018 23:33	WG1183157
n-Butylbenzene	U		0.00426	0.0139	1	10/19/2018 23:33	WG1183157
sec-Butylbenzene	U		0.00281	0.0139	1	10/19/2018 23:33	WG1183157
tert-Butylbenzene	U		0.00172	0.00554	1	10/19/2018 23:33	WG1183157
Carbon disulfide	U	UJ J0	0.00450	0.0139	1	10/19/2018 23:33	WG1183157
Carbon tetrachloride	U		0.00120	0.00554	1	10/19/2018 23:33	WG1183157
Chlorobenzene	U		0.000635	0.00277	1	10/19/2018 23:33	WG1183157
Chlorodibromomethane	U		0.000499	0.00277	1	10/19/2018 23:33	WG1183157
Chloroethane	U		0.00120	0.00554	1	10/19/2018 23:33	WG1183157
Chloroform	0.000808	U B J	0.000460	0.00277	1	10/19/2018 23:33	WG1183157
Chloromethane	U		0.00154	0.0139	1	10/19/2018 23:33	WG1183157
2-Chlorotoluene	U		0.00102	0.00277	1	10/19/2018 23:33	WG1183157
4-Chlorotoluene	U		0.00125	0.00554	1	10/19/2018 23:33	WG1183157
1,2-Dibromo-3-Chloropropane	U	UJ J0	0.00565	0.0277	1	10/19/2018 23:33	WG1183157
1,2-Dibromoethane	U		0.000582	0.00277	1	10/19/2018 23:33	WG1183157
Dibromomethane	U		0.00111	0.00554	1	10/19/2018 23:33	WG1183157
1,2-Dichlorobenzene	U		0.00161	0.00554	1	10/19/2018 23:33	WG1183157
1,3-Dichlorobenzene	U		0.00188	0.00554	1	10/19/2018 23:33	WG1183157
1,4-Dichlorobenzene	U		0.00218	0.00554	1	10/19/2018 23:33	WG1183157
Dichlorodifluoromethane	U		0.000907	0.00277	1	10/19/2018 23:33	WG1183157
1,1-Dichloroethane	U		0.000638	0.00277	1	10/19/2018 23:33	WG1183157
1,2-Dichloroethane	U		0.000527	0.00277	1	10/19/2018 23:33	WG1183157
1,1-Dichloroethene	U		0.000554	0.00277	1	10/19/2018 23:33	WG1183157
cis-1,2-Dichloroethene	0.0600		0.000765	0.00277	1	10/19/2018 23:33	WG1183157
trans-1,2-Dichloroethene	U		0.00159	0.00554	1	10/19/2018 23:33	WG1183157
1,2-Dichloropropane	U		0.00141	0.00554	1	10/22/2018 17:04	WG1184604
1,1-Dichloropropene	U		0.000776	0.00277	1	10/19/2018 23:33	WG1183157
1,3-Dichloropropane	U		0.00194	0.00554	1	10/19/2018 23:33	WG1183157
cis-1,3-Dichloropropene	U		0.000752	0.00277	1	10/19/2018 23:33	WG1183157
trans-1,3-Dichloropropene	U		0.00170	0.00554	1	10/19/2018 23:33	WG1183157
trans-1,4-Dichloro-2-butene	U		0.00155	0.00554	1	10/19/2018 23:33	WG1183157
2,2-Dichloropropane	U		0.000879	0.00277	1	10/19/2018 23:33	WG1183157
Di-isopropyl ether	U		0.000388	0.00111	1	10/19/2018 23:33	WG1183157
Ethylbenzene	U		0.000588	0.00277	1	10/19/2018 23:33	WG1183157
Hexachloro-1,3-butadiene	U	UJ J0	0.0141	0.0277	1	10/19/2018 23:33	WG1183157
2-Hexanone	U		0.0111	0.0277	1	10/19/2018 23:33	WG1183157
n-Hexane	0.00177	J J	0.00118	0.00554	1	10/19/2018 23:33	WG1183157
Iodomethane	U		0.00671	0.0139	1	10/19/2018 23:33	WG1183157
Isopropylbenzene	U		0.000957	0.00277	1	10/19/2018 23:33	WG1183157
p-Isopropyltoluene	U		0.00258	0.00554	1	10/19/2018 23:33	WG1183157
2-Butanone (MEK)	0.0333	J J0	0.0139	0.0277	1	10/22/2018 17:04	WG1184604
Methylene Chloride	U		0.00736	0.0277	1	10/19/2018 23:33	WG1183157
4-Methyl-2-pentanone (MIBK)	U		0.0111	0.0277	1	10/19/2018 23:33	WG1183157

JC 11/16/18

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000327	0.00111	1	10/19/2018 23:33	WG1183157
Naphthalene	U		0.00346	0.0139	1	10/19/2018 23:33	WG1183157
n-Propylbenzene	U		0.00131	0.00554	1	10/19/2018 23:33	WG1183157
Styrene	U	UJ J0	0.00303	0.0139	1	10/19/2018 23:33	WG1183157
1,1,1,2-Tetrachloroethane	U		0.000554	0.00277	1	10/19/2018 23:33	WG1183157
1,1,2,2-Tetrachloroethane	U		0.000432	0.00277	1	10/19/2018 23:33	WG1183157
1,1,2-Trichlorotrifluoroethane	U		0.000748	0.00277	1	10/19/2018 23:33	WG1183157
Tetrachloroethene	0.356		0.000776	0.00277	1	10/19/2018 23:33	WG1183157
Toluene	U		0.00139	0.00554	1	10/19/2018 23:33	WG1183157
1,2,3-Trichlorobenzene	U		0.000693	0.00277	1	10/19/2018 23:33	WG1183157
1,2,4-Trichlorobenzene	U		0.00534	0.0139	1	10/19/2018 23:33	WG1183157
1,1,1-Trichloroethane	U		0.000305	0.00277	1	10/19/2018 23:33	WG1183157
1,1,2-Trichloroethane	U		0.000979	0.00277	1	10/22/2018 17:04	WG1184604
Trichloroethene	0.0503		0.000443	0.00111	1	10/19/2018 23:33	WG1183157
Trichlorofluoromethane	U		0.000554	0.00277	1	10/19/2018 23:33	WG1183157
1,2,3-Trichloropropane	U		0.00565	0.0139	1	10/19/2018 23:33	WG1183157
1,2,4-Trimethylbenzene	U		0.00129	0.00554	1	10/19/2018 23:33	WG1183157
1,2,3-Trimethylbenzene	U		0.00128	0.00554	1	10/19/2018 23:33	WG1183157
1,3,5-Trimethylbenzene	U		0.00120	0.00554	1	10/19/2018 23:33	WG1183157
Vinyl acetate	U		0.00390	0.0139	1	10/19/2018 23:33	WG1183157
Vinyl chloride	U		0.000757	0.00277	1	10/19/2018 23:33	WG1183157
Xylenes, Total	U		0.00530	0.00721	1	10/19/2018 23:33	WG1183157
(S) Toluene-d8	*125*			*75.0-131*		*10/19/2018 23:33*	WG1183157
(S) Toluene-d8	*99.4*			*75.0-131*		*10/22/2018 17:04*	WG1184604
(S) Dibromofluoromethane	*91.7*			*65.0-129*		*10/19/2018 23:33*	WG1183157
(S) Dibromofluoromethane	*113*			*65.0-129*		*10/22/2018 17:04*	WG1184604
(S) 4-Bromofluorobenzene	*96.8*			*67.0-138*		*10/19/2018 23:33*	WG1183157
(S) 4-Bromofluorobenzene	*120*			*67.0-138*		*10/22/2018 17:04*	WG1184604

JC 11/16/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	93.5		1	10/22/2018 09:45	WG1183344

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

Analyte	Result (dry)	Qualifier		MDL (dry)	RDL (dry)	Dilution	Analysis	Batch	
	mg/kg			mg/kg	mg/kg		date / time		
Acetone	U			0.0147	0.0267	1	10/19/2018 23:54	WG1183157	
Acrylonitrile	U			0.00203	0.0134	1	10/19/2018 23:54	WG1183157	
Benzene	U			0.000428	0.00107	1	10/19/2018 23:54	WG1183157	
Bromobenzene	U			0.00112	0.0134	1	10/19/2018 23:54	WG1183157	
Bromodichloromethane	U			0.000843	0.00267	1	10/19/2018 23:54	WG1183157	
Bromochloromethane	U			0.00121	0.00535	1	10/19/2018 23:54	WG1183157	
Bromoform	U	UJ	J0	0.00640	0.0267	1	10/19/2018 23:54	WG1183157	
Bromomethane	U			0.00396	0.0134	1	10/19/2018 23:54	WG1183157	
n-Butylbenzene	U			0.00411	0.0134	1	10/19/2018 23:54	WG1183157	
sec-Butylbenzene	U			0.00271	0.0134	1	10/19/2018 23:54	WG1183157	
tert-Butylbenzene	U			0.00166	0.00535	1	10/19/2018 23:54	WG1183157	
Carbon disulfide	U	UJ	J0	0.00434	0.0134	1	10/19/2018 23:54	WG1183157	
Carbon tetrachloride	U			0.00116	0.00535	1	10/19/2018 23:54	WG1183157	
Chlorobenzene	U			0.000613	0.00267	1	10/19/2018 23:54	WG1183157	
Chlorodibromomethane	U			0.000481	0.00267	1	10/19/2018 23:54	WG1183157	
Chloroethane	U			0.00116	0.00535	1	10/19/2018 23:54	WG1183157	
Chloroform	U			0.000444	0.00267	1	10/19/2018 23:54	WG1183157	
Chloromethane	U			0.00149	0.0134	1	10/19/2018 23:54	WG1183157	
2-Chlorotoluene	U			0.000984	0.00267	1	10/19/2018 23:54	WG1183157	
4-Chlorotoluene	U			0.00121	0.00535	1	10/19/2018 23:54	WG1183157	
1,2-Dibromo-3-Chloropropane	U	UJ	J0	0.00546	0.0267	1	10/19/2018 23:54	WG1183157	
1,2-Dibromoethane	U			0.000562	0.00267	1	10/19/2018 23:54	WG1183157	
Dibromomethane	U			0.00107	0.00535	1	10/19/2018 23:54	WG1183157	
1,2-Dichlorobenzene	U			0.00155	0.00535	1	10/19/2018 23:54	WG1183157	
1,3-Dichlorobenzene	U			0.00182	0.00535	1	10/19/2018 23:54	WG1183157	
1,4-Dichlorobenzene	U			0.00211	0.00535	1	10/19/2018 23:54	WG1183157	
Dichlorodifluoromethane	U			0.000875	0.00267	1	10/19/2018 23:54	WG1183157	
1,1-Dichloroethane	U			0.000615	0.00267	1	10/19/2018 23:54	WG1183157	
1,2-Dichloroethane	U			0.000508	0.00267	1	10/19/2018 23:54	WG1183157	
1,1-Dichloroethene	U			0.000535	0.00267	1	10/19/2018 23:54	WG1183157	
cis-1,2-Dichloroethene	0.0312			0.000738	0.00267	1	10/19/2018 23:54	WG1183157	
trans-1,2-Dichloroethene	U			0.00153	0.00535	1	10/19/2018 23:54	WG1183157	
1,2-Dichloropropane	U			0.00136	0.00535	1	10/22/2018 17:24	WG1184604	
1,1-Dichloropropene	U			0.000749	0.00267	1	10/19/2018 23:54	WG1183157	
1,3-Dichloropropane	U			0.00187	0.00535	1	10/19/2018 23:54	WG1183157	
cis-1,3-Dichloropropene	U			0.000725	0.00267	1	10/19/2018 23:54	WG1183157	
trans-1,3-Dichloropropene	U			0.00164	0.00535	1	10/19/2018 23:54	WG1183157	
trans-1,4-Dichloro-2-butene	U			0.00150	0.00535	1	10/19/2018 23:54	WG1183157	
2,2-Dichloropropane	U			0.000848	0.00267	1	10/19/2018 23:54	WG1183157	
Di-isopropyl ether	U			0.000374	0.00107	1	10/19/2018 23:54	WG1183157	
Ethylbenzene	U			0.000567	0.00267	1	10/19/2018 23:54	WG1183157	
Hexachloro-1,3-butadiene	U	UJ	J0	0.0136	0.0267	1	10/19/2018 23:54	WG1183157	
2-Hexanone	U			0.0107	0.0267	1	10/19/2018 23:54	WG1183157	
n-Hexane	U			0.00113	0.00535	1	10/19/2018 23:54	WG1183157	
Iodomethane	U			0.00647	0.0134	1	10/19/2018 23:54	WG1183157	
Isopropylbenzene	U			0.000923	0.00267	1	10/19/2018 23:54	WG1183157	
p-Isopropyltoluene	U			0.00249	0.00535	1	10/19/2018 23:54	WG1183157	
2-Butanone (MEK)	0.0507	UJ	J0	0.0134	0.0267	1	10/22/2018 17:24	WG1184604	
Methylene Chloride	U			0.00710	0.0267	1	10/19/2018 23:54	WG1183157	
4-Methyl-2-pentanone (MIBK)	U			0.0107	0.0267	1	10/19/2018 23:54	WG1183157	JC 11/16/18

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000316	0.00107	1	10/19/2018 23:54	WG1183157
Naphthalene	U		0.00334	0.0134	1	10/19/2018 23:54	WG1183157
n-Propylbenzene	U		0.00126	0.00535	1	10/19/2018 23:54	WG1183157
Styrene	U	UJ J0	0.00292	0.0134	1	10/19/2018 23:54	WG1183157
1,1,1,2-Tetrachloroethane	U		0.000535	0.00267	1	10/19/2018 23:54	WG1183157
1,1,2,2-Tetrachloroethane	U		0.000417	0.00267	1	10/19/2018 23:54	WG1183157
1,1,2-Trichlorotrifluoroethane	U		0.000722	0.00267	1	10/19/2018 23:54	WG1183157
Tetrachloroethene	0.0783		0.000749	0.00267	1	10/19/2018 23:54	WG1183157
Toluene	U		0.00134	0.00535	1	10/19/2018 23:54	WG1183157
1,2,3-Trichlorobenzene	U		0.000669	0.00267	1	10/19/2018 23:54	WG1183157
1,2,4-Trichlorobenzene	U		0.00516	0.0134	1	10/19/2018 23:54	WG1183157
1,1,1-Trichloroethane	U		0.000294	0.00267	1	10/19/2018 23:54	WG1183157
1,1,2-Trichloroethane	U		0.000945	0.00267	1	10/22/2018 17:24	WG1184604
Trichloroethene	0.0156		0.000428	0.00107	1	10/19/2018 23:54	WG1183157
Trichlorofluoromethane	U		0.000535	0.00267	1	10/19/2018 23:54	WG1183157
1,2,3-Trichloropropane	U		0.00546	0.0134	1	10/19/2018 23:54	WG1183157
1,2,4-Trimethylbenzene	U		0.00124	0.00535	1	10/19/2018 23:54	WG1183157
1,2,3-Trimethylbenzene	U		0.00123	0.00535	1	10/19/2018 23:54	WG1183157
1,3,5-Trimethylbenzene	U		0.00116	0.00535	1	10/19/2018 23:54	WG1183157
Vinyl acetate	U		0.00377	0.0134	1	10/19/2018 23:54	WG1183157
Vinyl chloride	U		0.000731	0.00267	1	10/19/2018 23:54	WG1183157
Xylenes, Total	U		0.00511	0.00695	1	10/19/2018 23:54	WG1183157
(S) Toluene-d8	*124*			*75.0-131*		*10/19/2018 23:54*	WG1183157
(S) Toluene-d8	*100*			*75.0-131*		*10/22/2018 17:24*	WG1184604
(S) Dibromofluoromethane	*91.8*			*65.0-129*		*10/19/2018 23:54*	WG1183157
(S) Dibromofluoromethane	*112*			*65.0-129*		*10/22/2018 17:24*	WG1184604
(S) 4-Bromofluorobenzene	*93.1*			*67.0-138*		*10/19/2018 23:54*	WG1183157
(S) 4-Bromofluorobenzene	*119*			*67.0-138*		*10/22/2018 17:24*	WG1184604

JC 11/16/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	84.9		1	10/22/2018 09:45	WG1183344

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch	
	mg/kg		mg/kg	mg/kg		date / time		
Acetone	U		0.0161	0.0295	1	10/20/2018 00:14	WG1183157	
Acrylonitrile	U		0.00224	0.0147	1	10/20/2018 00:14	WG1183157	
Benzene	U		0.000471	0.00118	1	10/20/2018 00:14	WG1183157	
Bromobenzene	U		0.00124	0.0147	1	10/20/2018 00:14	WG1183157	
Bromodichloromethane	U		0.000928	0.00295	1	10/20/2018 00:14	WG1183157	
Bromochloromethane	U		0.00133	0.00589	1	10/20/2018 00:14	WG1183157	
Bromoform	U	UJ J0	0.00705	0.0295	1	10/20/2018 00:14	WG1183157	
Bromomethane	U		0.00436	0.0147	1	10/20/2018 00:14	WG1183157	
n-Butylbenzene	U		0.00452	0.0147	1	10/20/2018 00:14	WG1183157	
sec-Butylbenzene	U		0.00298	0.0147	1	10/20/2018 00:14	WG1183157	
tert-Butylbenzene	U		0.00183	0.00589	1	10/20/2018 00:14	WG1183157	
Carbon disulfide	U	UJ J0	0.00478	0.0147	1	10/20/2018 00:14	WG1183157	
Carbon tetrachloride	U		0.00127	0.00589	1	10/20/2018 00:14	WG1183157	
Chlorobenzene	U		0.000675	0.00295	1	10/20/2018 00:14	WG1183157	
Chlorodibromomethane	U		0.000530	0.00295	1	10/20/2018 00:14	WG1183157	
Chloroethane	U		0.00127	0.00589	1	10/20/2018 00:14	WG1183157	
Chloroform	0.00130	U B J	0.000489	0.00295	1	10/20/2018 00:14	WG1183157	
Chloromethane	U		0.00164	0.0147	1	10/20/2018 00:14	WG1183157	
2-Chlorotoluene	U		0.00108	0.00295	1	10/20/2018 00:14	WG1183157	
4-Chlorotoluene	U		0.00133	0.00589	1	10/20/2018 00:14	WG1183157	
1,2-Dibromo-3-Chloropropane	U	UJ J0	0.00601	0.0295	1	10/20/2018 00:14	WG1183157	
1,2-Dibromoethane	U		0.000619	0.00295	1	10/20/2018 00:14	WG1183157	
Dibromomethane	U		0.00118	0.00589	1	10/20/2018 00:14	WG1183157	
1,2-Dichlorobenzene	U		0.00171	0.00589	1	10/20/2018 00:14	WG1183157	
1,3-Dichlorobenzene	U		0.00200	0.00589	1	10/20/2018 00:14	WG1183157	
1,4-Dichlorobenzene	U		0.00232	0.00589	1	10/20/2018 00:14	WG1183157	
Dichlorodifluoromethane	U		0.000964	0.00295	1	10/20/2018 00:14	WG1183157	
1,1-Dichloroethane	U		0.000677	0.00295	1	10/20/2018 00:14	WG1183157	
1,2-Dichloroethane	U		0.000560	0.00295	1	10/20/2018 00:14	WG1183157	
1,1-Dichloroethene	U		0.000589	0.00295	1	10/20/2018 00:14	WG1183157	
cis-1,2-Dichloroethene	0.340		0.000813	0.00295	1	10/20/2018 00:14	WG1183157	
trans-1,2-Dichloroethene	U		0.00168	0.00589	1	10/20/2018 00:14	WG1183157	
1,2-Dichloropropane	U		0.0299	0.118	20	10/22/2018 21:23	WG1184604	
1,1-Dichloropropene	U		0.000825	0.00295	1	10/20/2018 00:14	WG1183157	
1,3-Dichloropropane	U		0.00206	0.00589	1	10/20/2018 00:14	WG1183157	
cis-1,3-Dichloropropene	U		0.000799	0.00295	1	10/20/2018 00:14	WG1183157	
trans-1,3-Dichloropropene	U		0.00180	0.00589	1	10/20/2018 00:14	WG1183157	
trans-1,4-Dichloro-2-butene	U		0.00165	0.00589	1	10/20/2018 00:14	WG1183157	
2,2-Dichloropropane	U		0.000934	0.00295	1	10/20/2018 00:14	WG1183157	
Di-isopropyl ether	U		0.000412	0.00118	1	10/20/2018 00:14	WG1183157	
Ethylbenzene	U		0.000624	0.00295	1	10/20/2018 00:14	WG1183157	
Hexachloro-1,3-butadiene	U	UJ J0	0.0150	0.0295	1	10/20/2018 00:14	WG1183157	
2-Hexanone	U		0.0118	0.0295	1	10/20/2018 00:14	WG1183157	
n-Hexane	U		0.00125	0.00589	1	10/20/2018 00:14	WG1183157	
Iodomethane	U		0.00713	0.0147	1	10/20/2018 00:14	WG1183157	
Isopropylbenzene	U		0.00102	0.00295	1	10/20/2018 00:14	WG1183157	
p-Isopropyltoluene	U		0.00275	0.00589	1	10/20/2018 00:14	WG1183157	
2-Butanone (MEK)	U	UJ J0	0.295	0.589	20	10/22/2018 21:23	WG1184604	JC 11/16/18
Methylene Chloride	U		0.00782	0.0295	1	10/20/2018 00:14	WG1183157	
4-Methyl-2-pentanone (MIBK)	U		0.0118	0.0295	1	10/20/2018 00:14	WG1183157	

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000348	0.00118	1	10/20/2018 00:14	WG1183157
Naphthalene	U		0.00368	0.0147	1	10/20/2018 00:14	WG1183157
n-Propylbenzene	U		0.00139	0.00589	1	10/20/2018 00:14	WG1183157
Styrene	U	UJ J0	0.00322	0.0147	1	10/20/2018 00:14	WG1183157
1,1,1,2-Tetrachloroethane	U		0.000589	0.00295	1	10/20/2018 00:14	WG1183157
1,1,2,2-Tetrachloroethane	U		0.000460	0.00295	1	10/20/2018 00:14	WG1183157
1,1,2-Trichlorotrifluoroethane	U		0.000795	0.00295	1	10/20/2018 00:14	WG1183157
Tetrachloroethene	3.43		0.0165	0.0589	20	10/22/2018 21:23	WG1184604
Toluene	U		0.00147	0.00589	1	10/20/2018 00:14	WG1183157
1,2,3-Trichlorobenzene	U		0.000736	0.00295	1	10/20/2018 00:14	WG1183157
1,2,4-Trichlorobenzene	U		0.00568	0.0147	1	10/20/2018 00:14	WG1183157
1,1,1-Trichloroethane	U		0.000324	0.00295	1	10/20/2018 00:14	WG1183157
1,1,2-Trichloroethane	U		0.0209	0.0589	20	10/22/2018 21:23	WG1184604
Trichloroethene	0.682		0.000471	0.00118	1	10/20/2018 00:14	WG1183157
Trichlorofluoromethane	U		0.000589	0.00295	1	10/20/2018 00:14	WG1183157
1,2,3-Trichloropropane	U		0.00601	0.0147	1	10/20/2018 00:14	WG1183157
1,2,4-Trimethylbenzene	U		0.00137	0.00589	1	10/20/2018 00:14	WG1183157
1,2,3-Trimethylbenzene	U		0.00135	0.00589	1	10/20/2018 00:14	WG1183157
1,3,5-Trimethylbenzene	U		0.00127	0.00589	1	10/20/2018 00:14	WG1183157
Vinyl acetate	U		0.00415	0.0147	1	10/20/2018 00:14	WG1183157
Vinyl chloride	U		0.000805	0.00295	1	10/20/2018 00:14	WG1183157
Xylenes, Total	U		0.00563	0.00766	1	10/20/2018 00:14	WG1183157
(S) Toluene-d8	*126*			*75.0-131*		*10/20/2018 00:14*	WG1183157
(S) Toluene-d8	*99.6*			*75.0-131*		*10/22/2018 21:23*	WG1184604
(S) Dibromofluoromethane	*91.6*			*65.0-129*		*10/20/2018 00:14*	WG1183157
(S) Dibromofluoromethane	*117*			*65.0-129*		*10/22/2018 21:23*	WG1184604
(S) 4-Bromofluorobenzene	*98.7*			*67.0-138*		*10/20/2018 00:14*	WG1183157
(S) 4-Bromofluorobenzene	*121*			*67.0-138*		*10/22/2018 21:23*	WG1184604

Sample Narrative:

L1034970-21 WG1183157, WG1184604: Not all compounds reportable at lower dilution.

L1034970-21 WG1183157, WG1184604: Cannot be re-analyzed at a lower dilution due to high levels of target analytes.

JC 11/16/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	82.9		1	10/22/2018 09:45	WG1183344

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

Analyte	Result (dry)	Qualifier		MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg			mg/kg	mg/kg		date / time	
Acetone	U			0.0165	0.0302	1	10/20/2018 00:35	WG1183157
Acrylonitrile	U			0.00229	0.0151	1	10/20/2018 00:35	WG1183157
Benzene	U			0.000483	0.00121	1	10/20/2018 00:35	WG1183157
Bromobenzene	U			0.00127	0.0151	1	10/20/2018 00:35	WG1183157
Bromodichloromethane	U			0.000951	0.00302	1	10/20/2018 00:35	WG1183157
Bromochloromethane	U			0.00136	0.00603	1	10/20/2018 00:35	WG1183157
Bromoform	U	UJ	J0	0.00722	0.0302	1	10/20/2018 00:35	WG1183157
Bromomethane	U			0.00447	0.0151	1	10/20/2018 00:35	WG1183157
n-Butylbenzene	U			0.00463	0.0151	1	10/20/2018 00:35	WG1183157
sec-Butylbenzene	U			0.00305	0.0151	1	10/20/2018 00:35	WG1183157
tert-Butylbenzene	U			0.00187	0.00603	1	10/20/2018 00:35	WG1183157
Carbon disulfide	U	UJ	J0	0.00490	0.0151	1	10/20/2018 00:35	WG1183157
Carbon tetrachloride	U			0.00130	0.00603	1	10/20/2018 00:35	WG1183157
Chlorobenzene	U			0.000692	0.00302	1	10/20/2018 00:35	WG1183157
Chlorodibromomethane	U			0.000543	0.00302	1	10/20/2018 00:35	WG1183157
Chloroethane	U			0.00130	0.00603	1	10/20/2018 00:35	WG1183157
Chloroform	U			0.000501	0.00302	1	10/20/2018 00:35	WG1183157
Chloromethane	U			0.00168	0.0151	1	10/20/2018 00:35	WG1183157
2-Chlorotoluene	U			0.00111	0.00302	1	10/20/2018 00:35	WG1183157
4-Chlorotoluene	U			0.00136	0.00603	1	10/20/2018 00:35	WG1183157
1,2-Dibromo-3-Chloropropane	U	UJ	J0	0.00616	0.0302	1	10/20/2018 00:35	WG1183157
1,2-Dibromoethane	U			0.000634	0.00302	1	10/20/2018 00:35	WG1183157
Dibromomethane	U			0.00121	0.00603	1	10/20/2018 00:35	WG1183157
1,2-Dichlorobenzene	U			0.00175	0.00603	1	10/20/2018 00:35	WG1183157
1,3-Dichlorobenzene	U			0.00205	0.00603	1	10/20/2018 00:35	WG1183157
1,4-Dichlorobenzene	U			0.00238	0.00603	1	10/20/2018 00:35	WG1183157
Dichlorodifluoromethane	U			0.000987	0.00302	1	10/20/2018 00:35	WG1183157
1,1-Dichloroethane	U			0.000694	0.00302	1	10/20/2018 00:35	WG1183157
1,2-Dichloroethane	U			0.000573	0.00302	1	10/20/2018 00:35	WG1183157
1,1-Dichloroethene	0.00476	J		0.000603	0.00302	1	10/20/2018 00:35	WG1183157
cis-1,2-Dichloroethene	1.36			0.00833	0.0302	10	10/22/2018 21:43	WG1184604
trans-1,2-Dichloroethene	0.00231	J	J	0.00173	0.00603	1	10/20/2018 00:35	WG1183157
1,2-Dichloropropane	U			0.0153	0.0603	10	10/22/2018 21:43	WG1184604
1,1-Dichloropropene	U			0.000845	0.00302	1	10/20/2018 00:35	WG1183157
1,3-Dichloropropane	U			0.00211	0.00603	1	10/20/2018 00:35	WG1183157
cis-1,3-Dichloropropene	U			0.000818	0.00302	1	10/20/2018 00:35	WG1183157
trans-1,3-Dichloropropene	U			0.00185	0.00603	1	10/20/2018 00:35	WG1183157
trans-1,4-Dichloro-2-butene	U			0.00169	0.00603	1	10/20/2018 00:35	WG1183157
2,2-Dichloropropane	U			0.000957	0.00302	1	10/20/2018 00:35	WG1183157
Di-isopropyl ether	U			0.000422	0.00121	1	10/20/2018 00:35	WG1183157
Ethylbenzene	U			0.000640	0.00302	1	10/20/2018 00:35	WG1183157
Hexachloro-1,3-butadiene	U	UJ	J0	0.0153	0.0302	1	10/20/2018 00:35	WG1183157
2-Hexanone	U			0.0121	0.0302	1	10/20/2018 00:35	WG1183157
n-Hexane	U			0.00128	0.00603	1	10/20/2018 00:35	WG1183157
Iodomethane	U			0.00730	0.0151	1	10/20/2018 00:35	WG1183157
Isopropylbenzene	U			0.00104	0.00302	1	10/20/2018 00:35	WG1183157
p-Isopropyltoluene	U			0.00281	0.00603	1	10/20/2018 00:35	WG1183157
2-Butanone (MEK)	U	UJ	J0	0.151	0.302	10	10/22/2018 21:43	WG1184604
Methylene Chloride	U			0.00801	0.0302	1	10/20/2018 00:35	WG1183157
4-Methyl-2-pentanone (MIBK)	U			0.0121	0.0302	1	10/20/2018 00:35	WG1183157

JC 11/16/18

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

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000356	0.00121	1	10/20/2018 00:35	WG1183157
Naphthalene	U		0.00377	0.0151	1	10/20/2018 00:35	WG1183157
n-Propylbenzene	U		0.00142	0.00603	1	10/20/2018 00:35	WG1183157
Styrene	U	UJ J0	0.00330	0.0151	1	10/20/2018 00:35	WG1183157
1,1,1,2-Tetrachloroethane	U		0.000603	0.00302	1	10/20/2018 00:35	WG1183157
1,1,2,2-Tetrachloroethane	U		0.000471	0.00302	1	10/20/2018 00:35	WG1183157
1,1,2-Trichlorotrifluoroethane	U		0.000815	0.00302	1	10/20/2018 00:35	WG1183157
Tetrachloroethene	2.88		0.00845	0.0302	10	10/22/2018 21:43	WG1184604
Toluene	U		0.00151	0.00603	1	10/20/2018 00:35	WG1183157
1,2,3-Trichlorobenzene	U		0.000754	0.00302	1	10/20/2018 00:35	WG1183157
1,2,4-Trichlorobenzene	U		0.00582	0.0151	1	10/20/2018 00:35	WG1183157
1,1,1-Trichloroethane	U		0.000332	0.00302	1	10/20/2018 00:35	WG1183157
1,1,2-Trichloroethane	U		0.0107	0.0302	10	10/22/2018 21:43	WG1184604
Trichlorofluoromethane	U		0.000603	0.00302	1	10/20/2018 00:35	WG1183157
1,2,3-Trichloropropane	U		0.00616	0.0151	1	10/20/2018 00:35	WG1183157
1,2,4-Trimethylbenzene	U		0.00140	0.00603	1	10/20/2018 00:35	WG1183157
1,2,3-Trimethylbenzene	U		0.00139	0.00603	1	10/20/2018 00:35	WG1183157
1,3,5-Trimethylbenzene	U		0.00130	0.00603	1	10/20/2018 00:35	WG1183157
Vinyl acetate	U		0.00425	0.0151	1	10/20/2018 00:35	WG1183157
Vinyl chloride	0.138	J	0.000824	0.00302	1	10/20/2018 00:35	WG1183157
Xylenes, Total	U		0.00577	0.00785	1	10/20/2018 00:35	WG1183157
(S) Toluene-d8	*138*	J1		*75.0-131*		*10/20/2018 00:35*	WG1183157
(S) Toluene-d8	*99.2*			*75.0-131*		*10/22/2018 21:43*	WG1184604
(S) Dibromofluoromethane	*86.8*			*65.0-129*		*10/20/2018 00:35*	WG1183157
(S) Dibromofluoromethane	*117*			*65.0-129*		*10/22/2018 21:43*	WG1184604
(S) 4-Bromofluorobenzene	*77.7*			*67.0-138*		*10/20/2018 00:35*	WG1183157
(S) 4-Bromofluorobenzene	*122*			*67.0-138*		*10/22/2018 21:43*	WG1184604

Sample Narrative:

L1034970-22 WG1183157, WG1184604: Not all compounds reportable at lower dilution.

L1034970-22 WG1183157, WG1184604: Cannot be re-analyzed at a lower dilution due to high levels of target analytes.

JC 11/16/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	91.0		1	10/22/2018 09:45	WG1183344

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0150	0.0275	1	10/20/2018 00:55	WG1183157
Acrylonitrile	U		0.00209	0.0137	1	10/20/2018 00:55	WG1183157
Benzene	U		0.000439	0.00110	1	10/20/2018 00:55	WG1183157
Bromobenzene	U		0.00115	0.0137	1	10/20/2018 00:55	WG1183157
Bromodichloromethane	U		0.000866	0.00275	1	10/20/2018 00:55	WG1183157
Bromochloromethane	U		0.00124	0.00549	1	10/20/2018 00:55	WG1183157
Bromoform	U	UJ J0	0.00657	0.0275	1	10/20/2018 00:55	WG1183157
Bromomethane	U		0.00406	0.0137	1	10/20/2018 00:55	WG1183157
n-Butylbenzene	U		0.00422	0.0137	1	10/20/2018 00:55	WG1183157
sec-Butylbenzene	U		0.00278	0.0137	1	10/20/2018 00:55	WG1183157
tert-Butylbenzene	U		0.00170	0.00549	1	10/20/2018 00:55	WG1183157
Carbon disulfide	U	UJ J0	0.00446	0.0137	1	10/20/2018 00:55	WG1183157
Carbon tetrachloride	U		0.00119	0.00549	1	10/20/2018 00:55	WG1183157
Chlorobenzene	U		0.000629	0.00275	1	10/20/2018 00:55	WG1183157
Chlorodibromomethane	U		0.000494	0.00275	1	10/20/2018 00:55	WG1183157
Chloroethane	U		0.00119	0.00549	1	10/20/2018 00:55	WG1183157
Chloroform	U		0.000456	0.00275	1	10/20/2018 00:55	WG1183157
Chloromethane	U		0.00153	0.0137	1	10/20/2018 00:55	WG1183157
2-Chlorotoluene	U		0.00101	0.00275	1	10/20/2018 00:55	WG1183157
4-Chlorotoluene	U		0.00124	0.00549	1	10/20/2018 00:55	WG1183157
1,2-Dibromo-3-Chloropropane	U	UJ J0	0.00560	0.0275	1	10/20/2018 00:55	WG1183157
1,2-Dibromoethane	U		0.000577	0.00275	1	10/20/2018 00:55	WG1183157
Dibromomethane	U		0.00110	0.00549	1	10/20/2018 00:55	WG1183157
1,2-Dichlorobenzene	U		0.00159	0.00549	1	10/20/2018 00:55	WG1183157
1,3-Dichlorobenzene	U		0.00187	0.00549	1	10/20/2018 00:55	WG1183157
1,4-Dichlorobenzene	U		0.00216	0.00549	1	10/20/2018 00:55	WG1183157
Dichlorodifluoromethane	U		0.000898	0.00275	1	10/20/2018 00:55	WG1183157
1,1-Dichloroethane	U		0.000632	0.00275	1	10/20/2018 00:55	WG1183157
1,2-Dichloroethane	U		0.000522	0.00275	1	10/20/2018 00:55	WG1183157
1,1-Dichloroethene	U		0.000549	0.00275	1	10/20/2018 00:55	WG1183157
cis-1,2-Dichloroethene	0.207		0.000758	0.00275	1	10/20/2018 00:55	WG1183157
trans-1,2-Dichloroethene	U		0.00157	0.00549	1	10/20/2018 00:55	WG1183157
1,2-Dichloropropane	U		0.00558	0.0220	4	10/22/2018 22:03	WG1184604
1,1-Dichloropropene	U		0.000769	0.00275	1	10/20/2018 00:55	WG1183157
1,3-Dichloropropane	U		0.00192	0.00549	1	10/20/2018 00:55	WG1183157
cis-1,3-Dichloropropene	U		0.000745	0.00275	1	10/20/2018 00:55	WG1183157
trans-1,3-Dichloropropene	U		0.00168	0.00549	1	10/20/2018 00:55	WG1183157
trans-1,4-Dichloro-2-butene	U		0.00154	0.00549	1	10/20/2018 00:55	WG1183157
2,2-Dichloropropane	U		0.000871	0.00275	1	10/20/2018 00:55	WG1183157
Di-isopropyl ether	U		0.000384	0.00110	1	10/20/2018 00:55	WG1183157
Ethylbenzene	U		0.000582	0.00275	1	10/20/2018 00:55	WG1183157
Hexachloro-1,3-butadiene	U	UJ J0	0.0139	0.0275	1	10/20/2018 00:55	WG1183157
2-Hexanone	U		0.0110	0.0275	1	10/20/2018 00:55	WG1183157
n-Hexane	U		0.00116	0.00549	1	10/20/2018 00:55	WG1183157
Iodomethane	U		0.00665	0.0137	1	10/20/2018 00:55	WG1183157
Isopropylbenzene	U		0.000948	0.00275	1	10/20/2018 00:55	WG1183157
p-Isopropyltoluene	U		0.00256	0.00549	1	10/20/2018 00:55	WG1183157
2-Butanone (MEK)	U	UJ J0	0.0549	0.110	4	10/22/2018 22:03	WG1184604
Methylene Chloride	U		0.00729	0.0275	1	10/20/2018 00:55	WG1183157
4-Methyl-2-pentanone (MIBK)	U		0.0110	0.0275	1	10/20/2018 00:55	WG1183157

JC 11/16/18

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000324	0.00110	1	10/20/2018 00:55	WG1183157
Naphthalene	U		0.00343	0.0137	1	10/20/2018 00:55	WG1183157
n-Propylbenzene	U		0.00130	0.00549	1	10/20/2018 00:55	WG1183157
Styrene	U	UJ J0	0.00300	0.0137	1	10/20/2018 00:55	WG1183157
1,1,1,2-Tetrachloroethane	U		0.000549	0.00275	1	10/20/2018 00:55	WG1183157
1,1,2,2-Tetrachloroethane	U		0.000428	0.00275	1	10/20/2018 00:55	WG1183157
1,1,2-Trichlorotrifluoroethane	U		0.000741	0.00275	1	10/20/2018 00:55	WG1183157
Tetrachloroethene	1.35		0.00308	0.0110	4	10/22/2018 22:03	WG1184604
Toluene	U		0.00137	0.00549	1	10/20/2018 00:55	WG1183157
1,2,3-Trichlorobenzene	U		0.000686	0.00275	1	10/20/2018 00:55	WG1183157
1,2,4-Trichlorobenzene	U		0.00529	0.0137	1	10/20/2018 00:55	WG1183157
1,1,1-Trichloroethane	U		0.000302	0.00275	1	10/20/2018 00:55	WG1183157
1,1,2-Trichloroethane	U		0.00388	0.0110	4	10/22/2018 22:03	WG1184604
Trichloroethene	0.266		0.000439	0.00110	1	10/20/2018 00:55	WG1183157
Trichlorofluoromethane	U		0.000549	0.00275	1	10/20/2018 00:55	WG1183157
1,2,3-Trichloropropane	U		0.00560	0.0137	1	10/20/2018 00:55	WG1183157
1,2,4-Trimethylbenzene	U		0.00127	0.00549	1	10/20/2018 00:55	WG1183157
1,2,3-Trimethylbenzene	U		0.00126	0.00549	1	10/20/2018 00:55	WG1183157
1,3,5-Trimethylbenzene	U		0.00119	0.00549	1	10/20/2018 00:55	WG1183157
Vinyl acetate	U		0.00387	0.0137	1	10/20/2018 00:55	WG1183157
Vinyl chloride	0.00602		0.000750	0.00275	1	10/20/2018 00:55	WG1183157
Xylenes, Total	U		0.00525	0.00714	1	10/20/2018 00:55	WG1183157
(S) Toluene-d8	*122*			*75.0-131*		*10/20/2018 00:55*	WG1183157
(S) Toluene-d8	*98.9*			*75.0-131*		*10/22/2018 22:03*	WG1184604
(S) Dibromofluoromethane	*91.6*			*65.0-129*		*10/20/2018 00:55*	WG1183157
(S) Dibromofluoromethane	*117*			*65.0-129*		*10/22/2018 22:03*	WG1184604
(S) 4-Bromofluorobenzene	*93.0*			*67.0-138*		*10/20/2018 00:55*	WG1183157
(S) 4-Bromofluorobenzene	*119*			*67.0-138*		*10/22/2018 22:03*	WG1184604

Sample Narrative:

L1034970-23 WG1183157, WG1184604: Not all compounds reportable at lower dilution.

L1034970-23 WG1183157, WG1184604: Cannot be re-analyzed at a lower dilution due to high levels of target analytes.

JC 11/16/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	87.4		1	10/16/2018 14:25	WG1181703

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		2.75	5.01	175	10/17/2018 12:52	WG1182096
Acrylonitrile	U		0.00217	0.0143	1	10/16/2018 20:00	WG1181654
Benzene	U		0.000458	0.00114	1	10/16/2018 20:00	WG1181654
Bromobenzene	U		0.00120	0.0143	1	10/16/2018 20:00	WG1181654
Bromodichloromethane	U		0.000902	0.00286	1	10/16/2018 20:00	WG1181654
Bromochloromethane	U		0.00129	0.00572	1	10/16/2018 20:00	WG1181654
Bromoform	U		0.00684	0.0286	1	10/16/2018 20:00	WG1181654
Bromomethane	U		0.00423	0.0143	1	10/16/2018 20:00	WG1181654
n-Butylbenzene	U		0.00439	0.0143	1	10/16/2018 20:00	WG1181654
sec-Butylbenzene	U		0.00290	0.0143	1	10/16/2018 20:00	WG1181654
tert-Butylbenzene	U		0.00177	0.00572	1	10/16/2018 20:00	WG1181654
Carbon disulfide	U		0.00465	0.0143	1	10/16/2018 20:00	WG1181654
Carbon tetrachloride	U		0.00124	0.00572	1	10/16/2018 20:00	WG1181654
Chlorobenzene	U		0.000656	0.00286	1	10/16/2018 20:00	WG1181654
Chlorodibromomethane	U		0.000515	0.00286	1	10/16/2018 20:00	WG1181654
Chloroethane	U		0.00124	0.00572	1	10/16/2018 20:00	WG1181654
Chloroform	U		0.000475	0.00286	1	10/16/2018 20:00	WG1181654
Chloromethane	U		0.00159	0.0143	1	10/16/2018 20:00	WG1181654
2-Chlorotoluene	U		0.00105	0.00286	1	10/16/2018 20:00	WG1181654
4-Chlorotoluene	U		0.00129	0.00572	1	10/16/2018 20:00	WG1181654
1,2-Dibromo-3-Chloropropane	U		0.00584	0.0286	1	10/16/2018 20:00	WG1181654
1,2-Dibromoethane	U		0.000601	0.00286	1	10/16/2018 20:00	WG1181654
Dibromomethane	U	U J4	0.00114	0.00572	1	10/16/2018 20:00	WG1181654
1,2-Dichlorobenzene	U		0.00166	0.00572	1	10/16/2018 20:00	WG1181654
1,3-Dichlorobenzene	U		0.00195	0.00572	1	10/16/2018 20:00	WG1181654
1,4-Dichlorobenzene	U		0.00225	0.00572	1	10/16/2018 20:00	WG1181654
Dichlorodifluoromethane	U		0.000936	0.00286	1	10/16/2018 20:00	WG1181654
1,1-Dichloroethane	U		0.000658	0.00286	1	10/16/2018 20:00	WG1181654
1,2-Dichloroethane	U		0.000544	0.00286	1	10/16/2018 20:00	WG1181654
1,1-Dichloroethene	0.00436		0.000572	0.00286	1	10/16/2018 20:00	WG1181654
cis-1,2-Dichloroethene	0.484		0.000790	0.00286	1	10/16/2018 20:00	WG1181654
trans-1,2-Dichloroethene	0.00656		0.00164	0.00572	1	10/16/2018 20:00	WG1181654
1,2-Dichloropropane	U		0.00145	0.00572	1	10/16/2018 20:00	WG1181654
1,1-Dichloropropene	U		0.000801	0.00286	1	10/16/2018 20:00	WG1181654
1,3-Dichloropropane	U		0.00200	0.00572	1	10/16/2018 20:00	WG1181654
cis-1,3-Dichloropropene	U		0.000776	0.00286	1	10/16/2018 20:00	WG1181654
trans-1,3-Dichloropropene	U		0.00175	0.00572	1	10/16/2018 20:00	WG1181654
trans-1,4-Dichloro-2-butene	U		0.00160	0.00572	1	10/16/2018 20:00	WG1181654
2,2-Dichloropropane	U		0.000907	0.00286	1	10/16/2018 20:00	WG1181654
Di-isopropyl ether	U		0.000400	0.00114	1	10/16/2018 20:00	WG1181654
Ethylbenzene	U		0.000606	0.00286	1	10/16/2018 20:00	WG1181654
Hexachloro-1,3-butadiene	U		0.0145	0.0286	1	10/16/2018 20:00	WG1181654
2-Hexanone	U		0.0114	0.0286	1	10/16/2018 20:00	WG1181654
n-Hexane	U		0.00121	0.00572	1	10/16/2018 20:00	WG1181654
Iodomethane	U		0.00692	0.0143	1	10/16/2018 20:00	WG1181654
Isopropylbenzene	U		0.000988	0.00286	1	10/16/2018 20:00	WG1181654
p-Isopropyltoluene	U		0.00267	0.00572	1	10/16/2018 20:00	WG1181654
2-Butanone (MEK)	U		0.0143	0.0286	1	10/16/2018 20:00	WG1181654
Methylene Chloride	U		0.00760	0.0286	1	10/16/2018 20:00	WG1181654
4-Methyl-2-pentanone (MIBK)	U		0.0114	0.0286	1	10/16/2018 20:00	WG1181654

JC 11/16/18

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

Analyte	Result (dry) mg/kg		Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U	UJ	J0	0.000338	0.00114	1	10/16/2018 20:00	WG1181654
Naphthalene	U			0.00357	0.0143	1	10/16/2018 20:00	WG1181654
n-Propylbenzene	U			0.00135	0.00572	1	10/16/2018 20:00	WG1181654
Styrene	U			0.00312	0.0143	1	10/16/2018 20:00	WG1181654
1,1,1,2-Tetrachloroethane	U			0.000572	0.00286	1	10/16/2018 20:00	WG1181654
1,1,2,2-Tetrachloroethane	U	U	J4	0.000446	0.00286	1	10/16/2018 20:00	WG1181654
1,1,2-Trichlorotrifluoroethane	U			0.000772	0.00286	1	10/16/2018 20:00	WG1181654
Tetrachloroethene	1.99			0.140	0.501	175	10/17/2018 12:52	WG1182096
Toluene	U			0.00143	0.00572	1	10/16/2018 20:00	WG1181654
1,2,3-Trichlorobenzene	U			0.000715	0.00286	1	10/16/2018 20:00	WG1181654
1,2,4-Trichlorobenzene	U			0.00552	0.0143	1	10/16/2018 20:00	WG1181654
1,1,1-Trichloroethane	U			0.000315	0.00286	1	10/16/2018 20:00	WG1181654
1,1,2-Trichloroethane	U	U	J4	0.00101	0.00286	1	10/16/2018 20:00	WG1181654
Trichloroethene	0.483			0.000458	0.00114	1	10/16/2018 20:00	WG1181654
Trichlorofluoromethane	U			0.000572	0.00286	1	10/16/2018 20:00	WG1181654
1,2,3-Trichloropropane	U			0.00584	0.0143	1	10/16/2018 20:00	WG1181654
1,2,4-Trimethylbenzene	U			0.00133	0.00572	1	10/16/2018 20:00	WG1181654
1,2,3-Trimethylbenzene	U			0.00132	0.00572	1	10/16/2018 20:00	WG1181654
1,3,5-Trimethylbenzene	U			0.00124	0.00572	1	10/16/2018 20:00	WG1181654
Vinyl acetate	U			0.00403	0.0143	1	10/16/2018 20:00	WG1181654
Vinyl chloride	0.00634			0.000782	0.00286	1	10/16/2018 20:00	WG1181654
Xylenes, Total	U			0.00547	0.00744	1	10/16/2018 20:00	WG1181654
(S) Toluene-d8	*119*				*75.0-131*		*10/16/2018 20:00*	WG1181654
(S) Toluene-d8	*98.6*				*75.0-131*		*10/17/2018 12:52*	WG1182096
(S) Dibromofluoromethane	*78.1*				*65.0-129*		*10/16/2018 20:00*	WG1181654
(S) Dibromofluoromethane	*118*				*65.0-129*		*10/17/2018 12:52*	WG1182096
(S) 4-Bromofluorobenzene	*95.2*				*67.0-138*		*10/16/2018 20:00*	WG1181654
(S) 4-Bromofluorobenzene	*118*				*67.0-138*		*10/17/2018 12:52*	WG1182096

JC 11/16/18

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	1.59	J	1.05	25.0	1	10/16/2018 13:36	WG1181551
Acrylonitrile	U		0.873	5.00	1	10/16/2018 13:36	WG1181551
Benzene	U		0.0896	0.500	1	10/16/2018 13:36	WG1181551
Bromobenzene	U		0.133	0.500	1	10/16/2018 13:36	WG1181551
Bromodichloromethane	U		0.0800	0.500	1	10/16/2018 13:36	WG1181551
Bromochloromethane	U		0.145	0.500	1	10/16/2018 13:36	WG1181551
Bromoform	U		0.186	0.500	1	10/16/2018 13:36	WG1181551
Bromomethane	U		0.157	2.50	1	10/16/2018 13:36	WG1181551
n-Butylbenzene	U		0.143	0.500	1	10/16/2018 13:36	WG1181551
sec-Butylbenzene	U		0.134	0.500	1	10/16/2018 13:36	WG1181551
tert-Butylbenzene	U		0.183	0.500	1	10/16/2018 13:36	WG1181551
Carbon disulfide	U		0.101	0.500	1	10/16/2018 13:36	WG1181551
Carbon tetrachloride	U		0.159	0.500	1	10/16/2018 13:36	WG1181551
Chlorobenzene	U		0.140	0.500	1	10/16/2018 13:36	WG1181551
Chlorodibromomethane	U		0.128	0.500	1	10/16/2018 13:36	WG1181551
Chloroethane	U		0.141	2.50	1	10/16/2018 13:36	WG1181551
Chloroform	U		0.0860	0.500	1	10/16/2018 13:36	WG1181551
Chloromethane	U		0.153	1.25	1	10/16/2018 13:36	WG1181551
2-Chlorotoluene	U		0.111	0.500	1	10/16/2018 13:36	WG1181551
4-Chlorotoluene	U		0.0972	0.500	1	10/16/2018 13:36	WG1181551
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	10/16/2018 13:36	WG1181551
1,2-Dibromoethane	U		0.193	0.500	1	10/16/2018 13:36	WG1181551
Dibromomethane	U		0.117	0.500	1	10/16/2018 13:36	WG1181551
1,2-Dichlorobenzene	U		0.101	0.500	1	10/16/2018 13:36	WG1181551
1,3-Dichlorobenzene	U		0.130	0.500	1	10/16/2018 13:36	WG1181551
1,4-Dichlorobenzene	U		0.121	0.500	1	10/16/2018 13:36	WG1181551
Dichlorodifluoromethane	U		0.127	2.50	1	10/16/2018 13:36	WG1181551
1,1-Dichloroethane	U		0.114	0.500	1	10/16/2018 13:36	WG1181551
1,2-Dichloroethane	U		0.108	0.500	1	10/16/2018 13:36	WG1181551
1,1-Dichloroethene	U		0.188	0.500	1	10/16/2018 13:36	WG1181551
cis-1,2-Dichloroethene	U		0.0933	0.500	1	10/16/2018 13:36	WG1181551
trans-1,2-Dichloroethene	U		0.152	0.500	1	10/16/2018 13:36	WG1181551
1,2-Dichloropropane	U		0.190	0.500	1	10/16/2018 13:36	WG1181551
1,1-Dichloropropene	U		0.128	0.500	1	10/16/2018 13:36	WG1181551
1,3-Dichloropropane	U		0.147	1.00	1	10/16/2018 13:36	WG1181551
cis-1,3-Dichloropropene	U		0.0976	0.500	1	10/16/2018 13:36	WG1181551
trans-1,3-Dichloropropene	U		0.222	0.500	1	10/16/2018 13:36	WG1181551
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	10/16/2018 13:36	WG1181551
2,2-Dichloropropane	U		0.0929	0.500	1	10/16/2018 13:36	WG1181551
Di-isopropyl ether	U		0.0924	0.500	1	10/16/2018 13:36	WG1181551
Ethylbenzene	U		0.158	0.500	1	10/16/2018 13:36	WG1181551
Hexachloro-1,3-butadiene	U		0.157	1.00	1	10/16/2018 13:36	WG1181551
2-Hexanone	U		0.757	5.00	1	10/16/2018 13:36	WG1181551
n-Hexane	U		0.305	5.00	1	10/16/2018 13:36	WG1181551
Iodomethane	U		0.377	10.0	1	10/16/2018 13:36	WG1181551
Isopropylbenzene	U		0.126	0.500	1	10/16/2018 13:36	WG1181551
p-Isopropyltoluene	U		0.138	0.500	1	10/16/2018 13:36	WG1181551
2-Butanone (MEK)	U		1.28	5.00	1	10/16/2018 13:36	WG1181551
Methylene Chloride	U		1.07	2.50	1	10/16/2018 13:36	WG1181551
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	10/16/2018 13:36	WG1181551
Methyl tert-butyl ether	U		0.102	0.500	1	10/16/2018 13:36	WG1181551
Naphthalene	U		0.174	2.50	1	10/16/2018 13:36	WG1181551
n-Propylbenzene	U		0.162	0.500	1	10/16/2018 13:36	WG1181551
Styrene	U		0.117	0.500	1	10/16/2018 13:36	WG1181551
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	10/16/2018 13:36	WG1181551
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	10/16/2018 13:36	WG1181551

JC 11/16/18

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

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	10/16/2018 13:36	WG1181551
Tetrachloroethene	U		0.199	0.500	1	10/16/2018 13:36	WG1181551
Toluene	U		0.412	0.500	1	10/16/2018 13:36	WG1181551
1,2,3-Trichlorobenzene	U		0.164	0.500	1	10/16/2018 13:36	WG1181551
1,2,4-Trichlorobenzene	U		0.355	0.500	1	10/16/2018 13:36	WG1181551
1,1,1-Trichloroethane	U		0.0940	0.500	1	10/16/2018 13:36	WG1181551
1,1,2-Trichloroethane	U		0.186	0.500	1	10/16/2018 13:36	WG1181551
Trichloroethene	U		0.153	0.500	1	10/16/2018 13:36	WG1181551
Trichlorofluoromethane	U		0.130	2.50	1	10/16/2018 13:36	WG1181551
1,2,3-Trichloropropane	U		0.247	2.50	1	10/16/2018 13:36	WG1181551
1,2,4-Trimethylbenzene	U		0.123	0.500	1	10/16/2018 13:36	WG1181551
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	10/16/2018 13:36	WG1181551
1,3,5-Trimethylbenzene	U		0.124	0.500	1	10/16/2018 13:36	WG1181551
Vinyl acetate	U		0.645	5.00	1	10/16/2018 13:36	WG1181551
Vinyl chloride	U		0.118	0.500	1	10/16/2018 13:36	WG1181551
Xylenes, Total	U		0.316	1.50	1	10/16/2018 13:36	WG1181551
(S) Toluene-d8	*97.5*			*80.0-120*		*10/16/2018 13:36*	WG1181551
(S) Dibromofluoromethane	*107*			*75.0-120*		*10/16/2018 13:36*	WG1181551
(S) 4-Bromofluorobenzene	*99.6*			*77.0-126*		*10/16/2018 13:36*	WG1181551

JC 11/16/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	91.7		1	10/22/2018 11:48	WG1184402

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0149	0.0273	1	10/23/2018 01:18	WG1184696
Acrylonitrile	U		0.00207	0.0136	1	10/19/2018 14:52	WG1183540
Benzene	U		0.000436	0.00109	1	10/19/2018 14:52	WG1183540
Bromobenzene	U		0.00115	0.0136	1	10/19/2018 14:52	WG1183540
Bromodichloromethane	U		0.000859	0.00273	1	10/19/2018 14:52	WG1183540
Bromochloromethane	U		0.00123	0.00545	1	10/19/2018 14:52	WG1183540
Bromoform	U		0.00652	0.0273	1	10/19/2018 14:52	WG1183540
Bromomethane	U		0.00403	0.0136	1	10/19/2018 14:52	WG1183540
n-Butylbenzene	U		0.00419	0.0136	1	10/19/2018 14:52	WG1183540
sec-Butylbenzene	U		0.00276	0.0136	1	10/19/2018 14:52	WG1183540
tert-Butylbenzene	U		0.00169	0.00545	1	10/19/2018 14:52	WG1183540
Carbon disulfide	U	UJ J0	0.00443	0.0136	1	10/19/2018 14:52	WG1183540
Carbon tetrachloride	U		0.00118	0.00545	1	10/19/2018 14:52	WG1183540
Chlorobenzene	U		0.000625	0.00273	1	10/19/2018 14:52	WG1183540
Chlorodibromomethane	U		0.000491	0.00273	1	10/19/2018 14:52	WG1183540
Chloroethane	U		0.00118	0.00545	1	10/19/2018 14:52	WG1183540
Chloroform	U		0.000453	0.00273	1	10/19/2018 14:52	WG1183540
Chloromethane	U		0.00152	0.0136	1	10/19/2018 14:52	WG1183540
2-Chlorotoluene	U		0.00100	0.00273	1	10/19/2018 14:52	WG1183540
4-Chlorotoluene	U		0.00123	0.00545	1	10/19/2018 14:52	WG1183540
1,2-Dibromo-3-Chloropropane	U		0.00556	0.0273	1	10/19/2018 14:52	WG1183540
1,2-Dibromoethane	U		0.000573	0.00273	1	10/19/2018 14:52	WG1183540
Dibromomethane	U		0.00109	0.00545	1	10/19/2018 14:52	WG1183540
1,2-Dichlorobenzene	U		0.00158	0.00545	1	10/19/2018 14:52	WG1183540
1,3-Dichlorobenzene	U		0.00185	0.00545	1	10/19/2018 14:52	WG1183540
1,4-Dichlorobenzene	U		0.00215	0.00545	1	10/19/2018 14:52	WG1183540
Dichlorodifluoromethane	U	U J4	0.000892	0.00273	1	10/23/2018 01:18	WG1184696
1,1-Dichloroethane	U		0.000627	0.00273	1	10/19/2018 14:52	WG1183540
1,2-Dichloroethane	U		0.000518	0.00273	1	10/19/2018 14:52	WG1183540
1,1-Dichloroethene	U		0.000545	0.00273	1	10/19/2018 14:52	WG1183540
cis-1,2-Dichloroethene	0.533		0.000752	0.00273	1	10/19/2018 14:52	WG1183540
trans-1,2-Dichloroethene	0.0138		0.00156	0.00545	1	10/19/2018 14:52	WG1183540
1,2-Dichloropropane	U		0.00138	0.00545	1	10/19/2018 14:52	WG1183540
1,1-Dichloropropene	U		0.000763	0.00273	1	10/19/2018 14:52	WG1183540
1,3-Dichloropropane	U		0.00191	0.00545	1	10/19/2018 14:52	WG1183540
cis-1,3-Dichloropropene	U		0.000739	0.00273	1	10/19/2018 14:52	WG1183540
trans-1,3-Dichloropropene	U	U J4	0.00167	0.00545	1	10/19/2018 14:52	WG1183540
trans-1,4-Dichloro-2-butene	U		0.00153	0.00545	1	10/19/2018 14:52	WG1183540
2,2-Dichloropropane	U		0.000865	0.00273	1	10/19/2018 14:52	WG1183540
Di-isopropyl ether	U		0.000382	0.00109	1	10/19/2018 14:52	WG1183540
Ethylbenzene	0.000590	J J J0	0.000578	0.00273	1	10/19/2018 14:52	WG1183540
Hexachloro-1,3-butadiene	U		0.0138	0.0273	1	10/19/2018 14:52	WG1183540
2-Hexanone	U		0.0109	0.0273	1	10/19/2018 14:52	WG1183540
n-Hexane	0.00621	J J0 J4	0.00116	0.00545	1	10/19/2018 14:52	WG1183540
Iodomethane	U		0.00660	0.0136	1	10/19/2018 14:52	WG1183540
Isopropylbenzene	U		0.000941	0.00273	1	10/19/2018 14:52	WG1183540
p-Isopropyltoluene	U		0.00254	0.00545	1	10/19/2018 14:52	WG1183540
2-Butanone (MEK)	0.0327	J B J4	0.0136	0.0273	1	10/19/2018 14:52	WG1183540
Methylene Chloride	U		0.00724	0.0273	1	10/19/2018 14:52	WG1183540
4-Methyl-2-pentanone (MIBK)	U		0.0109	0.0273	1	10/19/2018 14:52	WG1183540

JC 11/15/18

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000322	0.00109	1	10/19/2018 14:52	WG1183540
Naphthalene	U		0.00340	0.0136	1	10/19/2018 14:52	WG1183540
n-Propylbenzene	U		0.00129	0.00545	1	10/19/2018 14:52	WG1183540
Styrene	U		0.00298	0.0136	1	10/19/2018 14:52	WG1183540
1,1,1,2-Tetrachloroethane	U		0.000545	0.00273	1	10/19/2018 14:52	WG1183540
1,1,2,2-Tetrachloroethane	U		0.000425	0.00273	1	10/23/2018 01:18	WG1184696
1,1,2-Trichlorotrifluoroethane	U		0.000736	0.00273	1	10/23/2018 01:18	WG1184696
Tetrachloroethene	0.288		0.000763	0.00273	1	10/19/2018 14:52	WG1183540
Toluene	0.00259	J J	0.00136	0.00545	1	10/19/2018 14:52	WG1183540
1,2,3-Trichlorobenzene	U		0.000682	0.00273	1	10/23/2018 01:18	WG1184696
1,2,4-Trichlorobenzene	U		0.00526	0.0136	1	10/19/2018 14:52	WG1183540
1,1,1-Trichloroethane	U		0.000300	0.00273	1	10/19/2018 14:52	WG1183540
1,1,2-Trichloroethane	U		0.000963	0.00273	1	10/19/2018 14:52	WG1183540
Trichloroethene	0.0519		0.000436	0.00109	1	10/19/2018 14:52	WG1183540
Trichlorofluoromethane	U		0.000545	0.00273	1	10/19/2018 14:52	WG1183540
1,2,3-Trichloropropane	U		0.00556	0.0136	1	10/19/2018 14:52	WG1183540
1,2,4-Trimethylbenzene	0.00182	J J	0.00126	0.00545	1	10/19/2018 14:52	WG1183540
1,2,3-Trimethylbenzene	U		0.00125	0.00545	1	10/19/2018 14:52	WG1183540
1,3,5-Trimethylbenzene	U		0.00118	0.00545	1	10/19/2018 14:52	WG1183540
Vinyl acetate	U		0.00384	0.0136	1	10/19/2018 14:52	WG1183540
Vinyl chloride	0.358		0.000745	0.00273	1	10/23/2018 01:18	WG1184696
Xylenes, Total	U		0.00521	0.00709	1	10/19/2018 14:52	WG1183540
(S) Toluene-d8	*93.2*			*75.0-131*		*10/19/2018 14:52*	WG1183540
(S) Toluene-d8	*88.5*			*75.0-131*		*10/23/2018 01:18*	WG1184696
(S) Dibromofluoromethane	*95.4*			*65.0-129*		*10/19/2018 14:52*	WG1183540
(S) Dibromofluoromethane	*116*			*65.0-129*		*10/23/2018 01:18*	WG1184696
(S) 4-Bromofluorobenzene	*88.7*			*67.0-138*		*10/19/2018 14:52*	WG1183540
(S) 4-Bromofluorobenzene	*120*			*67.0-138*		*10/23/2018 01:18*	WG1184696

JC 11/15/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	83.5		1	10/22/2018 11:48	WG1184402

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		1.32	2.40	80	10/23/2018 05:38	WG1184696
Acrylonitrile	U		0.00228	0.0150	1	10/19/2018 15:10	WG1183540
Benzene	U		0.000479	0.00120	1	10/19/2018 15:10	WG1183540
Bromobenzene	U		0.00126	0.0150	1	10/19/2018 15:10	WG1183540
Bromodichloromethane	U		0.000944	0.00299	1	10/19/2018 15:10	WG1183540
Bromochloromethane	U		0.00135	0.00599	1	10/19/2018 15:10	WG1183540
Bromoform	U		0.00716	0.0299	1	10/19/2018 15:10	WG1183540
Bromomethane	U		0.00443	0.0150	1	10/19/2018 15:10	WG1183540
n-Butylbenzene	U		0.00460	0.0150	1	10/19/2018 15:10	WG1183540
sec-Butylbenzene	U		0.00303	0.0150	1	10/19/2018 15:10	WG1183540
tert-Butylbenzene	U		0.00186	0.00599	1	10/19/2018 15:10	WG1183540
Carbon disulfide	U	UJ J0	0.00486	0.0150	1	10/19/2018 15:10	WG1183540
Carbon tetrachloride	U		0.00129	0.00599	1	10/19/2018 15:10	WG1183540
Chlorobenzene	U		0.000686	0.00299	1	10/19/2018 15:10	WG1183540
Chlorodibromomethane	U		0.000539	0.00299	1	10/19/2018 15:10	WG1183540
Chloroethane	U		0.00129	0.00599	1	10/19/2018 15:10	WG1183540
Chloroform	U		0.000497	0.00299	1	10/19/2018 15:10	WG1183540
Chloromethane	U		0.00166	0.0150	1	10/19/2018 15:10	WG1183540
2-Chlorotoluene	U		0.00110	0.00299	1	10/19/2018 15:10	WG1183540
4-Chlorotoluene	U		0.00135	0.00599	1	10/19/2018 15:10	WG1183540
1,2-Dibromo-3-Chloropropane	U		0.00611	0.0299	1	10/19/2018 15:10	WG1183540
1,2-Dibromoethane	U		0.000629	0.00299	1	10/19/2018 15:10	WG1183540
Dibromomethane	U		0.00120	0.00599	1	10/19/2018 15:10	WG1183540
1,2-Dichlorobenzene	U		0.00174	0.00599	1	10/19/2018 15:10	WG1183540
1,3-Dichlorobenzene	U		0.00204	0.00599	1	10/19/2018 15:10	WG1183540
1,4-Dichlorobenzene	U		0.00236	0.00599	1	10/19/2018 15:10	WG1183540
Dichlorodifluoromethane	U	U J4	0.0783	0.240	80	10/23/2018 05:38	WG1184696
1,1-Dichloroethane	U		0.000689	0.00299	1	10/19/2018 15:10	WG1183540
1,2-Dichloroethane	U		0.000569	0.00299	1	10/19/2018 15:10	WG1183540
1,1-Dichloroethene	U		0.000599	0.00299	1	10/19/2018 15:10	WG1183540
cis-1,2-Dichloroethene	0.0425		0.000826	0.00299	1	10/19/2018 15:10	WG1183540
trans-1,2-Dichloroethene	U		0.00171	0.00599	1	10/19/2018 15:10	WG1183540
1,2-Dichloropropane	U		0.00152	0.00599	1	10/19/2018 15:10	WG1183540
1,1-Dichloropropene	U		0.000838	0.00299	1	10/19/2018 15:10	WG1183540
1,3-Dichloropropane	U		0.00210	0.00599	1	10/19/2018 15:10	WG1183540
cis-1,3-Dichloropropene	U		0.000812	0.00299	1	10/19/2018 15:10	WG1183540
trans-1,3-Dichloropropene	U	U J4	0.00183	0.00599	1	10/19/2018 15:10	WG1183540
trans-1,4-Dichloro-2-butene	U		0.00168	0.00599	1	10/19/2018 15:10	WG1183540
2,2-Dichloropropane	U		0.000950	0.00299	1	10/19/2018 15:10	WG1183540
Di-isopropyl ether	U		0.000419	0.00120	1	10/19/2018 15:10	WG1183540
Ethylbenzene	U	UJ J0	0.000635	0.00299	1	10/19/2018 15:10	WG1183540
Hexachloro-1,3-butadiene	U		0.0152	0.0299	1	10/19/2018 15:10	WG1183540
2-Hexanone	U		0.0120	0.0299	1	10/19/2018 15:10	WG1183540
n-Hexane	U	UJ J0 J4	0.00127	0.00599	1	10/19/2018 15:10	WG1183540
Iodomethane	U		0.00724	0.0150	1	10/19/2018 15:10	WG1183540
Isopropylbenzene	U		0.00103	0.00299	1	10/19/2018 15:10	WG1183540
p-Isopropyltoluene	U		0.00279	0.00599	1	10/19/2018 15:10	WG1183540
2-Butanone (MEK)	0.0513	J B J4	0.0150	0.0299	1	10/19/2018 15:10	WG1183540
Methylene Chloride	U		0.00795	0.0299	1	10/19/2018 15:10	WG1183540
4-Methyl-2-pentanone (MIBK)	U		0.0120	0.0299	1	10/19/2018 15:10	WG1183540

JC 11/15/18

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000353	0.00120	1	10/19/2018 15:10	WG1183540
Naphthalene	U		0.00374	0.0150	1	10/19/2018 15:10	WG1183540
n-Propylbenzene	U		0.00141	0.00599	1	10/19/2018 15:10	WG1183540
Styrene	U		0.00327	0.0150	1	10/19/2018 15:10	WG1183540
1,1,1,2-Tetrachloroethane	U		0.000599	0.00299	1	10/19/2018 15:10	WG1183540
1,1,2,2-Tetrachloroethane	U		0.0374	0.240	80	10/23/2018 05:38	WG1184696
1,1,2-Trichlorotrifluoroethane	U		0.0647	0.240	80	10/23/2018 05:38	WG1184696
Tetrachloroethene	9.35		0.0671	0.240	80	10/23/2018 05:38	WG1184696
Toluene	U		0.00150	0.00599	1	10/19/2018 15:10	WG1183540
1,2,3-Trichlorobenzene	U		0.0599	0.240	80	10/23/2018 05:38	WG1184696
1,2,4-Trichlorobenzene	U		0.00577	0.0150	1	10/19/2018 15:10	WG1183540
1,1,1-Trichloroethane	U		0.000329	0.00299	1	10/19/2018 15:10	WG1183540
1,1,2-Trichloroethane	U		0.00106	0.00299	1	10/19/2018 15:10	WG1183540
Trichloroethene	0.0662		0.000479	0.00120	1	10/19/2018 15:10	WG1183540
Trichlorofluoromethane	U		0.000599	0.00299	1	10/19/2018 15:10	WG1183540
1,2,3-Trichloropropane	U		0.00611	0.0150	1	10/19/2018 15:10	WG1183540
1,2,4-Trimethylbenzene	U		0.00139	0.00599	1	10/19/2018 15:10	WG1183540
1,2,3-Trimethylbenzene	U		0.00138	0.00599	1	10/19/2018 15:10	WG1183540
1,3,5-Trimethylbenzene	U		0.00129	0.00599	1	10/19/2018 15:10	WG1183540
Vinyl acetate	U		0.00422	0.0150	1	10/19/2018 15:10	WG1183540
Vinyl chloride	U		0.0654	0.240	80	10/23/2018 05:38	WG1184696
Xylenes, Total	U		0.00572	0.00778	1	10/19/2018 15:10	WG1183540
(S) Toluene-d8	*110*			*75.0-131*		*10/19/2018 15:10*	WG1183540
(S) Toluene-d8	*98.3*			*75.0-131*		*10/23/2018 05:38*	WG1184696
(S) Dibromofluoromethane	*93.6*			*65.0-129*		*10/19/2018 15:10*	WG1183540
(S) Dibromofluoromethane	*116*			*65.0-129*		*10/23/2018 05:38*	WG1184696
(S) 4-Bromofluorobenzene	*88.9*			*67.0-138*		*10/19/2018 15:10*	WG1183540
(S) 4-Bromofluorobenzene	*121*			*67.0-138*		*10/23/2018 05:38*	WG1184696

Sample Narrative:

L1035515-02 WG1184696, WG1183540: Cannot be reanalyzed at a lower dilution due to high levels of target analytes.

L1035515-02 WG1184696, WG1183540: Not all compounds reportable from lower dilution.

JC 11/15/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	88.1		1	10/22/2018 11:24	WG1184403

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.125	0.227	8	10/23/2018 05:58	WG1184696
Acrylonitrile	U		0.00216	0.0142	1	10/19/2018 15:29	WG1183540
Benzene	U		0.000454	0.00114	1	10/19/2018 15:29	WG1183540
Bromobenzene	U		0.00119	0.0142	1	10/19/2018 15:29	WG1183540
Bromodichloromethane	U		0.000895	0.00284	1	10/19/2018 15:29	WG1183540
Bromochloromethane	U		0.00128	0.00568	1	10/19/2018 15:29	WG1183540
Bromoform	U		0.00679	0.0284	1	10/19/2018 15:29	WG1183540
Bromomethane	U		0.00420	0.0142	1	10/19/2018 15:29	WG1183540
n-Butylbenzene	U		0.00436	0.0142	1	10/19/2018 15:29	WG1183540
sec-Butylbenzene	U		0.00287	0.0142	1	10/19/2018 15:29	WG1183540
tert-Butylbenzene	U		0.00176	0.00568	1	10/19/2018 15:29	WG1183540
Carbon disulfide	U	UJ J0	0.00461	0.0142	1	10/19/2018 15:29	WG1183540
Carbon tetrachloride	U		0.00123	0.00568	1	10/19/2018 15:29	WG1183540
Chlorobenzene	U		0.000651	0.00284	1	10/19/2018 15:29	WG1183540
Chlorodibromomethane	U		0.000511	0.00284	1	10/19/2018 15:29	WG1183540
Chloroethane	U		0.00123	0.00568	1	10/19/2018 15:29	WG1183540
Chloroform	U		0.000471	0.00284	1	10/19/2018 15:29	WG1183540
Chloromethane	U		0.00158	0.0142	1	10/19/2018 15:29	WG1183540
2-Chlorotoluene	U		0.00104	0.00284	1	10/19/2018 15:29	WG1183540
4-Chlorotoluene	U		0.00128	0.00568	1	10/19/2018 15:29	WG1183540
1,2-Dibromo-3-Chloropropane	U		0.00579	0.0284	1	10/19/2018 15:29	WG1183540
1,2-Dibromoethane	U		0.000596	0.00284	1	10/19/2018 15:29	WG1183540
Dibromomethane	U		0.00114	0.00568	1	10/19/2018 15:29	WG1183540
1,2-Dichlorobenzene	U		0.00165	0.00568	1	10/19/2018 15:29	WG1183540
1,3-Dichlorobenzene	U		0.00193	0.00568	1	10/19/2018 15:29	WG1183540
1,4-Dichlorobenzene	U		0.00224	0.00568	1	10/19/2018 15:29	WG1183540
Dichlorodifluoromethane	U	U J4	0.00743	0.0227	8	10/23/2018 05:58	WG1184696
1,1-Dichloroethane	U		0.000653	0.00284	1	10/19/2018 15:29	WG1183540
1,2-Dichloroethane	U		0.000539	0.00284	1	10/19/2018 15:29	WG1183540
1,1-Dichloroethene	U		0.000568	0.00284	1	10/19/2018 15:29	WG1183540
cis-1,2-Dichloroethene	0.0251		0.000784	0.00284	1	10/19/2018 15:29	WG1183540
trans-1,2-Dichloroethene	U		0.00162	0.00568	1	10/19/2018 15:29	WG1183540
1,2-Dichloropropane	U		0.00144	0.00568	1	10/19/2018 15:29	WG1183540
1,1-Dichloropropene	U		0.000795	0.00284	1	10/19/2018 15:29	WG1183540
1,3-Dichloropropane	U		0.00199	0.00568	1	10/19/2018 15:29	WG1183540
cis-1,3-Dichloropropene	U		0.000770	0.00284	1	10/19/2018 15:29	WG1183540
trans-1,3-Dichloropropene	U	U J4	0.00174	0.00568	1	10/19/2018 15:29	WG1183540
trans-1,4-Dichloro-2-butene	U		0.00159	0.00568	1	10/19/2018 15:29	WG1183540
2,2-Dichloropropane	U		0.000900	0.00284	1	10/19/2018 15:29	WG1183540
Di-isopropyl ether	U		0.000397	0.00114	1	10/19/2018 15:29	WG1183540
Ethylbenzene	U	UJ J0	0.000602	0.00284	1	10/19/2018 15:29	WG1183540
Hexachloro-1,3-butadiene	U		0.0144	0.0284	1	10/19/2018 15:29	WG1183540
2-Hexanone	U		0.0114	0.0284	1	10/19/2018 15:29	WG1183540
n-Hexane	U	UJ J0 J4	0.00120	0.00568	1	10/19/2018 15:29	WG1183540
Iodomethane	U		0.00687	0.0142	1	10/19/2018 15:29	WG1183540
Isopropylbenzene	U		0.000980	0.00284	1	10/19/2018 15:29	WG1183540
p-Isopropyltoluene	U		0.00265	0.00568	1	10/19/2018 15:29	WG1183540
2-Butanone (MEK)	0.0249	U B J J4	0.0142	0.0284	1	10/19/2018 15:29	WG1183540
Methylene Chloride	U		0.00754	0.0284	1	10/19/2018 15:29	WG1183540
4-Methyl-2-pentanone (MIBK)	U		0.0114	0.0284	1	10/19/2018 15:29	WG1183540

JC 11/15/18

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000335	0.00114	1	10/19/2018 15:29	WG1183540
Naphthalene	U		0.00354	0.0142	1	10/19/2018 15:29	WG1183540
n-Propylbenzene	U		0.00134	0.00568	1	10/19/2018 15:29	WG1183540
Styrene	U		0.00310	0.0142	1	10/19/2018 15:29	WG1183540
1,1,1,2-Tetrachloroethane	U		0.000568	0.00284	1	10/19/2018 15:29	WG1183540
1,1,2,2-Tetrachloroethane	U		0.00354	0.0227	8	10/23/2018 05:58	WG1184696
1,1,2-Trichlorotrifluoroethane	U		0.00613	0.0227	8	10/23/2018 05:58	WG1184696
Tetrachloroethene	3.09		0.00636	0.0227	8	10/23/2018 05:58	WG1184696
Toluene	U		0.00142	0.00568	1	10/19/2018 15:29	WG1183540
1,2,3-Trichlorobenzene	U		0.00568	0.0227	8	10/23/2018 05:58	WG1184696
1,2,4-Trichlorobenzene	U		0.00547	0.0142	1	10/19/2018 15:29	WG1183540
1,1,1-Trichloroethane	U		0.000312	0.00284	1	10/19/2018 15:29	WG1183540
1,1,2-Trichloroethane	U		0.00100	0.00284	1	10/19/2018 15:29	WG1183540
Trichloroethene	0.0173		0.000454	0.00114	1	10/19/2018 15:29	WG1183540
Trichlorofluoromethane	U		0.000568	0.00284	1	10/19/2018 15:29	WG1183540
1,2,3-Trichloropropane	U		0.00579	0.0142	1	10/19/2018 15:29	WG1183540
1,2,4-Trimethylbenzene	U		0.00132	0.00568	1	10/19/2018 15:29	WG1183540
1,2,3-Trimethylbenzene	U		0.00131	0.00568	1	10/19/2018 15:29	WG1183540
1,3,5-Trimethylbenzene	U		0.00123	0.00568	1	10/19/2018 15:29	WG1183540
Vinyl acetate	U		0.00400	0.0142	1	10/19/2018 15:29	WG1183540
Vinyl chloride	0.0111	J J	0.00620	0.0227	8	10/23/2018 05:58	WG1184696
Xylenes, Total	U		0.00543	0.00738	1	10/19/2018 15:29	WG1183540
(S) Toluene-d8	*104*			*75.0-131*		*10/19/2018 15:29*	WG1183540
(S) Toluene-d8	*98.8*			*75.0-131*		*10/23/2018 05:58*	WG1184696
(S) Dibromofluoromethane	*95.0*			*65.0-129*		*10/19/2018 15:29*	WG1183540
(S) Dibromofluoromethane	*118*			*65.0-129*		*10/23/2018 05:58*	WG1184696
(S) 4-Bromofluorobenzene	*89.8*			*67.0-138*		*10/19/2018 15:29*	WG1183540
(S) 4-Bromofluorobenzene	*122*			*67.0-138*		*10/23/2018 05:58*	WG1184696

Sample Narrative:

L1035515-03 WG1184696, WG1183540: Cannot be reanalyzed at a lower dilution due to high levels of target analytes.

L1035515-03 WG1184696, WG1183540: Not all compounds reportable from lower dilution.

JC 11/15/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	85.3		1	10/22/2018 11:24	WG1184403

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		6.43	11.7	400	10/23/2018 06:18	WG1184696
Acrylonitrile	U		0.00223	0.0147	1	10/19/2018 15:48	WG1183540
Benzene	U		0.000469	0.00117	1	10/19/2018 15:48	WG1183540
Bromobenzene	U		0.00123	0.0147	1	10/19/2018 15:48	WG1183540
Bromodichloromethane	U		0.000924	0.00293	1	10/19/2018 15:48	WG1183540
Bromochloromethane	U		0.00133	0.00586	1	10/19/2018 15:48	WG1183540
Bromoform	U		0.00701	0.0293	1	10/19/2018 15:48	WG1183540
Bromomethane	U		0.00434	0.0147	1	10/19/2018 15:48	WG1183540
n-Butylbenzene	U		0.00450	0.0147	1	10/19/2018 15:48	WG1183540
sec-Butylbenzene	U		0.00297	0.0147	1	10/19/2018 15:48	WG1183540
tert-Butylbenzene	U		0.00182	0.00586	1	10/19/2018 15:48	WG1183540
Carbon disulfide	U	UJ J0	0.00476	0.0147	1	10/19/2018 15:48	WG1183540
Carbon tetrachloride	U		0.00127	0.00586	1	10/19/2018 15:48	WG1183540
Chlorobenzene	U		0.000672	0.00293	1	10/19/2018 15:48	WG1183540
Chlorodibromomethane	U		0.000528	0.00293	1	10/19/2018 15:48	WG1183540
Chloroethane	U		0.00127	0.00586	1	10/19/2018 15:48	WG1183540
Chloroform	U		0.000487	0.00293	1	10/19/2018 15:48	WG1183540
Chloromethane	U		0.00163	0.0147	1	10/19/2018 15:48	WG1183540
2-Chlorotoluene	U		0.00108	0.00293	1	10/19/2018 15:48	WG1183540
4-Chlorotoluene	U		0.00133	0.00586	1	10/19/2018 15:48	WG1183540
1,2-Dibromo-3-Chloropropane	U		0.00598	0.0293	1	10/19/2018 15:48	WG1183540
1,2-Dibromoethane	U		0.000616	0.00293	1	10/19/2018 15:48	WG1183540
Dibromomethane	U		0.00117	0.00586	1	10/19/2018 15:48	WG1183540
1,2-Dichlorobenzene	U		0.00170	0.00586	1	10/19/2018 15:48	WG1183540
1,3-Dichlorobenzene	U		0.00199	0.00586	1	10/19/2018 15:48	WG1183540
1,4-Dichlorobenzene	U		0.00231	0.00586	1	10/19/2018 15:48	WG1183540
Dichlorodifluoromethane	U	U J4	0.383	1.17	400	10/23/2018 06:18	WG1184696
1,1-Dichloroethane	U		0.000674	0.00293	1	10/19/2018 15:48	WG1183540
1,2-Dichloroethane	U		0.000557	0.00293	1	10/19/2018 15:48	WG1183540
1,1-Dichloroethene	U		0.000586	0.00293	1	10/19/2018 15:48	WG1183540
cis-1,2-Dichloroethene	0.366		0.000809	0.00293	1	10/19/2018 15:48	WG1183540
trans-1,2-Dichloroethene	0.00740		0.00168	0.00586	1	10/19/2018 15:48	WG1183540
1,2-Dichloropropane	U		0.00149	0.00586	1	10/19/2018 15:48	WG1183540
1,1-Dichloropropene	U		0.000821	0.00293	1	10/19/2018 15:48	WG1183540
1,3-Dichloropropane	U		0.00205	0.00586	1	10/19/2018 15:48	WG1183540
cis-1,3-Dichloropropene	U		0.000795	0.00293	1	10/19/2018 15:48	WG1183540
trans-1,3-Dichloropropene	U	U J4	0.00179	0.00586	1	10/19/2018 15:48	WG1183540
trans-1,4-Dichloro-2-butene	U		0.00164	0.00586	1	10/19/2018 15:48	WG1183540
2,2-Dichloropropane	U		0.000930	0.00293	1	10/19/2018 15:48	WG1183540
Di-isopropyl ether	U		0.000410	0.00117	1	10/19/2018 15:48	WG1183540
Ethylbenzene	U	UJ J0	0.000622	0.00293	1	10/19/2018 15:48	WG1183540
Hexachloro-1,3-butadiene	U		0.0149	0.0293	1	10/19/2018 15:48	WG1183540
2-Hexanone	U		0.0117	0.0293	1	10/19/2018 15:48	WG1183540
n-Hexane	0.00289	J J J0 J4	0.00124	0.00586	1	10/19/2018 15:48	WG1183540
Iodomethane	U		0.00709	0.0147	1	10/19/2018 15:48	WG1183540
Isopropylbenzene	U		0.00101	0.00293	1	10/19/2018 15:48	WG1183540
p-Isopropyltoluene	U		0.00273	0.00586	1	10/19/2018 15:48	WG1183540
2-Butanone (MEK)	0.0321	J B J4	0.0147	0.0293	1	10/19/2018 15:48	WG1183540
Methylene Chloride	U		0.00779	0.0293	1	10/19/2018 15:48	WG1183540
4-Methyl-2-pentanone (MIBK)	U		0.0117	0.0293	1	10/19/2018 15:48	WG1183540

JC 11/15/18

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000346	0.00117	1	10/19/2018 15:48	WG1183540
Naphthalene	U		0.00366	0.0147	1	10/19/2018 15:48	WG1183540
n-Propylbenzene	U		0.00138	0.00586	1	10/19/2018 15:48	WG1183540
Styrene	U		0.00320	0.0147	1	10/19/2018 15:48	WG1183540
1,1,1,2-Tetrachloroethane	U		0.000586	0.00293	1	10/19/2018 15:48	WG1183540
1,1,2,2-Tetrachloroethane	U		0.183	1.17	400	10/23/2018 06:18	WG1184696
1,1,2-Trichlorotrifluoroethane	U		0.317	1.17	400	10/23/2018 06:18	WG1184696
Tetrachloroethene	42.2		0.328	1.17	400	10/23/2018 06:18	WG1184696
Toluene	0.00152	J J	0.00147	0.00586	1	10/19/2018 15:48	WG1183540
1,2,3-Trichlorobenzene	U		0.293	1.17	400	10/23/2018 06:18	WG1184696
1,2,4-Trichlorobenzene	U		0.00565	0.0147	1	10/19/2018 15:48	WG1183540
1,1,1-Trichloroethane	U		0.000322	0.00293	1	10/19/2018 15:48	WG1183540
1,1,2-Trichloroethane	U		0.00104	0.00293	1	10/19/2018 15:48	WG1183540
Trichloroethene	0.353		0.000469	0.00117	1	10/19/2018 15:48	WG1183540
Trichlorofluoromethane	U		0.000586	0.00293	1	10/19/2018 15:48	WG1183540
1,2,3-Trichloropropane	U		0.00598	0.0147	1	10/19/2018 15:48	WG1183540
1,2,4-Trimethylbenzene	0.00657		0.00136	0.00586	1	10/19/2018 15:48	WG1183540
1,2,3-Trimethylbenzene	0.00223	J J	0.00135	0.00586	1	10/19/2018 15:48	WG1183540
1,3,5-Trimethylbenzene	0.00219	J J	0.00127	0.00586	1	10/19/2018 15:48	WG1183540
Vinyl acetate	U		0.00413	0.0147	1	10/19/2018 15:48	WG1183540
Vinyl chloride	U		0.320	1.17	400	10/23/2018 06:18	WG1184696
Xylenes, Total	U		0.00561	0.00762	1	10/19/2018 15:48	WG1183540
(S) Toluene-d8	*112*			*75.0-131*		*10/19/2018 15:48*	WG1183540
(S) Toluene-d8	*98.6*			*75.0-131*		*10/23/2018 06:18*	WG1184696
(S) Dibromofluoromethane	*93.1*			*65.0-129*		*10/19/2018 15:48*	WG1183540
(S) Dibromofluoromethane	*118*			*65.0-129*		*10/23/2018 06:18*	WG1184696
(S) 4-Bromofluorobenzene	*88.0*			*67.0-138*		*10/19/2018 15:48*	WG1183540
(S) 4-Bromofluorobenzene	*125*			*67.0-138*		*10/23/2018 06:18*	WG1184696

Sample Narrative:

L1035515-04 WG1184696, WG1183540: Cannot be reanalyzed at a lower dilution due to high levels of target analytes.

L1035515-04 WG1184696, WG1183540: Not all compounds reportable from lower dilution.

JC 11/15/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	92.9		1	10/22/2018 11:24	WG1184403

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		2.95	5.38	200	10/23/2018 06:38	WG1184696
Acrylonitrile	U		0.00204	0.0134	1	10/19/2018 16:06	WG1183540
Benzene	U		0.000430	0.00108	1	10/19/2018 16:06	WG1183540
Bromobenzene	U		0.00113	0.0134	1	10/19/2018 16:06	WG1183540
Bromodichloromethane	U		0.000848	0.00269	1	10/19/2018 16:06	WG1183540
Bromochloromethane	U		0.00122	0.00538	1	10/19/2018 16:06	WG1183540
Bromoform	U		0.00643	0.0269	1	10/19/2018 16:06	WG1183540
Bromomethane	U		0.00398	0.0134	1	10/19/2018 16:06	WG1183540
n-Butylbenzene	U		0.00413	0.0134	1	10/19/2018 16:06	WG1183540
sec-Butylbenzene	U		0.00272	0.0134	1	10/19/2018 16:06	WG1183540
tert-Butylbenzene	U		0.00167	0.00538	1	10/19/2018 16:06	WG1183540
Carbon disulfide	U	UJ J0	0.00437	0.0134	1	10/19/2018 16:06	WG1183540
Carbon tetrachloride	U		0.00116	0.00538	1	10/19/2018 16:06	WG1183540
Chlorobenzene	U		0.000616	0.00269	1	10/19/2018 16:06	WG1183540
Chlorodibromomethane	U		0.000484	0.00269	1	10/19/2018 16:06	WG1183540
Chloroethane	U		0.00116	0.00538	1	10/19/2018 16:06	WG1183540
Chloroform	U		0.000447	0.00269	1	10/19/2018 16:06	WG1183540
Chloromethane	U		0.00150	0.0134	1	10/19/2018 16:06	WG1183540
2-Chlorotoluene	U		0.000990	0.00269	1	10/19/2018 16:06	WG1183540
4-Chlorotoluene	U		0.00122	0.00538	1	10/19/2018 16:06	WG1183540
1,2-Dibromo-3-Chloropropane	U		0.00549	0.0269	1	10/19/2018 16:06	WG1183540
1,2-Dibromoethane	U		0.000565	0.00269	1	10/19/2018 16:06	WG1183540
Dibromomethane	U		0.00108	0.00538	1	10/19/2018 16:06	WG1183540
1,2-Dichlorobenzene	U		0.00156	0.00538	1	10/19/2018 16:06	WG1183540
1,3-Dichlorobenzene	U		0.00183	0.00538	1	10/19/2018 16:06	WG1183540
1,4-Dichlorobenzene	U		0.00212	0.00538	1	10/19/2018 16:06	WG1183540
Dichlorodifluoromethane	U	U J4	0.176	0.538	200	10/23/2018 06:38	WG1184696
1,1-Dichloroethane	U		0.000619	0.00269	1	10/19/2018 16:06	WG1183540
1,2-Dichloroethane	U		0.000511	0.00269	1	10/19/2018 16:06	WG1183540
1,1-Dichloroethene	U		0.000538	0.00269	1	10/19/2018 16:06	WG1183540
cis-1,2-Dichloroethene	0.182		0.000742	0.00269	1	10/19/2018 16:06	WG1183540
trans-1,2-Dichloroethene	0.00222	J J	0.00154	0.00538	1	10/19/2018 16:06	WG1183540
1,2-Dichloropropane	U		0.00137	0.00538	1	10/19/2018 16:06	WG1183540
1,1-Dichloropropene	U		0.000753	0.00269	1	10/19/2018 16:06	WG1183540
1,3-Dichloropropane	U		0.00188	0.00538	1	10/19/2018 16:06	WG1183540
cis-1,3-Dichloropropene	U		0.000729	0.00269	1	10/19/2018 16:06	WG1183540
trans-1,3-Dichloropropene	U	U J4	0.00165	0.00538	1	10/19/2018 16:06	WG1183540
trans-1,4-Dichloro-2-butene	U		0.00151	0.00538	1	10/19/2018 16:06	WG1183540
2,2-Dichloropropane	U		0.000853	0.00269	1	10/19/2018 16:06	WG1183540
Di-isopropyl ether	U		0.000377	0.00108	1	10/19/2018 16:06	WG1183540
Ethylbenzene	U	UJ J0	0.000570	0.00269	1	10/19/2018 16:06	WG1183540
Hexachloro-1,3-butadiene	U		0.0137	0.0269	1	10/19/2018 16:06	WG1183540
2-Hexanone	U		0.0108	0.0269	1	10/19/2018 16:06	WG1183540
n-Hexane	0.00515	J J J0 J4	0.00114	0.00538	1	10/19/2018 16:06	WG1183540
Iodomethane	U		0.00651	0.0134	1	10/19/2018 16:06	WG1183540
Isopropylbenzene	U		0.000929	0.00269	1	10/19/2018 16:06	WG1183540
p-Isopropyltoluene	U		0.00251	0.00538	1	10/19/2018 16:06	WG1183540
2-Butanone (MEK)	0.0314	J B J4	0.0134	0.0269	1	10/19/2018 16:06	WG1183540
Methylene Chloride	U		0.00714	0.0269	1	10/19/2018 16:06	WG1183540
4-Methyl-2-pentanone (MIBK)	U		0.0108	0.0269	1	10/19/2018 16:06	WG1183540

JC 11/15/18

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000317	0.00108	1	10/19/2018 16:06	WG1183540
Naphthalene	U		0.00336	0.0134	1	10/19/2018 16:06	WG1183540
n-Propylbenzene	U		0.00127	0.00538	1	10/19/2018 16:06	WG1183540
Styrene	U		0.00294	0.0134	1	10/19/2018 16:06	WG1183540
1,1,1,2-Tetrachloroethane	U		0.000538	0.00269	1	10/19/2018 16:06	WG1183540
1,1,2,2-Tetrachloroethane	U		0.0839	0.538	200	10/23/2018 06:38	WG1184696
1,1,2-Trichlorotrifluoroethane	U		0.145	0.538	200	10/23/2018 06:38	WG1184696
Tetrachloroethene	28.0		0.151	0.538	200	10/23/2018 06:38	WG1184696
Toluene	U		0.00134	0.00538	1	10/19/2018 16:06	WG1183540
1,2,3-Trichlorobenzene	U		0.134	0.538	200	10/23/2018 06:38	WG1184696
1,2,4-Trichlorobenzene	U		0.00519	0.0134	1	10/19/2018 16:06	WG1183540
1,1,1-Trichloroethane	U		0.000296	0.00269	1	10/19/2018 16:06	WG1183540
1,1,2-Trichloroethane	U		0.000950	0.00269	1	10/19/2018 16:06	WG1183540
Trichloroethene	0.228		0.000430	0.00108	1	10/19/2018 16:06	WG1183540
Trichlorofluoromethane	U		0.000538	0.00269	1	10/19/2018 16:06	WG1183540
1,2,3-Trichloropropane	U		0.00549	0.0134	1	10/19/2018 16:06	WG1183540
1,2,4-Trimethylbenzene	0.00341	J J	0.00125	0.00538	1	10/19/2018 16:06	WG1183540
1,2,3-Trimethylbenzene	0.00134	J J	0.00124	0.00538	1	10/19/2018 16:06	WG1183540
1,3,5-Trimethylbenzene	0.00120	J J	0.00116	0.00538	1	10/19/2018 16:06	WG1183540
Vinyl acetate	U		0.00379	0.0134	1	10/19/2018 16:06	WG1183540
Vinyl chloride	U		0.147	0.538	200	10/23/2018 06:38	WG1184696
Xylenes, Total	U		0.00514	0.00699	1	10/19/2018 16:06	WG1183540
(S) Toluene-d8	*111*			*75.0-131*		*10/19/2018 16:06*	WG1183540
(S) Toluene-d8	*98.2*			*75.0-131*		*10/23/2018 06:38*	WG1184696
(S) Dibromofluoromethane	*93.9*			*65.0-129*		*10/19/2018 16:06*	WG1183540
(S) Dibromofluoromethane	*117*			*65.0-129*		*10/23/2018 06:38*	WG1184696
(S) 4-Bromofluorobenzene	*88.1*			*67.0-138*		*10/19/2018 16:06*	WG1183540
(S) 4-Bromofluorobenzene	*123*			*67.0-138*		*10/23/2018 06:38*	WG1184696

Sample Narrative:

L1035515-05 WG1184696, WG1183540: Cannot be reanalyzed at a lower dilution due to high levels of target analytes.

L1035515-05 WG1184696, WG1183540: Not all compounds reportable from lower dilution.

JC 11/15/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	89.5		1	10/22/2018 11:24	WG1184403

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		6.12	11.2	400	10/23/2018 06:58	WG1184696
Acrylonitrile	U		0.00212	0.0140	1	10/19/2018 16:25	WG1183540
Benzene	U		0.000447	0.00112	1	10/19/2018 16:25	WG1183540
Bromobenzene	U		0.00117	0.0140	1	10/19/2018 16:25	WG1183540
Bromodichloromethane	U		0.000880	0.00279	1	10/19/2018 16:25	WG1183540
Bromochloromethane	U		0.00126	0.00559	1	10/19/2018 16:25	WG1183540
Bromoform	U		0.00668	0.0279	1	10/19/2018 16:25	WG1183540
Bromomethane	U		0.00413	0.0140	1	10/19/2018 16:25	WG1183540
n-Butylbenzene	U		0.00429	0.0140	1	10/19/2018 16:25	WG1183540
sec-Butylbenzene	U		0.00283	0.0140	1	10/19/2018 16:25	WG1183540
tert-Butylbenzene	U		0.00173	0.00559	1	10/19/2018 16:25	WG1183540
Carbon disulfide	U UJ	J0	0.00454	0.0140	1	10/19/2018 16:25	WG1183540
Carbon tetrachloride	U		0.00121	0.00559	1	10/19/2018 16:25	WG1183540
Chlorobenzene	U		0.000640	0.00279	1	10/19/2018 16:25	WG1183540
Chlorodibromomethane	U		0.000503	0.00279	1	10/19/2018 16:25	WG1183540
Chloroethane	U		0.00121	0.00559	1	10/19/2018 16:25	WG1183540
Chloroform	U		0.000464	0.00279	1	10/19/2018 16:25	WG1183540
Chloromethane	U		0.00155	0.0140	1	10/19/2018 16:25	WG1183540
2-Chlorotoluene	U		0.00103	0.00279	1	10/19/2018 16:25	WG1183540
4-Chlorotoluene	U		0.00126	0.00559	1	10/19/2018 16:25	WG1183540
1,2-Dibromo-3-Chloropropane	U		0.00570	0.0279	1	10/19/2018 16:25	WG1183540
1,2-Dibromoethane	U		0.000587	0.00279	1	10/19/2018 16:25	WG1183540
Dibromomethane	U		0.00112	0.00559	1	10/19/2018 16:25	WG1183540
1,2-Dichlorobenzene	U		0.00162	0.00559	1	10/19/2018 16:25	WG1183540
1,3-Dichlorobenzene	U		0.00190	0.00559	1	10/19/2018 16:25	WG1183540
1,4-Dichlorobenzene	U		0.00220	0.00559	1	10/19/2018 16:25	WG1183540
Dichlorodifluoromethane	U U	J4	0.365	1.12	400	10/23/2018 06:58	WG1184696
1,1-Dichloroethane	U		0.000642	0.00279	1	10/19/2018 16:25	WG1183540
1,2-Dichloroethane	U		0.000531	0.00279	1	10/19/2018 16:25	WG1183540
1,1-Dichloroethene	U		0.000559	0.00279	1	10/19/2018 16:25	WG1183540
cis-1,2-Dichloroethene	1.20		0.000771	0.00279	1	10/19/2018 16:25	WG1183540
trans-1,2-Dichloroethene	0.00449 J	J	0.00160	0.00559	1	10/19/2018 16:25	WG1183540
1,2-Dichloropropane	U		0.00142	0.00559	1	10/19/2018 16:25	WG1183540
1,1-Dichloropropene	U		0.000782	0.00279	1	10/19/2018 16:25	WG1183540
1,3-Dichloropropane	U		0.00196	0.00559	1	10/19/2018 16:25	WG1183540
cis-1,3-Dichloropropene	U		0.000757	0.00279	1	10/19/2018 16:25	WG1183540
trans-1,3-Dichloropropene	U U	J4	0.00171	0.00559	1	10/19/2018 16:25	WG1183540
trans-1,4-Dichloro-2-butene	U		0.00156	0.00559	1	10/19/2018 16:25	WG1183540
2,2-Dichloropropane	U		0.000886	0.00279	1	10/19/2018 16:25	WG1183540
Di-isopropyl ether	U		0.000391	0.00112	1	10/19/2018 16:25	WG1183540
Ethylbenzene	0.000655 J	J J0	0.000592	0.00279	1	10/19/2018 16:25	WG1183540
Hexachloro-1,3-butadiene	U		0.0142	0.0279	1	10/19/2018 16:25	WG1183540
2-Hexanone	U		0.0112	0.0279	1	10/19/2018 16:25	WG1183540
n-Hexane	0.00486 J	J J0 J4	0.00118	0.00559	1	10/19/2018 16:25	WG1183540
Iodomethane	U		0.00676	0.0140	1	10/19/2018 16:25	WG1183540
Isopropylbenzene	U		0.000964	0.00279	1	10/19/2018 16:25	WG1183540
p-Isopropyltoluene	U		0.00260	0.00559	1	10/19/2018 16:25	WG1183540
2-Butanone (MEK)	0.0313 J	B J4	0.0140	0.0279	1	10/19/2018 16:25	WG1183540
Methylene Chloride	U		0.00742	0.0279	1	10/19/2018 16:25	WG1183540
4-Methyl-2-pentanone (MIBK)	U		0.0112	0.0279	1	10/19/2018 16:25	WG1183540

JC 11/15/18

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000330	0.00112	1	10/19/2018 16:25	WG1183540
Naphthalene	U		0.00349	0.0140	1	10/19/2018 16:25	WG1183540
n-Propylbenzene	U		0.00132	0.00559	1	10/19/2018 16:25	WG1183540
Styrene	U		0.00305	0.0140	1	10/19/2018 16:25	WG1183540
1,1,1,2-Tetrachloroethane	U		0.000559	0.00279	1	10/19/2018 16:25	WG1183540
1,1,2,2-Tetrachloroethane	U		0.174	1.12	400	10/23/2018 06:58	WG1184696
1,1,2-Trichlorotrifluoroethane	U		0.302	1.12	400	10/23/2018 06:58	WG1184696
Tetrachloroethene	46.7		0.313	1.12	400	10/23/2018 06:58	WG1184696
Toluene	0.00321	J J	0.00140	0.00559	1	10/19/2018 16:25	WG1183540
1,2,3-Trichlorobenzene	U		0.279	1.12	400	10/23/2018 06:58	WG1184696
1,2,4-Trichlorobenzene	U		0.00539	0.0140	1	10/19/2018 16:25	WG1183540
1,1,1-Trichloroethane	U		0.000307	0.00279	1	10/19/2018 16:25	WG1183540
1,1,2-Trichloroethane	U		0.000987	0.00279	1	10/19/2018 16:25	WG1183540
Trichloroethene	0.681		0.000447	0.00112	1	10/19/2018 16:25	WG1183540
Trichlorofluoromethane	U		0.000559	0.00279	1	10/19/2018 16:25	WG1183540
1,2,3-Trichloropropane	U		0.00570	0.0140	1	10/19/2018 16:25	WG1183540
1,2,4-Trimethylbenzene	0.00517	J J	0.00130	0.00559	1	10/19/2018 16:25	WG1183540
1,2,3-Trimethylbenzene	0.00170	J J	0.00128	0.00559	1	10/19/2018 16:25	WG1183540
1,3,5-Trimethylbenzene	0.00138	J J	0.00121	0.00559	1	10/19/2018 16:25	WG1183540
Vinyl acetate	U		0.00393	0.0140	1	10/19/2018 16:25	WG1183540
Vinyl chloride	U		0.305	1.12	400	10/23/2018 06:58	WG1184696
Xylenes, Total	U		0.00534	0.00726	1	10/19/2018 16:25	WG1183540
(S) Toluene-d8	*112*			*75.0-131*		*10/19/2018 16:25*	WG1183540
(S) Toluene-d8	*98.1*			*75.0-131*		*10/23/2018 06:58*	WG1184696
(S) Dibromofluoromethane	*92.5*			*65.0-129*		*10/19/2018 16:25*	WG1183540
(S) Dibromofluoromethane	*118*			*65.0-129*		*10/23/2018 06:58*	WG1184696
(S) 4-Bromofluorobenzene	*90.7*			*67.0-138*		*10/19/2018 16:25*	WG1183540
(S) 4-Bromofluorobenzene	*120*			*67.0-138*		*10/23/2018 06:58*	WG1184696

Sample Narrative:

L1035515-06 WG1184696, WG1183540: Cannot be reanalyzed at a lower dilution due to high levels of target analytes.

L1035515-06 WG1184696, WG1183540: Not all compounds reportable from lower dilution.

JC 11/15/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	87.6		1	10/22/2018 11:24	WG1184403

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0156	0.0286	1	10/23/2018 01:38	WG1184696
Acrylonitrile	U		0.00217	0.0143	1	10/19/2018 16:43	WG1183540
Benzene	U		0.000457	0.00114	1	10/19/2018 16:43	WG1183540
Bromobenzene	U		0.00120	0.0143	1	10/19/2018 16:43	WG1183540
Bromodichloromethane	U		0.000900	0.00286	1	10/19/2018 16:43	WG1183540
Bromochloromethane	U		0.00129	0.00571	1	10/19/2018 16:43	WG1183540
Bromoform	U		0.00683	0.0286	1	10/19/2018 16:43	WG1183540
Bromomethane	U		0.00423	0.0143	1	10/19/2018 16:43	WG1183540
n-Butylbenzene	U		0.00439	0.0143	1	10/19/2018 16:43	WG1183540
sec-Butylbenzene	U		0.00289	0.0143	1	10/19/2018 16:43	WG1183540
tert-Butylbenzene	U		0.00177	0.00571	1	10/19/2018 16:43	WG1183540
Carbon disulfide	U	UJ J0	0.00464	0.0143	1	10/19/2018 16:43	WG1183540
Carbon tetrachloride	U		0.00123	0.00571	1	10/19/2018 16:43	WG1183540
Chlorobenzene	U		0.000654	0.00286	1	10/19/2018 16:43	WG1183540
Chlorodibromomethane	U		0.000514	0.00286	1	10/19/2018 16:43	WG1183540
Chloroethane	U		0.00123	0.00571	1	10/19/2018 16:43	WG1183540
Chloroform	U		0.000474	0.00286	1	10/19/2018 16:43	WG1183540
Chloromethane	U		0.00159	0.0143	1	10/19/2018 16:43	WG1183540
2-Chlorotoluene	U		0.00105	0.00286	1	10/19/2018 16:43	WG1183540
4-Chlorotoluene	U		0.00129	0.00571	1	10/19/2018 16:43	WG1183540
1,2-Dibromo-3-Chloropropane	U		0.00582	0.0286	1	10/19/2018 16:43	WG1183540
1,2-Dibromoethane	U		0.000600	0.00286	1	10/19/2018 16:43	WG1183540
Dibromomethane	U		0.00114	0.00571	1	10/19/2018 16:43	WG1183540
1,2-Dichlorobenzene	U		0.00166	0.00571	1	10/19/2018 16:43	WG1183540
1,3-Dichlorobenzene	U		0.00194	0.00571	1	10/19/2018 16:43	WG1183540
1,4-Dichlorobenzene	U		0.00225	0.00571	1	10/19/2018 16:43	WG1183540
Dichlorodifluoromethane	U	U J4	0.000934	0.00286	1	10/23/2018 01:38	WG1184696
1,1-Dichloroethane	U		0.000657	0.00286	1	10/19/2018 16:43	WG1183540
1,2-Dichloroethane	U		0.000542	0.00286	1	10/19/2018 16:43	WG1183540
1,1-Dichloroethene	U		0.000571	0.00286	1	10/19/2018 16:43	WG1183540
cis-1,2-Dichloroethene	0.0101		0.000788	0.00286	1	10/19/2018 16:43	WG1183540
trans-1,2-Dichloroethene	U		0.00163	0.00571	1	10/19/2018 16:43	WG1183540
1,2-Dichloropropane	U		0.00145	0.00571	1	10/19/2018 16:43	WG1183540
1,1-Dichloropropene	U		0.000799	0.00286	1	10/19/2018 16:43	WG1183540
1,3-Dichloropropane	U		0.00200	0.00571	1	10/19/2018 16:43	WG1183540
cis-1,3-Dichloropropene	U		0.000774	0.00286	1	10/19/2018 16:43	WG1183540
trans-1,3-Dichloropropene	U	U J4	0.00175	0.00571	1	10/19/2018 16:43	WG1183540
trans-1,4-Dichloro-2-butene	U		0.00160	0.00571	1	10/19/2018 16:43	WG1183540
2,2-Dichloropropane	U		0.000906	0.00286	1	10/19/2018 16:43	WG1183540
Di-isopropyl ether	U		0.000400	0.00114	1	10/19/2018 16:43	WG1183540
Ethylbenzene	U	UJ J0	0.000605	0.00286	1	10/19/2018 16:43	WG1183540
Hexachloro-1,3-butadiene	U		0.0145	0.0286	1	10/19/2018 16:43	WG1183540
2-Hexanone	U		0.0114	0.0286	1	10/19/2018 16:43	WG1183540
n-Hexane	0.00578	J J0 J4	0.00121	0.00571	1	10/19/2018 16:43	WG1183540
Iodomethane	U		0.00691	0.0143	1	10/19/2018 16:43	WG1183540
Isopropylbenzene	U		0.000986	0.00286	1	10/19/2018 16:43	WG1183540
p-Isopropyltoluene	U		0.00266	0.00571	1	10/19/2018 16:43	WG1183540
2-Butanone (MEK)	0.0274	U B J J4	0.0143	0.0286	1	10/19/2018 16:43	WG1183540
Methylene Chloride	U		0.00758	0.0286	1	10/19/2018 16:43	WG1183540
4-Methyl-2-pentanone (MIBK)	U		0.0114	0.0286	1	10/19/2018 16:43	WG1183540

JC 11/15/18

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000337	0.00114	1	10/19/2018 16:43	WG1183540
Naphthalene	U		0.00356	0.0143	1	10/19/2018 16:43	WG1183540
n-Propylbenzene	U		0.00135	0.00571	1	10/19/2018 16:43	WG1183540
Styrene	U		0.00312	0.0143	1	10/19/2018 16:43	WG1183540
1,1,1,2-Tetrachloroethane	U		0.000571	0.00286	1	10/19/2018 16:43	WG1183540
1,1,2,2-Tetrachloroethane	U		0.000445	0.00286	1	10/23/2018 01:38	WG1184696
1,1,2-Trichlorotrifluoroethane	U		0.000771	0.00286	1	10/23/2018 01:38	WG1184696
Tetrachloroethene	0.0927		0.000799	0.00286	1	10/23/2018 01:38	WG1184696
Toluene	U		0.00143	0.00571	1	10/19/2018 16:43	WG1183540
1,2,3-Trichlorobenzene	U		0.000714	0.00286	1	10/23/2018 01:38	WG1184696
1,2,4-Trichlorobenzene	U		0.00550	0.0143	1	10/19/2018 16:43	WG1183540
1,1,1-Trichloroethane	U		0.000314	0.00286	1	10/19/2018 16:43	WG1183540
1,1,2-Trichloroethane	U		0.00101	0.00286	1	10/19/2018 16:43	WG1183540
Trichloroethene	0.00586		0.000457	0.00114	1	10/19/2018 16:43	WG1183540
Trichlorofluoromethane	U		0.000571	0.00286	1	10/19/2018 16:43	WG1183540
1,2,3-Trichloropropane	U		0.00582	0.0143	1	10/19/2018 16:43	WG1183540
1,2,4-Trimethylbenzene	U		0.00132	0.00571	1	10/19/2018 16:43	WG1183540
1,2,3-Trimethylbenzene	U		0.00131	0.00571	1	10/19/2018 16:43	WG1183540
1,3,5-Trimethylbenzene	U		0.00123	0.00571	1	10/19/2018 16:43	WG1183540
Vinyl acetate	U		0.00402	0.0143	1	10/19/2018 16:43	WG1183540
Vinyl chloride	U U	J4	0.000780	0.00286	1	10/19/2018 16:43	WG1183540
Xylenes, Total	U		0.00546	0.00742	1	10/19/2018 16:43	WG1183540
(S) Toluene-d8	*101*			*75.0-131*		*10/19/2018 16:43*	WG1183540
(S) Toluene-d8	*101*			*75.0-131*		*10/23/2018 01:38*	WG1184696
(S) Dibromofluoromethane	*94.1*			*65.0-129*		*10/19/2018 16:43*	WG1183540
(S) Dibromofluoromethane	*111*			*65.0-129*		*10/23/2018 01:38*	WG1184696
(S) 4-Bromofluorobenzene	*90.7*			*67.0-138*		*10/19/2018 16:43*	WG1183540
(S) 4-Bromofluorobenzene	*121*			*67.0-138*		*10/23/2018 01:38*	WG1184696

JC 11/15/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	86.3		1	10/22/2018 11:24	WG1184403

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0159	0.0290	1	10/23/2018 01:58	WG1184696
Acrylonitrile	U		0.00220	0.0145	1	10/19/2018 17:02	WG1183540
Benzene	U		0.000463	0.00116	1	10/19/2018 17:02	WG1183540
Bromobenzene	U		0.00122	0.0145	1	10/19/2018 17:02	WG1183540
Bromodichloromethane	U		0.000913	0.00290	1	10/19/2018 17:02	WG1183540
Bromochloromethane	U		0.00131	0.00579	1	10/19/2018 17:02	WG1183540
Bromoform	U		0.00693	0.0290	1	10/19/2018 17:02	WG1183540
Bromomethane	U		0.00429	0.0145	1	10/19/2018 17:02	WG1183540
n-Butylbenzene	U		0.00445	0.0145	1	10/19/2018 17:02	WG1183540
sec-Butylbenzene	U		0.00293	0.0145	1	10/19/2018 17:02	WG1183540
tert-Butylbenzene	U		0.00180	0.00579	1	10/19/2018 17:02	WG1183540
Carbon disulfide	U	UJ J0	0.00470	0.0145	1	10/19/2018 17:02	WG1183540
Carbon tetrachloride	U		0.00125	0.00579	1	10/19/2018 17:02	WG1183540
Chlorobenzene	U		0.000664	0.00290	1	10/19/2018 17:02	WG1183540
Chlorodibromomethane	U		0.000521	0.00290	1	10/19/2018 17:02	WG1183540
Chloroethane	U		0.00125	0.00579	1	10/19/2018 17:02	WG1183540
Chloroform	U		0.000481	0.00290	1	10/19/2018 17:02	WG1183540
Chloromethane	U		0.00161	0.0145	1	10/19/2018 17:02	WG1183540
2-Chlorotoluene	U		0.00107	0.00290	1	10/19/2018 17:02	WG1183540
4-Chlorotoluene	U		0.00131	0.00579	1	10/19/2018 17:02	WG1183540
1,2-Dibromo-3-Chloropropane	U		0.00591	0.0290	1	10/19/2018 17:02	WG1183540
1,2-Dibromoethane	U		0.000608	0.00290	1	10/19/2018 17:02	WG1183540
Dibromomethane	U		0.00116	0.00579	1	10/19/2018 17:02	WG1183540
1,2-Dichlorobenzene	U		0.00168	0.00579	1	10/19/2018 17:02	WG1183540
1,3-Dichlorobenzene	U		0.00197	0.00579	1	10/19/2018 17:02	WG1183540
1,4-Dichlorobenzene	U		0.00228	0.00579	1	10/19/2018 17:02	WG1183540
Dichlorodifluoromethane	U	U J4	0.000948	0.00290	1	10/23/2018 01:58	WG1184696
1,1-Dichloroethane	U		0.000666	0.00290	1	10/19/2018 17:02	WG1183540
1,2-Dichloroethane	U		0.000550	0.00290	1	10/19/2018 17:02	WG1183540
1,1-Dichloroethene	U		0.000579	0.00290	1	10/19/2018 17:02	WG1183540
cis-1,2-Dichloroethene	0.0118		0.000800	0.00290	1	10/19/2018 17:02	WG1183540
trans-1,2-Dichloroethene	U		0.00166	0.00579	1	10/19/2018 17:02	WG1183540
1,2-Dichloropropane	U		0.00147	0.00579	1	10/19/2018 17:02	WG1183540
1,1-Dichloropropene	U		0.000811	0.00290	1	10/19/2018 17:02	WG1183540
1,3-Dichloropropane	U		0.00203	0.00579	1	10/19/2018 17:02	WG1183540
cis-1,3-Dichloropropene	U		0.000786	0.00290	1	10/19/2018 17:02	WG1183540
trans-1,3-Dichloropropene	U	U J4	0.00177	0.00579	1	10/19/2018 17:02	WG1183540
trans-1,4-Dichloro-2-butene	U		0.00162	0.00579	1	10/19/2018 17:02	WG1183540
2,2-Dichloropropane	U		0.000919	0.00290	1	10/19/2018 17:02	WG1183540
Di-isopropyl ether	U		0.000406	0.00116	1	10/19/2018 17:02	WG1183540
Ethylbenzene	U	UJ J0	0.000614	0.00290	1	10/19/2018 17:02	WG1183540
Hexachloro-1,3-butadiene	U		0.0147	0.0290	1	10/19/2018 17:02	WG1183540
2-Hexanone	U		0.0116	0.0290	1	10/19/2018 17:02	WG1183540
n-Hexane	0.00565	J J J0 J4	0.00123	0.00579	1	10/19/2018 17:02	WG1183540
Iodomethane	U		0.00701	0.0145	1	10/19/2018 17:02	WG1183540
Isopropylbenzene	U		0.00100	0.00290	1	10/19/2018 17:02	WG1183540
p-Isopropyltoluene	U		0.00270	0.00579	1	10/19/2018 17:02	WG1183540
2-Butanone (MEK)	0.0328	J B J4	0.0145	0.0290	1	10/19/2018 17:02	WG1183540
Methylene Chloride	U		0.00769	0.0290	1	10/19/2018 17:02	WG1183540
4-Methyl-2-pentanone (MIBK)	U		0.0116	0.0290	1	10/19/2018 17:02	WG1183540

JC 11/15/18

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000342	0.00116	1	10/19/2018 17:02	WG1183540
Naphthalene	U		0.00362	0.0145	1	10/19/2018 17:02	WG1183540
n-Propylbenzene	U		0.00137	0.00579	1	10/19/2018 17:02	WG1183540
Styrene	U		0.00316	0.0145	1	10/19/2018 17:02	WG1183540
1,1,1,2-Tetrachloroethane	U		0.000579	0.00290	1	10/19/2018 17:02	WG1183540
1,1,2,2-Tetrachloroethane	U		0.000452	0.00290	1	10/23/2018 01:58	WG1184696
1,1,2-Trichlorotrifluoroethane	U		0.000782	0.00290	1	10/23/2018 01:58	WG1184696
Tetrachloroethene	0.0420		0.000811	0.00290	1	10/23/2018 01:58	WG1184696
Toluene	U		0.00145	0.00579	1	10/19/2018 17:02	WG1183540
1,2,3-Trichlorobenzene	U		0.000724	0.00290	1	10/23/2018 01:58	WG1184696
1,2,4-Trichlorobenzene	U		0.00558	0.0145	1	10/19/2018 17:02	WG1183540
1,1,1-Trichloroethane	U		0.000319	0.00290	1	10/19/2018 17:02	WG1183540
1,1,2-Trichloroethane	U		0.00102	0.00290	1	10/19/2018 17:02	WG1183540
Trichloroethene	0.0342		0.000463	0.00116	1	10/19/2018 17:02	WG1183540
Trichlorofluoromethane	U		0.000579	0.00290	1	10/19/2018 17:02	WG1183540
1,2,3-Trichloropropane	U		0.00591	0.0145	1	10/19/2018 17:02	WG1183540
1,2,4-Trimethylbenzene	U		0.00134	0.00579	1	10/19/2018 17:02	WG1183540
1,2,3-Trimethylbenzene	U		0.00133	0.00579	1	10/19/2018 17:02	WG1183540
1,3,5-Trimethylbenzene	U		0.00125	0.00579	1	10/19/2018 17:02	WG1183540
Vinyl acetate	U		0.00408	0.0145	1	10/19/2018 17:02	WG1183540
Vinyl chloride	U U	J4	0.000791	0.00290	1	10/19/2018 17:02	WG1183540
Xylenes, Total	U		0.00554	0.00753	1	10/19/2018 17:02	WG1183540
(S) Toluene-d8	*102*			*75.0-131*		*10/19/2018 17:02*	WG1183540
(S) Toluene-d8	*99.2*			*75.0-131*		*10/23/2018 01:58*	WG1184696
(S) Dibromofluoromethane	*95.6*			*65.0-129*		*10/19/2018 17:02*	WG1183540
(S) Dibromofluoromethane	*114*			*65.0-129*		*10/23/2018 01:58*	WG1184696
(S) 4-Bromofluorobenzene	*88.3*			*67.0-138*		*10/19/2018 17:02*	WG1183540
(S) 4-Bromofluorobenzene	*121*			*67.0-138*		*10/23/2018 01:58*	WG1184696

JC 11/15/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	91.8		1	10/22/2018 11:24	WG1184403

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0149	0.0272	1	10/23/2018 02:18	WG1184696
Acrylonitrile	U		0.00207	0.0136	1	10/19/2018 17:20	WG1183540
Benzene	U		0.000436	0.00109	1	10/19/2018 17:20	WG1183540
Bromobenzene	U		0.00114	0.0136	1	10/19/2018 17:20	WG1183540
Bromodichloromethane	U		0.000859	0.00272	1	10/19/2018 17:20	WG1183540
Bromochloromethane	U		0.00123	0.00545	1	10/19/2018 17:20	WG1183540
Bromoform	U		0.00652	0.0272	1	10/19/2018 17:20	WG1183540
Bromomethane	U		0.00403	0.0136	1	10/19/2018 17:20	WG1183540
n-Butylbenzene	U		0.00418	0.0136	1	10/19/2018 17:20	WG1183540
sec-Butylbenzene	U		0.00276	0.0136	1	10/19/2018 17:20	WG1183540
tert-Butylbenzene	U		0.00169	0.00545	1	10/19/2018 17:20	WG1183540
Carbon disulfide	U	UJ J0	0.00442	0.0136	1	10/19/2018 17:20	WG1183540
Carbon tetrachloride	U		0.00118	0.00545	1	10/19/2018 17:20	WG1183540
Chlorobenzene	U		0.000624	0.00272	1	10/19/2018 17:20	WG1183540
Chlorodibromomethane	U		0.000490	0.00272	1	10/19/2018 17:20	WG1183540
Chloroethane	U		0.00118	0.00545	1	10/19/2018 17:20	WG1183540
Chloroform	U		0.000452	0.00272	1	10/19/2018 17:20	WG1183540
Chloromethane	U		0.00151	0.0136	1	10/19/2018 17:20	WG1183540
2-Chlorotoluene	U		0.00100	0.00272	1	10/19/2018 17:20	WG1183540
4-Chlorotoluene	U		0.00123	0.00545	1	10/19/2018 17:20	WG1183540
1,2-Dibromo-3-Chloropropane	U		0.00556	0.0272	1	10/19/2018 17:20	WG1183540
1,2-Dibromoethane	U		0.000572	0.00272	1	10/19/2018 17:20	WG1183540
Dibromomethane	U		0.00109	0.00545	1	10/19/2018 17:20	WG1183540
1,2-Dichlorobenzene	U		0.00158	0.00545	1	10/19/2018 17:20	WG1183540
1,3-Dichlorobenzene	U		0.00185	0.00545	1	10/19/2018 17:20	WG1183540
1,4-Dichlorobenzene	U		0.00215	0.00545	1	10/19/2018 17:20	WG1183540
Dichlorodifluoromethane	U	U J4	0.000891	0.00272	1	10/23/2018 02:18	WG1184696
1,1-Dichloroethane	U		0.000627	0.00272	1	10/19/2018 17:20	WG1183540
1,2-Dichloroethane	U		0.000518	0.00272	1	10/19/2018 17:20	WG1183540
1,1-Dichloroethene	U		0.000545	0.00272	1	10/19/2018 17:20	WG1183540
cis-1,2-Dichloroethene	0.0294		0.000752	0.00272	1	10/19/2018 17:20	WG1183540
trans-1,2-Dichloroethene	U		0.00156	0.00545	1	10/19/2018 17:20	WG1183540
1,2-Dichloropropane	U		0.00138	0.00545	1	10/19/2018 17:20	WG1183540
1,1-Dichloropropene	U		0.000763	0.00272	1	10/19/2018 17:20	WG1183540
1,3-Dichloropropane	U		0.00191	0.00545	1	10/19/2018 17:20	WG1183540
cis-1,3-Dichloropropene	U		0.000739	0.00272	1	10/19/2018 17:20	WG1183540
trans-1,3-Dichloropropene	U	U J4	0.00167	0.00545	1	10/19/2018 17:20	WG1183540
trans-1,4-Dichloro-2-butene	U		0.00153	0.00545	1	10/19/2018 17:20	WG1183540
2,2-Dichloropropane	U		0.000864	0.00272	1	10/19/2018 17:20	WG1183540
Di-isopropyl ether	U		0.000381	0.00109	1	10/19/2018 17:20	WG1183540
Ethylbenzene	U	UJ J0	0.000577	0.00272	1	10/19/2018 17:20	WG1183540
Hexachloro-1,3-butadiene	U		0.0138	0.0272	1	10/19/2018 17:20	WG1183540
2-Hexanone	U		0.0109	0.0272	1	10/19/2018 17:20	WG1183540
n-Hexane	0.00689	J J0 J4	0.00115	0.00545	1	10/19/2018 17:20	WG1183540
Iodomethane	U		0.00659	0.0136	1	10/19/2018 17:20	WG1183540
Isopropylbenzene	U		0.000940	0.00272	1	10/19/2018 17:20	WG1183540
p-Isopropyltoluene	U		0.00254	0.00545	1	10/19/2018 17:20	WG1183540
2-Butanone (MEK)	0.0295	J B J4	0.0136	0.0272	1	10/19/2018 17:20	WG1183540
Methylene Chloride	U		0.00723	0.0272	1	10/19/2018 17:20	WG1183540
4-Methyl-2-pentanone (MIBK)	U		0.0109	0.0272	1	10/19/2018 17:20	WG1183540

JC 11/15/18

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000321	0.00109	1	10/19/2018 17:20	WG1183540
Naphthalene	U		0.00340	0.0136	1	10/19/2018 17:20	WG1183540
n-Propylbenzene	U		0.00129	0.00545	1	10/19/2018 17:20	WG1183540
Styrene	U		0.00297	0.0136	1	10/19/2018 17:20	WG1183540
1,1,1,2-Tetrachloroethane	U		0.000545	0.00272	1	10/19/2018 17:20	WG1183540
1,1,2,2-Tetrachloroethane	U		0.000425	0.00272	1	10/23/2018 02:18	WG1184696
1,1,2-Trichlorotrifluoroethane	U		0.000735	0.00272	1	10/23/2018 02:18	WG1184696
Tetrachloroethene	1.23		0.000763	0.00272	1	10/19/2018 17:20	WG1183540
Toluene	U		0.00136	0.00545	1	10/19/2018 17:20	WG1183540
1,2,3-Trichlorobenzene	U		0.000681	0.00272	1	10/23/2018 02:18	WG1184696
1,2,4-Trichlorobenzene	U		0.00525	0.0136	1	10/19/2018 17:20	WG1183540
1,1,1-Trichloroethane	U		0.000300	0.00272	1	10/19/2018 17:20	WG1183540
1,1,2-Trichloroethane	U		0.000962	0.00272	1	10/19/2018 17:20	WG1183540
Trichloroethene	0.0362		0.000436	0.00109	1	10/19/2018 17:20	WG1183540
Trichlorofluoromethane	U		0.000545	0.00272	1	10/19/2018 17:20	WG1183540
1,2,3-Trichloropropane	U		0.00556	0.0136	1	10/19/2018 17:20	WG1183540
1,2,4-Trimethylbenzene	U		0.00126	0.00545	1	10/19/2018 17:20	WG1183540
1,2,3-Trimethylbenzene	U		0.00125	0.00545	1	10/19/2018 17:20	WG1183540
1,3,5-Trimethylbenzene	U		0.00118	0.00545	1	10/19/2018 17:20	WG1183540
Vinyl acetate	U		0.00384	0.0136	1	10/19/2018 17:20	WG1183540
Vinyl chloride	0.00247 J	J	0.000744	0.00272	1	10/23/2018 02:18	WG1184696
Xylenes, Total	U		0.00521	0.00708	1	10/19/2018 17:20	WG1183540
(S) Toluene-d8	*102*			*75.0-131*		*10/19/2018 17:20*	WG1183540
(S) Toluene-d8	*98.9*			*75.0-131*		*10/23/2018 02:18*	WG1184696
(S) Dibromofluoromethane	*94.4*			*65.0-129*		*10/19/2018 17:20*	WG1183540
(S) Dibromofluoromethane	*112*			*65.0-129*		*10/23/2018 02:18*	WG1184696
(S) 4-Bromofluorobenzene	*91.1*			*67.0-138*		*10/19/2018 17:20*	WG1183540
(S) 4-Bromofluorobenzene	*120*			*67.0-138*		*10/23/2018 02:18*	WG1184696

JC 11/15/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	94.5		1	10/22/2018 11:24	WG1184403

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch	
	mg/kg		mg/kg	mg/kg		date / time		
Acetone	U		0.580	1.06	40	10/23/2018 07:18	WG1184696	
Acrylonitrile	U		0.00201	0.0132	1	10/19/2018 18:07	WG1183540	
Benzene	U		0.000423	0.00106	1	10/19/2018 18:07	WG1183540	
Bromobenzene	U		0.00111	0.0132	1	10/19/2018 18:07	WG1183540	
Bromodichloromethane	U		0.000834	0.00265	1	10/19/2018 18:07	WG1183540	
Bromochloromethane	U		0.00120	0.00529	1	10/19/2018 18:07	WG1183540	
Bromoform	U		0.00633	0.0265	1	10/19/2018 18:07	WG1183540	
Bromomethane	U		0.00392	0.0132	1	10/19/2018 18:07	WG1183540	
n-Butylbenzene	U		0.00406	0.0132	1	10/19/2018 18:07	WG1183540	
sec-Butylbenzene	U		0.00268	0.0132	1	10/19/2018 18:07	WG1183540	
tert-Butylbenzene	U		0.00164	0.00529	1	10/19/2018 18:07	WG1183540	
Carbon disulfide	U	UJ J0	0.00430	0.0132	1	10/19/2018 18:07	WG1183540	
Carbon tetrachloride	U		0.00114	0.00529	1	10/19/2018 18:07	WG1183540	
Chlorobenzene	U		0.000607	0.00265	1	10/19/2018 18:07	WG1183540	
Chlorodibromomethane	U		0.000476	0.00265	1	10/19/2018 18:07	WG1183540	
Chloroethane	U		0.00114	0.00529	1	10/19/2018 18:07	WG1183540	
Chloroform	U		0.000439	0.00265	1	10/19/2018 18:07	WG1183540	
Chloromethane	U		0.00147	0.0132	1	10/19/2018 18:07	WG1183540	
2-Chlorotoluene	U		0.000974	0.00265	1	10/19/2018 18:07	WG1183540	
4-Chlorotoluene	U		0.00120	0.00529	1	10/19/2018 18:07	WG1183540	
1,2-Dibromo-3-Chloropropane	U		0.00540	0.0265	1	10/19/2018 18:07	WG1183540	
1,2-Dibromoethane	U		0.000556	0.00265	1	10/19/2018 18:07	WG1183540	
Dibromomethane	U		0.00106	0.00529	1	10/19/2018 18:07	WG1183540	
1,2-Dichlorobenzene	U		0.00153	0.00529	1	10/19/2018 18:07	WG1183540	
1,3-Dichlorobenzene	U		0.00180	0.00529	1	10/19/2018 18:07	WG1183540	
1,4-Dichlorobenzene	U		0.00209	0.00529	1	10/19/2018 18:07	WG1183540	
Dichlorodifluoromethane	U	U J4	0.0346	0.106	40	10/23/2018 07:18	WG1184696	
1,1-Dichloroethane	U		0.000609	0.00265	1	10/19/2018 18:07	WG1183540	
1,2-Dichloroethane	U		0.000503	0.00265	1	10/19/2018 18:07	WG1183540	
1,1-Dichloroethene	0.00498		0.000529	0.00265	1	10/19/2018 18:07	WG1183540	
cis-1,2-Dichloroethene	2.74		0.0292	0.106	40	10/23/2018 07:18	WG1184696	
trans-1,2-Dichloroethene	0.00577		0.00151	0.00529	1	10/19/2018 18:07	WG1183540	
1,2-Dichloropropane	U		0.00134	0.00529	1	10/19/2018 18:07	WG1183540	
1,1-Dichloropropene	U		0.000741	0.00265	1	10/19/2018 18:07	WG1183540	
1,3-Dichloropropane	U		0.00185	0.00529	1	10/19/2018 18:07	WG1183540	
cis-1,3-Dichloropropene	U		0.000718	0.00265	1	10/19/2018 18:07	WG1183540	
trans-1,3-Dichloropropene	U	U J4	0.00162	0.00529	1	10/19/2018 18:07	WG1183540	
trans-1,4-Dichloro-2-butene	U		0.00148	0.00529	1	10/19/2018 18:07	WG1183540	
2,2-Dichloropropane	U		0.000839	0.00265	1	10/19/2018 18:07	WG1183540	
Di-isopropyl ether	U		0.000370	0.00106	1	10/19/2018 18:07	WG1183540	
Ethylbenzene	0.000720	J J J0	0.000561	0.00265	1	10/19/2018 18:07	WG1183540	
Hexachloro-1,3-butadiene	U		0.0134	0.0265	1	10/19/2018 18:07	WG1183540	
2-Hexanone	U		0.0106	0.0265	1	10/19/2018 18:07	WG1183540	
n-Hexane	0.00438	J J J0 J4	0.00112	0.00529	1	10/19/2018 18:07	WG1183540	
Iodomethane	U		0.00640	0.0132	1	10/19/2018 18:07	WG1183540	
Isopropylbenzene	U		0.000914	0.00265	1	10/19/2018 18:07	WG1183540	
p-Isopropyltoluene	U		0.00247	0.00529	1	10/19/2018 18:07	WG1183540	
2-Butanone (MEK)	0.0330	J B J4	0.0132	0.0265	1	10/19/2018 18:07	WG1183540	
Methylene Chloride	U		0.00703	0.0265	1	10/19/2018 18:07	WG1183540	
4-Methyl-2-pentanone (MIBK)	U		0.0106	0.0265	1	10/19/2018 18:07	WG1183540	JC 11/15/18

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000312	0.00106	1	10/19/2018 18:07	WG1183540
Naphthalene	U		0.00330	0.0132	1	10/19/2018 18:07	WG1183540
n-Propylbenzene	U		0.00125	0.00529	1	10/19/2018 18:07	WG1183540
Styrene	U		0.00289	0.0132	1	10/19/2018 18:07	WG1183540
1,1,1,2-Tetrachloroethane	U		0.000529	0.00265	1	10/19/2018 18:07	WG1183540
1,1,2,2-Tetrachloroethane	U		0.0165	0.106	40	10/23/2018 07:18	WG1184696
1,1,2-Trichlorotrifluoroethane	U		0.0286	0.106	40	10/23/2018 07:18	WG1184696
Tetrachloroethene	18.9		0.0296	0.106	40	10/23/2018 07:18	WG1184696
Toluene	U		0.00132	0.00529	1	10/19/2018 18:07	WG1183540
1,2,3-Trichlorobenzene	U		0.0265	0.106	40	10/23/2018 07:18	WG1184696
1,2,4-Trichlorobenzene	U		0.00510	0.0132	1	10/19/2018 18:07	WG1183540
1,1,1-Trichloroethane	U		0.000291	0.00265	1	10/19/2018 18:07	WG1183540
1,1,2-Trichloroethane	U		0.000935	0.00265	1	10/19/2018 18:07	WG1183540
Trichloroethene	3.11		0.0169	0.0423	40	10/24/2018 17:24	WG1185916
Trichlorofluoromethane	U		0.000529	0.00265	1	10/19/2018 18:07	WG1183540
1,2,3-Trichloropropane	U		0.00540	0.0132	1	10/19/2018 18:07	WG1183540
1,2,4-Trimethylbenzene	0.00387	J J	0.00123	0.00529	1	10/19/2018 18:07	WG1183540
1,2,3-Trimethylbenzene	0.00196	J J	0.00122	0.00529	1	10/19/2018 18:07	WG1183540
1,3,5-Trimethylbenzene	0.00130	J J	0.00114	0.00529	1	10/19/2018 18:07	WG1183540
Vinyl acetate	U		0.00373	0.0132	1	10/19/2018 18:07	WG1183540
Vinyl chloride	0.0532	J J	0.0289	0.106	40	10/23/2018 07:18	WG1184696
Xylenes, Total	U		0.00506	0.00688	1	10/19/2018 18:07	WG1183540
(S) Toluene-d8	*105*			*75.0-131*		*10/19/2018 18:07*	WG1183540
(S) Toluene-d8	*97.7*			*75.0-131*		*10/23/2018 07:18*	WG1184696
(S) Toluene-d8	*119*			*75.0-131*		*10/24/2018 17:24*	WG1185916
(S) Dibromofluoromethane	*95.2*			*65.0-129*		*10/19/2018 18:07*	WG1183540
(S) Dibromofluoromethane	*117*			*65.0-129*		*10/23/2018 07:18*	WG1184696
(S) Dibromofluoromethane	*96.8*			*65.0-129*		*10/24/2018 17:24*	WG1185916
(S) 4-Bromofluorobenzene	*89.2*			*67.0-138*		*10/19/2018 18:07*	WG1183540
(S) 4-Bromofluorobenzene	*123*			*67.0-138*		*10/23/2018 07:18*	WG1184696
(S) 4-Bromofluorobenzene	*94.8*			*67.0-138*		*10/24/2018 17:24*	WG1185916

Sample Narrative:

L1035515-10 WG1184696, WG1183540: Cannot be reanalyzed at a lower dilution due to high levels of target analytes.

L1035515-10 WG1184696, WG1183540: Not all compounds reportable from lower dilution.

JC 11/15/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	85.5		1	10/22/2018 11:24	WG1184403

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0160	0.0292	1	10/23/2018 02:38	WG1184696
Acrylonitrile	U		0.00222	0.0146	1	10/19/2018 18:25	WG1183540
Benzene	U		0.000468	0.00117	1	10/19/2018 18:25	WG1183540
Bromobenzene	U		0.00123	0.0146	1	10/19/2018 18:25	WG1183540
Bromodichloromethane	U		0.000921	0.00292	1	10/19/2018 18:25	WG1183540
Bromochloromethane	U		0.00132	0.00585	1	10/19/2018 18:25	WG1183540
Bromoform	U		0.00699	0.0292	1	10/19/2018 18:25	WG1183540
Bromomethane	U		0.00433	0.0146	1	10/19/2018 18:25	WG1183540
n-Butylbenzene	U		0.00449	0.0146	1	10/19/2018 18:25	WG1183540
sec-Butylbenzene	U		0.00296	0.0146	1	10/19/2018 18:25	WG1183540
tert-Butylbenzene	U		0.00181	0.00585	1	10/19/2018 18:25	WG1183540
Carbon disulfide	U	UJ J0	0.00475	0.0146	1	10/19/2018 18:25	WG1183540
Carbon tetrachloride	U		0.00126	0.00585	1	10/19/2018 18:25	WG1183540
Chlorobenzene	U		0.000670	0.00292	1	10/19/2018 18:25	WG1183540
Chlorodibromomethane	U		0.000526	0.00292	1	10/19/2018 18:25	WG1183540
Chloroethane	U		0.00126	0.00585	1	10/19/2018 18:25	WG1183540
Chloroform	U		0.000485	0.00292	1	10/19/2018 18:25	WG1183540
Chloromethane	U		0.00163	0.0146	1	10/19/2018 18:25	WG1183540
2-Chlorotoluene	U		0.00108	0.00292	1	10/19/2018 18:25	WG1183540
4-Chlorotoluene	U		0.00132	0.00585	1	10/19/2018 18:25	WG1183540
1,2-Dibromo-3-Chloropropane	U		0.00596	0.0292	1	10/19/2018 18:25	WG1183540
1,2-Dibromoethane	U		0.000614	0.00292	1	10/19/2018 18:25	WG1183540
Dibromomethane	U		0.00117	0.00585	1	10/19/2018 18:25	WG1183540
1,2-Dichlorobenzene	U		0.00170	0.00585	1	10/19/2018 18:25	WG1183540
1,3-Dichlorobenzene	U		0.00199	0.00585	1	10/19/2018 18:25	WG1183540
1,4-Dichlorobenzene	U		0.00230	0.00585	1	10/19/2018 18:25	WG1183540
Dichlorodifluoromethane	U	U J4	0.000957	0.00292	1	10/23/2018 02:38	WG1184696
1,1-Dichloroethane	U		0.000672	0.00292	1	10/19/2018 18:25	WG1183540
1,2-Dichloroethane	U		0.000555	0.00292	1	10/19/2018 18:25	WG1183540
1,1-Dichloroethene	U		0.000585	0.00292	1	10/19/2018 18:25	WG1183540
cis-1,2-Dichloroethene	0.0273		0.000807	0.00292	1	10/23/2018 02:38	WG1184696
trans-1,2-Dichloroethene	U		0.00167	0.00585	1	10/19/2018 18:25	WG1183540
1,2-Dichloropropane	U		0.00149	0.00585	1	10/19/2018 18:25	WG1183540
1,1-Dichloropropene	U		0.000819	0.00292	1	10/19/2018 18:25	WG1183540
1,3-Dichloropropane	U		0.00205	0.00585	1	10/19/2018 18:25	WG1183540
cis-1,3-Dichloropropene	U		0.000793	0.00292	1	10/19/2018 18:25	WG1183540
trans-1,3-Dichloropropene	U	U J4	0.00179	0.00585	1	10/19/2018 18:25	WG1183540
trans-1,4-Dichloro-2-butene	U		0.00164	0.00585	1	10/19/2018 18:25	WG1183540
2,2-Dichloropropane	U		0.000927	0.00292	1	10/19/2018 18:25	WG1183540
Di-isopropyl ether	U		0.000409	0.00117	1	10/19/2018 18:25	WG1183540
Ethylbenzene	U	UJ J0	0.000620	0.00292	1	10/19/2018 18:25	WG1183540
Hexachloro-1,3-butadiene	U		0.0149	0.0292	1	10/19/2018 18:25	WG1183540
2-Hexanone	U		0.0117	0.0292	1	10/19/2018 18:25	WG1183540
n-Hexane	U	UJ J0 J4	0.00124	0.00585	1	10/19/2018 18:25	WG1183540
Iodomethane	U		0.00707	0.0146	1	10/19/2018 18:25	WG1183540
Isopropylbenzene	U		0.00101	0.00292	1	10/19/2018 18:25	WG1183540
p-Isopropyltoluene	U		0.00272	0.00585	1	10/19/2018 18:25	WG1183540
2-Butanone (MEK)	0.0576	J B J4	0.0146	0.0292	1	10/19/2018 18:25	WG1183540
Methylene Chloride	U		0.00776	0.0292	1	10/19/2018 18:25	WG1183540
4-Methyl-2-pentanone (MIBK)	U		0.0117	0.0292	1	10/19/2018 18:25	WG1183540

JC 11/15/18

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000345	0.00117	1	10/19/2018 18:25	WG1183540
Naphthalene	U		0.00365	0.0146	1	10/19/2018 18:25	WG1183540
n-Propylbenzene	U		0.00138	0.00585	1	10/19/2018 18:25	WG1183540
Styrene	U		0.00319	0.0146	1	10/19/2018 18:25	WG1183540
1,1,1,2-Tetrachloroethane	U		0.000585	0.00292	1	10/19/2018 18:25	WG1183540
1,1,2,2-Tetrachloroethane	U		0.000456	0.00292	1	10/23/2018 02:38	WG1184696
1,1,2-Trichlorotrifluoroethane	U		0.000789	0.00292	1	10/23/2018 02:38	WG1184696
Tetrachloroethene	0.0550		0.000819	0.00292	1	10/23/2018 02:38	WG1184696
Toluene	U		0.00146	0.00585	1	10/19/2018 18:25	WG1183540
1,2,3-Trichlorobenzene	U		0.000731	0.00292	1	10/23/2018 02:38	WG1184696
1,2,4-Trichlorobenzene	U		0.00564	0.0146	1	10/19/2018 18:25	WG1183540
1,1,1-Trichloroethane	U		0.000322	0.00292	1	10/19/2018 18:25	WG1183540
1,1,2-Trichloroethane	U		0.00103	0.00292	1	10/19/2018 18:25	WG1183540
Trichloroethene	0.0532		0.000468	0.00117	1	10/24/2018 16:42	WG1185916
Trichlorofluoromethane	U		0.000585	0.00292	1	10/19/2018 18:25	WG1183540
1,2,3-Trichloropropane	U		0.00596	0.0146	1	10/19/2018 18:25	WG1183540
1,2,4-Trimethylbenzene	U		0.00136	0.00585	1	10/19/2018 18:25	WG1183540
1,2,3-Trimethylbenzene	U		0.00134	0.00585	1	10/19/2018 18:25	WG1183540
1,3,5-Trimethylbenzene	U		0.00126	0.00585	1	10/19/2018 18:25	WG1183540
Vinyl acetate	U		0.00412	0.0146	1	10/19/2018 18:25	WG1183540
Vinyl chloride	0.0123		0.000799	0.00292	1	10/23/2018 02:38	WG1184696
Xylenes, Total	U		0.00559	0.00760	1	10/19/2018 18:25	WG1183540
(S) Toluene-d8	*100*			*75.0-131*		*10/19/2018 18:25*	WG1183540
(S) Toluene-d8	*99.7*			*75.0-131*		*10/23/2018 02:38*	WG1184696
(S) Toluene-d8	*126*			*75.0-131*		*10/24/2018 16:42*	WG1185916
(S) Dibromofluoromethane	*93.3*			*65.0-129*		*10/19/2018 18:25*	WG1183540
(S) Dibromofluoromethane	*113*			*65.0-129*		*10/23/2018 02:38*	WG1184696
(S) Dibromofluoromethane	*94.6*			*65.0-129*		*10/24/2018 16:42*	WG1185916
(S) 4-Bromofluorobenzene	*90.4*			*67.0-138*		*10/19/2018 18:25*	WG1183540
(S) 4-Bromofluorobenzene	*121*			*67.0-138*		*10/23/2018 02:38*	WG1184696
(S) 4-Bromofluorobenzene	*90.3*			*67.0-138*		*10/24/2018 16:42*	WG1185916

JC 11/15/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	90.5		1	10/22/2018 11:24	WG1184403

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0151	0.0276	1	10/23/2018 02:58	WG1184696
Acrylonitrile	U		0.00210	0.0138	1	10/19/2018 18:44	WG1183540
Benzene	U		0.000442	0.00110	1	10/19/2018 18:44	WG1183540
Bromobenzene	U		0.00116	0.0138	1	10/19/2018 18:44	WG1183540
Bromodichloromethane	U		0.000871	0.00276	1	10/19/2018 18:44	WG1183540
Bromochloromethane	U		0.00125	0.00552	1	10/19/2018 18:44	WG1183540
Bromoform	U		0.00661	0.0276	1	10/19/2018 18:44	WG1183540
Bromomethane	U		0.00409	0.0138	1	10/19/2018 18:44	WG1183540
n-Butylbenzene	U		0.00424	0.0138	1	10/19/2018 18:44	WG1183540
sec-Butylbenzene	U		0.00279	0.0138	1	10/19/2018 18:44	WG1183540
tert-Butylbenzene	U		0.00171	0.00552	1	10/19/2018 18:44	WG1183540
Carbon disulfide	U	UJ J0	0.00449	0.0138	1	10/19/2018 18:44	WG1183540
Carbon tetrachloride	U		0.00119	0.00552	1	10/19/2018 18:44	WG1183540
Chlorobenzene	U		0.000633	0.00276	1	10/19/2018 18:44	WG1183540
Chlorodibromomethane	U		0.000497	0.00276	1	10/19/2018 18:44	WG1183540
Chloroethane	U		0.00119	0.00552	1	10/19/2018 18:44	WG1183540
Chloroform	U		0.000458	0.00276	1	10/19/2018 18:44	WG1183540
Chloromethane	U		0.00154	0.0138	1	10/19/2018 18:44	WG1183540
2-Chlorotoluene	U		0.00102	0.00276	1	10/19/2018 18:44	WG1183540
4-Chlorotoluene	U		0.00125	0.00552	1	10/19/2018 18:44	WG1183540
1,2-Dibromo-3-Chloropropane	U		0.00563	0.0276	1	10/19/2018 18:44	WG1183540
1,2-Dibromoethane	U		0.000580	0.00276	1	10/19/2018 18:44	WG1183540
Dibromomethane	U		0.00110	0.00552	1	10/19/2018 18:44	WG1183540
1,2-Dichlorobenzene	U		0.00160	0.00552	1	10/19/2018 18:44	WG1183540
1,3-Dichlorobenzene	U		0.00188	0.00552	1	10/19/2018 18:44	WG1183540
1,4-Dichlorobenzene	U		0.00218	0.00552	1	10/19/2018 18:44	WG1183540
Dichlorodifluoromethane	U	U J4	0.000904	0.00276	1	10/23/2018 02:58	WG1184696
1,1-Dichloroethane	U		0.000635	0.00276	1	10/19/2018 18:44	WG1183540
1,2-Dichloroethane	U		0.000525	0.00276	1	10/19/2018 18:44	WG1183540
1,1-Dichloroethene	U		0.000552	0.00276	1	10/19/2018 18:44	WG1183540
cis-1,2-Dichloroethene	0.0190		0.000762	0.00276	1	10/23/2018 02:58	WG1184696
trans-1,2-Dichloroethene	U		0.00158	0.00552	1	10/19/2018 18:44	WG1183540
1,2-Dichloropropane	U		0.00140	0.00552	1	10/19/2018 18:44	WG1183540
1,1-Dichloropropene	U		0.000773	0.00276	1	10/19/2018 18:44	WG1183540
1,3-Dichloropropane	U		0.00193	0.00552	1	10/19/2018 18:44	WG1183540
cis-1,3-Dichloropropene	U		0.000749	0.00276	1	10/19/2018 18:44	WG1183540
trans-1,3-Dichloropropene	U	U J4	0.00169	0.00552	1	10/19/2018 18:44	WG1183540
trans-1,4-Dichloro-2-butene	U		0.00155	0.00552	1	10/19/2018 18:44	WG1183540
2,2-Dichloropropane	U		0.000876	0.00276	1	10/19/2018 18:44	WG1183540
Di-isopropyl ether	U		0.000387	0.00110	1	10/19/2018 18:44	WG1183540
Ethylbenzene	U	UJ J0	0.000585	0.00276	1	10/19/2018 18:44	WG1183540
Hexachloro-1,3-butadiene	U		0.0140	0.0276	1	10/19/2018 18:44	WG1183540
2-Hexanone	U		0.0110	0.0276	1	10/19/2018 18:44	WG1183540
n-Hexane	0.00347	J J J0 J4	0.00117	0.00552	1	10/19/2018 18:44	WG1183540
Iodomethane	U		0.00668	0.0138	1	10/19/2018 18:44	WG1183540
Isopropylbenzene	U		0.000953	0.00276	1	10/19/2018 18:44	WG1183540
p-Isopropyltoluene	U		0.00257	0.00552	1	10/19/2018 18:44	WG1183540
2-Butanone (MEK)	0.0448	J B J4	0.0138	0.0276	1	10/19/2018 18:44	WG1183540
Methylene Chloride	U		0.00734	0.0276	1	10/19/2018 18:44	WG1183540
4-Methyl-2-pentanone (MIBK)	U		0.0110	0.0276	1	10/19/2018 18:44	WG1183540

JC 11/15/18

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000326	0.00110	1	10/19/2018 18:44	WG1183540
Naphthalene	U		0.00345	0.0138	1	10/19/2018 18:44	WG1183540
n-Propylbenzene	U		0.00130	0.00552	1	10/19/2018 18:44	WG1183540
Styrene	U		0.00302	0.0138	1	10/19/2018 18:44	WG1183540
1,1,1,2-Tetrachloroethane	U		0.000552	0.00276	1	10/19/2018 18:44	WG1183540
1,1,2,2-Tetrachloroethane	U		0.000431	0.00276	1	10/23/2018 02:58	WG1184696
1,1,2-Trichlorotrifluoroethane	U		0.000746	0.00276	1	10/23/2018 02:58	WG1184696
Tetrachloroethene	0.0193		0.000773	0.00276	1	10/23/2018 02:58	WG1184696
Toluene	U		0.00138	0.00552	1	10/19/2018 18:44	WG1183540
1,2,3-Trichlorobenzene	U		0.000690	0.00276	1	10/23/2018 02:58	WG1184696
1,2,4-Trichlorobenzene	U		0.00532	0.0138	1	10/19/2018 18:44	WG1183540
1,1,1-Trichloroethane	U		0.000304	0.00276	1	10/19/2018 18:44	WG1183540
1,1,2-Trichloroethane	U		0.000975	0.00276	1	10/19/2018 18:44	WG1183540
Trichloroethene	0.0162	J	0.000442	0.00110	1	10/24/2018 17:03	WG1185916
Trichlorofluoromethane	U		0.000552	0.00276	1	10/19/2018 18:44	WG1183540
1,2,3-Trichloropropane	U		0.00563	0.0138	1	10/19/2018 18:44	WG1183540
1,2,4-Trimethylbenzene	U		0.00128	0.00552	1	10/19/2018 18:44	WG1183540
1,2,3-Trimethylbenzene	U		0.00127	0.00552	1	10/19/2018 18:44	WG1183540
1,3,5-Trimethylbenzene	U		0.00119	0.00552	1	10/19/2018 18:44	WG1183540
Vinyl acetate	U		0.00389	0.0138	1	10/19/2018 18:44	WG1183540
Vinyl chloride	0.0155		0.000755	0.00276	1	10/23/2018 02:58	WG1184696
Xylenes, Total	U		0.00528	0.00718	1	10/19/2018 18:44	WG1183540
(S) Toluene-d8	*104*			*75.0-131*		*10/19/2018 18:44*	WG1183540
(S) Toluene-d8	*101*			*75.0-131*		*10/23/2018 02:58*	WG1184696
(S) Toluene-d8	*134*	J1		*75.0-131*		*10/24/2018 17:03*	WG1185916
(S) Dibromofluoromethane	*93.1*			*65.0-129*		*10/19/2018 18:44*	WG1183540
(S) Dibromofluoromethane	*117*			*65.0-129*		*10/23/2018 02:58*	WG1184696
(S) Dibromofluoromethane	*90.7*			*65.0-129*		*10/24/2018 17:03*	WG1185916
(S) 4-Bromofluorobenzene	*85.9*			*67.0-138*		*10/19/2018 18:44*	WG1183540
(S) 4-Bromofluorobenzene	*119*			*67.0-138*		*10/23/2018 02:58*	WG1184696
(S) 4-Bromofluorobenzene	*90.8*			*67.0-138*		*10/24/2018 17:03*	WG1185916

JC 11/15/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	93.6		1	10/22/2018 10:53	WG1184404

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0146	0.0267	1	10/23/2018 03:18	WG1184696
Acrylonitrile	U		0.00203	0.0134	1	10/19/2018 19:02	WG1183540
Benzene	U		0.000427	0.00107	1	10/19/2018 19:02	WG1183540
Bromobenzene	U		0.00112	0.0134	1	10/19/2018 19:02	WG1183540
Bromodichloromethane	U		0.000842	0.00267	1	10/19/2018 19:02	WG1183540
Bromochloromethane	U		0.00121	0.00534	1	10/19/2018 19:02	WG1183540
Bromoform	U		0.00639	0.0267	1	10/19/2018 19:02	WG1183540
Bromomethane	U		0.00395	0.0134	1	10/19/2018 19:02	WG1183540
n-Butylbenzene	U		0.00410	0.0134	1	10/19/2018 19:02	WG1183540
sec-Butylbenzene	U		0.00270	0.0134	1	10/19/2018 19:02	WG1183540
tert-Butylbenzene	U		0.00166	0.00534	1	10/19/2018 19:02	WG1183540
Carbon disulfide	U	UJ J0	0.00434	0.0134	1	10/19/2018 19:02	WG1183540
Carbon tetrachloride	U		0.00115	0.00534	1	10/19/2018 19:02	WG1183540
Chlorobenzene	U		0.000612	0.00267	1	10/19/2018 19:02	WG1183540
Chlorodibromomethane	U		0.000481	0.00267	1	10/19/2018 19:02	WG1183540
Chloroethane	U		0.00115	0.00534	1	10/19/2018 19:02	WG1183540
Chloroform	U		0.000443	0.00267	1	10/19/2018 19:02	WG1183540
Chloromethane	U		0.00149	0.0134	1	10/19/2018 19:02	WG1183540
2-Chlorotoluene	U		0.000983	0.00267	1	10/19/2018 19:02	WG1183540
4-Chlorotoluene	U		0.00121	0.00534	1	10/19/2018 19:02	WG1183540
1,2-Dibromo-3-Chloropropane	U		0.00545	0.0267	1	10/19/2018 19:02	WG1183540
1,2-Dibromoethane	U		0.000561	0.00267	1	10/19/2018 19:02	WG1183540
Dibromomethane	U		0.00107	0.00534	1	10/19/2018 19:02	WG1183540
1,2-Dichlorobenzene	U		0.00155	0.00534	1	10/19/2018 19:02	WG1183540
1,3-Dichlorobenzene	U		0.00182	0.00534	1	10/19/2018 19:02	WG1183540
1,4-Dichlorobenzene	U		0.00211	0.00534	1	10/19/2018 19:02	WG1183540
Dichlorodifluoromethane	U	U J4	0.000874	0.00267	1	10/23/2018 03:18	WG1184696
1,1-Dichloroethane	U		0.000614	0.00267	1	10/19/2018 19:02	WG1183540
1,2-Dichloroethane	U		0.000508	0.00267	1	10/19/2018 19:02	WG1183540
1,1-Dichloroethene	0.00420		0.000534	0.00267	1	10/19/2018 19:02	WG1183540
cis-1,2-Dichloroethene	0.548		0.000737	0.00267	1	10/19/2018 19:02	WG1183540
trans-1,2-Dichloroethene	0.00197	J J	0.00153	0.00534	1	10/19/2018 19:02	WG1183540
1,2-Dichloropropane	U		0.00136	0.00534	1	10/19/2018 19:02	WG1183540
1,1-Dichloropropene	U		0.000748	0.00267	1	10/19/2018 19:02	WG1183540
1,3-Dichloropropane	U		0.00187	0.00534	1	10/19/2018 19:02	WG1183540
cis-1,3-Dichloropropene	U		0.000724	0.00267	1	10/19/2018 19:02	WG1183540
trans-1,3-Dichloropropene	U	U J4	0.00163	0.00534	1	10/19/2018 19:02	WG1183540
trans-1,4-Dichloro-2-butene	U		0.00150	0.00534	1	10/19/2018 19:02	WG1183540
2,2-Dichloropropane	U		0.000847	0.00267	1	10/19/2018 19:02	WG1183540
Di-isopropyl ether	U		0.000374	0.00107	1	10/19/2018 19:02	WG1183540
Ethylbenzene	U	UJ J0	0.000566	0.00267	1	10/19/2018 19:02	WG1183540
Hexachloro-1,3-butadiene	U		0.0136	0.0267	1	10/19/2018 19:02	WG1183540
2-Hexanone	U		0.0107	0.0267	1	10/19/2018 19:02	WG1183540
n-Hexane	0.00527	J J J0 J4	0.00113	0.00534	1	10/19/2018 19:02	WG1183540
Iodomethane	U		0.00646	0.0134	1	10/19/2018 19:02	WG1183540
Isopropylbenzene	U		0.000922	0.00267	1	10/19/2018 19:02	WG1183540
p-Isopropyltoluene	U		0.00249	0.00534	1	10/19/2018 19:02	WG1183540
2-Butanone (MEK)	0.0312	J B J4	0.0134	0.0267	1	10/19/2018 19:02	WG1183540
Methylene Chloride	U		0.00710	0.0267	1	10/19/2018 19:02	WG1183540
4-Methyl-2-pentanone (MIBK)	U		0.0107	0.0267	1	10/19/2018 19:02	WG1183540

JC 11/15/18

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000315	0.00107	1	10/19/2018 19:02	WG1183540
Naphthalene	U		0.00333	0.0134	1	10/19/2018 19:02	WG1183540
n-Propylbenzene	U		0.00126	0.00534	1	10/19/2018 19:02	WG1183540
Styrene	U		0.00292	0.0134	1	10/19/2018 19:02	WG1183540
1,1,1,2-Tetrachloroethane	U		0.000534	0.00267	1	10/19/2018 19:02	WG1183540
1,1,2,2-Tetrachloroethane	U		0.000417	0.00267	1	10/23/2018 03:18	WG1184696
1,1,2-Trichlorotrifluoroethane	U		0.000721	0.00267	1	10/23/2018 03:18	WG1184696
Tetrachloroethene	0.589		0.000748	0.00267	1	10/19/2018 19:02	WG1183540
Toluene	U		0.00134	0.00534	1	10/19/2018 19:02	WG1183540
1,2,3-Trichlorobenzene	U		0.000668	0.00267	1	10/23/2018 03:18	WG1184696
1,2,4-Trichlorobenzene	U		0.00515	0.0134	1	10/19/2018 19:02	WG1183540
1,1,1-Trichloroethane	U		0.000294	0.00267	1	10/19/2018 19:02	WG1183540
1,1,2-Trichloroethane	U		0.000944	0.00267	1	10/19/2018 19:02	WG1183540
Trichloroethene	0.182		0.000427	0.00107	1	10/19/2018 19:02	WG1183540
Trichlorofluoromethane	U		0.000534	0.00267	1	10/19/2018 19:02	WG1183540
1,2,3-Trichloropropane	U		0.00545	0.0134	1	10/19/2018 19:02	WG1183540
1,2,4-Trimethylbenzene	U		0.00124	0.00534	1	10/19/2018 19:02	WG1183540
1,2,3-Trimethylbenzene	U		0.00123	0.00534	1	10/19/2018 19:02	WG1183540
1,3,5-Trimethylbenzene	U		0.00115	0.00534	1	10/19/2018 19:02	WG1183540
Vinyl acetate	U		0.00376	0.0134	1	10/19/2018 19:02	WG1183540
Vinyl chloride	0.0359		0.000730	0.00267	1	10/23/2018 03:18	WG1184696
Xylenes, Total	U		0.00511	0.00695	1	10/19/2018 19:02	WG1183540
(S) Toluene-d8	*102*			*75.0-131*		*10/19/2018 19:02*	WG1183540
(S) Toluene-d8	*99.2*			*75.0-131*		*10/23/2018 03:18*	WG1184696
(S) Dibromofluoromethane	*95.4*			*65.0-129*		*10/19/2018 19:02*	WG1183540
(S) Dibromofluoromethane	*112*			*65.0-129*		*10/23/2018 03:18*	WG1184696
(S) 4-Bromofluorobenzene	*90.0*			*67.0-138*		*10/19/2018 19:02*	WG1183540
(S) 4-Bromofluorobenzene	*119*			*67.0-138*		*10/23/2018 03:18*	WG1184696

JC 11/15/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	90.4		1	10/22/2018 10:53	WG1184404

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0152	0.0277	1	10/23/2018 03:38	WG1184696
Acrylonitrile	U		0.00210	0.0138	1	10/19/2018 19:21	WG1183540
Benzene	U		0.000443	0.00111	1	10/19/2018 19:21	WG1183540
Bromobenzene	U		0.00116	0.0138	1	10/19/2018 19:21	WG1183540
Bromodichloromethane	U		0.000872	0.00277	1	10/19/2018 19:21	WG1183540
Bromochloromethane	U		0.00125	0.00553	1	10/19/2018 19:21	WG1183540
Bromoform	U		0.00662	0.0277	1	10/19/2018 19:21	WG1183540
Bromomethane	U		0.00409	0.0138	1	10/19/2018 19:21	WG1183540
n-Butylbenzene	U		0.00425	0.0138	1	10/19/2018 19:21	WG1183540
sec-Butylbenzene	U		0.00280	0.0138	1	10/19/2018 19:21	WG1183540
tert-Butylbenzene	U		0.00172	0.00553	1	10/19/2018 19:21	WG1183540
Carbon disulfide	U UJ	J0	0.00449	0.0138	1	10/19/2018 19:21	WG1183540
Carbon tetrachloride	U		0.00120	0.00553	1	10/19/2018 19:21	WG1183540
Chlorobenzene	U		0.000634	0.00277	1	10/19/2018 19:21	WG1183540
Chlorodibromomethane	U		0.000498	0.00277	1	10/19/2018 19:21	WG1183540
Chloroethane	U		0.00120	0.00553	1	10/19/2018 19:21	WG1183540
Chloroform	U		0.000459	0.00277	1	10/19/2018 19:21	WG1183540
Chloromethane	U		0.00154	0.0138	1	10/19/2018 19:21	WG1183540
2-Chlorotoluene	U		0.00102	0.00277	1	10/19/2018 19:21	WG1183540
4-Chlorotoluene	U		0.00125	0.00553	1	10/19/2018 19:21	WG1183540
1,2-Dibromo-3-Chloropropane	U		0.00564	0.0277	1	10/19/2018 19:21	WG1183540
1,2-Dibromoethane	U		0.000581	0.00277	1	10/19/2018 19:21	WG1183540
Dibromomethane	U		0.00111	0.00553	1	10/19/2018 19:21	WG1183540
1,2-Dichlorobenzene	U		0.00160	0.00553	1	10/19/2018 19:21	WG1183540
1,3-Dichlorobenzene	U		0.00188	0.00553	1	10/19/2018 19:21	WG1183540
1,4-Dichlorobenzene	U		0.00218	0.00553	1	10/19/2018 19:21	WG1183540
Dichlorodifluoromethane	U U	J4	0.000905	0.00277	1	10/23/2018 03:38	WG1184696
1,1-Dichloroethane	U		0.000636	0.00277	1	10/19/2018 19:21	WG1183540
1,2-Dichloroethane	U		0.000526	0.00277	1	10/19/2018 19:21	WG1183540
1,1-Dichloroethene	0.00114 J	J	0.000553	0.00277	1	10/19/2018 19:21	WG1183540
cis-1,2-Dichloroethene	0.768		0.000764	0.00277	1	10/19/2018 19:21	WG1183540
trans-1,2-Dichloroethene	0.00510 J	J	0.00158	0.00553	1	10/19/2018 19:21	WG1183540
1,2-Dichloropropane	U		0.00141	0.00553	1	10/19/2018 19:21	WG1183540
1,1-Dichloropropene	U		0.000775	0.00277	1	10/19/2018 19:21	WG1183540
1,3-Dichloropropane	U		0.00194	0.00553	1	10/19/2018 19:21	WG1183540
cis-1,3-Dichloropropene	U		0.000750	0.00277	1	10/19/2018 19:21	WG1183540
trans-1,3-Dichloropropene	U U	J4	0.00169	0.00553	1	10/19/2018 19:21	WG1183540
trans-1,4-Dichloro-2-butene	U		0.00155	0.00553	1	10/19/2018 19:21	WG1183540
2,2-Dichloropropane	U		0.000878	0.00277	1	10/19/2018 19:21	WG1183540
Di-isopropyl ether	U		0.000387	0.00111	1	10/19/2018 19:21	WG1183540
Ethylbenzene	U UJ	J0	0.000587	0.00277	1	10/19/2018 19:21	WG1183540
Hexachloro-1,3-butadiene	U		0.0141	0.0277	1	10/19/2018 19:21	WG1183540
2-Hexanone	U		0.0111	0.0277	1	10/19/2018 19:21	WG1183540
n-Hexane	0.00313 J	J J0 J4	0.00117	0.00553	1	10/19/2018 19:21	WG1183540
Iodomethane	U		0.00670	0.0138	1	10/19/2018 19:21	WG1183540
Isopropylbenzene	U		0.000955	0.00277	1	10/19/2018 19:21	WG1183540
p-Isopropyltoluene	U		0.00258	0.00553	1	10/19/2018 19:21	WG1183540
2-Butanone (MEK)	0.0292 J	B J4	0.0138	0.0277	1	10/19/2018 19:21	WG1183540
Methylene Chloride	U		0.00735	0.0277	1	10/19/2018 19:21	WG1183540 JC 11/15/18
4-Methyl-2-pentanone (MIBK)	U		0.0111	0.0277	1	10/19/2018 19:21	WG1183540

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000326	0.00111	1	10/19/2018 19:21	WG1183540
Naphthalene	U		0.00345	0.0138	1	10/19/2018 19:21	WG1183540
n-Propylbenzene	U		0.00131	0.00553	1	10/19/2018 19:21	WG1183540
Styrene	U		0.00302	0.0138	1	10/19/2018 19:21	WG1183540
1,1,1,2-Tetrachloroethane	U		0.000553	0.00277	1	10/19/2018 19:21	WG1183540
1,1,2,2-Tetrachloroethane	U		0.000432	0.00277	1	10/23/2018 03:38	WG1184696
1,1,2-Trichlorotrifluoroethane	U		0.000747	0.00277	1	10/23/2018 03:38	WG1184696
Tetrachloroethene	0.324		0.000775	0.00277	1	10/19/2018 19:21	WG1183540
Toluene	U		0.00138	0.00553	1	10/19/2018 19:21	WG1183540
1,2,3-Trichlorobenzene	U		0.000692	0.00277	1	10/23/2018 03:38	WG1184696
1,2,4-Trichlorobenzene	U		0.00533	0.0138	1	10/19/2018 19:21	WG1183540
1,1,1-Trichloroethane	U		0.000304	0.00277	1	10/19/2018 19:21	WG1183540
1,1,2-Trichloroethane	U		0.000977	0.00277	1	10/19/2018 19:21	WG1183540
Trichloroethene	0.0863		0.000443	0.00111	1	10/19/2018 19:21	WG1183540
Trichlorofluoromethane	U		0.000553	0.00277	1	10/19/2018 19:21	WG1183540
1,2,3-Trichloropropane	U		0.00564	0.0138	1	10/19/2018 19:21	WG1183540
1,2,4-Trimethylbenzene	U		0.00128	0.00553	1	10/19/2018 19:21	WG1183540
1,2,3-Trimethylbenzene	U		0.00127	0.00553	1	10/19/2018 19:21	WG1183540
1,3,5-Trimethylbenzene	U		0.00120	0.00553	1	10/19/2018 19:21	WG1183540
Vinyl acetate	U		0.00390	0.0138	1	10/19/2018 19:21	WG1183540
Vinyl chloride	0.0715		0.000756	0.00277	1	10/23/2018 03:38	WG1184696
Xylenes, Total	U		0.00529	0.00719	1	10/19/2018 19:21	WG1183540
(S) Toluene-d8	*100*			*75.0-131*		*10/19/2018 19:21*	WG1183540
(S) Toluene-d8	*101*			*75.0-131*		*10/23/2018 03:38*	WG1184696
(S) Dibromofluoromethane	*94.4*			*65.0-129*		*10/19/2018 19:21*	WG1183540
(S) Dibromofluoromethane	*114*			*65.0-129*		*10/23/2018 03:38*	WG1184696
(S) 4-Bromofluorobenzene	*91.9*			*67.0-138*		*10/19/2018 19:21*	WG1183540
(S) 4-Bromofluorobenzene	*121*			*67.0-138*		*10/23/2018 03:38*	WG1184696

JC 11/15/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	90.4		1	10/22/2018 10:53	WG1184404

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch	
	mg/kg		mg/kg	mg/kg		date / time		
Acetone	U		0.0152	0.0277	1	10/23/2018 03:58	WG1184696	
Acrylonitrile	U		0.00210	0.0138	1	10/19/2018 19:39	WG1183540	
Benzene	U		0.000443	0.00111	1	10/19/2018 19:39	WG1183540	
Bromobenzene	U		0.00116	0.0138	1	10/19/2018 19:39	WG1183540	
Bromodichloromethane	U		0.000872	0.00277	1	10/19/2018 19:39	WG1183540	
Bromochloromethane	U		0.00125	0.00553	1	10/19/2018 19:39	WG1183540	
Bromoform	U		0.00662	0.0277	1	10/19/2018 19:39	WG1183540	
Bromomethane	U		0.00409	0.0138	1	10/19/2018 19:39	WG1183540	
n-Butylbenzene	U		0.00425	0.0138	1	10/19/2018 19:39	WG1183540	
sec-Butylbenzene	U		0.00280	0.0138	1	10/19/2018 19:39	WG1183540	
tert-Butylbenzene	U		0.00172	0.00553	1	10/19/2018 19:39	WG1183540	
Carbon disulfide	U	UJ J0	0.00449	0.0138	1	10/19/2018 19:39	WG1183540	
Carbon tetrachloride	U		0.00120	0.00553	1	10/19/2018 19:39	WG1183540	
Chlorobenzene	U		0.000634	0.00277	1	10/19/2018 19:39	WG1183540	
Chlorodibromomethane	U		0.000498	0.00277	1	10/19/2018 19:39	WG1183540	
Chloroethane	U		0.00120	0.00553	1	10/19/2018 19:39	WG1183540	
Chloroform	U		0.000459	0.00277	1	10/19/2018 19:39	WG1183540	
Chloromethane	U		0.00154	0.0138	1	10/19/2018 19:39	WG1183540	
2-Chlorotoluene	U		0.00102	0.00277	1	10/19/2018 19:39	WG1183540	
4-Chlorotoluene	U		0.00125	0.00553	1	10/19/2018 19:39	WG1183540	
1,2-Dibromo-3-Chloropropane	U		0.00564	0.0277	1	10/19/2018 19:39	WG1183540	
1,2-Dibromoethane	U		0.000581	0.00277	1	10/19/2018 19:39	WG1183540	
Dibromomethane	U		0.00111	0.00553	1	10/19/2018 19:39	WG1183540	
1,2-Dichlorobenzene	U		0.00160	0.00553	1	10/19/2018 19:39	WG1183540	
1,3-Dichlorobenzene	U		0.00188	0.00553	1	10/19/2018 19:39	WG1183540	
1,4-Dichlorobenzene	U		0.00218	0.00553	1	10/19/2018 19:39	WG1183540	
Dichlorodifluoromethane	U	U J4	0.000905	0.00277	1	10/23/2018 03:58	WG1184696	
1,1-Dichloroethane	U		0.000636	0.00277	1	10/19/2018 19:39	WG1183540	
1,2-Dichloroethane	U		0.000526	0.00277	1	10/19/2018 19:39	WG1183540	
1,1-Dichloroethene	0.000814	J J	0.000553	0.00277	1	10/19/2018 19:39	WG1183540	
cis-1,2-Dichloroethene	0.143		0.000764	0.00277	1	10/19/2018 19:39	WG1183540	
trans-1,2-Dichloroethene	U		0.00158	0.00553	1	10/19/2018 19:39	WG1183540	
1,2-Dichloropropane	U		0.00141	0.00553	1	10/19/2018 19:39	WG1183540	
1,1-Dichloropropene	U		0.000775	0.00277	1	10/19/2018 19:39	WG1183540	
1,3-Dichloropropane	U		0.00194	0.00553	1	10/19/2018 19:39	WG1183540	
cis-1,3-Dichloropropene	U		0.000750	0.00277	1	10/19/2018 19:39	WG1183540	
trans-1,3-Dichloropropene	U	U J4	0.00169	0.00553	1	10/19/2018 19:39	WG1183540	
trans-1,4-Dichloro-2-butene	U		0.00155	0.00553	1	10/19/2018 19:39	WG1183540	
2,2-Dichloropropane	U		0.000877	0.00277	1	10/19/2018 19:39	WG1183540	
Di-isopropyl ether	U		0.000387	0.00111	1	10/19/2018 19:39	WG1183540	
Ethylbenzene	U	UJ J0	0.000586	0.00277	1	10/19/2018 19:39	WG1183540	
Hexachloro-1,3-butadiene	U		0.0141	0.0277	1	10/19/2018 19:39	WG1183540	
2-Hexanone	U		0.0111	0.0277	1	10/19/2018 19:39	WG1183540	
n-Hexane	0.00386	J J J0 J4	0.00117	0.00553	1	10/19/2018 19:39	WG1183540	
Iodomethane	U		0.00669	0.0138	1	10/19/2018 19:39	WG1183540	
Isopropylbenzene	U		0.000955	0.00277	1	10/19/2018 19:39	WG1183540	
p-Isopropyltoluene	U		0.00258	0.00553	1	10/19/2018 19:39	WG1183540	
2-Butanone (MEK)	U	U J4	0.0138	0.0277	1	10/19/2018 19:39	WG1183540	JC 11/15/18
Methylene Chloride	U		0.00735	0.0277	1	10/19/2018 19:39	WG1183540	
4-Methyl-2-pentanone (MIBK)	U		0.0111	0.0277	1	10/19/2018 19:39	WG1183540	

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000326	0.00111	1	10/19/2018 19:39	WG1183540
Naphthalene	U		0.00345	0.0138	1	10/19/2018 19:39	WG1183540
n-Propylbenzene	U		0.00131	0.00553	1	10/19/2018 19:39	WG1183540
Styrene	U		0.00302	0.0138	1	10/19/2018 19:39	WG1183540
1,1,1,2-Tetrachloroethane	U		0.000553	0.00277	1	10/19/2018 19:39	WG1183540
1,1,2,2-Tetrachloroethane	U		0.000432	0.00277	1	10/23/2018 03:58	WG1184696
1,1,2-Trichlorotrifluoroethane	U		0.000747	0.00277	1	10/23/2018 03:58	WG1184696
Tetrachloroethene	0.207		0.000775	0.00277	1	10/19/2018 19:39	WG1183540
Toluene	U		0.00138	0.00553	1	10/19/2018 19:39	WG1183540
1,2,3-Trichlorobenzene	U		0.000692	0.00277	1	10/23/2018 03:58	WG1184696
1,2,4-Trichlorobenzene	U		0.00533	0.0138	1	10/19/2018 19:39	WG1183540
1,1,1-Trichloroethane	U		0.000304	0.00277	1	10/19/2018 19:39	WG1183540
1,1,2-Trichloroethane	U		0.000977	0.00277	1	10/19/2018 19:39	WG1183540
Trichloroethene	0.0126		0.000443	0.00111	1	10/19/2018 19:39	WG1183540
Trichlorofluoromethane	U		0.000553	0.00277	1	10/19/2018 19:39	WG1183540
1,2,3-Trichloropropane	U		0.00564	0.0138	1	10/19/2018 19:39	WG1183540
1,2,4-Trimethylbenzene	U		0.00128	0.00553	1	10/19/2018 19:39	WG1183540
1,2,3-Trimethylbenzene	U		0.00127	0.00553	1	10/19/2018 19:39	WG1183540
1,3,5-Trimethylbenzene	U		0.00120	0.00553	1	10/19/2018 19:39	WG1183540
Vinyl acetate	U		0.00390	0.0138	1	10/19/2018 19:39	WG1183540
Vinyl chloride	0.0170		0.000756	0.00277	1	10/23/2018 03:58	WG1184696
Xylenes, Total	U		0.00529	0.00719	1	10/19/2018 19:39	WG1183540
(S) Toluene-d8	*99.5*			*75.0-131*		*10/19/2018 19:39*	WG1183540
(S) Toluene-d8	*98.7*			*75.0-131*		*10/23/2018 03:58*	WG1184696
(S) Dibromofluoromethane	*95.7*			*65.0-129*		*10/19/2018 19:39*	WG1183540
(S) Dibromofluoromethane	*113*			*65.0-129*		*10/23/2018 03:58*	WG1184696
(S) 4-Bromofluorobenzene	*87.2*			*67.0-138*		*10/19/2018 19:39*	WG1183540
(S) 4-Bromofluorobenzene	*121*			*67.0-138*		*10/23/2018 03:58*	WG1184696

JC 11/15/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	82.6		1	10/24/2018 12:36	WG1184858

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0166	0.0303	1	10/23/2018 04:17	WG1184696
Acrylonitrile	U		0.00230	0.0151	1	10/19/2018 19:58	WG1183540
Benzene	U		0.000484	0.00121	1	10/19/2018 19:58	WG1183540
Bromobenzene	U		0.00127	0.0151	1	10/19/2018 19:58	WG1183540
Bromodichloromethane	U		0.000954	0.00303	1	10/19/2018 19:58	WG1183540
Bromochloromethane	U		0.00137	0.00605	1	10/19/2018 19:58	WG1183540
Bromoform	U		0.00724	0.0303	1	10/19/2018 19:58	WG1183540
Bromomethane	U		0.00448	0.0151	1	10/19/2018 19:58	WG1183540
n-Butylbenzene	U		0.00465	0.0151	1	10/19/2018 19:58	WG1183540
sec-Butylbenzene	U		0.00306	0.0151	1	10/19/2018 19:58	WG1183540
tert-Butylbenzene	U		0.00188	0.00605	1	10/19/2018 19:58	WG1183540
Carbon disulfide	U	UJ J0	0.00492	0.0151	1	10/19/2018 19:58	WG1183540
Carbon tetrachloride	U		0.00131	0.00605	1	10/19/2018 19:58	WG1183540
Chlorobenzene	U		0.000694	0.00303	1	10/19/2018 19:58	WG1183540
Chlorodibromomethane	U		0.000545	0.00303	1	10/19/2018 19:58	WG1183540
Chloroethane	U		0.00131	0.00605	1	10/19/2018 19:58	WG1183540
Chloroform	U		0.000502	0.00303	1	10/19/2018 19:58	WG1183540
Chloromethane	U		0.00168	0.0151	1	10/19/2018 19:58	WG1183540
2-Chlorotoluene	U		0.00111	0.00303	1	10/19/2018 19:58	WG1183540
4-Chlorotoluene	U		0.00137	0.00605	1	10/19/2018 19:58	WG1183540
1,2-Dibromo-3-Chloropropane	U		0.00617	0.0303	1	10/19/2018 19:58	WG1183540
1,2-Dibromoethane	U		0.000636	0.00303	1	10/19/2018 19:58	WG1183540
Dibromomethane	U		0.00121	0.00605	1	10/19/2018 19:58	WG1183540
1,2-Dichlorobenzene	U		0.00176	0.00605	1	10/19/2018 19:58	WG1183540
1,3-Dichlorobenzene	U		0.00206	0.00605	1	10/19/2018 19:58	WG1183540
1,4-Dichlorobenzene	U		0.00239	0.00605	1	10/19/2018 19:58	WG1183540
Dichlorodifluoromethane	U	U J4	0.000990	0.00303	1	10/23/2018 04:17	WG1184696
1,1-Dichloroethane	U		0.000696	0.00303	1	10/19/2018 19:58	WG1183540
1,2-Dichloroethane	U		0.000575	0.00303	1	10/19/2018 19:58	WG1183540
1,1-Dichloroethene	U		0.000605	0.00303	1	10/19/2018 19:58	WG1183540
cis-1,2-Dichloroethene	0.0699		0.000835	0.00303	1	10/19/2018 19:58	WG1183540
trans-1,2-Dichloroethene	U		0.00173	0.00605	1	10/19/2018 19:58	WG1183540
1,2-Dichloropropane	U		0.00154	0.00605	1	10/19/2018 19:58	WG1183540
1,1-Dichloropropene	U		0.000848	0.00303	1	10/19/2018 19:58	WG1183540
1,3-Dichloropropane	U		0.00212	0.00605	1	10/19/2018 19:58	WG1183540
cis-1,3-Dichloropropene	U		0.000821	0.00303	1	10/19/2018 19:58	WG1183540
trans-1,3-Dichloropropene	U	U J4	0.00185	0.00605	1	10/19/2018 19:58	WG1183540
trans-1,4-Dichloro-2-butene	U		0.00170	0.00605	1	10/19/2018 19:58	WG1183540
2,2-Dichloropropane	U		0.000960	0.00303	1	10/19/2018 19:58	WG1183540
Di-isopropyl ether	U		0.000424	0.00121	1	10/19/2018 19:58	WG1183540
Ethylbenzene	U	UJ J0	0.000642	0.00303	1	10/19/2018 19:58	WG1183540
Hexachloro-1,3-butadiene	U		0.0154	0.0303	1	10/19/2018 19:58	WG1183540
2-Hexanone	U		0.0121	0.0303	1	10/19/2018 19:58	WG1183540
n-Hexane	0.00420	J J J0 J4	0.00128	0.00605	1	10/19/2018 19:58	WG1183540
Iodomethane	U		0.00732	0.0151	1	10/19/2018 19:58	WG1183540
Isopropylbenzene	U		0.00104	0.00303	1	10/19/2018 19:58	WG1183540
p-Isopropyltoluene	U		0.00282	0.00605	1	10/19/2018 19:58	WG1183540
2-Butanone (MEK)	0.0553	J B J4	0.0151	0.0303	1	10/19/2018 19:58	WG1183540
Methylene Chloride	U		0.00804	0.0303	1	10/19/2018 19:58	WG1183540
4-Methyl-2-pentanone (MIBK)	U		0.0121	0.0303	1	10/19/2018 19:58	WG1183540

JC 11/14/18

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000357	0.00121	1	10/19/2018 19:58	WG1183540
Naphthalene	U		0.00378	0.0151	1	10/19/2018 19:58	WG1183540
n-Propylbenzene	U		0.00143	0.00605	1	10/19/2018 19:58	WG1183540
Styrene	U		0.00331	0.0151	1	10/19/2018 19:58	WG1183540
1,1,1,2-Tetrachloroethane	U		0.000605	0.00303	1	10/19/2018 19:58	WG1183540
1,1,2,2-Tetrachloroethane	U		0.000472	0.00303	1	10/23/2018 04:17	WG1184696
1,1,2-Trichlorotrifluoroethane	U		0.000817	0.00303	1	10/23/2018 04:17	WG1184696
Tetrachloroethene	0.0333		0.000848	0.00303	1	10/19/2018 19:58	WG1183540
Toluene	U		0.00151	0.00605	1	10/19/2018 19:58	WG1183540
1,2,3-Trichlorobenzene	U		0.000757	0.00303	1	10/23/2018 04:17	WG1184696
1,2,4-Trichlorobenzene	U		0.00584	0.0151	1	10/19/2018 19:58	WG1183540
1,1,1-Trichloroethane	U		0.000333	0.00303	1	10/19/2018 19:58	WG1183540
1,1,2-Trichloroethane	U		0.00107	0.00303	1	10/19/2018 19:58	WG1183540
Trichloroethene	0.0356		0.000484	0.00121	1	10/19/2018 19:58	WG1183540
Trichlorofluoromethane	U		0.000605	0.00303	1	10/19/2018 19:58	WG1183540
1,2,3-Trichloropropane	U		0.00617	0.0151	1	10/19/2018 19:58	WG1183540
1,2,4-Trimethylbenzene	U		0.00140	0.00605	1	10/19/2018 19:58	WG1183540
1,2,3-Trimethylbenzene	U		0.00139	0.00605	1	10/19/2018 19:58	WG1183540
1,3,5-Trimethylbenzene	U		0.00131	0.00605	1	10/19/2018 19:58	WG1183540
Vinyl acetate	U		0.00426	0.0151	1	10/19/2018 19:58	WG1183540
Vinyl chloride	0.00478		0.000827	0.00303	1	10/23/2018 04:17	WG1184696
Xylenes, Total	U		0.00579	0.00787	1	10/19/2018 19:58	WG1183540
(S) Toluene-d8	*101*			*75.0-131*		*10/19/2018 19:58*	WG1183540
(S) Toluene-d8	*100*			*75.0-131*		*10/23/2018 04:17*	WG1184696
(S) Dibromofluoromethane	*94.1*			*65.0-129*		*10/19/2018 19:58*	WG1183540
(S) Dibromofluoromethane	*112*			*65.0-129*		*10/23/2018 04:17*	WG1184696
(S) 4-Bromofluorobenzene	*90.0*			*67.0-138*		*10/19/2018 19:58*	WG1183540
(S) 4-Bromofluorobenzene	*119*			*67.0-138*		*10/23/2018 04:17*	WG1184696

JC 11/14/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	89.6		1	10/24/2018 10:10	WG1184859

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0153	0.0279	1	10/23/2018 04:37	WG1184696
Acrylonitrile	U		0.00212	0.0140	1	10/19/2018 20:16	WG1183540
Benzene	U		0.000447	0.00112	1	10/19/2018 20:16	WG1183540
Bromobenzene	U		0.00117	0.0140	1	10/19/2018 20:16	WG1183540
Bromodichloromethane	U		0.000880	0.00279	1	10/19/2018 20:16	WG1183540
Bromochloromethane	U		0.00126	0.00558	1	10/19/2018 20:16	WG1183540
Bromoform	U		0.00668	0.0279	1	10/19/2018 20:16	WG1183540
Bromomethane	U		0.00413	0.0140	1	10/19/2018 20:16	WG1183540
n-Butylbenzene	U		0.00429	0.0140	1	10/19/2018 20:16	WG1183540
sec-Butylbenzene	U		0.00283	0.0140	1	10/19/2018 20:16	WG1183540
tert-Butylbenzene	U		0.00173	0.00558	1	10/19/2018 20:16	WG1183540
Carbon disulfide	U	UJ J0	0.00453	0.0140	1	10/19/2018 20:16	WG1183540
Carbon tetrachloride	U		0.00121	0.00558	1	10/19/2018 20:16	WG1183540
Chlorobenzene	U		0.000640	0.00279	1	10/19/2018 20:16	WG1183540
Chlorodibromomethane	U		0.000502	0.00279	1	10/19/2018 20:16	WG1183540
Chloroethane	U		0.00121	0.00558	1	10/19/2018 20:16	WG1183540
Chloroform	U		0.000463	0.00279	1	10/19/2018 20:16	WG1183540
Chloromethane	U		0.00155	0.0140	1	10/19/2018 20:16	WG1183540
2-Chlorotoluene	U		0.00103	0.00279	1	10/19/2018 20:16	WG1183540
4-Chlorotoluene	U		0.00126	0.00558	1	10/19/2018 20:16	WG1183540
1,2-Dibromo-3-Chloropropane	U		0.00569	0.0279	1	10/19/2018 20:16	WG1183540
1,2-Dibromoethane	U		0.000586	0.00279	1	10/19/2018 20:16	WG1183540
Dibromomethane	U		0.00112	0.00558	1	10/19/2018 20:16	WG1183540
1,2-Dichlorobenzene	U		0.00162	0.00558	1	10/19/2018 20:16	WG1183540
1,3-Dichlorobenzene	U		0.00190	0.00558	1	10/19/2018 20:16	WG1183540
1,4-Dichlorobenzene	U		0.00220	0.00558	1	10/19/2018 20:16	WG1183540
Dichlorodifluoromethane	U	U J4	0.000913	0.00279	1	10/23/2018 04:37	WG1184696
1,1-Dichloroethane	U		0.000642	0.00279	1	10/19/2018 20:16	WG1183540
1,2-Dichloroethane	U		0.000530	0.00279	1	10/19/2018 20:16	WG1183540
1,1-Dichloroethene	U		0.000558	0.00279	1	10/19/2018 20:16	WG1183540
cis-1,2-Dichloroethene	0.481		0.000770	0.00279	1	10/19/2018 20:16	WG1183540
trans-1,2-Dichloroethene	0.00474	J J	0.00160	0.00558	1	10/19/2018 20:16	WG1183540
1,2-Dichloropropane	U		0.00142	0.00558	1	10/19/2018 20:16	WG1183540
1,1-Dichloropropene	U		0.000782	0.00279	1	10/19/2018 20:16	WG1183540
1,3-Dichloropropane	U		0.00195	0.00558	1	10/19/2018 20:16	WG1183540
cis-1,3-Dichloropropene	U		0.000757	0.00279	1	10/19/2018 20:16	WG1183540
trans-1,3-Dichloropropene	U	U J4	0.00171	0.00558	1	10/19/2018 20:16	WG1183540
trans-1,4-Dichloro-2-butene	U		0.00156	0.00558	1	10/19/2018 20:16	WG1183540
2,2-Dichloropropane	U		0.000885	0.00279	1	10/19/2018 20:16	WG1183540
Di-isopropyl ether	U		0.000391	0.00112	1	10/19/2018 20:16	WG1183540
Ethylbenzene	U	UJ J0	0.000592	0.00279	1	10/19/2018 20:16	WG1183540
Hexachloro-1,3-butadiene	U		0.0142	0.0279	1	10/19/2018 20:16	WG1183540
2-Hexanone	U		0.0112	0.0279	1	10/19/2018 20:16	WG1183540
n-Hexane	0.00506	J J J0 J4	0.00118	0.00558	1	10/19/2018 20:16	WG1183540
Iodomethane	U		0.00676	0.0140	1	10/19/2018 20:16	WG1183540
Isopropylbenzene	U		0.000964	0.00279	1	10/19/2018 20:16	WG1183540
p-Isopropyltoluene	U		0.00260	0.00558	1	10/19/2018 20:16	WG1183540
2-Butanone (MEK)	0.0232	U B J J4	0.0140	0.0279	1	10/19/2018 20:16	WG1183540
Methylene Chloride	U		0.00741	0.0279	1	10/19/2018 20:16	WG1183540
4-Methyl-2-pentanone (MIBK)	U		0.0112	0.0279	1	10/19/2018 20:16	WG1183540

JC 11/14/18

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000329	0.00112	1	10/19/2018 20:16	WG1183540
Naphthalene	U		0.00348	0.0140	1	10/19/2018 20:16	WG1183540
n-Propylbenzene	U		0.00132	0.00558	1	10/19/2018 20:16	WG1183540
Styrene	U		0.00305	0.0140	1	10/19/2018 20:16	WG1183540
1,1,1,2-Tetrachloroethane	U		0.000558	0.00279	1	10/19/2018 20:16	WG1183540
1,1,2,2-Tetrachloroethane	U		0.000435	0.00279	1	10/23/2018 04:37	WG1184696
1,1,2-Trichlorotrifluoroethane	U		0.000754	0.00279	1	10/23/2018 04:37	WG1184696
Tetrachloroethene	1.75		0.000782	0.00279	1	10/19/2018 20:16	WG1183540
Toluene	U		0.00140	0.00558	1	10/19/2018 20:16	WG1183540
1,2,3-Trichlorobenzene	U		0.000698	0.00279	1	10/23/2018 04:37	WG1184696
1,2,4-Trichlorobenzene	U		0.00538	0.0140	1	10/19/2018 20:16	WG1183540
1,1,1-Trichloroethane	U		0.000307	0.00279	1	10/19/2018 20:16	WG1183540
1,1,2-Trichloroethane	U		0.000986	0.00279	1	10/19/2018 20:16	WG1183540
Trichloroethene	0.183		0.000447	0.00112	1	10/19/2018 20:16	WG1183540
Trichlorofluoromethane	U		0.000558	0.00279	1	10/19/2018 20:16	WG1183540
1,2,3-Trichloropropane	U		0.00569	0.0140	1	10/19/2018 20:16	WG1183540
1,2,4-Trimethylbenzene	U		0.00130	0.00558	1	10/19/2018 20:16	WG1183540
1,2,3-Trimethylbenzene	U		0.00128	0.00558	1	10/19/2018 20:16	WG1183540
1,3,5-Trimethylbenzene	U		0.00121	0.00558	1	10/19/2018 20:16	WG1183540
Vinyl acetate	U		0.00393	0.0140	1	10/19/2018 20:16	WG1183540
Vinyl chloride	0.0252		0.000763	0.00279	1	10/23/2018 04:37	WG1184696
Xylenes, Total	U		0.00534	0.00726	1	10/19/2018 20:16	WG1183540
(S) Toluene-d8	*102*			*75.0-131*		*10/19/2018 20:16*	WG1183540
(S) Toluene-d8	*99.5*			*75.0-131*		*10/23/2018 04:37*	WG1184696
(S) Dibromofluoromethane	*93.8*			*65.0-129*		*10/19/2018 20:16*	WG1183540
(S) Dibromofluoromethane	*116*			*65.0-129*		*10/23/2018 04:37*	WG1184696
(S) 4-Bromofluorobenzene	*88.8*			*67.0-138*		*10/19/2018 20:16*	WG1183540
(S) 4-Bromofluorobenzene	*120*			*67.0-138*		*10/23/2018 04:37*	WG1184696

JC 11/14/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	86.1		1	10/24/2018 10:10	WG1184859

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0159	0.0290	1	10/23/2018 04:57	WG1184696
Acrylonitrile	U		0.00221	0.0145	1	10/19/2018 20:34	WG1183540
Benzene	U		0.000465	0.00116	1	10/19/2018 20:34	WG1183540
Bromobenzene	U		0.00122	0.0145	1	10/19/2018 20:34	WG1183540
Bromodichloromethane	U		0.000915	0.00290	1	10/19/2018 20:34	WG1183540
Bromochloromethane	U		0.00131	0.00581	1	10/19/2018 20:34	WG1183540
Bromoform	U		0.00695	0.0290	1	10/19/2018 20:34	WG1183540
Bromomethane	U		0.00430	0.0145	1	10/19/2018 20:34	WG1183540
n-Butylbenzene	U		0.00446	0.0145	1	10/19/2018 20:34	WG1183540
sec-Butylbenzene	U		0.00294	0.0145	1	10/19/2018 20:34	WG1183540
tert-Butylbenzene	U		0.00180	0.00581	1	10/19/2018 20:34	WG1183540
Carbon disulfide	U	UJ J0	0.00472	0.0145	1	10/19/2018 20:34	WG1183540
Carbon tetrachloride	U		0.00125	0.00581	1	10/19/2018 20:34	WG1183540
Chlorobenzene	U		0.000666	0.00290	1	10/19/2018 20:34	WG1183540
Chlorodibromomethane	U		0.000523	0.00290	1	10/19/2018 20:34	WG1183540
Chloroethane	U		0.00125	0.00581	1	10/19/2018 20:34	WG1183540
Chloroform	U		0.000482	0.00290	1	10/19/2018 20:34	WG1183540
Chloromethane	U		0.00161	0.0145	1	10/19/2018 20:34	WG1183540
2-Chlorotoluene	U		0.00107	0.00290	1	10/19/2018 20:34	WG1183540
4-Chlorotoluene	U		0.00131	0.00581	1	10/19/2018 20:34	WG1183540
1,2-Dibromo-3-Chloropropane	U		0.00592	0.0290	1	10/19/2018 20:34	WG1183540
1,2-Dibromoethane	U		0.000610	0.00290	1	10/19/2018 20:34	WG1183540
Dibromomethane	U		0.00116	0.00581	1	10/19/2018 20:34	WG1183540
1,2-Dichlorobenzene	U		0.00168	0.00581	1	10/19/2018 20:34	WG1183540
1,3-Dichlorobenzene	U		0.00197	0.00581	1	10/19/2018 20:34	WG1183540
1,4-Dichlorobenzene	U		0.00229	0.00581	1	10/19/2018 20:34	WG1183540
Dichlorodifluoromethane	U	U J4	0.000950	0.00290	1	10/23/2018 04:57	WG1184696
1,1-Dichloroethane	U		0.000668	0.00290	1	10/19/2018 20:34	WG1183540
1,2-Dichloroethane	U		0.000552	0.00290	1	10/19/2018 20:34	WG1183540
1,1-Dichloroethene	0.000652	J J	0.000581	0.00290	1	10/19/2018 20:34	WG1183540
cis-1,2-Dichloroethene	0.364		0.000802	0.00290	1	10/19/2018 20:34	WG1183540
trans-1,2-Dichloroethene	0.00411	J J	0.00166	0.00581	1	10/19/2018 20:34	WG1183540
1,2-Dichloropropane	U		0.00148	0.00581	1	10/19/2018 20:34	WG1183540
1,1-Dichloropropene	U		0.000813	0.00290	1	10/19/2018 20:34	WG1183540
1,3-Dichloropropane	U		0.00203	0.00581	1	10/19/2018 20:34	WG1183540
cis-1,3-Dichloropropene	U		0.000788	0.00290	1	10/19/2018 20:34	WG1183540
trans-1,3-Dichloropropene	U	U J4	0.00178	0.00581	1	10/19/2018 20:34	WG1183540
trans-1,4-Dichloro-2-butene	U		0.00163	0.00581	1	10/19/2018 20:34	WG1183540
2,2-Dichloropropane	U		0.000921	0.00290	1	10/19/2018 20:34	WG1183540
Di-isopropyl ether	U		0.000407	0.00116	1	10/19/2018 20:34	WG1183540
Ethylbenzene	U	UJ J0	0.000616	0.00290	1	10/19/2018 20:34	WG1183540
Hexachloro-1,3-butadiene	U		0.0148	0.0290	1	10/19/2018 20:34	WG1183540
2-Hexanone	U		0.0116	0.0290	1	10/19/2018 20:34	WG1183540
n-Hexane	0.00558	J J J0 J4	0.00123	0.00581	1	10/19/2018 20:34	WG1183540
Iodomethane	U		0.00703	0.0145	1	10/19/2018 20:34	WG1183540
Isopropylbenzene	U		0.00100	0.00290	1	10/19/2018 20:34	WG1183540
p-Isopropyltoluene	U		0.00271	0.00581	1	10/19/2018 20:34	WG1183540
2-Butanone (MEK)	0.0225	U B J J4	0.0145	0.0290	1	10/19/2018 20:34	WG1183540
Methylene Chloride	U		0.00771	0.0290	1	10/19/2018 20:34	WG1183540
4-Methyl-2-pentanone (MIBK)	U		0.0116	0.0290	1	10/19/2018 20:34	WG1183540

JC 11/14/18

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000343	0.00116	1	10/19/2018 20:34	WG1183540
Naphthalene	U		0.00362	0.0145	1	10/19/2018 20:34	WG1183540
n-Propylbenzene	U		0.00137	0.00581	1	10/19/2018 20:34	WG1183540
Styrene	U		0.00317	0.0145	1	10/19/2018 20:34	WG1183540
1,1,1,2-Tetrachloroethane	U		0.000581	0.00290	1	10/19/2018 20:34	WG1183540
1,1,2,2-Tetrachloroethane	U		0.000453	0.00290	1	10/23/2018 04:57	WG1184696
1,1,2-Trichlorotrifluoroethane	U		0.000784	0.00290	1	10/23/2018 04:57	WG1184696
Tetrachloroethene	1.26		0.000813	0.00290	1	10/19/2018 20:34	WG1183540
Toluene	U		0.00145	0.00581	1	10/19/2018 20:34	WG1183540
1,2,3-Trichlorobenzene	U		0.000726	0.00290	1	10/23/2018 04:57	WG1184696
1,2,4-Trichlorobenzene	U		0.00560	0.0145	1	10/19/2018 20:34	WG1183540
1,1,1-Trichloroethane	U		0.000319	0.00290	1	10/19/2018 20:34	WG1183540
1,1,2-Trichloroethane	U		0.00103	0.00290	1	10/19/2018 20:34	WG1183540
Trichloroethene	0.134		0.000465	0.00116	1	10/19/2018 20:34	WG1183540
Trichlorofluoromethane	U		0.000581	0.00290	1	10/19/2018 20:34	WG1183540
1,2,3-Trichloropropane	U		0.00592	0.0145	1	10/19/2018 20:34	WG1183540
1,2,4-Trimethylbenzene	U		0.00135	0.00581	1	10/19/2018 20:34	WG1183540
1,2,3-Trimethylbenzene	U		0.00134	0.00581	1	10/19/2018 20:34	WG1183540
1,3,5-Trimethylbenzene	U		0.00125	0.00581	1	10/19/2018 20:34	WG1183540
Vinyl acetate	U		0.00409	0.0145	1	10/19/2018 20:34	WG1183540
Vinyl chloride	U		0.000793	0.00290	1	10/23/2018 04:57	WG1184696
Xylenes, Total	U		0.00555	0.00755	1	10/19/2018 20:34	WG1183540
(S) Toluene-d8	*104*			*75.0-131*		*10/19/2018 20:34*	WG1183540
(S) Toluene-d8	*99.5*			*75.0-131*		*10/23/2018 04:57*	WG1184696
(S) Dibromofluoromethane	*93.9*			*65.0-129*		*10/19/2018 20:34*	WG1183540
(S) Dibromofluoromethane	*115*			*65.0-129*		*10/23/2018 04:57*	WG1184696
(S) 4-Bromofluorobenzene	*90.1*			*67.0-138*		*10/19/2018 20:34*	WG1183540
(S) 4-Bromofluorobenzene	*120*			*67.0-138*		*10/23/2018 04:57*	WG1184696

JC 11/14/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	89.0		1	10/24/2018 10:10	WG1184859

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.124	0.225	8	10/23/2018 07:38	WG1184696
Acrylonitrile	U		0.00214	0.0140	1	10/19/2018 20:53	WG1183540
Benzene	U		0.000450	0.00112	1	10/19/2018 20:53	WG1183540
Bromobenzene	U		0.00118	0.0140	1	10/19/2018 20:53	WG1183540
Bromodichloromethane	U		0.000886	0.00281	1	10/19/2018 20:53	WG1183540
Bromochloromethane	U		0.00127	0.00562	1	10/19/2018 20:53	WG1183540
Bromoform	U		0.00672	0.0281	1	10/19/2018 20:53	WG1183540
Bromomethane	U		0.00416	0.0140	1	10/19/2018 20:53	WG1183540
n-Butylbenzene	U		0.00432	0.0140	1	10/19/2018 20:53	WG1183540
sec-Butylbenzene	U		0.00284	0.0140	1	10/19/2018 20:53	WG1183540
tert-Butylbenzene	U		0.00174	0.00562	1	10/19/2018 20:53	WG1183540
Carbon disulfide	U	UJ J0	0.00456	0.0140	1	10/19/2018 20:53	WG1183540
Carbon tetrachloride	U		0.00121	0.00562	1	10/19/2018 20:53	WG1183540
Chlorobenzene	U		0.000644	0.00281	1	10/19/2018 20:53	WG1183540
Chlorodibromomethane	U		0.000506	0.00281	1	10/19/2018 20:53	WG1183540
Chloroethane	U		0.00121	0.00562	1	10/19/2018 20:53	WG1183540
Chloroform	U		0.000466	0.00281	1	10/19/2018 20:53	WG1183540
Chloromethane	U		0.00156	0.0140	1	10/19/2018 20:53	WG1183540
2-Chlorotoluene	U		0.00103	0.00281	1	10/19/2018 20:53	WG1183540
4-Chlorotoluene	U		0.00127	0.00562	1	10/19/2018 20:53	WG1183540
1,2-Dibromo-3-Chloropropane	U		0.00573	0.0281	1	10/19/2018 20:53	WG1183540
1,2-Dibromoethane	U		0.000590	0.00281	1	10/19/2018 20:53	WG1183540
Dibromomethane	U		0.00112	0.00562	1	10/19/2018 20:53	WG1183540
1,2-Dichlorobenzene	U		0.00163	0.00562	1	10/19/2018 20:53	WG1183540
1,3-Dichlorobenzene	U		0.00191	0.00562	1	10/19/2018 20:53	WG1183540
1,4-Dichlorobenzene	U		0.00221	0.00562	1	10/19/2018 20:53	WG1183540
Dichlorodifluoromethane	U	U J4	0.00735	0.0225	8	10/23/2018 07:38	WG1184696
1,1-Dichloroethane	U		0.000646	0.00281	1	10/19/2018 20:53	WG1183540
1,2-Dichloroethane	U		0.000534	0.00281	1	10/19/2018 20:53	WG1183540
1,1-Dichloroethene	0.00801		0.000562	0.00281	1	10/19/2018 20:53	WG1183540
cis-1,2-Dichloroethene	1.67		0.000776	0.00281	1	10/19/2018 20:53	WG1183540
trans-1,2-Dichloroethene	0.00652		0.00161	0.00562	1	10/19/2018 20:53	WG1183540
1,2-Dichloropropane	U		0.00143	0.00562	1	10/19/2018 20:53	WG1183540
1,1-Dichloropropene	U		0.000787	0.00281	1	10/19/2018 20:53	WG1183540
1,3-Dichloropropane	U		0.00197	0.00562	1	10/19/2018 20:53	WG1183540
cis-1,3-Dichloropropene	U		0.000762	0.00281	1	10/19/2018 20:53	WG1183540
trans-1,3-Dichloropropene	U	U J4	0.00172	0.00562	1	10/19/2018 20:53	WG1183540
trans-1,4-Dichloro-2-butene	U		0.00157	0.00562	1	10/19/2018 20:53	WG1183540
2,2-Dichloropropane	U		0.000891	0.00281	1	10/19/2018 20:53	WG1183540
Di-isopropyl ether	U		0.000393	0.00112	1	10/19/2018 20:53	WG1183540
Ethylbenzene	U	UJ J0	0.000596	0.00281	1	10/19/2018 20:53	WG1183540
Hexachloro-1,3-butadiene	U		0.0143	0.0281	1	10/19/2018 20:53	WG1183540
2-Hexanone	U		0.0112	0.0281	1	10/19/2018 20:53	WG1183540
n-Hexane	0.00569	J J0 J4	0.00119	0.00562	1	10/19/2018 20:53	WG1183540
Iodomethane	U		0.00680	0.0140	1	10/19/2018 20:53	WG1183540
Isopropylbenzene	U		0.000970	0.00281	1	10/19/2018 20:53	WG1183540
p-Isopropyltoluene	U		0.00262	0.00562	1	10/19/2018 20:53	WG1183540
2-Butanone (MEK)	0.0273	U B J J4	0.0140	0.0281	1	10/19/2018 20:53	WG1183540
Methylene Chloride	U		0.00746	0.0281	1	10/19/2018 20:53	WG1183540
4-Methyl-2-pentanone (MIBK)	U		0.0112	0.0281	1	10/19/2018 20:53	WG1183540

JC 11/14/18

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000332	0.00112	1	10/19/2018 20:53	WG1183540
Naphthalene	U		0.00351	0.0140	1	10/19/2018 20:53	WG1183540
n-Propylbenzene	U		0.00133	0.00562	1	10/19/2018 20:53	WG1183540
Styrene	U		0.00307	0.0140	1	10/19/2018 20:53	WG1183540
1,1,1,2-Tetrachloroethane	U		0.000562	0.00281	1	10/19/2018 20:53	WG1183540
1,1,2,2-Tetrachloroethane	U		0.00351	0.0225	8	10/23/2018 07:38	WG1184696
1,1,2-Trichlorotrifluoroethane	U		0.00607	0.0225	8	10/23/2018 07:38	WG1184696
Tetrachloroethene	2.06		0.00629	0.0225	8	10/23/2018 07:38	WG1184696
Toluene	U		0.00140	0.00562	1	10/19/2018 20:53	WG1183540
1,2,3-Trichlorobenzene	U		0.00562	0.0225	8	10/23/2018 07:38	WG1184696
1,2,4-Trichlorobenzene	U		0.00542	0.0140	1	10/19/2018 20:53	WG1183540
1,1,1-Trichloroethane	U		0.000309	0.00281	1	10/19/2018 20:53	WG1183540
1,1,2-Trichloroethane	U		0.000992	0.00281	1	10/19/2018 20:53	WG1183540
Trichloroethene	0.455		0.000450	0.00112	1	10/19/2018 20:53	WG1183540
Trichlorofluoromethane	U		0.000562	0.00281	1	10/19/2018 20:53	WG1183540
1,2,3-Trichloropropane	U		0.00573	0.0140	1	10/19/2018 20:53	WG1183540
1,2,4-Trimethylbenzene	U		0.00130	0.00562	1	10/19/2018 20:53	WG1183540
1,2,3-Trimethylbenzene	U		0.00129	0.00562	1	10/19/2018 20:53	WG1183540
1,3,5-Trimethylbenzene	U		0.00121	0.00562	1	10/19/2018 20:53	WG1183540
Vinyl acetate	U		0.00396	0.0140	1	10/19/2018 20:53	WG1183540
Vinyl chloride	0.226		0.00614	0.0225	8	10/23/2018 07:38	WG1184696
Xylenes, Total	U		0.00537	0.00731	1	10/19/2018 20:53	WG1183540
(S) Toluene-d8	*103*			*75.0-131*		*10/19/2018 20:53*	WG1183540
(S) Toluene-d8	*97.8*			*75.0-131*		*10/23/2018 07:38*	WG1184696
(S) Dibromofluoromethane	*95.2*			*65.0-129*		*10/19/2018 20:53*	WG1183540
(S) Dibromofluoromethane	*118*			*65.0-129*		*10/23/2018 07:38*	WG1184696
(S) 4-Bromofluorobenzene	*90.3*			*67.0-138*		*10/19/2018 20:53*	WG1183540
(S) 4-Bromofluorobenzene	*122*			*67.0-138*		*10/23/2018 07:38*	WG1184696

Sample Narrative:

JC 11/14/18

L1036155-04 WG1184696, WG1183540: Cannot be reanalyzed at a lower dilution due to high levels of target analytes.

L1036155-04 WG1184696, WG1183540: Not all compounds reportable at lower dilution.

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	91.3		1	10/24/2018 10:10	WG1184859

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0150	0.0274	1	10/23/2018 05:17	WG1184696
Acrylonitrile	U		0.00208	0.0137	1	10/19/2018 21:11	WG1183540
Benzene	U		0.000438	0.00110	1	10/19/2018 21:11	WG1183540
Bromobenzene	U		0.00115	0.0137	1	10/19/2018 21:11	WG1183540
Bromodichloromethane	U		0.000863	0.00274	1	10/19/2018 21:11	WG1183540
Bromochloromethane	U		0.00124	0.00548	1	10/19/2018 21:11	WG1183540
Bromoform	U		0.00655	0.0274	1	10/19/2018 21:11	WG1183540
Bromomethane	U		0.00405	0.0137	1	10/19/2018 21:11	WG1183540
n-Butylbenzene	U		0.00421	0.0137	1	10/19/2018 21:11	WG1183540
sec-Butylbenzene	U		0.00277	0.0137	1	10/19/2018 21:11	WG1183540
tert-Butylbenzene	U		0.00170	0.00548	1	10/19/2018 21:11	WG1183540
Carbon disulfide	U	UJ J0	0.00445	0.0137	1	10/19/2018 21:11	WG1183540
Carbon tetrachloride	U		0.00118	0.00548	1	10/19/2018 21:11	WG1183540
Chlorobenzene	U		0.000628	0.00274	1	10/19/2018 21:11	WG1183540
Chlorodibromomethane	U		0.000493	0.00274	1	10/19/2018 21:11	WG1183540
Chloroethane	U		0.00118	0.00548	1	10/19/2018 21:11	WG1183540
Chloroform	0.00130	J J	0.000455	0.00274	1	10/19/2018 21:11	WG1183540
Chloromethane	U		0.00152	0.0137	1	10/19/2018 21:11	WG1183540
2-Chlorotoluene	U		0.00101	0.00274	1	10/19/2018 21:11	WG1183540
4-Chlorotoluene	U		0.00124	0.00548	1	10/19/2018 21:11	WG1183540
1,2-Dibromo-3-Chloropropane	U		0.00559	0.0274	1	10/19/2018 21:11	WG1183540
1,2-Dibromoethane	U		0.000575	0.00274	1	10/19/2018 21:11	WG1183540
Dibromomethane	U		0.00110	0.00548	1	10/19/2018 21:11	WG1183540
1,2-Dichlorobenzene	U		0.00159	0.00548	1	10/19/2018 21:11	WG1183540
1,3-Dichlorobenzene	U		0.00186	0.00548	1	10/19/2018 21:11	WG1183540
1,4-Dichlorobenzene	U		0.00216	0.00548	1	10/19/2018 21:11	WG1183540
Dichlorodifluoromethane	U	U J4	0.000896	0.00274	1	10/23/2018 05:17	WG1184696
1,1-Dichloroethane	U		0.000630	0.00274	1	10/19/2018 21:11	WG1183540
1,2-Dichloroethane	U		0.000520	0.00274	1	10/19/2018 21:11	WG1183540
1,1-Dichloroethene	U		0.000548	0.00274	1	10/19/2018 21:11	WG1183540
cis-1,2-Dichloroethene	0.0116		0.000756	0.00274	1	10/19/2018 21:11	WG1183540
trans-1,2-Dichloroethene	U		0.00157	0.00548	1	10/19/2018 21:11	WG1183540
1,2-Dichloropropane	U		0.00139	0.00548	1	10/19/2018 21:11	WG1183540
1,1-Dichloropropene	U		0.000767	0.00274	1	10/19/2018 21:11	WG1183540
1,3-Dichloropropane	U		0.00192	0.00548	1	10/19/2018 21:11	WG1183540
cis-1,3-Dichloropropene	U		0.000743	0.00274	1	10/19/2018 21:11	WG1183540
trans-1,3-Dichloropropene	U	U J4	0.00168	0.00548	1	10/19/2018 21:11	WG1183540
trans-1,4-Dichloro-2-butene	U		0.00153	0.00548	1	10/19/2018 21:11	WG1183540
2,2-Dichloropropane	U		0.000869	0.00274	1	10/19/2018 21:11	WG1183540
Di-isopropyl ether	U		0.000384	0.00110	1	10/19/2018 21:11	WG1183540
Ethylbenzene	U	UJ J0	0.000581	0.00274	1	10/19/2018 21:11	WG1183540
Hexachloro-1,3-butadiene	U		0.0139	0.0274	1	10/19/2018 21:11	WG1183540
2-Hexanone	U		0.0110	0.0274	1	10/19/2018 21:11	WG1183540
n-Hexane	0.00671	J J0 J4	0.00116	0.00548	1	10/19/2018 21:11	WG1183540
Iodomethane	U		0.00663	0.0137	1	10/19/2018 21:11	WG1183540
Isopropylbenzene	U		0.000946	0.00274	1	10/19/2018 21:11	WG1183540
p-Isopropyltoluene	U		0.00255	0.00548	1	10/19/2018 21:11	WG1183540
2-Butanone (MEK)	0.0293	J B J4	0.0137	0.0274	1	10/19/2018 21:11	WG1183540
Methylene Chloride	U		0.00728	0.0274	1	10/19/2018 21:11	WG1183540
4-Methyl-2-pentanone (MIBK)	U		0.0110	0.0274	1	10/19/2018 21:11	WG1183540

JC 11/14/18

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000323	0.00110	1	10/19/2018 21:11	WG1183540
Naphthalene	U		0.00342	0.0137	1	10/19/2018 21:11	WG1183540
n-Propylbenzene	U		0.00129	0.00548	1	10/19/2018 21:11	WG1183540
Styrene	U		0.00299	0.0137	1	10/19/2018 21:11	WG1183540
1,1,1,2-Tetrachloroethane	U		0.000548	0.00274	1	10/19/2018 21:11	WG1183540
1,1,2,2-Tetrachloroethane	U		0.000427	0.00274	1	10/23/2018 05:17	WG1184696
1,1,2-Trichlorotrifluoroethane	U		0.000740	0.00274	1	10/23/2018 05:17	WG1184696
Tetrachloroethene	0.0198		0.000767	0.00274	1	10/23/2018 05:17	WG1184696
Toluene	U		0.00137	0.00548	1	10/19/2018 21:11	WG1183540
1,2,3-Trichlorobenzene	U		0.000685	0.00274	1	10/23/2018 05:17	WG1184696
1,2,4-Trichlorobenzene	U		0.00528	0.0137	1	10/19/2018 21:11	WG1183540
1,1,1-Trichloroethane	U		0.000301	0.00274	1	10/19/2018 21:11	WG1183540
1,1,2-Trichloroethane	U		0.000968	0.00274	1	10/19/2018 21:11	WG1183540
Trichloroethene	0.00793		0.000438	0.00110	1	10/19/2018 21:11	WG1183540
Trichlorofluoromethane	U		0.000548	0.00274	1	10/19/2018 21:11	WG1183540
1,2,3-Trichloropropane	U		0.00559	0.0137	1	10/19/2018 21:11	WG1183540
1,2,4-Trimethylbenzene	U		0.00127	0.00548	1	10/19/2018 21:11	WG1183540
1,2,3-Trimethylbenzene	U		0.00126	0.00548	1	10/19/2018 21:11	WG1183540
1,3,5-Trimethylbenzene	U		0.00118	0.00548	1	10/19/2018 21:11	WG1183540
Vinyl acetate	U		0.00386	0.0137	1	10/19/2018 21:11	WG1183540
Vinyl chloride	U		0.000748	0.00274	1	10/23/2018 05:17	WG1184696
Xylenes, Total	U		0.00524	0.00712	1	10/19/2018 21:11	WG1183540
(S) Toluene-d8	*100*			*75.0-131*		*10/19/2018 21:11*	WG1183540
(S) Toluene-d8	*99.6*			*75.0-131*		*10/23/2018 05:17*	WG1184696
(S) Dibromofluoromethane	*93.8*			*65.0-129*		*10/19/2018 21:11*	WG1183540
(S) Dibromofluoromethane	*114*			*65.0-129*		*10/23/2018 05:17*	WG1184696
(S) 4-Bromofluorobenzene	*90.5*			*67.0-138*		*10/19/2018 21:11*	WG1183540
(S) 4-Bromofluorobenzene	*119*			*67.0-138*		*10/23/2018 05:17*	WG1184696

JC 11/14/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	87.9		1	10/24/2018 10:10	WG1184859

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0156	0.0284	1	10/21/2018 22:57	WG1184313
Acrylonitrile	U		0.00216	0.0142	1	10/21/2018 22:57	WG1184313
Benzene	U		0.000455	0.00114	1	10/23/2018 16:51	WG1185140
Bromobenzene	U		0.00119	0.0142	1	10/21/2018 22:57	WG1184313
Bromodichloromethane	U		0.000896	0.00284	1	10/21/2018 22:57	WG1184313
Bromochloromethane	U		0.00129	0.00569	1	10/21/2018 22:57	WG1184313
Bromoform	U		0.00680	0.0284	1	10/21/2018 22:57	WG1184313
Bromomethane	U		0.00421	0.0142	1	10/21/2018 22:57	WG1184313
n-Butylbenzene	U		0.00437	0.0142	1	10/21/2018 22:57	WG1184313
sec-Butylbenzene	U		0.00288	0.0142	1	10/21/2018 22:57	WG1184313
tert-Butylbenzene	U		0.00176	0.00569	1	10/21/2018 22:57	WG1184313
Carbon disulfide	U		0.00462	0.0142	1	10/21/2018 22:57	WG1184313
Carbon tetrachloride	U		0.00123	0.00569	1	10/21/2018 22:57	WG1184313
Chlorobenzene	U		0.000652	0.00284	1	10/21/2018 22:57	WG1184313
Chlorodibromomethane	U		0.000512	0.00284	1	10/21/2018 22:57	WG1184313
Chloroethane	U		0.00123	0.00569	1	10/21/2018 22:57	WG1184313
Chloroform	0.00166	U	0.000472	0.00284	1	10/21/2018 22:57	WG1184313
Chloromethane	U		0.00158	0.0142	1	10/21/2018 22:57	WG1184313
2-Chlorotoluene	U		0.00105	0.00284	1	10/21/2018 22:57	WG1184313
4-Chlorotoluene	U		0.00129	0.00569	1	10/21/2018 22:57	WG1184313
1,2-Dibromo-3-Chloropropane	U		0.00580	0.0284	1	10/21/2018 22:57	WG1184313
1,2-Dibromoethane	U		0.000597	0.00284	1	10/21/2018 22:57	WG1184313
Dibromomethane	U		0.00114	0.00569	1	10/21/2018 22:57	WG1184313
1,2-Dichlorobenzene	U		0.00165	0.00569	1	10/21/2018 22:57	WG1184313
1,3-Dichlorobenzene	U		0.00193	0.00569	1	10/21/2018 22:57	WG1184313
1,4-Dichlorobenzene	U		0.00224	0.00569	1	10/21/2018 22:57	WG1184313
Dichlorodifluoromethane	U		0.000930	0.00284	1	10/21/2018 22:57	WG1184313
1,1-Dichloroethane	U		0.000654	0.00284	1	10/21/2018 22:57	WG1184313
1,2-Dichloroethane	U		0.000540	0.00284	1	10/21/2018 22:57	WG1184313
1,1-Dichloroethene	U		0.000569	0.00284	1	10/21/2018 22:57	WG1184313
cis-1,2-Dichloroethene	0.00236	J	0.000785	0.00284	1	10/21/2018 22:57	WG1184313
trans-1,2-Dichloroethene	U		0.00163	0.00569	1	10/21/2018 22:57	WG1184313
1,2-Dichloropropane	U		0.00144	0.00569	1	10/21/2018 22:57	WG1184313
1,1-Dichloropropene	U		0.000796	0.00284	1	10/21/2018 22:57	WG1184313
1,3-Dichloropropane	U		0.00199	0.00569	1	10/21/2018 22:57	WG1184313
cis-1,3-Dichloropropene	U		0.000771	0.00284	1	10/21/2018 22:57	WG1184313
trans-1,3-Dichloropropene	U		0.00174	0.00569	1	10/21/2018 22:57	WG1184313
trans-1,4-Dichloro-2-butene	U		0.00159	0.00569	1	10/21/2018 22:57	WG1184313
2,2-Dichloropropane	U	U	0.000902	0.00284	1	10/21/2018 22:57	WG1184313
Di-isopropyl ether	U		0.000398	0.00114	1	10/23/2018 16:51	WG1185140
Ethylbenzene	U		0.000603	0.00284	1	10/21/2018 22:57	WG1184313
Hexachloro-1,3-butadiene	U		0.0144	0.0284	1	10/21/2018 22:57	WG1184313
2-Hexanone	U		0.0114	0.0284	1	10/21/2018 22:57	WG1184313
n-Hexane	U		0.00121	0.00569	1	10/21/2018 22:57	WG1184313
Iodomethane	U		0.00688	0.0142	1	10/21/2018 22:57	WG1184313
Isopropylbenzene	U		0.000981	0.00284	1	10/21/2018 22:57	WG1184313
p-Isopropyltoluene	U		0.00265	0.00569	1	10/21/2018 22:57	WG1184313
2-Butanone (MEK)	0.0301		0.0142	0.0284	1	10/21/2018 22:57	WG1184313
Methylene Chloride	U		0.00755	0.0284	1	10/21/2018 22:57	WG1184313
4-Methyl-2-pentanone (MIBK)	U		0.0114	0.0284	1	10/21/2018 22:57	WG1184313

JC 11/14/18

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000335	0.00114	1	10/23/2018 16:51	WG1185140
Naphthalene	U		0.00355	0.0142	1	10/21/2018 22:57	WG1184313
n-Propylbenzene	U		0.00134	0.00569	1	10/21/2018 22:57	WG1184313
Styrene	U		0.00310	0.0142	1	10/21/2018 22:57	WG1184313
1,1,1,2-Tetrachloroethane	U		0.000569	0.00284	1	10/21/2018 22:57	WG1184313
1,1,2,2-Tetrachloroethane	U		0.000444	0.00284	1	10/21/2018 22:57	WG1184313
1,1,2-Trichlorotrifluoroethane	U		0.000768	0.00284	1	10/21/2018 22:57	WG1184313
Tetrachloroethene	0.0619		0.000796	0.00284	1	10/23/2018 16:51	WG1185140
Toluene	U		0.00142	0.00569	1	10/21/2018 22:57	WG1184313
1,2,3-Trichlorobenzene	U		0.000711	0.00284	1	10/21/2018 22:57	WG1184313
1,2,4-Trichlorobenzene	U		0.00548	0.0142	1	10/23/2018 16:51	WG1185140
1,1,1-Trichloroethane	U		0.000313	0.00284	1	10/21/2018 22:57	WG1184313
1,1,2-Trichloroethane	U		0.00100	0.00284	1	10/21/2018 22:57	WG1184313
Trichloroethene	0.00635		0.000455	0.00114	1	10/23/2018 16:51	WG1185140
Trichlorofluoromethane	U		0.000569	0.00284	1	10/21/2018 22:57	WG1184313
1,2,3-Trichloropropane	U		0.00580	0.0142	1	10/21/2018 22:57	WG1184313
1,2,4-Trimethylbenzene	U		0.00132	0.00569	1	10/21/2018 22:57	WG1184313
1,2,3-Trimethylbenzene	U		0.00131	0.00569	1	10/21/2018 22:57	WG1184313
1,3,5-Trimethylbenzene	U		0.00123	0.00569	1	10/21/2018 22:57	WG1184313
Vinyl acetate	U		0.00400	0.0142	1	10/21/2018 22:57	WG1184313
Vinyl chloride	U		0.000777	0.00284	1	10/21/2018 22:57	WG1184313
Xylenes, Total	U		0.00544	0.00739	1	10/21/2018 22:57	WG1184313
(S) Toluene-d8	*99.7*			*75.0-131*		*10/21/2018 22:57*	WG1184313
(S) Toluene-d8	*122*			*75.0-131*		*10/23/2018 16:51*	WG1185140
(S) Dibromofluoromethane	*114*			*65.0-129*		*10/21/2018 22:57*	WG1184313
(S) Dibromofluoromethane	*94.1*			*65.0-129*		*10/23/2018 16:51*	WG1185140
(S) 4-Bromofluorobenzene	*121*			*67.0-138*		*10/21/2018 22:57*	WG1184313
(S) 4-Bromofluorobenzene	*87.9*			*67.0-138*		*10/23/2018 16:51*	WG1185140

JC 11/14/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	83.6		1	10/24/2018 10:10	WG1184859

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0164	0.0299	1	10/21/2018 23:17	WG1184313
Acrylonitrile	U		0.00227	0.0150	1	10/21/2018 23:17	WG1184313
Benzene	U		0.000479	0.00120	1	10/23/2018 17:12	WG1185140
Bromobenzene	U		0.00126	0.0150	1	10/21/2018 23:17	WG1184313
Bromodichloromethane	U		0.000943	0.00299	1	10/21/2018 23:17	WG1184313
Bromochloromethane	U		0.00135	0.00598	1	10/21/2018 23:17	WG1184313
Bromoform	U		0.00716	0.0299	1	10/21/2018 23:17	WG1184313
Bromomethane	U		0.00443	0.0150	1	10/21/2018 23:17	WG1184313
n-Butylbenzene	U		0.00460	0.0150	1	10/21/2018 23:17	WG1184313
sec-Butylbenzene	U		0.00303	0.0150	1	10/21/2018 23:17	WG1184313
tert-Butylbenzene	U		0.00185	0.00598	1	10/21/2018 23:17	WG1184313
Carbon disulfide	U		0.00486	0.0150	1	10/21/2018 23:17	WG1184313
Carbon tetrachloride	U		0.00129	0.00598	1	10/21/2018 23:17	WG1184313
Chlorobenzene	U		0.000686	0.00299	1	10/21/2018 23:17	WG1184313
Chlorodibromomethane	U		0.000538	0.00299	1	10/21/2018 23:17	WG1184313
Chloroethane	U		0.00129	0.00598	1	10/21/2018 23:17	WG1184313
Chloroform	0.00168	U B J	0.000497	0.00299	1	10/21/2018 23:17	WG1184313
Chloromethane	U		0.00166	0.0150	1	10/21/2018 23:17	WG1184313
2-Chlorotoluene	U		0.00110	0.00299	1	10/21/2018 23:17	WG1184313
4-Chlorotoluene	U		0.00135	0.00598	1	10/21/2018 23:17	WG1184313
1,2-Dibromo-3-Chloropropane	U		0.00610	0.0299	1	10/21/2018 23:17	WG1184313
1,2-Dibromoethane	U		0.000628	0.00299	1	10/21/2018 23:17	WG1184313
Dibromomethane	U		0.00120	0.00598	1	10/21/2018 23:17	WG1184313
1,2-Dichlorobenzene	U		0.00174	0.00598	1	10/21/2018 23:17	WG1184313
1,3-Dichlorobenzene	U		0.00203	0.00598	1	10/21/2018 23:17	WG1184313
1,4-Dichlorobenzene	U		0.00236	0.00598	1	10/21/2018 23:17	WG1184313
Dichlorodifluoromethane	U		0.000979	0.00299	1	10/21/2018 23:17	WG1184313
1,1-Dichloroethane	U		0.000688	0.00299	1	10/21/2018 23:17	WG1184313
1,2-Dichloroethane	U		0.000568	0.00299	1	10/21/2018 23:17	WG1184313
1,1-Dichloroethene	U		0.000598	0.00299	1	10/21/2018 23:17	WG1184313
cis-1,2-Dichloroethene	0.00481		0.000826	0.00299	1	10/21/2018 23:17	WG1184313
trans-1,2-Dichloroethene	U		0.00171	0.00598	1	10/21/2018 23:17	WG1184313
1,2-Dichloropropane	U		0.00152	0.00598	1	10/21/2018 23:17	WG1184313
1,1-Dichloropropene	U		0.000838	0.00299	1	10/21/2018 23:17	WG1184313
1,3-Dichloropropane	U		0.00209	0.00598	1	10/21/2018 23:17	WG1184313
cis-1,3-Dichloropropene	U		0.000811	0.00299	1	10/21/2018 23:17	WG1184313
trans-1,3-Dichloropropene	U		0.00183	0.00598	1	10/21/2018 23:17	WG1184313
trans-1,4-Dichloro-2-butene	U		0.00168	0.00598	1	10/21/2018 23:17	WG1184313
2,2-Dichloropropane	U	U J4	0.000949	0.00299	1	10/21/2018 23:17	WG1184313
Di-isopropyl ether	U		0.000419	0.00120	1	10/23/2018 17:12	WG1185140
Ethylbenzene	U		0.000634	0.00299	1	10/21/2018 23:17	WG1184313
Hexachloro-1,3-butadiene	U		0.0152	0.0299	1	10/21/2018 23:17	WG1184313
2-Hexanone	U		0.0120	0.0299	1	10/21/2018 23:17	WG1184313
n-Hexane	U		0.00127	0.00598	1	10/21/2018 23:17	WG1184313
Iodomethane	U		0.00724	0.0150	1	10/21/2018 23:17	WG1184313
Isopropylbenzene	U		0.00103	0.00299	1	10/21/2018 23:17	WG1184313
p-Isopropyltoluene	U		0.00279	0.00598	1	10/21/2018 23:17	WG1184313
2-Butanone (MEK)	0.0268	J J	0.0150	0.0299	1	10/21/2018 23:17	WG1184313
Methylene Chloride	U		0.00795	0.0299	1	10/21/2018 23:17	WG1184313
4-Methyl-2-pentanone (MIBK)	U		0.0120	0.0299	1	10/21/2018 23:17	WG1184313

JC 11/14/18

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000353	0.00120	1	10/23/2018 17:12	WG1185140
Naphthalene	U		0.00373	0.0150	1	10/21/2018 23:17	WG1184313
n-Propylbenzene	U		0.00141	0.00598	1	10/21/2018 23:17	WG1184313
Styrene	U		0.00327	0.0150	1	10/21/2018 23:17	WG1184313
1,1,1,2-Tetrachloroethane	U		0.000598	0.00299	1	10/21/2018 23:17	WG1184313
1,1,2,2-Tetrachloroethane	U		0.000467	0.00299	1	10/21/2018 23:17	WG1184313
1,1,2-Trichlorotrifluoroethane	U		0.000808	0.00299	1	10/21/2018 23:17	WG1184313
Tetrachloroethene	0.538		0.000838	0.00299	1	10/23/2018 17:12	WG1185140
Toluene	U		0.00150	0.00598	1	10/21/2018 23:17	WG1184313
1,2,3-Trichlorobenzene	U		0.000748	0.00299	1	10/21/2018 23:17	WG1184313
1,2,4-Trichlorobenzene	U		0.00577	0.0150	1	10/23/2018 17:12	WG1185140
1,1,1-Trichloroethane	U		0.000329	0.00299	1	10/21/2018 23:17	WG1184313
1,1,2-Trichloroethane	U		0.00106	0.00299	1	10/21/2018 23:17	WG1184313
Trichloroethene	0.0149		0.000479	0.00120	1	10/23/2018 17:12	WG1185140
Trichlorofluoromethane	U		0.000598	0.00299	1	10/21/2018 23:17	WG1184313
1,2,3-Trichloropropane	U		0.00610	0.0150	1	10/21/2018 23:17	WG1184313
1,2,4-Trimethylbenzene	U		0.00139	0.00598	1	10/21/2018 23:17	WG1184313
1,2,3-Trimethylbenzene	U		0.00138	0.00598	1	10/21/2018 23:17	WG1184313
1,3,5-Trimethylbenzene	U		0.00129	0.00598	1	10/21/2018 23:17	WG1184313
Vinyl acetate	U		0.00421	0.0150	1	10/21/2018 23:17	WG1184313
Vinyl chloride	U		0.000817	0.00299	1	10/21/2018 23:17	WG1184313
Xylenes, Total	U		0.00572	0.00778	1	10/21/2018 23:17	WG1184313
(S) Toluene-d8	*98.5*			*75.0-131*		*10/21/2018 23:17*	WG1184313
(S) Toluene-d8	*122*			*75.0-131*		*10/23/2018 17:12*	WG1185140
(S) Dibromofluoromethane	*114*			*65.0-129*		*10/21/2018 23:17*	WG1184313
(S) Dibromofluoromethane	*91.9*			*65.0-129*		*10/23/2018 17:12*	WG1185140
(S) 4-Bromofluorobenzene	*118*			*67.0-138*		*10/21/2018 23:17*	WG1184313
(S) 4-Bromofluorobenzene	*93.9*			*67.0-138*		*10/23/2018 17:12*	WG1185140

JC 11/14/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	84.7		1	10/24/2018 10:10	WG1184859

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0162	0.0295	1	10/21/2018 23:37	WG1184313
Acrylonitrile	U		0.00224	0.0148	1	10/21/2018 23:37	WG1184313
Benzene	U		0.00944	0.0236	20	10/23/2018 20:58	WG1185140
Bromobenzene	U		0.00124	0.0148	1	10/21/2018 23:37	WG1184313
Bromodichloromethane	U		0.000930	0.00295	1	10/21/2018 23:37	WG1184313
Bromochloromethane	U		0.00133	0.00590	1	10/21/2018 23:37	WG1184313
Bromoform	U		0.00706	0.0295	1	10/21/2018 23:37	WG1184313
Bromomethane	U		0.00437	0.0148	1	10/21/2018 23:37	WG1184313
n-Butylbenzene	U		0.00453	0.0148	1	10/21/2018 23:37	WG1184313
sec-Butylbenzene	U		0.00299	0.0148	1	10/21/2018 23:37	WG1184313
tert-Butylbenzene	U		0.00183	0.00590	1	10/21/2018 23:37	WG1184313
Carbon disulfide	U		0.00479	0.0148	1	10/21/2018 23:37	WG1184313
Carbon tetrachloride	U		0.00127	0.00590	1	10/21/2018 23:37	WG1184313
Chlorobenzene	U		0.000676	0.00295	1	10/21/2018 23:37	WG1184313
Chlorodibromomethane	U		0.000531	0.00295	1	10/21/2018 23:37	WG1184313
Chloroethane	U		0.00127	0.00590	1	10/21/2018 23:37	WG1184313
Chloroform	0.00158	U	0.000490	0.00295	1	10/21/2018 23:37	WG1184313
Chloromethane	U		0.00164	0.0148	1	10/21/2018 23:37	WG1184313
2-Chlorotoluene	U		0.00109	0.00295	1	10/21/2018 23:37	WG1184313
4-Chlorotoluene	U		0.00133	0.00590	1	10/21/2018 23:37	WG1184313
1,2-Dibromo-3-Chloropropane	U		0.00602	0.0295	1	10/21/2018 23:37	WG1184313
1,2-Dibromoethane	U		0.000620	0.00295	1	10/21/2018 23:37	WG1184313
Dibromomethane	U		0.00118	0.00590	1	10/21/2018 23:37	WG1184313
1,2-Dichlorobenzene	U		0.00171	0.00590	1	10/21/2018 23:37	WG1184313
1,3-Dichlorobenzene	U		0.00201	0.00590	1	10/21/2018 23:37	WG1184313
1,4-Dichlorobenzene	U		0.00232	0.00590	1	10/21/2018 23:37	WG1184313
Dichlorodifluoromethane	U		0.000965	0.00295	1	10/21/2018 23:37	WG1184313
1,1-Dichloroethane	U		0.000679	0.00295	1	10/21/2018 23:37	WG1184313
1,2-Dichloroethane	U		0.000561	0.00295	1	10/21/2018 23:37	WG1184313
1,1-Dichloroethene	0.000600	J	0.000590	0.00295	1	10/21/2018 23:37	WG1184313
cis-1,2-Dichloroethene	0.0119		0.000814	0.00295	1	10/21/2018 23:37	WG1184313
trans-1,2-Dichloroethene	U		0.00169	0.00590	1	10/21/2018 23:37	WG1184313
1,2-Dichloropropane	U		0.00150	0.00590	1	10/21/2018 23:37	WG1184313
1,1-Dichloropropene	U		0.000826	0.00295	1	10/21/2018 23:37	WG1184313
1,3-Dichloropropane	U		0.00207	0.00590	1	10/21/2018 23:37	WG1184313
cis-1,3-Dichloropropene	U		0.000800	0.00295	1	10/21/2018 23:37	WG1184313
trans-1,3-Dichloropropene	U		0.00181	0.00590	1	10/21/2018 23:37	WG1184313
trans-1,4-Dichloro-2-butene	U		0.00165	0.00590	1	10/21/2018 23:37	WG1184313
2,2-Dichloropropane	0.000945	J	0.000936	0.00295	1	10/21/2018 23:37	WG1184313
Di-isopropyl ether	U		0.00826	0.0236	20	10/23/2018 20:58	WG1185140
Ethylbenzene	U		0.000625	0.00295	1	10/21/2018 23:37	WG1184313
Hexachloro-1,3-butadiene	U		0.0150	0.0295	1	10/21/2018 23:37	WG1184313
2-Hexanone	U		0.0118	0.0295	1	10/21/2018 23:37	WG1184313
n-Hexane	U		0.00125	0.00590	1	10/21/2018 23:37	WG1184313
Iodomethane	U		0.00714	0.0148	1	10/21/2018 23:37	WG1184313
Isopropylbenzene	U		0.00102	0.00295	1	10/21/2018 23:37	WG1184313
p-Isopropyltoluene	U		0.00275	0.00590	1	10/21/2018 23:37	WG1184313
2-Butanone (MEK)	0.0343		0.0148	0.0295	1	10/21/2018 23:37	WG1184313
Methylene Chloride	U		0.00784	0.0295	1	10/21/2018 23:37	WG1184313
4-Methyl-2-pentanone (MIBK)	U		0.0118	0.0295	1	10/21/2018 23:37	WG1184313

J J4

JC 11/14/18

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

Analyte	Result (dry) mg/kg		Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U			0.00696	0.0236	20	10/23/2018 20:58	WG1185140
Naphthalene	U			0.00368	0.0148	1	10/21/2018 23:37	WG1184313
n-Propylbenzene	U			0.00139	0.00590	1	10/21/2018 23:37	WG1184313
Styrene	U			0.00322	0.0148	1	10/21/2018 23:37	WG1184313
1,1,1,2-Tetrachloroethane	U			0.000590	0.00295	1	10/21/2018 23:37	WG1184313
1,1,2,2-Tetrachloroethane	0.000480	J	J	0.000460	0.00295	1	10/21/2018 23:37	WG1184313
1,1,2-Trichlorotrifluoroethane	U			0.000797	0.00295	1	10/21/2018 23:37	WG1184313
Tetrachloroethene	16.2			0.0165	0.0590	20	10/23/2018 20:58	WG1185140
Toluene	U			0.00148	0.00590	1	10/21/2018 23:37	WG1184313
1,2,3-Trichlorobenzene	U			0.000738	0.00295	1	10/21/2018 23:37	WG1184313
1,2,4-Trichlorobenzene	U			0.114	0.295	20	10/23/2018 20:58	WG1185140
1,1,1-Trichloroethane	U			0.000325	0.00295	1	10/21/2018 23:37	WG1184313
1,1,2-Trichloroethane	U			0.00104	0.00295	1	10/21/2018 23:37	WG1184313
Trichloroethene	0.0763			0.00944	0.0236	20	10/23/2018 20:58	WG1185140
Trichlorofluoromethane	U			0.000590	0.00295	1	10/21/2018 23:37	WG1184313
1,2,3-Trichloropropane	U			0.00602	0.0148	1	10/21/2018 23:37	WG1184313
1,2,4-Trimethylbenzene	U			0.00137	0.00590	1	10/21/2018 23:37	WG1184313
1,2,3-Trimethylbenzene	0.00234	J	J	0.00136	0.00590	1	10/21/2018 23:37	WG1184313
1,3,5-Trimethylbenzene	0.00148	J	J	0.00127	0.00590	1	10/21/2018 23:37	WG1184313
Vinyl acetate	U			0.00415	0.0148	1	10/21/2018 23:37	WG1184313
Vinyl chloride	U			0.000806	0.00295	1	10/21/2018 23:37	WG1184313
Xylenes, Total	U			0.00564	0.00767	1	10/21/2018 23:37	WG1184313
(S) Toluene-d8	*97.6*				*75.0-131*		*10/21/2018 23:37*	WG1184313
(S) Toluene-d8	*116*				*75.0-131*		*10/23/2018 20:58*	WG1185140
(S) Dibromofluoromethane	*112*				*65.0-129*		*10/21/2018 23:37*	WG1184313
(S) Dibromofluoromethane	*101*				*65.0-129*		*10/23/2018 20:58*	WG1185140
(S) 4-Bromofluorobenzene	*120*				*67.0-138*		*10/21/2018 23:37*	WG1184313
(S) 4-Bromofluorobenzene	*91.3*				*67.0-138*		*10/23/2018 20:58*	WG1185140

Sample Narrative:

L1036155-08 WG1184313, WG1185140: Not all compounds reportable at lower dilution.

L1036155-08 WG1184313, WG1185140: Cannot be reanalyzed at a lower dilution due to high levels of target analytes.

JC 11/14/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	89.6		1	10/24/2018 10:10	WG1184859

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0153	0.0279	1	10/21/2018 23:57	WG1184313
Acrylonitrile	U		0.00212	0.0140	1	10/21/2018 23:57	WG1184313
Benzene	U		0.000446	0.00112	1	10/23/2018 17:32	WG1185140
Bromobenzene	U		0.00117	0.0140	1	10/21/2018 23:57	WG1184313
Bromodichloromethane	U		0.000879	0.00279	1	10/21/2018 23:57	WG1184313
Bromochloromethane	U		0.00126	0.00558	1	10/21/2018 23:57	WG1184313
Bromoform	U		0.00667	0.0279	1	10/21/2018 23:57	WG1184313
Bromomethane	U		0.00413	0.0140	1	10/21/2018 23:57	WG1184313
n-Butylbenzene	U		0.00429	0.0140	1	10/21/2018 23:57	WG1184313
sec-Butylbenzene	U		0.00282	0.0140	1	10/21/2018 23:57	WG1184313
tert-Butylbenzene	U		0.00173	0.00558	1	10/21/2018 23:57	WG1184313
Carbon disulfide	U		0.00453	0.0140	1	10/21/2018 23:57	WG1184313
Carbon tetrachloride	U		0.00121	0.00558	1	10/21/2018 23:57	WG1184313
Chlorobenzene	U		0.000640	0.00279	1	10/21/2018 23:57	WG1184313
Chlorodibromomethane	U		0.000502	0.00279	1	10/21/2018 23:57	WG1184313
Chloroethane	U		0.00121	0.00558	1	10/21/2018 23:57	WG1184313
Chloroform	0.00141	U B J	0.000463	0.00279	1	10/21/2018 23:57	WG1184313
Chloromethane	U		0.00155	0.0140	1	10/21/2018 23:57	WG1184313
2-Chlorotoluene	U		0.00103	0.00279	1	10/21/2018 23:57	WG1184313
4-Chlorotoluene	U		0.00126	0.00558	1	10/21/2018 23:57	WG1184313
1,2-Dibromo-3-Chloropropane	U		0.00569	0.0279	1	10/21/2018 23:57	WG1184313
1,2-Dibromoethane	U		0.000586	0.00279	1	10/21/2018 23:57	WG1184313
Dibromomethane	U		0.00112	0.00558	1	10/21/2018 23:57	WG1184313
1,2-Dichlorobenzene	U		0.00162	0.00558	1	10/21/2018 23:57	WG1184313
1,3-Dichlorobenzene	U		0.00190	0.00558	1	10/21/2018 23:57	WG1184313
1,4-Dichlorobenzene	U		0.00220	0.00558	1	10/21/2018 23:57	WG1184313
Dichlorodifluoromethane	U		0.000913	0.00279	1	10/21/2018 23:57	WG1184313
1,1-Dichloroethane	U		0.000642	0.00279	1	10/21/2018 23:57	WG1184313
1,2-Dichloroethane	U		0.000530	0.00279	1	10/21/2018 23:57	WG1184313
1,1-Dichloroethene	U		0.000558	0.00279	1	10/21/2018 23:57	WG1184313
cis-1,2-Dichloroethene	0.0135		0.000770	0.00279	1	10/21/2018 23:57	WG1184313
trans-1,2-Dichloroethene	U		0.00160	0.00558	1	10/21/2018 23:57	WG1184313
1,2-Dichloropropane	U		0.00142	0.00558	1	10/21/2018 23:57	WG1184313
1,1-Dichloropropene	U		0.000781	0.00279	1	10/21/2018 23:57	WG1184313
1,3-Dichloropropane	U		0.00195	0.00558	1	10/21/2018 23:57	WG1184313
cis-1,3-Dichloropropene	U		0.000757	0.00279	1	10/21/2018 23:57	WG1184313
trans-1,3-Dichloropropene	U		0.00171	0.00558	1	10/21/2018 23:57	WG1184313
trans-1,4-Dichloro-2-butene	U		0.00156	0.00558	1	10/21/2018 23:57	WG1184313
2,2-Dichloropropane	U	U J4	0.000885	0.00279	1	10/21/2018 23:57	WG1184313
Di-isopropyl ether	U		0.000391	0.00112	1	10/23/2018 17:32	WG1185140
Ethylbenzene	U		0.000592	0.00279	1	10/21/2018 23:57	WG1184313
Hexachloro-1,3-butadiene	U		0.0142	0.0279	1	10/21/2018 23:57	WG1184313
2-Hexanone	U		0.0112	0.0279	1	10/21/2018 23:57	WG1184313
n-Hexane	U		0.00118	0.00558	1	10/21/2018 23:57	WG1184313
Iodomethane	U		0.00675	0.0140	1	10/21/2018 23:57	WG1184313
Isopropylbenzene	U		0.000963	0.00279	1	10/21/2018 23:57	WG1184313
p-Isopropyltoluene	U		0.00260	0.00558	1	10/21/2018 23:57	WG1184313
2-Butanone (MEK)	0.0211	J J	0.0140	0.0279	1	10/21/2018 23:57	WG1184313
Methylene Chloride	U		0.00741	0.0279	1	10/21/2018 23:57	WG1184313
4-Methyl-2-pentanone (MIBK)	U		0.0112	0.0279	1	10/21/2018 23:57	WG1184313

JC 11/14/18

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000329	0.00112	1	10/23/2018 17:32	WG1185140
Naphthalene	U		0.00348	0.0140	1	10/21/2018 23:57	WG1184313
n-Propylbenzene	U		0.00132	0.00558	1	10/21/2018 23:57	WG1184313
Styrene	U		0.00305	0.0140	1	10/21/2018 23:57	WG1184313
1,1,1,2-Tetrachloroethane	U		0.000558	0.00279	1	10/21/2018 23:57	WG1184313
1,1,2,2-Tetrachloroethane	U		0.000435	0.00279	1	10/21/2018 23:57	WG1184313
1,1,2-Trichlorotrifluoroethane	U		0.000753	0.00279	1	10/21/2018 23:57	WG1184313
Tetrachloroethene	3.71		0.00313	0.0112	4	10/25/2018 00:22	WG1185815
Toluene	U		0.00140	0.00558	1	10/21/2018 23:57	WG1184313
1,2,3-Trichlorobenzene	U		0.000698	0.00279	1	10/21/2018 23:57	WG1184313
1,2,4-Trichlorobenzene	U		0.00538	0.0140	1	10/23/2018 17:32	WG1185140
1,1,1-Trichloroethane	U		0.000307	0.00279	1	10/21/2018 23:57	WG1184313
1,1,2-Trichloroethane	U		0.000986	0.00279	1	10/21/2018 23:57	WG1184313
Trichloroethene	0.0117		0.000446	0.00112	1	10/23/2018 17:32	WG1185140
Trichlorofluoromethane	U		0.000558	0.00279	1	10/21/2018 23:57	WG1184313
1,2,3-Trichloropropane	U		0.00569	0.0140	1	10/21/2018 23:57	WG1184313
1,2,4-Trimethylbenzene	U		0.00129	0.00558	1	10/21/2018 23:57	WG1184313
1,2,3-Trimethylbenzene	U		0.00128	0.00558	1	10/21/2018 23:57	WG1184313
1,3,5-Trimethylbenzene	U		0.00121	0.00558	1	10/21/2018 23:57	WG1184313
Vinyl acetate	U		0.00393	0.0140	1	10/21/2018 23:57	WG1184313
Vinyl chloride	U		0.000762	0.00279	1	10/21/2018 23:57	WG1184313
Xylenes, Total	U		0.00533	0.00725	1	10/21/2018 23:57	WG1184313
(S) Toluene-d8	*98.8*			*75.0-131*		*10/21/2018 23:57*	WG1184313
(S) Toluene-d8	*126*			*75.0-131*		*10/23/2018 17:32*	WG1185140
(S) Toluene-d8	*104*			*75.0-131*		*10/25/2018 00:22*	WG1185815
(S) Dibromofluoromethane	*113*			*65.0-129*		*10/21/2018 23:57*	WG1184313
(S) Dibromofluoromethane	*92.9*			*65.0-129*		*10/23/2018 17:32*	WG1185140
(S) Dibromofluoromethane	*100*			*65.0-129*		*10/25/2018 00:22*	WG1185815
(S) 4-Bromofluorobenzene	*119*			*67.0-138*		*10/21/2018 23:57*	WG1184313
(S) 4-Bromofluorobenzene	*87.7*			*67.0-138*		*10/23/2018 17:32*	WG1185140
(S) 4-Bromofluorobenzene	*103*			*67.0-138*		*10/25/2018 00:22*	WG1185815

JC 11/14/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	88.8		1	10/24/2018 10:10	WG1184859

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0154	0.0281	1	10/22/2018 00:17	WG1184313
Acrylonitrile	U		0.00214	0.0141	1	10/22/2018 00:17	WG1184313
Benzene	U		0.000450	0.00113	1	10/23/2018 17:53	WG1185140
Bromobenzene	U		0.00118	0.0141	1	10/22/2018 00:17	WG1184313
Bromodichloromethane	U		0.000887	0.00281	1	10/22/2018 00:17	WG1184313
Bromochloromethane	U		0.00127	0.00563	1	10/22/2018 00:17	WG1184313
Bromoform	U		0.00673	0.0281	1	10/22/2018 00:17	WG1184313
Bromomethane	U		0.00416	0.0141	1	10/22/2018 00:17	WG1184313
n-Butylbenzene	U		0.00432	0.0141	1	10/22/2018 00:17	WG1184313
sec-Butylbenzene	U		0.00285	0.0141	1	10/22/2018 00:17	WG1184313
tert-Butylbenzene	U		0.00174	0.00563	1	10/22/2018 00:17	WG1184313
Carbon disulfide	U		0.00457	0.0141	1	10/22/2018 00:17	WG1184313
Carbon tetrachloride	U		0.00122	0.00563	1	10/22/2018 00:17	WG1184313
Chlorobenzene	U		0.000645	0.00281	1	10/22/2018 00:17	WG1184313
Chlorodibromomethane	U		0.000506	0.00281	1	10/22/2018 00:17	WG1184313
Chloroethane	U		0.00122	0.00563	1	10/22/2018 00:17	WG1184313
Chloroform	0.00211	U	B J	0.000467	0.00281	1	10/22/2018 00:17	WG1184313
Chloromethane	U		0.00156	0.0141	1	10/22/2018 00:17	WG1184313
2-Chlorotoluene	U		0.00104	0.00281	1	10/22/2018 00:17	WG1184313
4-Chlorotoluene	U		0.00127	0.00563	1	10/22/2018 00:17	WG1184313
1,2-Dibromo-3-Chloropropane	U		0.00574	0.0281	1	10/22/2018 00:17	WG1184313
1,2-Dibromoethane	U		0.000591	0.00281	1	10/22/2018 00:17	WG1184313
Dibromomethane	U		0.00113	0.00563	1	10/22/2018 00:17	WG1184313
1,2-Dichlorobenzene	U		0.00163	0.00563	1	10/22/2018 00:17	WG1184313
1,3-Dichlorobenzene	U		0.00191	0.00563	1	10/22/2018 00:17	WG1184313
1,4-Dichlorobenzene	U		0.00222	0.00563	1	10/22/2018 00:17	WG1184313
Dichlorodifluoromethane	U		0.000921	0.00281	1	10/22/2018 00:17	WG1184313
1,1-Dichloroethane	U		0.000647	0.00281	1	10/22/2018 00:17	WG1184313
1,2-Dichloroethane	U		0.000535	0.00281	1	10/22/2018 00:17	WG1184313
1,1-Dichloroethene	U		0.000563	0.00281	1	10/22/2018 00:17	WG1184313
cis-1,2-Dichloroethene	0.00815		0.000777	0.00281	1	10/22/2018 00:17	WG1184313
trans-1,2-Dichloroethene	U		0.00161	0.00563	1	10/22/2018 00:17	WG1184313
1,2-Dichloropropane	U		0.00143	0.00563	1	10/22/2018 00:17	WG1184313
1,1-Dichloropropene	U		0.000788	0.00281	1	10/22/2018 00:17	WG1184313
1,3-Dichloropropane	U		0.00197	0.00563	1	10/22/2018 00:17	WG1184313
cis-1,3-Dichloropropene	U		0.000763	0.00281	1	10/22/2018 00:17	WG1184313
trans-1,3-Dichloropropene	U		0.00172	0.00563	1	10/22/2018 00:17	WG1184313
trans-1,4-Dichloro-2-butene	U		0.00158	0.00563	1	10/22/2018 00:17	WG1184313
2,2-Dichloropropane	U	U	J4	0.000893	0.00281	1	10/22/2018 00:17	WG1184313
Di-isopropyl ether	U		0.000394	0.00113	1	10/23/2018 17:53	WG1185140
Ethylbenzene	U		0.000597	0.00281	1	10/22/2018 00:17	WG1184313
Hexachloro-1,3-butadiene	U		0.0143	0.0281	1	10/22/2018 00:17	WG1184313
2-Hexanone	U		0.0113	0.0281	1	10/22/2018 00:17	WG1184313
n-Hexane	0.00602		0.00119	0.00563	1	10/22/2018 00:17	WG1184313
Iodomethane	U		0.00681	0.0141	1	10/22/2018 00:17	WG1184313
Isopropylbenzene	U		0.000971	0.00281	1	10/22/2018 00:17	WG1184313
p-Isopropyltoluene	U		0.00262	0.00563	1	10/22/2018 00:17	WG1184313
2-Butanone (MEK)	0.0274	J	J	0.0141	0.0281	1	10/22/2018 00:17	WG1184313
Methylene Chloride	U		0.00747	0.0281	1	10/22/2018 00:17	WG1184313
4-Methyl-2-pentanone (MIBK)	U		0.0113	0.0281	1	10/22/2018 00:17	WG1184313

JC 11/14/18

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000332	0.00113	1	10/23/2018 17:53	WG1185140
Naphthalene	U		0.00351	0.0141	1	10/22/2018 00:17	WG1184313
n-Propylbenzene	U		0.00133	0.00563	1	10/22/2018 00:17	WG1184313
Styrene	U		0.00307	0.0141	1	10/22/2018 00:17	WG1184313
1,1,1,2-Tetrachloroethane	U		0.000563	0.00281	1	10/22/2018 00:17	WG1184313
1,1,2,2-Tetrachloroethane	U		0.000439	0.00281	1	10/22/2018 00:17	WG1184313
1,1,2-Trichlorotrifluoroethane	U		0.000760	0.00281	1	10/22/2018 00:17	WG1184313
Tetrachloroethene	0.0784		0.000788	0.00281	1	10/23/2018 17:53	WG1185140
Toluene	0.00189	J J	0.00141	0.00563	1	10/22/2018 00:17	WG1184313
1,2,3-Trichlorobenzene	U		0.000703	0.00281	1	10/22/2018 00:17	WG1184313
1,2,4-Trichlorobenzene	U		0.00542	0.0141	1	10/23/2018 17:53	WG1185140
1,1,1-Trichloroethane	U		0.000310	0.00281	1	10/22/2018 00:17	WG1184313
1,1,2-Trichloroethane	0.00199	J J	0.000994	0.00281	1	10/22/2018 00:17	WG1184313
Trichloroethene	0.00504		0.000450	0.00113	1	10/23/2018 17:53	WG1185140
Trichlorofluoromethane	U		0.000563	0.00281	1	10/22/2018 00:17	WG1184313
1,2,3-Trichloropropane	U		0.00574	0.0141	1	10/22/2018 00:17	WG1184313
1,2,4-Trimethylbenzene	U		0.00131	0.00563	1	10/22/2018 00:17	WG1184313
1,2,3-Trimethylbenzene	U		0.00129	0.00563	1	10/22/2018 00:17	WG1184313
1,3,5-Trimethylbenzene	U		0.00122	0.00563	1	10/22/2018 00:17	WG1184313
Vinyl acetate	U		0.00396	0.0141	1	10/22/2018 00:17	WG1184313
Vinyl chloride	U		0.000769	0.00281	1	10/22/2018 00:17	WG1184313
Xylenes, Total	U		0.00538	0.00732	1	10/22/2018 00:17	WG1184313
(S) Toluene-d8	*101*			*75.0-131*		*10/22/2018 00:17*	WG1184313
(S) Toluene-d8	*128*			*75.0-131*		*10/23/2018 17:53*	WG1185140
(S) Dibromofluoromethane	*113*			*65.0-129*		*10/22/2018 00:17*	WG1184313
(S) Dibromofluoromethane	*89.5*			*65.0-129*		*10/23/2018 17:53*	WG1185140
(S) 4-Bromofluorobenzene	*119*			*67.0-138*		*10/22/2018 00:17*	WG1184313
(S) 4-Bromofluorobenzene	*99.3*			*67.0-138*		*10/23/2018 17:53*	WG1185140

JC 11/14/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	91.3		1	10/24/2018 10:10	WG1184859

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0150	0.0274	1	10/22/2018 00:38	WG1184313
Acrylonitrile	U		0.00208	0.0137	1	10/22/2018 00:38	WG1184313
Benzene	U		0.000438	0.00110	1	10/23/2018 18:14	WG1185140
Bromobenzene	U		0.00115	0.0137	1	10/22/2018 00:38	WG1184313
Bromodichloromethane	U		0.000864	0.00274	1	10/22/2018 00:38	WG1184313
Bromochloromethane	U		0.00124	0.00548	1	10/22/2018 00:38	WG1184313
Bromoform	U		0.00655	0.0274	1	10/22/2018 00:38	WG1184313
Bromomethane	U		0.00405	0.0137	1	10/22/2018 00:38	WG1184313
n-Butylbenzene	U		0.00421	0.0137	1	10/22/2018 00:38	WG1184313
sec-Butylbenzene	U		0.00277	0.0137	1	10/22/2018 00:38	WG1184313
tert-Butylbenzene	U		0.00170	0.00548	1	10/22/2018 00:38	WG1184313
Carbon disulfide	U		0.00445	0.0137	1	10/22/2018 00:38	WG1184313
Carbon tetrachloride	U		0.00118	0.00548	1	10/22/2018 00:38	WG1184313
Chlorobenzene	U		0.000628	0.00274	1	10/22/2018 00:38	WG1184313
Chlorodibromomethane	U		0.000493	0.00274	1	10/22/2018 00:38	WG1184313
Chloroethane	U		0.00118	0.00548	1	10/22/2018 00:38	WG1184313
Chloroform	0.00140	U B J	0.000455	0.00274	1	10/22/2018 00:38	WG1184313
Chloromethane	U		0.00152	0.0137	1	10/22/2018 00:38	WG1184313
2-Chlorotoluene	U		0.00101	0.00274	1	10/22/2018 00:38	WG1184313
4-Chlorotoluene	U		0.00124	0.00548	1	10/22/2018 00:38	WG1184313
1,2-Dibromo-3-Chloropropane	U		0.00559	0.0274	1	10/22/2018 00:38	WG1184313
1,2-Dibromoethane	U		0.000575	0.00274	1	10/22/2018 00:38	WG1184313
Dibromomethane	U		0.00110	0.00548	1	10/22/2018 00:38	WG1184313
1,2-Dichlorobenzene	U		0.00159	0.00548	1	10/22/2018 00:38	WG1184313
1,3-Dichlorobenzene	U		0.00186	0.00548	1	10/22/2018 00:38	WG1184313
1,4-Dichlorobenzene	U		0.00216	0.00548	1	10/22/2018 00:38	WG1184313
Dichlorodifluoromethane	U		0.000896	0.00274	1	10/22/2018 00:38	WG1184313
1,1-Dichloroethane	U		0.000630	0.00274	1	10/22/2018 00:38	WG1184313
1,2-Dichloroethane	U		0.000521	0.00274	1	10/22/2018 00:38	WG1184313
1,1-Dichloroethene	U		0.000548	0.00274	1	10/22/2018 00:38	WG1184313
cis-1,2-Dichloroethene	0.0696		0.000756	0.00274	1	10/22/2018 00:38	WG1184313
trans-1,2-Dichloroethene	U		0.00157	0.00548	1	10/22/2018 00:38	WG1184313
1,2-Dichloropropane	U		0.00139	0.00548	1	10/22/2018 00:38	WG1184313
1,1-Dichloropropene	U		0.000767	0.00274	1	10/22/2018 00:38	WG1184313
1,3-Dichloropropane	U		0.00192	0.00548	1	10/22/2018 00:38	WG1184313
cis-1,3-Dichloropropene	U		0.000743	0.00274	1	10/22/2018 00:38	WG1184313
trans-1,3-Dichloropropene	U		0.00168	0.00548	1	10/22/2018 00:38	WG1184313
trans-1,4-Dichloro-2-butene	U		0.00153	0.00548	1	10/22/2018 00:38	WG1184313
2,2-Dichloropropane	U	U J4	0.000869	0.00274	1	10/22/2018 00:38	WG1184313
Di-isopropyl ether	U		0.000384	0.00110	1	10/23/2018 18:14	WG1185140
Ethylbenzene	U		0.000581	0.00274	1	10/22/2018 00:38	WG1184313
Hexachloro-1,3-butadiene	U		0.0139	0.0274	1	10/22/2018 00:38	WG1184313
2-Hexanone	U		0.0110	0.0274	1	10/22/2018 00:38	WG1184313
n-Hexane	U		0.00116	0.00548	1	10/22/2018 00:38	WG1184313
Iodomethane	U		0.00663	0.0137	1	10/22/2018 00:38	WG1184313
Isopropylbenzene	U		0.000946	0.00274	1	10/22/2018 00:38	WG1184313
p-Isopropyltoluene	U		0.00255	0.00548	1	10/22/2018 00:38	WG1184313
2-Butanone (MEK)	0.0348		0.0137	0.0274	1	10/22/2018 00:38	WG1184313
Methylene Chloride	U		0.00728	0.0274	1	10/22/2018 00:38	WG1184313
4-Methyl-2-pentanone (MIBK)	U		0.0110	0.0274	1	10/22/2018 00:38	WG1184313

JC 11/14/18

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000323	0.00110	1	10/23/2018 18:14	WG1185140
Naphthalene	U		0.00342	0.0137	1	10/22/2018 00:38	WG1184313
n-Propylbenzene	U		0.00129	0.00548	1	10/22/2018 00:38	WG1184313
Styrene	U		0.00299	0.0137	1	10/22/2018 00:38	WG1184313
1,1,1,2-Tetrachloroethane	U		0.000548	0.00274	1	10/22/2018 00:38	WG1184313
1,1,2,2-Tetrachloroethane	U		0.000427	0.00274	1	10/22/2018 00:38	WG1184313
1,1,2-Trichlorotrifluoroethane	U		0.000740	0.00274	1	10/22/2018 00:38	WG1184313
Tetrachloroethene	0.00933		0.000767	0.00274	1	10/23/2018 18:14	WG1185140
Toluene	U		0.00137	0.00548	1	10/22/2018 00:38	WG1184313
1,2,3-Trichlorobenzene	U		0.000685	0.00274	1	10/22/2018 00:38	WG1184313
1,2,4-Trichlorobenzene	U		0.00528	0.0137	1	10/23/2018 18:14	WG1185140
1,1,1-Trichloroethane	U		0.000301	0.00274	1	10/22/2018 00:38	WG1184313
1,1,2-Trichloroethane	U		0.000968	0.00274	1	10/22/2018 00:38	WG1184313
Trichloroethene	0.00910		0.000438	0.00110	1	10/23/2018 18:14	WG1185140
Trichlorofluoromethane	U		0.000548	0.00274	1	10/22/2018 00:38	WG1184313
1,2,3-Trichloropropane	U		0.00559	0.0137	1	10/22/2018 00:38	WG1184313
1,2,4-Trimethylbenzene	U		0.00127	0.00548	1	10/22/2018 00:38	WG1184313
1,2,3-Trimethylbenzene	U		0.00126	0.00548	1	10/22/2018 00:38	WG1184313
1,3,5-Trimethylbenzene	U		0.00118	0.00548	1	10/22/2018 00:38	WG1184313
Vinyl acetate	U		0.00386	0.0137	1	10/22/2018 00:38	WG1184313
Vinyl chloride	0.00121	J	0.000748	0.00274	1	10/22/2018 00:38	WG1184313
Xylenes, Total	U		0.00524	0.00712	1	10/22/2018 00:38	WG1184313
(S) Toluene-d8	*90.8*			*75.0-131*		*10/22/2018 00:38*	WG1184313
(S) Toluene-d8	*127*			*75.0-131*		*10/23/2018 18:14*	WG1185140
(S) Dibromofluoromethane	*112*			*65.0-129*		*10/22/2018 00:38*	WG1184313
(S) Dibromofluoromethane	*83.1*			*65.0-129*		*10/23/2018 18:14*	WG1185140
(S) 4-Bromofluorobenzene	*120*			*67.0-138*		*10/22/2018 00:38*	WG1184313
(S) 4-Bromofluorobenzene	*88.1*			*67.0-138*		*10/23/2018 18:14*	WG1185140

JC 11/14/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	87.3		1	10/24/2018 10:00	WG1184860

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0157	0.0286	1	10/22/2018 00:58	WG1184313
Acrylonitrile	U		0.00218	0.0143	1	10/22/2018 00:58	WG1184313
Benzene	U		0.000458	0.00115	1	10/23/2018 18:35	WG1185140
Bromobenzene	U		0.00120	0.0143	1	10/22/2018 00:58	WG1184313
Bromodichloromethane	U		0.000903	0.00286	1	10/22/2018 00:58	WG1184313
Bromochloromethane	U		0.00129	0.00573	1	10/22/2018 00:58	WG1184313
Bromoform	U		0.00685	0.0286	1	10/22/2018 00:58	WG1184313
Bromomethane	U		0.00424	0.0143	1	10/22/2018 00:58	WG1184313
n-Butylbenzene	U		0.00440	0.0143	1	10/22/2018 00:58	WG1184313
sec-Butylbenzene	U		0.00290	0.0143	1	10/22/2018 00:58	WG1184313
tert-Butylbenzene	U		0.00178	0.00573	1	10/22/2018 00:58	WG1184313
Carbon disulfide	U		0.00465	0.0143	1	10/22/2018 00:58	WG1184313
Carbon tetrachloride	U		0.00124	0.00573	1	10/22/2018 00:58	WG1184313
Chlorobenzene	U		0.000657	0.00286	1	10/22/2018 00:58	WG1184313
Chlorodibromomethane	U		0.000516	0.00286	1	10/22/2018 00:58	WG1184313
Chloroethane	U		0.00124	0.00573	1	10/22/2018 00:58	WG1184313
Chloroform	0.00244	U B J	0.000476	0.00286	1	10/22/2018 00:58	WG1184313
Chloromethane	U		0.00159	0.0143	1	10/22/2018 00:58	WG1184313
2-Chlorotoluene	U		0.00105	0.00286	1	10/22/2018 00:58	WG1184313
4-Chlorotoluene	U		0.00129	0.00573	1	10/22/2018 00:58	WG1184313
1,2-Dibromo-3-Chloropropane	U		0.00584	0.0286	1	10/22/2018 00:58	WG1184313
1,2-Dibromoethane	U		0.000602	0.00286	1	10/22/2018 00:58	WG1184313
Dibromomethane	U		0.00115	0.00573	1	10/22/2018 00:58	WG1184313
1,2-Dichlorobenzene	U		0.00166	0.00573	1	10/22/2018 00:58	WG1184313
1,3-Dichlorobenzene	U		0.00195	0.00573	1	10/22/2018 00:58	WG1184313
1,4-Dichlorobenzene	U		0.00226	0.00573	1	10/22/2018 00:58	WG1184313
Dichlorodifluoromethane	U		0.000937	0.00286	1	10/22/2018 00:58	WG1184313
1,1-Dichloroethane	U		0.000659	0.00286	1	10/22/2018 00:58	WG1184313
1,2-Dichloroethane	U		0.000544	0.00286	1	10/22/2018 00:58	WG1184313
1,1-Dichloroethene	0.000899	J J	0.000573	0.00286	1	10/22/2018 00:58	WG1184313
cis-1,2-Dichloroethene	0.105		0.000791	0.00286	1	10/22/2018 00:58	WG1184313
trans-1,2-Dichloroethene	U		0.00164	0.00573	1	10/22/2018 00:58	WG1184313
1,2-Dichloropropane	U		0.00146	0.00573	1	10/22/2018 00:58	WG1184313
1,1-Dichloropropene	U		0.000802	0.00286	1	10/22/2018 00:58	WG1184313
1,3-Dichloropropane	U		0.00201	0.00573	1	10/22/2018 00:58	WG1184313
cis-1,3-Dichloropropene	U		0.000777	0.00286	1	10/22/2018 00:58	WG1184313
trans-1,3-Dichloropropene	U		0.00175	0.00573	1	10/22/2018 00:58	WG1184313
trans-1,4-Dichloro-2-butene	U		0.00160	0.00573	1	10/22/2018 00:58	WG1184313
2,2-Dichloropropane	U	U J4	0.000909	0.00286	1	10/22/2018 00:58	WG1184313
Di-isopropyl ether	U		0.000401	0.00115	1	10/23/2018 18:35	WG1185140
Ethylbenzene	U		0.000607	0.00286	1	10/22/2018 00:58	WG1184313
Hexachloro-1,3-butadiene	U		0.0146	0.0286	1	10/22/2018 00:58	WG1184313
2-Hexanone	U		0.0115	0.0286	1	10/22/2018 00:58	WG1184313
n-Hexane	U		0.00121	0.00573	1	10/22/2018 00:58	WG1184313
Iodomethane	U		0.00693	0.0143	1	10/22/2018 00:58	WG1184313
Isopropylbenzene	U		0.000989	0.00286	1	10/22/2018 00:58	WG1184313
p-Isopropyltoluene	U		0.00267	0.00573	1	10/22/2018 00:58	WG1184313
2-Butanone (MEK)	0.0255	J J	0.0143	0.0286	1	10/22/2018 00:58	WG1184313
Methylene Chloride	U		0.00761	0.0286	1	10/22/2018 00:58	WG1184313
4-Methyl-2-pentanone (MIBK)	U		0.0115	0.0286	1	10/22/2018 00:58	WG1184313

JC 11/14/18

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000338	0.00115	1	10/23/2018 18:35	WG1185140
Naphthalene	U		0.00358	0.0143	1	10/22/2018 00:58	WG1184313
n-Propylbenzene	U		0.00135	0.00573	1	10/22/2018 00:58	WG1184313
Styrene	U		0.00313	0.0143	1	10/22/2018 00:58	WG1184313
1,1,1,2-Tetrachloroethane	0.000757	J J	0.000573	0.00286	1	10/22/2018 00:58	WG1184313
1,1,2,2-Tetrachloroethane	U		0.000447	0.00286	1	10/22/2018 00:58	WG1184313
1,1,2-Trichlorotrifluoroethane	U		0.000773	0.00286	1	10/22/2018 00:58	WG1184313
Tetrachloroethene	0.00535		0.000802	0.00286	1	10/23/2018 18:35	WG1185140
Toluene	0.00224	J J	0.00143	0.00573	1	10/22/2018 00:58	WG1184313
1,2,3-Trichlorobenzene	U		0.000716	0.00286	1	10/22/2018 00:58	WG1184313
1,2,4-Trichlorobenzene	U		0.00552	0.0143	1	10/23/2018 18:35	WG1185140
1,1,1-Trichloroethane	U		0.000315	0.00286	1	10/22/2018 00:58	WG1184313
1,1,2-Trichloroethane	U		0.00101	0.00286	1	10/22/2018 00:58	WG1184313
Trichloroethene	0.00372		0.000458	0.00115	1	10/23/2018 18:35	WG1185140
Trichlorofluoromethane	U		0.000573	0.00286	1	10/22/2018 00:58	WG1184313
1,2,3-Trichloropropane	U		0.00584	0.0143	1	10/22/2018 00:58	WG1184313
1,2,4-Trimethylbenzene	U		0.00133	0.00573	1	10/22/2018 00:58	WG1184313
1,2,3-Trimethylbenzene	U		0.00132	0.00573	1	10/22/2018 00:58	WG1184313
1,3,5-Trimethylbenzene	U		0.00124	0.00573	1	10/22/2018 00:58	WG1184313
Vinyl acetate	U		0.00403	0.0143	1	10/22/2018 00:58	WG1184313
Vinyl chloride	0.00257	J J	0.000783	0.00286	1	10/22/2018 00:58	WG1184313
Xylenes, Total	U		0.00548	0.00745	1	10/22/2018 00:58	WG1184313
(S) Toluene-d8	*99.3*			*75.0-131*		*10/22/2018 00:58*	WG1184313
(S) Toluene-d8	*125*			*75.0-131*		*10/23/2018 18:35*	WG1185140
(S) Dibromofluoromethane	*113*			*65.0-129*		*10/22/2018 00:58*	WG1184313
(S) Dibromofluoromethane	*94.1*			*65.0-129*		*10/23/2018 18:35*	WG1185140
(S) 4-Bromofluorobenzene	*123*			*67.0-138*		*10/22/2018 00:58*	WG1184313
(S) 4-Bromofluorobenzene	*94.5*			*67.0-138*		*10/23/2018 18:35*	WG1185140

JC 11/14/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	85.2		1	10/24/2018 10:00	WG1184860

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0161	0.0294	1	10/22/2018 01:18	WG1184313
Acrylonitrile	U		0.00223	0.0147	1	10/22/2018 01:18	WG1184313
Benzene	U		0.000470	0.00117	1	10/23/2018 18:55	WG1185140
Bromobenzene	U		0.00123	0.0147	1	10/22/2018 01:18	WG1184313
Bromodichloromethane	U		0.000925	0.00294	1	10/22/2018 01:18	WG1184313
Bromochloromethane	U		0.00133	0.00587	1	10/22/2018 01:18	WG1184313
Bromoform	U		0.00702	0.0294	1	10/22/2018 01:18	WG1184313
Bromomethane	U		0.00434	0.0147	1	10/22/2018 01:18	WG1184313
n-Butylbenzene	U		0.00451	0.0147	1	10/22/2018 01:18	WG1184313
sec-Butylbenzene	U		0.00297	0.0147	1	10/22/2018 01:18	WG1184313
tert-Butylbenzene	U		0.00182	0.00587	1	10/22/2018 01:18	WG1184313
Carbon disulfide	U		0.00477	0.0147	1	10/22/2018 01:18	WG1184313
Carbon tetrachloride	U		0.00127	0.00587	1	10/22/2018 01:18	WG1184313
Chlorobenzene	U		0.000673	0.00294	1	10/22/2018 01:18	WG1184313
Chlorodibromomethane	U		0.000528	0.00294	1	10/22/2018 01:18	WG1184313
Chloroethane	U		0.00127	0.00587	1	10/22/2018 01:18	WG1184313
Chloroform	0.00189	U B J	0.000487	0.00294	1	10/22/2018 01:18	WG1184313
Chloromethane	U		0.00163	0.0147	1	10/22/2018 01:18	WG1184313
2-Chlorotoluene	U		0.00108	0.00294	1	10/22/2018 01:18	WG1184313
4-Chlorotoluene	U		0.00133	0.00587	1	10/22/2018 01:18	WG1184313
1,2-Dibromo-3-Chloropropane	U		0.00599	0.0294	1	10/22/2018 01:18	WG1184313
1,2-Dibromoethane	U		0.000616	0.00294	1	10/22/2018 01:18	WG1184313
Dibromomethane	U		0.00117	0.00587	1	10/22/2018 01:18	WG1184313
1,2-Dichlorobenzene	U		0.00170	0.00587	1	10/22/2018 01:18	WG1184313
1,3-Dichlorobenzene	U		0.00200	0.00587	1	10/22/2018 01:18	WG1184313
1,4-Dichlorobenzene	U		0.00231	0.00587	1	10/22/2018 01:18	WG1184313
Dichlorodifluoromethane	U		0.000960	0.00294	1	10/22/2018 01:18	WG1184313
1,1-Dichloroethane	U		0.000675	0.00294	1	10/22/2018 01:18	WG1184313
1,2-Dichloroethane	U		0.000558	0.00294	1	10/22/2018 01:18	WG1184313
1,1-Dichloroethene	0.00509		0.000587	0.00294	1	10/22/2018 01:18	WG1184313
cis-1,2-Dichloroethene	0.715		0.000810	0.00294	1	10/22/2018 01:18	WG1184313
trans-1,2-Dichloroethene	0.00395	J J	0.00168	0.00587	1	10/22/2018 01:18	WG1184313
1,2-Dichloropropane	U		0.00149	0.00587	1	10/22/2018 01:18	WG1184313
1,1-Dichloropropene	U		0.000822	0.00294	1	10/22/2018 01:18	WG1184313
1,3-Dichloropropane	U		0.00205	0.00587	1	10/22/2018 01:18	WG1184313
cis-1,3-Dichloropropene	U		0.000796	0.00294	1	10/22/2018 01:18	WG1184313
trans-1,3-Dichloropropene	U		0.00180	0.00587	1	10/22/2018 01:18	WG1184313
trans-1,4-Dichloro-2-butene	U		0.00164	0.00587	1	10/22/2018 01:18	WG1184313
2,2-Dichloropropane	U	U J4	0.000931	0.00294	1	10/22/2018 01:18	WG1184313
Di-isopropyl ether	U		0.000411	0.00117	1	10/23/2018 18:55	WG1185140
Ethylbenzene	U		0.000622	0.00294	1	10/22/2018 01:18	WG1184313
Hexachloro-1,3-butadiene	U		0.0149	0.0294	1	10/22/2018 01:18	WG1184313
2-Hexanone	U		0.0117	0.0294	1	10/22/2018 01:18	WG1184313
n-Hexane	U		0.00124	0.00587	1	10/22/2018 01:18	WG1184313
Iodomethane	U		0.00710	0.0147	1	10/22/2018 01:18	WG1184313
Isopropylbenzene	U		0.00101	0.00294	1	10/22/2018 01:18	WG1184313
p-Isopropyltoluene	U		0.00274	0.00587	1	10/22/2018 01:18	WG1184313
2-Butanone (MEK)	0.0272	J J	0.0147	0.0294	1	10/22/2018 01:18	WG1184313
Methylene Chloride	U		0.00780	0.0294	1	10/22/2018 01:18	WG1184313
4-Methyl-2-pentanone (MIBK)	U		0.0117	0.0294	1	10/22/2018 01:18	WG1184313

JC 11/14/18

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000346	0.00117	1	10/23/2018 18:55	WG1185140
Naphthalene	U		0.00366	0.0147	1	10/22/2018 01:18	WG1184313
n-Propylbenzene	U		0.00139	0.00587	1	10/22/2018 01:18	WG1184313
Styrene	U		0.00321	0.0147	1	10/22/2018 01:18	WG1184313
1,1,1,2-Tetrachloroethane	U		0.000587	0.00294	1	10/22/2018 01:18	WG1184313
1,1,2,2-Tetrachloroethane	U		0.000458	0.00294	1	10/22/2018 01:18	WG1184313
1,1,2-Trichlorotrifluoroethane	U		0.000792	0.00294	1	10/22/2018 01:18	WG1184313
Tetrachloroethene	0.0251		0.000822	0.00294	1	10/23/2018 18:55	WG1185140
Toluene	0.00152	J J	0.00147	0.00587	1	10/22/2018 01:18	WG1184313
1,2,3-Trichlorobenzene	U		0.000734	0.00294	1	10/22/2018 01:18	WG1184313
1,2,4-Trichlorobenzene	U		0.00566	0.0147	1	10/23/2018 18:55	WG1185140
1,1,1-Trichloroethane	U		0.000323	0.00294	1	10/22/2018 01:18	WG1184313
1,1,2-Trichloroethane	U		0.00104	0.00294	1	10/22/2018 01:18	WG1184313
Trichloroethene	0.0103		0.000470	0.00117	1	10/23/2018 18:55	WG1185140
Trichlorofluoromethane	U		0.000587	0.00294	1	10/22/2018 01:18	WG1184313
1,2,3-Trichloropropane	U		0.00599	0.0147	1	10/22/2018 01:18	WG1184313
1,2,4-Trimethylbenzene	U		0.00136	0.00587	1	10/22/2018 01:18	WG1184313
1,2,3-Trimethylbenzene	U		0.00135	0.00587	1	10/22/2018 01:18	WG1184313
1,3,5-Trimethylbenzene	U		0.00127	0.00587	1	10/22/2018 01:18	WG1184313
Vinyl acetate	U		0.00413	0.0147	1	10/22/2018 01:18	WG1184313
Vinyl chloride	0.166		0.000802	0.00294	1	10/22/2018 01:18	WG1184313
Xylenes, Total	U		0.00561	0.00763	1	10/22/2018 01:18	WG1184313
(S) Toluene-d8	*99.7*			*75.0-131*		*10/22/2018 01:18*	WG1184313
(S) Toluene-d8	*121*			*75.0-131*		*10/23/2018 18:55*	WG1185140
(S) Dibromofluoromethane	*110*			*65.0-129*		*10/22/2018 01:18*	WG1184313
(S) Dibromofluoromethane	*93.3*			*65.0-129*		*10/23/2018 18:55*	WG1185140
(S) 4-Bromofluorobenzene	*119*			*67.0-138*		*10/22/2018 01:18*	WG1184313
(S) 4-Bromofluorobenzene	*90.5*			*67.0-138*		*10/23/2018 18:55*	WG1185140

JC 11/14/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	89.5		1	10/24/2018 10:00	WG1184860

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0153	0.0279	1	10/22/2018 01:38	WG1184313
Acrylonitrile	U		0.00212	0.0140	1	10/22/2018 01:38	WG1184313
Benzene	U		0.000447	0.00112	1	10/23/2018 19:16	WG1185140
Bromobenzene	U		0.00117	0.0140	1	10/22/2018 01:38	WG1184313
Bromodichloromethane	U		0.000881	0.00279	1	10/22/2018 01:38	WG1184313
Bromochloromethane	U		0.00126	0.00559	1	10/22/2018 01:38	WG1184313
Bromoform	U		0.00668	0.0279	1	10/22/2018 01:38	WG1184313
Bromomethane	U		0.00414	0.0140	1	10/22/2018 01:38	WG1184313
n-Butylbenzene	U		0.00429	0.0140	1	10/22/2018 01:38	WG1184313
sec-Butylbenzene	U		0.00283	0.0140	1	10/22/2018 01:38	WG1184313
tert-Butylbenzene	U		0.00173	0.00559	1	10/22/2018 01:38	WG1184313
Carbon disulfide	U		0.00454	0.0140	1	10/22/2018 01:38	WG1184313
Carbon tetrachloride	U		0.00121	0.00559	1	10/22/2018 01:38	WG1184313
Chlorobenzene	U		0.000640	0.00279	1	10/22/2018 01:38	WG1184313
Chlorodibromomethane	U		0.000503	0.00279	1	10/22/2018 01:38	WG1184313
Chloroethane	U		0.00121	0.00559	1	10/22/2018 01:38	WG1184313
Chloroform	0.00179	U B J	0.000464	0.00279	1	10/22/2018 01:38	WG1184313
Chloromethane	U		0.00155	0.0140	1	10/22/2018 01:38	WG1184313
2-Chlorotoluene	U		0.00103	0.00279	1	10/22/2018 01:38	WG1184313
4-Chlorotoluene	U		0.00126	0.00559	1	10/22/2018 01:38	WG1184313
1,2-Dibromo-3-Chloropropane	U		0.00570	0.0279	1	10/22/2018 01:38	WG1184313
1,2-Dibromoethane	U		0.000587	0.00279	1	10/22/2018 01:38	WG1184313
Dibromomethane	U		0.00112	0.00559	1	10/22/2018 01:38	WG1184313
1,2-Dichlorobenzene	U		0.00162	0.00559	1	10/22/2018 01:38	WG1184313
1,3-Dichlorobenzene	U		0.00190	0.00559	1	10/22/2018 01:38	WG1184313
1,4-Dichlorobenzene	U		0.00220	0.00559	1	10/22/2018 01:38	WG1184313
Dichlorodifluoromethane	U		0.000914	0.00279	1	10/22/2018 01:38	WG1184313
1,1-Dichloroethane	U		0.000643	0.00279	1	10/22/2018 01:38	WG1184313
1,2-Dichloroethane	U		0.000531	0.00279	1	10/22/2018 01:38	WG1184313
1,1-Dichloroethene	0.00344		0.000559	0.00279	1	10/22/2018 01:38	WG1184313
cis-1,2-Dichloroethene	0.718		0.000771	0.00279	1	10/22/2018 01:38	WG1184313
trans-1,2-Dichloroethene	U		0.00160	0.00559	1	10/22/2018 01:38	WG1184313
1,2-Dichloropropane	U		0.00142	0.00559	1	10/22/2018 01:38	WG1184313
1,1-Dichloropropene	U		0.000782	0.00279	1	10/22/2018 01:38	WG1184313
1,3-Dichloropropane	U		0.00196	0.00559	1	10/22/2018 01:38	WG1184313
cis-1,3-Dichloropropene	U		0.000758	0.00279	1	10/22/2018 01:38	WG1184313
trans-1,3-Dichloropropene	U		0.00171	0.00559	1	10/22/2018 01:38	WG1184313
trans-1,4-Dichloro-2-butene	U		0.00156	0.00559	1	10/22/2018 01:38	WG1184313
2,2-Dichloropropane	U	U J4	0.000886	0.00279	1	10/22/2018 01:38	WG1184313
Di-isopropyl ether	U		0.000391	0.00112	1	10/23/2018 19:16	WG1185140
Ethylbenzene	U		0.000592	0.00279	1	10/22/2018 01:38	WG1184313
Hexachloro-1,3-butadiene	U		0.0142	0.0279	1	10/22/2018 01:38	WG1184313
2-Hexanone	U		0.0112	0.0279	1	10/22/2018 01:38	WG1184313
n-Hexane	U		0.00118	0.00559	1	10/22/2018 01:38	WG1184313
Iodomethane	U		0.00676	0.0140	1	10/22/2018 01:38	WG1184313
Isopropylbenzene	U		0.000965	0.00279	1	10/22/2018 01:38	WG1184313
p-Isopropyltoluene	U		0.00260	0.00559	1	10/22/2018 01:38	WG1184313
2-Butanone (MEK)	0.0198	J J	0.0140	0.0279	1	10/22/2018 01:38	WG1184313
Methylene Chloride	U		0.00742	0.0279	1	10/22/2018 01:38	WG1184313
4-Methyl-2-pentanone (MIBK)	U		0.0112	0.0279	1	10/22/2018 01:38	WG1184313

JC 11/14/18

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000330	0.00112	1	10/23/2018 19:16	WG1185140
Naphthalene	U		0.00349	0.0140	1	10/22/2018 01:38	WG1184313
n-Propylbenzene	U		0.00132	0.00559	1	10/22/2018 01:38	WG1184313
Styrene	U		0.00305	0.0140	1	10/22/2018 01:38	WG1184313
1,1,1,2-Tetrachloroethane	U		0.000559	0.00279	1	10/22/2018 01:38	WG1184313
1,1,2,2-Tetrachloroethane	U		0.000436	0.00279	1	10/22/2018 01:38	WG1184313
1,1,2-Trichlorotrifluoroethane	U		0.000754	0.00279	1	10/22/2018 01:38	WG1184313
Tetrachloroethene	0.697		0.000782	0.00279	1	10/23/2018 19:16	WG1185140
Toluene	U		0.00140	0.00559	1	10/22/2018 01:38	WG1184313
1,2,3-Trichlorobenzene	U		0.000699	0.00279	1	10/22/2018 01:38	WG1184313
1,2,4-Trichlorobenzene	U		0.00539	0.0140	1	10/23/2018 19:16	WG1185140
1,1,1-Trichloroethane	U		0.000307	0.00279	1	10/22/2018 01:38	WG1184313
1,1,2-Trichloroethane	U		0.000987	0.00279	1	10/22/2018 01:38	WG1184313
Trichloroethene	0.253		0.000447	0.00112	1	10/23/2018 19:16	WG1185140
Trichlorofluoromethane	U		0.000559	0.00279	1	10/22/2018 01:38	WG1184313
1,2,3-Trichloropropane	U		0.00570	0.0140	1	10/22/2018 01:38	WG1184313
1,2,4-Trimethylbenzene	U		0.00130	0.00559	1	10/22/2018 01:38	WG1184313
1,2,3-Trimethylbenzene	U		0.00129	0.00559	1	10/22/2018 01:38	WG1184313
1,3,5-Trimethylbenzene	U		0.00121	0.00559	1	10/22/2018 01:38	WG1184313
Vinyl acetate	U		0.00393	0.0140	1	10/22/2018 01:38	WG1184313
Vinyl chloride	0.0191		0.000763	0.00279	1	10/22/2018 01:38	WG1184313
Xylenes, Total	U		0.00534	0.00726	1	10/22/2018 01:38	WG1184313
(S) Toluene-d8	*99.9*			*75.0-131*		*10/22/2018 01:38*	WG1184313
(S) Toluene-d8	*124*			*75.0-131*		*10/23/2018 19:16*	WG1185140
(S) Dibromofluoromethane	*112*			*65.0-129*		*10/22/2018 01:38*	WG1184313
(S) Dibromofluoromethane	*95.5*			*65.0-129*		*10/23/2018 19:16*	WG1185140
(S) 4-Bromofluorobenzene	*122*			*67.0-138*		*10/22/2018 01:38*	WG1184313
(S) 4-Bromofluorobenzene	*88.7*			*67.0-138*		*10/23/2018 19:16*	WG1185140

JC 11/14/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	90.2		1	10/24/2018 10:00	WG1184860

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0152	0.0277	1	10/22/2018 01:58	WG1184313
Acrylonitrile	U		0.00211	0.0139	1	10/22/2018 01:58	WG1184313
Benzene	U		0.000444	0.00111	1	10/23/2018 19:36	WG1185140
Bromobenzene	U		0.00116	0.0139	1	10/22/2018 01:58	WG1184313
Bromodichloromethane	U		0.000874	0.00277	1	10/22/2018 01:58	WG1184313
Bromochloromethane	U		0.00125	0.00554	1	10/22/2018 01:58	WG1184313
Bromoform	U		0.00663	0.0277	1	10/22/2018 01:58	WG1184313
Bromomethane	U		0.00410	0.0139	1	10/22/2018 01:58	WG1184313
n-Butylbenzene	U		0.00426	0.0139	1	10/22/2018 01:58	WG1184313
sec-Butylbenzene	U		0.00281	0.0139	1	10/22/2018 01:58	WG1184313
tert-Butylbenzene	U		0.00172	0.00554	1	10/22/2018 01:58	WG1184313
Carbon disulfide	U		0.00450	0.0139	1	10/22/2018 01:58	WG1184313
Carbon tetrachloride	U		0.00120	0.00554	1	10/22/2018 01:58	WG1184313
Chlorobenzene	U		0.000635	0.00277	1	10/22/2018 01:58	WG1184313
Chlorodibromomethane	U		0.000499	0.00277	1	10/22/2018 01:58	WG1184313
Chloroethane	U		0.00120	0.00554	1	10/22/2018 01:58	WG1184313
Chloroform	0.00189	U B J	0.000460	0.00277	1	10/22/2018 01:58	WG1184313
Chloromethane	U		0.00154	0.0139	1	10/22/2018 01:58	WG1184313
2-Chlorotoluene	U		0.00102	0.00277	1	10/22/2018 01:58	WG1184313
4-Chlorotoluene	U		0.00125	0.00554	1	10/22/2018 01:58	WG1184313
1,2-Dibromo-3-Chloropropane	U		0.00566	0.0277	1	10/22/2018 01:58	WG1184313
1,2-Dibromoethane	U		0.000582	0.00277	1	10/22/2018 01:58	WG1184313
Dibromomethane	U		0.00111	0.00554	1	10/22/2018 01:58	WG1184313
1,2-Dichlorobenzene	U		0.00161	0.00554	1	10/22/2018 01:58	WG1184313
1,3-Dichlorobenzene	U		0.00189	0.00554	1	10/22/2018 01:58	WG1184313
1,4-Dichlorobenzene	U		0.00218	0.00554	1	10/22/2018 01:58	WG1184313
Dichlorodifluoromethane	U		0.000907	0.00277	1	10/22/2018 01:58	WG1184313
1,1-Dichloroethane	U		0.000638	0.00277	1	10/22/2018 01:58	WG1184313
1,2-Dichloroethane	U		0.000527	0.00277	1	10/22/2018 01:58	WG1184313
1,1-Dichloroethene	U		0.000554	0.00277	1	10/22/2018 01:58	WG1184313
cis-1,2-Dichloroethene	0.0185		0.000765	0.00277	1	10/22/2018 01:58	WG1184313
trans-1,2-Dichloroethene	U		0.00159	0.00554	1	10/22/2018 01:58	WG1184313
1,2-Dichloropropane	U		0.00141	0.00554	1	10/22/2018 01:58	WG1184313
1,1-Dichloropropene	U		0.000776	0.00277	1	10/22/2018 01:58	WG1184313
1,3-Dichloropropane	U		0.00194	0.00554	1	10/22/2018 01:58	WG1184313
cis-1,3-Dichloropropene	U		0.000752	0.00277	1	10/22/2018 01:58	WG1184313
trans-1,3-Dichloropropene	U		0.00170	0.00554	1	10/22/2018 01:58	WG1184313
trans-1,4-Dichloro-2-butene	U		0.00155	0.00554	1	10/22/2018 01:58	WG1184313
2,2-Dichloropropane	U	U J4	0.000879	0.00277	1	10/22/2018 01:58	WG1184313
Di-isopropyl ether	U		0.000388	0.00111	1	10/23/2018 19:36	WG1185140
Ethylbenzene	U		0.000588	0.00277	1	10/22/2018 01:58	WG1184313
Hexachloro-1,3-butadiene	U		0.0141	0.0277	1	10/22/2018 01:58	WG1184313
2-Hexanone	U		0.0111	0.0277	1	10/22/2018 01:58	WG1184313
n-Hexane	U		0.00118	0.00554	1	10/22/2018 01:58	WG1184313
Iodomethane	U		0.00671	0.0139	1	10/22/2018 01:58	WG1184313
Isopropylbenzene	U		0.000957	0.00277	1	10/22/2018 01:58	WG1184313
p-Isopropyltoluene	U		0.00258	0.00554	1	10/22/2018 01:58	WG1184313
2-Butanone (MEK)	0.0209	J J	0.0139	0.0277	1	10/22/2018 01:58	WG1184313
Methylene Chloride	U		0.00736	0.0277	1	10/22/2018 01:58	WG1184313
4-Methyl-2-pentanone (MIBK)	U		0.0111	0.0277	1	10/22/2018 01:58	WG1184313 JC 11/14/18

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000327	0.00111	1	10/23/2018 19:36	WG1185140
Naphthalene	U		0.00346	0.0139	1	10/22/2018 01:58	WG1184313
n-Propylbenzene	U		0.00131	0.00554	1	10/22/2018 01:58	WG1184313
Styrene	U		0.00303	0.0139	1	10/22/2018 01:58	WG1184313
1,1,1,2-Tetrachloroethane	U		0.000554	0.00277	1	10/22/2018 01:58	WG1184313
1,1,2,2-Tetrachloroethane	U		0.000432	0.00277	1	10/22/2018 01:58	WG1184313
1,1,2-Trichlorotrifluoroethane	U		0.000749	0.00277	1	10/22/2018 01:58	WG1184313
Tetrachloroethene	0.0785		0.000776	0.00277	1	10/23/2018 19:36	WG1185140
Toluene	U		0.00139	0.00554	1	10/22/2018 01:58	WG1184313
1,2,3-Trichlorobenzene	U		0.000693	0.00277	1	10/22/2018 01:58	WG1184313
1,2,4-Trichlorobenzene	U		0.00535	0.0139	1	10/23/2018 19:36	WG1185140
1,1,1-Trichloroethane	U		0.000305	0.00277	1	10/22/2018 01:58	WG1184313
1,1,2-Trichloroethane	0.00189	J J	0.000979	0.00277	1	10/22/2018 01:58	WG1184313
Trichloroethene	0.00667		0.000444	0.00111	1	10/23/2018 19:36	WG1185140
Trichlorofluoromethane	U		0.000554	0.00277	1	10/22/2018 01:58	WG1184313
1,2,3-Trichloropropane	U		0.00566	0.0139	1	10/22/2018 01:58	WG1184313
1,2,4-Trimethylbenzene	U		0.00129	0.00554	1	10/22/2018 01:58	WG1184313
1,2,3-Trimethylbenzene	U		0.00128	0.00554	1	10/22/2018 01:58	WG1184313
1,3,5-Trimethylbenzene	U		0.00120	0.00554	1	10/22/2018 01:58	WG1184313
Vinyl acetate	U		0.00390	0.0139	1	10/22/2018 01:58	WG1184313
Vinyl chloride	U		0.000757	0.00277	1	10/22/2018 01:58	WG1184313
Xylenes, Total	U		0.00530	0.00721	1	10/22/2018 01:58	WG1184313
(S) Toluene-d8	*99.1*			*75.0-131*		*10/22/2018 01:58*	WG1184313
(S) Toluene-d8	*124*			*75.0-131*		*10/23/2018 19:36*	WG1185140
(S) Dibromofluoromethane	*111*			*65.0-129*		*10/22/2018 01:58*	WG1184313
(S) Dibromofluoromethane	*95.4*			*65.0-129*		*10/23/2018 19:36*	WG1185140
(S) 4-Bromofluorobenzene	*121*			*67.0-138*		*10/22/2018 01:58*	WG1184313
(S) 4-Bromofluorobenzene	*88.5*			*67.0-138*		*10/23/2018 19:36*	WG1185140

JC 11/14/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	89.1		1	10/24/2018 10:00	WG1184860

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch	
	mg/kg		mg/kg	mg/kg		date / time		
Acetone	U		0.0154	0.0281	1	10/22/2018 02:18	WG1184313	
Acrylonitrile	U		0.00213	0.0140	1	10/22/2018 02:18	WG1184313	
Benzene	U	UJ	0.000449	0.00112	1	10/23/2018 19:57	WG1185140	
Bromobenzene	U		0.00118	0.0140	1	10/22/2018 02:18	WG1184313	
Bromodichloromethane	U		0.000884	0.00281	1	10/22/2018 02:18	WG1184313	
Bromochloromethane	U		0.00127	0.00561	1	10/22/2018 02:18	WG1184313	
Bromoform	U		0.00671	0.0281	1	10/22/2018 02:18	WG1184313	
Bromomethane	U		0.00415	0.0140	1	10/22/2018 02:18	WG1184313	
n-Butylbenzene	U		0.00431	0.0140	1	10/22/2018 02:18	WG1184313	
sec-Butylbenzene	U		0.00284	0.0140	1	10/22/2018 02:18	WG1184313	
tert-Butylbenzene	U		0.00174	0.00561	1	10/22/2018 02:18	WG1184313	
Carbon disulfide	U		0.00456	0.0140	1	10/22/2018 02:18	WG1184313	
Carbon tetrachloride	U		0.00121	0.00561	1	10/22/2018 02:18	WG1184313	
Chlorobenzene	U		0.000643	0.00281	1	10/22/2018 02:18	WG1184313	
Chlorodibromomethane	U		0.000505	0.00281	1	10/22/2018 02:18	WG1184313	
Chloroethane	U		0.00121	0.00561	1	10/22/2018 02:18	WG1184313	
Chloroform	0.00206	U B J	0.000466	0.00281	1	10/22/2018 02:18	WG1184313	
Chloromethane	U		0.00156	0.0140	1	10/22/2018 02:18	WG1184313	
2-Chlorotoluene	U		0.00103	0.00281	1	10/22/2018 02:18	WG1184313	
4-Chlorotoluene	U		0.00127	0.00561	1	10/22/2018 02:18	WG1184313	
1,2-Dibromo-3-Chloropropane	U		0.00572	0.0281	1	10/22/2018 02:18	WG1184313	
1,2-Dibromoethane	U		0.000589	0.00281	1	10/22/2018 02:18	WG1184313	
Dibromomethane	U		0.00112	0.00561	1	10/22/2018 02:18	WG1184313	
1,2-Dichlorobenzene	U		0.00163	0.00561	1	10/22/2018 02:18	WG1184313	
1,3-Dichlorobenzene	U		0.00191	0.00561	1	10/22/2018 02:18	WG1184313	
1,4-Dichlorobenzene	U		0.00221	0.00561	1	10/22/2018 02:18	WG1184313	
Dichlorodifluoromethane	U		0.000918	0.00281	1	10/22/2018 02:18	WG1184313	
1,1-Dichloroethane	U		0.000645	0.00281	1	10/22/2018 02:18	WG1184313	
1,2-Dichloroethane	U		0.000533	0.00281	1	10/22/2018 02:18	WG1184313	
1,1-Dichloroethene	0.000732	J J	0.000561	0.00281	1	10/22/2018 02:18	WG1184313	
cis-1,2-Dichloroethene	0.142		0.000774	0.00281	1	10/22/2018 02:18	WG1184313	
trans-1,2-Dichloroethene	0.00182	J J	0.00160	0.00561	1	10/22/2018 02:18	WG1184313	
1,2-Dichloropropane	U		0.00143	0.00561	1	10/22/2018 02:18	WG1184313	
1,1-Dichloropropene	U		0.000786	0.00281	1	10/22/2018 02:18	WG1184313	
1,3-Dichloropropane	U		0.00196	0.00561	1	10/22/2018 02:18	WG1184313	
cis-1,3-Dichloropropene	U		0.000761	0.00281	1	10/22/2018 02:18	WG1184313	
trans-1,3-Dichloropropene	U		0.00172	0.00561	1	10/22/2018 02:18	WG1184313	
trans-1,4-Dichloro-2-butene	U		0.00157	0.00561	1	10/22/2018 02:18	WG1184313	
2,2-Dichloropropane	U	U J4	0.000890	0.00281	1	10/22/2018 02:18	WG1184313	
Di-isopropyl ether	U	UJ	0.000393	0.00112	1	10/23/2018 19:57	WG1185140	
Ethylbenzene	U		0.000595	0.00281	1	10/22/2018 02:18	WG1184313	
Hexachloro-1,3-butadiene	U		0.0143	0.0281	1	10/22/2018 02:18	WG1184313	
2-Hexanone	U		0.0112	0.0281	1	10/22/2018 02:18	WG1184313	
n-Hexane	U		0.00119	0.00561	1	10/22/2018 02:18	WG1184313	
Iodomethane	U		0.00679	0.0140	1	10/22/2018 02:18	WG1184313	
Isopropylbenzene	U		0.000968	0.00281	1	10/22/2018 02:18	WG1184313	
p-Isopropyltoluene	U		0.00261	0.00561	1	10/22/2018 02:18	WG1184313	
2-Butanone (MEK)	0.0348		0.0140	0.0281	1	10/22/2018 02:18	WG1184313	
Methylene Chloride	U		0.00745	0.0281	1	10/22/2018 02:18	WG1184313	
4-Methyl-2-pentanone (MIBK)	U		0.0112	0.0281	1	10/22/2018 02:18	WG1184313	JC 11/14/18

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U UJ		0.000331	0.00112	1	10/23/2018 19:57	WG1185140
Naphthalene	U		0.00350	0.0140	1	10/22/2018 02:18	WG1184313
n-Propylbenzene	U		0.00132	0.00561	1	10/22/2018 02:18	WG1184313
Styrene	U		0.00306	0.0140	1	10/22/2018 02:18	WG1184313
1,1,1,2-Tetrachloroethane	0.000647 J	J	0.000561	0.00281	1	10/22/2018 02:18	WG1184313
1,1,2,2-Tetrachloroethane	U		0.000438	0.00281	1	10/22/2018 02:18	WG1184313
1,1,2-Trichlorotrifluoroethane	U		0.000757	0.00281	1	10/22/2018 02:18	WG1184313
Tetrachloroethene	0.0294 J +	V3	0.000786	0.00281	1	10/23/2018 19:57	WG1185140
Toluene	0.00153 J	J	0.00140	0.00561	1	10/22/2018 02:18	WG1184313
1,2,3-Trichlorobenzene	U		0.000701	0.00281	1	10/22/2018 02:18	WG1184313
1,2,4-Trichlorobenzene	U UJ		0.00541	0.0140	1	10/23/2018 19:57	WG1185140
1,1,1-Trichloroethane	U		0.000309	0.00281	1	10/22/2018 02:18	WG1184313
1,1,2-Trichloroethane	U		0.000991	0.00281	1	10/22/2018 02:18	WG1184313
Trichloroethene	0.00771 J		0.000449	0.00112	1	10/23/2018 19:57	WG1185140
Trichlorofluoromethane	U		0.000561	0.00281	1	10/22/2018 02:18	WG1184313
1,2,3-Trichloropropane	U		0.00572	0.0140	1	10/22/2018 02:18	WG1184313
1,2,4-Trimethylbenzene	0.00132 J	J	0.00130	0.00561	1	10/22/2018 02:18	WG1184313
1,2,3-Trimethylbenzene	U		0.00129	0.00561	1	10/22/2018 02:18	WG1184313
1,3,5-Trimethylbenzene	U		0.00121	0.00561	1	10/22/2018 02:18	WG1184313
Vinyl acetate	U		0.00395	0.0140	1	10/22/2018 02:18	WG1184313
Vinyl chloride	0.00269 J	J	0.000766	0.00281	1	10/22/2018 02:18	WG1184313
Xylenes, Total	U		0.00536	0.00729	1	10/22/2018 02:18	WG1184313
(S) Toluene-d8	*101*			*75.0-131*		*10/22/2018 02:18*	WG1184313
(S) Toluene-d8	*131*			*75.0-131*		*10/23/2018 19:57*	WG1185140
(S) Dibromofluoromethane	*112*			*65.0-129*		*10/22/2018 02:18*	WG1184313
(S) Dibromofluoromethane	*86.1*			*65.0-129*		*10/23/2018 19:57*	WG1185140
(S) 4-Bromofluorobenzene	*120*			*67.0-138*		*10/22/2018 02:18*	WG1184313
(S) 4-Bromofluorobenzene	*58.1*	J2		*67.0-138*		*10/23/2018 19:57*	WG1185140

JC 11/14/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	87.1		1	10/24/2018 10:00	WG1184860

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch	
	mg/kg		mg/kg	mg/kg		date / time		
Acetone	U		0.0157	0.0287	1	10/22/2018 02:38	WG1184313	
Acrylonitrile	U		0.00218	0.0143	1	10/22/2018 02:38	WG1184313	
Benzene	U		0.000459	0.00115	1	10/23/2018 20:17	WG1185140	
Bromobenzene	U		0.00120	0.0143	1	10/22/2018 02:38	WG1184313	
Bromodichloromethane	U		0.000904	0.00287	1	10/22/2018 02:38	WG1184313	
Bromochloromethane	U		0.00130	0.00574	1	10/22/2018 02:38	WG1184313	
Bromoform	U		0.00686	0.0287	1	10/22/2018 02:38	WG1184313	
Bromomethane	U		0.00425	0.0143	1	10/22/2018 02:38	WG1184313	
n-Butylbenzene	U		0.00441	0.0143	1	10/22/2018 02:38	WG1184313	
sec-Butylbenzene	U		0.00290	0.0143	1	10/22/2018 02:38	WG1184313	
tert-Butylbenzene	U		0.00178	0.00574	1	10/22/2018 02:38	WG1184313	
Carbon disulfide	U		0.00466	0.0143	1	10/22/2018 02:38	WG1184313	
Carbon tetrachloride	U		0.00124	0.00574	1	10/22/2018 02:38	WG1184313	
Chlorobenzene	U		0.000658	0.00287	1	10/22/2018 02:38	WG1184313	
Chlorodibromomethane	U		0.000516	0.00287	1	10/22/2018 02:38	WG1184313	
Chloroethane	U		0.00124	0.00574	1	10/22/2018 02:38	WG1184313	
Chloroform	0.00159	U	B J	0.000476	0.00287	1	10/22/2018 02:38	WG1184313	
Chloromethane	U		0.00160	0.0143	1	10/22/2018 02:38	WG1184313	
2-Chlorotoluene	U		0.00106	0.00287	1	10/22/2018 02:38	WG1184313	
4-Chlorotoluene	U		0.00130	0.00574	1	10/22/2018 02:38	WG1184313	
1,2-Dibromo-3-Chloropropane	U		0.00585	0.0287	1	10/22/2018 02:38	WG1184313	
1,2-Dibromoethane	U		0.000602	0.00287	1	10/22/2018 02:38	WG1184313	
Dibromomethane	U		0.00115	0.00574	1	10/22/2018 02:38	WG1184313	
1,2-Dichlorobenzene	U		0.00166	0.00574	1	10/22/2018 02:38	WG1184313	
1,3-Dichlorobenzene	U		0.00195	0.00574	1	10/22/2018 02:38	WG1184313	
1,4-Dichlorobenzene	U		0.00226	0.00574	1	10/22/2018 02:38	WG1184313	
Dichlorodifluoromethane	U		0.000939	0.00287	1	10/22/2018 02:38	WG1184313	
1,1-Dichloroethane	U		0.000660	0.00287	1	10/22/2018 02:38	WG1184313	
1,2-Dichloroethane	U		0.000545	0.00287	1	10/22/2018 02:38	WG1184313	
1,1-Dichloroethene	0.00166	J	J	0.000574	0.00287	1	10/22/2018 02:38	WG1184313	
cis-1,2-Dichloroethene	0.568			0.000792	0.00287	1	10/22/2018 02:38	WG1184313	
trans-1,2-Dichloroethene	0.00241	J	J	0.00164	0.00574	1	10/22/2018 02:38	WG1184313	
1,2-Dichloropropane	U		0.00146	0.00574	1	10/22/2018 02:38	WG1184313	
1,1-Dichloropropene	U		0.000803	0.00287	1	10/22/2018 02:38	WG1184313	
1,3-Dichloropropane	U		0.00201	0.00574	1	10/22/2018 02:38	WG1184313	
cis-1,3-Dichloropropene	U		0.000778	0.00287	1	10/22/2018 02:38	WG1184313	
trans-1,3-Dichloropropene	U		0.00176	0.00574	1	10/22/2018 02:38	WG1184313	
trans-1,4-Dichloro-2-butene	U		0.00161	0.00574	1	10/22/2018 02:38	WG1184313	
2,2-Dichloropropane	U	U	J4	0.000910	0.00287	1	10/22/2018 02:38	WG1184313	
Di-isopropyl ether	U		0.000402	0.00115	1	10/23/2018 20:17	WG1185140	
Ethylbenzene	U		0.000608	0.00287	1	10/22/2018 02:38	WG1184313	
Hexachloro-1,3-butadiene	U		0.0146	0.0287	1	10/22/2018 02:38	WG1184313	
2-Hexanone	U		0.0115	0.0287	1	10/22/2018 02:38	WG1184313	
n-Hexane	U		0.00122	0.00574	1	10/22/2018 02:38	WG1184313	
Iodomethane	U		0.00694	0.0143	1	10/22/2018 02:38	WG1184313	
Isopropylbenzene	U		0.000990	0.00287	1	10/22/2018 02:38	WG1184313	
p-Isopropyltoluene	U		0.00267	0.00574	1	10/22/2018 02:38	WG1184313	
2-Butanone (MEK)	0.0241	J	J	0.0143	0.0287	1	10/22/2018 02:38	WG1184313	
Methylene Chloride	U		0.00762	0.0287	1	10/22/2018 02:38	WG1184313	
4-Methyl-2-pentanone (MIBK)	U		0.0115	0.0287	1	10/22/2018 02:38	WG1184313	JC 11/14/18

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000339	0.00115	1	10/23/2018 20:17	WG1185140
Naphthalene	U		0.00358	0.0143	1	10/22/2018 02:38	WG1184313
n-Propylbenzene	U		0.00135	0.00574	1	10/22/2018 02:38	WG1184313
Styrene	U		0.00313	0.0143	1	10/22/2018 02:38	WG1184313
1,1,1,2-Tetrachloroethane	0.000624	J J	0.000574	0.00287	1	10/22/2018 02:38	WG1184313
1,1,2,2-Tetrachloroethane	U		0.000448	0.00287	1	10/22/2018 02:38	WG1184313
1,1,2-Trichlorotrifluoroethane	U		0.000775	0.00287	1	10/22/2018 02:38	WG1184313
Tetrachloroethene	0.0106		0.000803	0.00287	1	10/23/2018 20:17	WG1185140
Toluene	U		0.00143	0.00574	1	10/22/2018 02:38	WG1184313
1,2,3-Trichlorobenzene	U		0.000717	0.00287	1	10/22/2018 02:38	WG1184313
1,2,4-Trichlorobenzene	U		0.00553	0.0143	1	10/23/2018 20:17	WG1185140
1,1,1-Trichloroethane	U		0.000316	0.00287	1	10/22/2018 02:38	WG1184313
1,1,2-Trichloroethane	U		0.00101	0.00287	1	10/22/2018 02:38	WG1184313
Trichloroethene	0.00211		0.000459	0.00115	1	10/23/2018 20:17	WG1185140
Trichlorofluoromethane	U		0.000574	0.00287	1	10/22/2018 02:38	WG1184313
1,2,3-Trichloropropane	U		0.00585	0.0143	1	10/22/2018 02:38	WG1184313
1,2,4-Trimethylbenzene	U		0.00133	0.00574	1	10/22/2018 02:38	WG1184313
1,2,3-Trimethylbenzene	U		0.00132	0.00574	1	10/22/2018 02:38	WG1184313
1,3,5-Trimethylbenzene	U		0.00124	0.00574	1	10/22/2018 02:38	WG1184313
Vinyl acetate	U		0.00404	0.0143	1	10/22/2018 02:38	WG1184313
Vinyl chloride	0.0103		0.000784	0.00287	1	10/22/2018 02:38	WG1184313
Xylenes, Total	U		0.00549	0.00746	1	10/22/2018 02:38	WG1184313
(S) Toluene-d8	*101*			*75.0-131*		*10/22/2018 02:38*	WG1184313
(S) Toluene-d8	*126*			*75.0-131*		*10/23/2018 20:17*	WG1185140
(S) Dibromofluoromethane	*116*			*65.0-129*		*10/22/2018 02:38*	WG1184313
(S) Dibromofluoromethane	*94.2*			*65.0-129*		*10/23/2018 20:17*	WG1185140
(S) 4-Bromofluorobenzene	*119*			*67.0-138*		*10/22/2018 02:38*	WG1184313
(S) 4-Bromofluorobenzene	*94.6*			*67.0-138*		*10/23/2018 20:17*	WG1185140

JC 11/14/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	86.1		1	10/24/2018 10:00	WG1184860

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch	
	mg/kg		mg/kg	mg/kg		date / time		
Acetone	U		0.0159	0.0290	1	10/22/2018 02:58	WG1184313	
Acrylonitrile	U		0.00221	0.0145	1	10/22/2018 02:58	WG1184313	
Benzene	U		0.00465	0.0116	10	10/23/2018 21:18	WG1185140	
Bromobenzene	U		0.00122	0.0145	1	10/22/2018 02:58	WG1184313	
Bromodichloromethane	U		0.000915	0.00290	1	10/22/2018 02:58	WG1184313	
Bromochloromethane	U		0.00131	0.00581	1	10/22/2018 02:58	WG1184313	
Bromoform	U		0.00694	0.0290	1	10/22/2018 02:58	WG1184313	
Bromomethane	U		0.00430	0.0145	1	10/22/2018 02:58	WG1184313	
n-Butylbenzene	U		0.00446	0.0145	1	10/22/2018 02:58	WG1184313	
sec-Butylbenzene	U		0.00294	0.0145	1	10/22/2018 02:58	WG1184313	
tert-Butylbenzene	U		0.00180	0.00581	1	10/22/2018 02:58	WG1184313	
Carbon disulfide	U		0.00471	0.0145	1	10/22/2018 02:58	WG1184313	
Carbon tetrachloride	U		0.00125	0.00581	1	10/22/2018 02:58	WG1184313	
Chlorobenzene	U		0.000665	0.00290	1	10/22/2018 02:58	WG1184313	
Chlorodibromomethane	U		0.000523	0.00290	1	10/22/2018 02:58	WG1184313	
Chloroethane	U		0.00125	0.00581	1	10/22/2018 02:58	WG1184313	
Chloroform	0.00183	U B J	0.000482	0.00290	1	10/22/2018 02:58	WG1184313	
Chloromethane	U		0.00161	0.0145	1	10/22/2018 02:58	WG1184313	
2-Chlorotoluene	U		0.00107	0.00290	1	10/22/2018 02:58	WG1184313	
4-Chlorotoluene	U		0.00131	0.00581	1	10/22/2018 02:58	WG1184313	
1,2-Dibromo-3-Chloropropane	U		0.00592	0.0290	1	10/22/2018 02:58	WG1184313	
1,2-Dibromoethane	U		0.000610	0.00290	1	10/22/2018 02:58	WG1184313	
Dibromomethane	U		0.00116	0.00581	1	10/22/2018 02:58	WG1184313	
1,2-Dichlorobenzene	U		0.00168	0.00581	1	10/22/2018 02:58	WG1184313	
1,3-Dichlorobenzene	U		0.00197	0.00581	1	10/22/2018 02:58	WG1184313	
1,4-Dichlorobenzene	U		0.00229	0.00581	1	10/22/2018 02:58	WG1184313	
Dichlorodifluoromethane	U		0.000950	0.00290	1	10/22/2018 02:58	WG1184313	
1,1-Dichloroethane	U		0.000668	0.00290	1	10/22/2018 02:58	WG1184313	
1,2-Dichloroethane	U		0.000552	0.00290	1	10/22/2018 02:58	WG1184313	
1,1-Dichloroethene	0.00427		0.000581	0.00290	1	10/22/2018 02:58	WG1184313	
cis-1,2-Dichloroethene	0.414		0.000801	0.00290	1	10/22/2018 02:58	WG1184313	
trans-1,2-Dichloroethene	0.00349	J	0.00166	0.00581	1	10/22/2018 02:58	WG1184313	
1,2-Dichloropropane	U		0.00147	0.00581	1	10/22/2018 02:58	WG1184313	
1,1-Dichloropropene	U		0.000813	0.00290	1	10/22/2018 02:58	WG1184313	
1,3-Dichloropropane	U		0.00203	0.00581	1	10/22/2018 02:58	WG1184313	
cis-1,3-Dichloropropene	0.000791	J	0.000787	0.00290	1	10/22/2018 02:58	WG1184313	
trans-1,3-Dichloropropene	U		0.00178	0.00581	1	10/22/2018 02:58	WG1184313	
trans-1,4-Dichloro-2-butene	U		0.00163	0.00581	1	10/22/2018 02:58	WG1184313	
2,2-Dichloropropane	U	U J4	0.000921	0.00290	1	10/22/2018 02:58	WG1184313	
Di-isopropyl ether	U		0.00406	0.0116	10	10/23/2018 21:18	WG1185140	
Ethylbenzene	U		0.000615	0.00290	1	10/22/2018 02:58	WG1184313	
Hexachloro-1,3-butadiene	U		0.0147	0.0290	1	10/22/2018 02:58	WG1184313	
2-Hexanone	U		0.0116	0.0290	1	10/22/2018 02:58	WG1184313	
n-Hexane	0.00587		0.00123	0.00581	1	10/22/2018 02:58	WG1184313	
Iodomethane	U		0.00703	0.0145	1	10/22/2018 02:58	WG1184313	
Isopropylbenzene	U		0.00100	0.00290	1	10/22/2018 02:58	WG1184313	
p-Isopropyltoluene	U		0.00271	0.00581	1	10/22/2018 02:58	WG1184313	JC 11/14/18
2-Butanone (MEK)	0.0288	J	0.0145	0.0290	1	10/22/2018 02:58	WG1184313	
Methylene Chloride	U		0.00771	0.0290	1	10/22/2018 02:58	WG1184313	
4-Methyl-2-pentanone (MIBK)	U		0.0116	0.0290	1	10/22/2018 02:58	WG1184313	

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.00343	0.0116	10	10/23/2018 21:18	WG1185140
Naphthalene	U		0.00362	0.0145	1	10/22/2018 02:58	WG1184313
n-Propylbenzene	U		0.00137	0.00581	1	10/22/2018 02:58	WG1184313
Styrene	U		0.00317	0.0145	1	10/22/2018 02:58	WG1184313
1,1,1,2-Tetrachloroethane	U		0.000581	0.00290	1	10/22/2018 02:58	WG1184313
1,1,2,2-Tetrachloroethane	U		0.000453	0.00290	1	10/22/2018 02:58	WG1184313
1,1,2-Trichlorotrifluoroethane	U		0.000784	0.00290	1	10/22/2018 02:58	WG1184313
Tetrachloroethene	9.92		0.0650	0.232	80	10/25/2018 00:40	WG1185815
Toluene	0.00165 J	J	0.00145	0.00581	1	10/22/2018 02:58	WG1184313
1,2,3-Trichlorobenzene	U		0.000726	0.00290	1	10/22/2018 02:58	WG1184313
1,2,4-Trichlorobenzene	U		0.0560	0.145	10	10/23/2018 21:18	WG1185140
1,1,1-Trichloroethane	U		0.000319	0.00290	1	10/22/2018 02:58	WG1184313
1,1,2-Trichloroethane	U		0.00103	0.00290	1	10/22/2018 02:58	WG1184313
Trichloroethene	1.98		0.00465	0.0116	10	10/23/2018 21:18	WG1185140
Trichlorofluoromethane	U		0.000581	0.00290	1	10/22/2018 02:58	WG1184313
1,2,3-Trichloropropane	U		0.00592	0.0145	1	10/22/2018 02:58	WG1184313
1,2,4-Trimethylbenzene	U		0.00135	0.00581	1	10/22/2018 02:58	WG1184313
1,2,3-Trimethylbenzene	U		0.00134	0.00581	1	10/22/2018 02:58	WG1184313
1,3,5-Trimethylbenzene	U		0.00125	0.00581	1	10/22/2018 02:58	WG1184313
Vinyl acetate	U		0.00409	0.0145	1	10/22/2018 02:58	WG1184313
Vinyl chloride	0.0101		0.000793	0.00290	1	10/22/2018 02:58	WG1184313
Xylenes, Total	U		0.00555	0.00755	1	10/22/2018 02:58	WG1184313
(S) Toluene-d8	*101*			*75.0-131*		*10/22/2018 02:58*	WG1184313
(S) Toluene-d8	*120*			*75.0-131*		*10/23/2018 21:18*	WG1185140
(S) Toluene-d8	*104*			*75.0-131*		*10/25/2018 00:40*	WG1185815
(S) Dibromofluoromethane	*112*			*65.0-129*		*10/22/2018 02:58*	WG1184313
(S) Dibromofluoromethane	*102*			*65.0-129*		*10/23/2018 21:18*	WG1185140
(S) Dibromofluoromethane	*101*			*65.0-129*		*10/25/2018 00:40*	WG1185815
(S) 4-Bromofluorobenzene	*120*			*67.0-138*		*10/22/2018 02:58*	WG1184313
(S) 4-Bromofluorobenzene	*93.1*			*67.0-138*		*10/23/2018 21:18*	WG1185140
(S) 4-Bromofluorobenzene	*103*			*67.0-138*		*10/25/2018 00:40*	WG1185815

Sample Narrative:

JC 11/14/18

L1036155-18 WG1184313, WG1185140: Not all compounds reportable at lower dilution.

L1036155-18 WG1184313, WG1185140: Cannot be reanalyzed at a lower dilution due to high levels of target analytes.

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	90.5		1	10/24/2018 10:00	WG1184860

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0151	0.0276	1	10/22/2018 03:18	WG1184313
Acrylonitrile	U		0.00210	0.0138	1	10/22/2018 03:18	WG1184313
Benzene	U		0.00442	0.0111	10	10/23/2018 21:38	WG1185140
Bromobenzene	U		0.00116	0.0138	1	10/22/2018 03:18	WG1184313
Bromodichloromethane	U		0.000871	0.00276	1	10/22/2018 03:18	WG1184313
Bromochloromethane	U		0.00125	0.00553	1	10/22/2018 03:18	WG1184313
Bromoform	U		0.00661	0.0276	1	10/22/2018 03:18	WG1184313
Bromomethane	U		0.00409	0.0138	1	10/22/2018 03:18	WG1184313
n-Butylbenzene	U		0.00424	0.0138	1	10/22/2018 03:18	WG1184313
sec-Butylbenzene	U		0.00280	0.0138	1	10/22/2018 03:18	WG1184313
tert-Butylbenzene	U		0.00171	0.00553	1	10/22/2018 03:18	WG1184313
Carbon disulfide	U		0.00449	0.0138	1	10/22/2018 03:18	WG1184313
Carbon tetrachloride	U		0.00119	0.00553	1	10/22/2018 03:18	WG1184313
Chlorobenzene	U		0.000633	0.00276	1	10/22/2018 03:18	WG1184313
Chlorodibromomethane	U		0.000497	0.00276	1	10/22/2018 03:18	WG1184313
Chloroethane	U		0.00119	0.00553	1	10/22/2018 03:18	WG1184313
Chloroform	0.00166	U B J	0.000459	0.00276	1	10/22/2018 03:18	WG1184313
Chloromethane	U		0.00154	0.0138	1	10/22/2018 03:18	WG1184313
2-Chlorotoluene	U		0.00102	0.00276	1	10/22/2018 03:18	WG1184313
4-Chlorotoluene	U		0.00125	0.00553	1	10/22/2018 03:18	WG1184313
1,2-Dibromo-3-Chloropropane	U		0.00564	0.0276	1	10/22/2018 03:18	WG1184313
1,2-Dibromoethane	U		0.000580	0.00276	1	10/22/2018 03:18	WG1184313
Dibromomethane	U		0.00111	0.00553	1	10/22/2018 03:18	WG1184313
1,2-Dichlorobenzene	U		0.00160	0.00553	1	10/22/2018 03:18	WG1184313
1,3-Dichlorobenzene	U		0.00188	0.00553	1	10/22/2018 03:18	WG1184313
1,4-Dichlorobenzene	U		0.00218	0.00553	1	10/22/2018 03:18	WG1184313
Dichlorodifluoromethane	U		0.000904	0.00276	1	10/22/2018 03:18	WG1184313
1,1-Dichloroethane	U		0.000635	0.00276	1	10/22/2018 03:18	WG1184313
1,2-Dichloroethane	U		0.000525	0.00276	1	10/22/2018 03:18	WG1184313
1,1-Dichloroethene	0.00252	J J	0.000553	0.00276	1	10/22/2018 03:18	WG1184313
cis-1,2-Dichloroethene	0.588		0.000763	0.00276	1	10/22/2018 03:18	WG1184313
trans-1,2-Dichloroethene	U		0.00158	0.00553	1	10/22/2018 03:18	WG1184313
1,2-Dichloropropane	U		0.00140	0.00553	1	10/22/2018 03:18	WG1184313
1,1-Dichloropropene	U		0.000774	0.00276	1	10/22/2018 03:18	WG1184313
1,3-Dichloropropane	U		0.00193	0.00553	1	10/22/2018 03:18	WG1184313
cis-1,3-Dichloropropene	U		0.000749	0.00276	1	10/22/2018 03:18	WG1184313
trans-1,3-Dichloropropene	U		0.00169	0.00553	1	10/22/2018 03:18	WG1184313
trans-1,4-Dichloro-2-butene	U		0.00155	0.00553	1	10/22/2018 03:18	WG1184313
2,2-Dichloropropane	U	U J4	0.000876	0.00276	1	10/22/2018 03:18	WG1184313
Di-isopropyl ether	U		0.00387	0.0111	10	10/23/2018 21:38	WG1185140
Ethylbenzene	U		0.000586	0.00276	1	10/22/2018 03:18	WG1184313
Hexachloro-1,3-butadiene	U		0.0140	0.0276	1	10/22/2018 03:18	WG1184313
2-Hexanone	U		0.0111	0.0276	1	10/22/2018 03:18	WG1184313
n-Hexane	U		0.00117	0.00553	1	10/22/2018 03:18	WG1184313
Iodomethane	U		0.00669	0.0138	1	10/22/2018 03:18	WG1184313
Isopropylbenzene	U		0.000954	0.00276	1	10/22/2018 03:18	WG1184313
p-Isopropyltoluene	U		0.00258	0.00553	1	10/22/2018 03:18	WG1184313
2-Butanone (MEK)	0.0234	J J	0.0138	0.0276	1	10/22/2018 03:18	WG1184313
Methylene Chloride	U		0.00734	0.0276	1	10/22/2018 03:18	WG1184313
4-Methyl-2-pentanone (MIBK)	U		0.0111	0.0276	1	10/22/2018 03:18	WG1184313

JC 11/14/18

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.00326	0.0111	10	10/23/2018 21:38	WG1185140
Naphthalene	U		0.00345	0.0138	1	10/22/2018 03:18	WG1184313
n-Propylbenzene	U		0.00130	0.00553	1	10/22/2018 03:18	WG1184313
Styrene	U		0.00302	0.0138	1	10/22/2018 03:18	WG1184313
1,1,1,2-Tetrachloroethane	0.000619	J J	0.000553	0.00276	1	10/22/2018 03:18	WG1184313
1,1,2,2-Tetrachloroethane	U		0.000431	0.00276	1	10/22/2018 03:18	WG1184313
1,1,2-Trichlorotrifluoroethane	U		0.000746	0.00276	1	10/22/2018 03:18	WG1184313
Tetrachloroethene	8.23		0.0619	0.221	80	10/25/2018 00:59	WG1185815
Toluene	U		0.00138	0.00553	1	10/22/2018 03:18	WG1184313
1,2,3-Trichlorobenzene	U		0.000691	0.00276	1	10/22/2018 03:18	WG1184313
1,2,4-Trichlorobenzene	U		0.0533	0.138	10	10/23/2018 21:38	WG1185140
1,1,1-Trichloroethane	U		0.000304	0.00276	1	10/22/2018 03:18	WG1184313
1,1,2-Trichloroethane	U		0.000976	0.00276	1	10/22/2018 03:18	WG1184313
Trichloroethene	1.38		0.00442	0.0111	10	10/23/2018 21:38	WG1185140
Trichlorofluoromethane	U		0.000553	0.00276	1	10/22/2018 03:18	WG1184313
1,2,3-Trichloropropane	U		0.00564	0.0138	1	10/22/2018 03:18	WG1184313
1,2,4-Trimethylbenzene	U		0.00128	0.00553	1	10/22/2018 03:18	WG1184313
1,2,3-Trimethylbenzene	U		0.00127	0.00553	1	10/22/2018 03:18	WG1184313
1,3,5-Trimethylbenzene	U		0.00119	0.00553	1	10/22/2018 03:18	WG1184313
Vinyl acetate	U		0.00389	0.0138	1	10/22/2018 03:18	WG1184313
Vinyl chloride	0.00167	J J	0.000755	0.00276	1	10/22/2018 03:18	WG1184313
Xylenes, Total	U		0.00528	0.00718	1	10/22/2018 03:18	WG1184313
(S) Toluene-d8	*98.0*			*75.0-131*		*10/22/2018 03:18*	WG1184313
(S) Toluene-d8	*117*			*75.0-131*		*10/23/2018 21:38*	WG1185140
(S) Toluene-d8	*103*			*75.0-131*		*10/25/2018 00:59*	WG1185815
(S) Dibromofluoromethane	*114*			*65.0-129*		*10/22/2018 03:18*	WG1184313
(S) Dibromofluoromethane	*98.4*			*65.0-129*		*10/23/2018 21:38*	WG1185140
(S) Dibromofluoromethane	*98.4*			*65.0-129*		*10/25/2018 00:59*	WG1185815
(S) 4-Bromofluorobenzene	*117*			*67.0-138*		*10/22/2018 03:18*	WG1184313
(S) 4-Bromofluorobenzene	*97.5*			*67.0-138*		*10/23/2018 21:38*	WG1185140
(S) 4-Bromofluorobenzene	*102*			*67.0-138*		*10/25/2018 00:59*	WG1185815

Sample Narrative:

L1036155-19 WG1184313, WG1185140: Not all compounds reportable at lower dilution.

L1036155-19 WG1184313, WG1185140: Cannot be reanalyzed at a lower dilution due to high levels of target analytes.

JC 11/14/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	87.5		1	10/24/2018 10:00	WG1184860

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0157	0.0286	1	10/22/2018 03:38	WG1184313
Acrylonitrile	U		0.00217	0.0143	1	10/22/2018 03:38	WG1184313
Benzene	U		0.000457	0.00114	1	10/23/2018 20:37	WG1185140
Bromobenzene	U		0.00120	0.0143	1	10/22/2018 03:38	WG1184313
Bromodichloromethane	U		0.000900	0.00286	1	10/22/2018 03:38	WG1184313
Bromochloromethane	U		0.00129	0.00571	1	10/22/2018 03:38	WG1184313
Bromoform	U		0.00683	0.0286	1	10/22/2018 03:38	WG1184313
Bromomethane	U		0.00423	0.0143	1	10/22/2018 03:38	WG1184313
n-Butylbenzene	U		0.00439	0.0143	1	10/22/2018 03:38	WG1184313
sec-Butylbenzene	U		0.00289	0.0143	1	10/22/2018 03:38	WG1184313
tert-Butylbenzene	U		0.00177	0.00571	1	10/22/2018 03:38	WG1184313
Carbon disulfide	U		0.00464	0.0143	1	10/22/2018 03:38	WG1184313
Carbon tetrachloride	U		0.00123	0.00571	1	10/22/2018 03:38	WG1184313
Chlorobenzene	U		0.000655	0.00286	1	10/22/2018 03:38	WG1184313
Chlorodibromomethane	U		0.000514	0.00286	1	10/22/2018 03:38	WG1184313
Chloroethane	U		0.00123	0.00571	1	10/22/2018 03:38	WG1184313
Chloroform	0.00165	U B J	0.000474	0.00286	1	10/22/2018 03:38	WG1184313
Chloromethane	U		0.00159	0.0143	1	10/22/2018 03:38	WG1184313
2-Chlorotoluene	U		0.00105	0.00286	1	10/22/2018 03:38	WG1184313
4-Chlorotoluene	U		0.00129	0.00571	1	10/22/2018 03:38	WG1184313
1,2-Dibromo-3-Chloropropane	U		0.00583	0.0286	1	10/22/2018 03:38	WG1184313
1,2-Dibromoethane	U		0.000600	0.00286	1	10/22/2018 03:38	WG1184313
Dibromomethane	U		0.00114	0.00571	1	10/22/2018 03:38	WG1184313
1,2-Dichlorobenzene	U		0.00166	0.00571	1	10/22/2018 03:38	WG1184313
1,3-Dichlorobenzene	U		0.00194	0.00571	1	10/22/2018 03:38	WG1184313
1,4-Dichlorobenzene	U		0.00225	0.00571	1	10/22/2018 03:38	WG1184313
Dichlorodifluoromethane	U		0.000935	0.00286	1	10/22/2018 03:38	WG1184313
1,1-Dichloroethane	U		0.000657	0.00286	1	10/22/2018 03:38	WG1184313
1,2-Dichloroethane	U		0.000543	0.00286	1	10/22/2018 03:38	WG1184313
1,1-Dichloroethene	0.000710	J J	0.000571	0.00286	1	10/22/2018 03:38	WG1184313
cis-1,2-Dichloroethene	0.00244	J J	0.000788	0.00286	1	10/22/2018 03:38	WG1184313
trans-1,2-Dichloroethene	U		0.00163	0.00571	1	10/22/2018 03:38	WG1184313
1,2-Dichloropropane	U		0.00145	0.00571	1	10/22/2018 03:38	WG1184313
1,1-Dichloropropene	U		0.000800	0.00286	1	10/22/2018 03:38	WG1184313
1,3-Dichloropropane	U		0.00200	0.00571	1	10/22/2018 03:38	WG1184313
cis-1,3-Dichloropropene	U		0.000775	0.00286	1	10/22/2018 03:38	WG1184313
trans-1,3-Dichloropropene	U		0.00175	0.00571	1	10/22/2018 03:38	WG1184313
trans-1,4-Dichloro-2-butene	U		0.00160	0.00571	1	10/22/2018 03:38	WG1184313
2,2-Dichloropropane	U	U J4	0.000906	0.00286	1	10/22/2018 03:38	WG1184313
Di-isopropyl ether	U		0.000400	0.00114	1	10/23/2018 20:37	WG1185140
Ethylbenzene	U		0.000606	0.00286	1	10/22/2018 03:38	WG1184313
Hexachloro-1,3-butadiene	U		0.0145	0.0286	1	10/22/2018 03:38	WG1184313
2-Hexanone	U		0.0114	0.0286	1	10/22/2018 03:38	WG1184313
n-Hexane	0.00385	J J	0.00121	0.00571	1	10/22/2018 03:38	WG1184313
Iodomethane	U		0.00691	0.0143	1	10/22/2018 03:38	WG1184313
Isopropylbenzene	U		0.000986	0.00286	1	10/22/2018 03:38	WG1184313
p-Isopropyltoluene	U		0.00266	0.00571	1	10/22/2018 03:38	WG1184313
2-Butanone (MEK)	0.0385		0.0143	0.0286	1	10/22/2018 03:38	WG1184313
Methylene Chloride	U		0.00759	0.0286	1	10/22/2018 03:38	WG1184313
4-Methyl-2-pentanone (MIBK)	U		0.0114	0.0286	1	10/22/2018 03:38	WG1184313

JC 11/14/18

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000337	0.00114	1	10/23/2018 20:37	WG1185140
Naphthalene	U		0.00357	0.0143	1	10/22/2018 03:38	WG1184313
n-Propylbenzene	U		0.00135	0.00571	1	10/22/2018 03:38	WG1184313
Styrene	U		0.00312	0.0143	1	10/22/2018 03:38	WG1184313
1,1,1,2-Tetrachloroethane	U		0.000571	0.00286	1	10/22/2018 03:38	WG1184313
1,1,2,2-Tetrachloroethane	U		0.000446	0.00286	1	10/22/2018 03:38	WG1184313
1,1,2-Trichlorotrifluoroethane	U		0.000771	0.00286	1	10/22/2018 03:38	WG1184313
Tetrachloroethene	0.0198		0.000800	0.00286	1	10/23/2018 20:37	WG1185140
Toluene	U		0.00143	0.00571	1	10/22/2018 03:38	WG1184313
1,2,3-Trichlorobenzene	U		0.000714	0.00286	1	10/22/2018 03:38	WG1184313
1,2,4-Trichlorobenzene	U		0.00551	0.0143	1	10/23/2018 20:37	WG1185140
1,1,1-Trichloroethane	U		0.000314	0.00286	1	10/22/2018 03:38	WG1184313
1,1,2-Trichloroethane	U		0.00101	0.00286	1	10/22/2018 03:38	WG1184313
Trichloroethene	0.000584	J J	0.000457	0.00114	1	10/23/2018 20:37	WG1185140
Trichlorofluoromethane	U		0.000571	0.00286	1	10/22/2018 03:38	WG1184313
1,2,3-Trichloropropane	U		0.00583	0.0143	1	10/22/2018 03:38	WG1184313
1,2,4-Trimethylbenzene	U		0.00133	0.00571	1	10/22/2018 03:38	WG1184313
1,2,3-Trimethylbenzene	U		0.00131	0.00571	1	10/22/2018 03:38	WG1184313
1,3,5-Trimethylbenzene	U		0.00123	0.00571	1	10/22/2018 03:38	WG1184313
Vinyl acetate	U		0.00402	0.0143	1	10/22/2018 03:38	WG1184313
Vinyl chloride	U		0.000780	0.00286	1	10/22/2018 03:38	WG1184313
Xylenes, Total	U		0.00546	0.00743	1	10/22/2018 03:38	WG1184313
(S) Toluene-d8	*101*			*75.0-131*		*10/22/2018 03:38*	WG1184313
(S) Toluene-d8	*124*			*75.0-131*		*10/23/2018 20:37*	WG1185140
(S) Dibromofluoromethane	*111*			*65.0-129*		*10/22/2018 03:38*	WG1184313
(S) Dibromofluoromethane	*94.6*			*65.0-129*		*10/23/2018 20:37*	WG1185140
(S) 4-Bromofluorobenzene	*121*			*67.0-138*		*10/22/2018 03:38*	WG1184313
(S) 4-Bromofluorobenzene	*86.4*			*67.0-138*		*10/23/2018 20:37*	WG1185140

JC 11/14/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	88.3		1	10/24/2018 10:00	WG1184860

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0155	0.0283	1	10/22/2018 03:58	WG1184313
Acrylonitrile	U		0.00215	0.0142	1	10/22/2018 03:58	WG1184313
Benzene	U		0.0362	0.0906	80	10/23/2018 22:59	WG1185140
Bromobenzene	U		0.00119	0.0142	1	10/22/2018 03:58	WG1184313
Bromodichloromethane	U		0.000892	0.00283	1	10/22/2018 03:58	WG1184313
Bromochloromethane	U		0.00128	0.00566	1	10/22/2018 03:58	WG1184313
Bromoform	U		0.00677	0.0283	1	10/22/2018 03:58	WG1184313
Bromomethane	U		0.00419	0.0142	1	10/22/2018 03:58	WG1184313
n-Butylbenzene	U		0.00435	0.0142	1	10/22/2018 03:58	WG1184313
sec-Butylbenzene	U		0.00286	0.0142	1	10/22/2018 03:58	WG1184313
tert-Butylbenzene	U		0.00176	0.00566	1	10/22/2018 03:58	WG1184313
Carbon disulfide	U		0.00460	0.0142	1	10/22/2018 03:58	WG1184313
Carbon tetrachloride	U		0.00122	0.00566	1	10/22/2018 03:58	WG1184313
Chlorobenzene	U		0.000649	0.00283	1	10/22/2018 03:58	WG1184313
Chlorodibromomethane	U		0.000510	0.00283	1	10/22/2018 03:58	WG1184313
Chloroethane	U		0.00122	0.00566	1	10/22/2018 03:58	WG1184313
Chloroform	0.00170	U B J	0.000470	0.00283	1	10/22/2018 03:58	WG1184313
Chloromethane	U		0.00157	0.0142	1	10/22/2018 03:58	WG1184313
2-Chlorotoluene	U		0.00104	0.00283	1	10/22/2018 03:58	WG1184313
4-Chlorotoluene	U		0.00128	0.00566	1	10/22/2018 03:58	WG1184313
1,2-Dibromo-3-Chloropropane	U		0.00578	0.0283	1	10/22/2018 03:58	WG1184313
1,2-Dibromoethane	U		0.000594	0.00283	1	10/22/2018 03:58	WG1184313
Dibromomethane	U		0.00113	0.00566	1	10/22/2018 03:58	WG1184313
1,2-Dichlorobenzene	U		0.00164	0.00566	1	10/22/2018 03:58	WG1184313
1,3-Dichlorobenzene	U		0.00193	0.00566	1	10/22/2018 03:58	WG1184313
1,4-Dichlorobenzene	U		0.00223	0.00566	1	10/22/2018 03:58	WG1184313
Dichlorodifluoromethane	U		0.000926	0.00283	1	10/22/2018 03:58	WG1184313
1,1-Dichloroethane	U		0.000651	0.00283	1	10/22/2018 03:58	WG1184313
1,2-Dichloroethane	U		0.000538	0.00283	1	10/22/2018 03:58	WG1184313
1,1-Dichloroethene	U		0.000566	0.00283	1	10/22/2018 03:58	WG1184313
cis-1,2-Dichloroethene	0.00255	J J	0.000781	0.00283	1	10/22/2018 03:58	WG1184313
trans-1,2-Dichloroethene	U		0.00162	0.00566	1	10/22/2018 03:58	WG1184313
1,2-Dichloropropane	U		0.00144	0.00566	1	10/22/2018 03:58	WG1184313
1,1-Dichloropropene	U		0.000793	0.00283	1	10/22/2018 03:58	WG1184313
1,3-Dichloropropane	U		0.00198	0.00566	1	10/22/2018 03:58	WG1184313
cis-1,3-Dichloropropene	U		0.000768	0.00283	1	10/22/2018 03:58	WG1184313
trans-1,3-Dichloropropene	U		0.00173	0.00566	1	10/22/2018 03:58	WG1184313
trans-1,4-Dichloro-2-butene	U		0.00159	0.00566	1	10/22/2018 03:58	WG1184313
2,2-Dichloropropane	U	U J4	0.000898	0.00283	1	10/22/2018 03:58	WG1184313
Di-isopropyl ether	U		0.0317	0.0906	80	10/23/2018 22:59	WG1185140
Ethylbenzene	U		0.000600	0.00283	1	10/22/2018 03:58	WG1184313
Hexachloro-1,3-butadiene	U		0.0144	0.0283	1	10/22/2018 03:58	WG1184313
2-Hexanone	U		0.0113	0.0283	1	10/22/2018 03:58	WG1184313
n-Hexane	U		0.00120	0.00566	1	10/22/2018 03:58	WG1184313
Iodomethane	U		0.00685	0.0142	1	10/22/2018 03:58	WG1184313
Isopropylbenzene	U		0.000977	0.00283	1	10/22/2018 03:58	WG1184313
p-Isopropyltoluene	U		0.00264	0.00566	1	10/22/2018 03:58	WG1184313
2-Butanone (MEK)	0.0396		0.0142	0.0283	1	10/22/2018 03:58	WG1184313
Methylene Chloride	U		0.00752	0.0283	1	10/22/2018 03:58	WG1184313
4-Methyl-2-pentanone (MIBK)	U		0.0113	0.0283	1	10/22/2018 03:58	WG1184313

JC 11/14/18

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

Analyte	Result (dry) mg/kg		Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U			0.0267	0.0906	80	10/23/2018 22:59	WG1185140
Naphthalene	U			0.00353	0.0142	1	10/22/2018 03:58	WG1184313
n-Propylbenzene	U			0.00134	0.00566	1	10/22/2018 03:58	WG1184313
Styrene	U			0.00309	0.0142	1	10/22/2018 03:58	WG1184313
1,1,1,2-Tetrachloroethane	0.000576	J	J	0.000566	0.00283	1	10/22/2018 03:58	WG1184313
1,1,2,2-Tetrachloroethane	0.000889	J	J	0.000442	0.00283	1	10/22/2018 03:58	WG1184313
1,1,2-Trichlorotrifluoroethane	U			0.000764	0.00283	1	10/22/2018 03:58	WG1184313
Tetrachloroethene	25.2	J+	V3	0.0634	0.226	80	10/23/2018 22:59	WG1185140
Toluene	0.00151	J	J	0.00142	0.00566	1	10/22/2018 03:58	WG1184313
1,2,3-Trichlorobenzene	U			0.000708	0.00283	1	10/22/2018 03:58	WG1184313
1,2,4-Trichlorobenzene	U			0.437	1.13	80	10/23/2018 22:59	WG1185140
1,1,1-Trichloroethane	U			0.000311	0.00283	1	10/22/2018 03:58	WG1184313
1,1,2-Trichloroethane	U			0.00100	0.00283	1	10/22/2018 03:58	WG1184313
Trichloroethene	U			0.0362	0.0906	80	10/23/2018 22:59	WG1185140
Trichlorofluoromethane	U			0.000566	0.00283	1	10/22/2018 03:58	WG1184313
1,2,3-Trichloropropane	U			0.00578	0.0142	1	10/22/2018 03:58	WG1184313
1,2,4-Trimethylbenzene	U			0.00131	0.00566	1	10/22/2018 03:58	WG1184313
1,2,3-Trimethylbenzene	U			0.00130	0.00566	1	10/22/2018 03:58	WG1184313
1,3,5-Trimethylbenzene	U			0.00122	0.00566	1	10/22/2018 03:58	WG1184313
Vinyl acetate	U			0.00399	0.0142	1	10/22/2018 03:58	WG1184313
Vinyl chloride	U			0.000773	0.00283	1	10/22/2018 03:58	WG1184313
Xylenes, Total	U			0.00541	0.00736	1	10/22/2018 03:58	WG1184313
(S) Toluene-d8	*98.4*				*75.0-131*		*10/22/2018 03:58*	WG1184313
(S) Toluene-d8	*120*				*75.0-131*		*10/23/2018 22:59*	WG1185140
(S) Dibromofluoromethane	*110*				*65.0-129*		*10/22/2018 03:58*	WG1184313
(S) Dibromofluoromethane	*96.7*				*65.0-129*		*10/23/2018 22:59*	WG1185140
(S) 4-Bromofluorobenzene	*122*				*67.0-138*		*10/22/2018 03:58*	WG1184313
(S) 4-Bromofluorobenzene	*82.1*				*67.0-138*		*10/23/2018 22:59*	WG1185140

Sample Narrative:

L1036155-21 WG1184313, WG1185140: Not all compounds reportable at lower dilution.

L1036155-21 WG1184313, WG1185140: Cannot be reanalyzed at a lower dilution due to high levels of target analytes.

JC 11/14/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	83.5		1	10/24/2018 09:40	WG1184862

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0164	0.0300	1	10/22/2018 04:18	WG1184313
Acrylonitrile	U		0.00228	0.0150	1	10/22/2018 04:18	WG1184313
Benzene	U		0.00479	0.0120	10	10/23/2018 21:58	WG1185140
Bromobenzene	U		0.00126	0.0150	1	10/22/2018 04:18	WG1184313
Bromodichloromethane	U		0.000944	0.00300	1	10/22/2018 04:18	WG1184313
Bromochloromethane	U		0.00135	0.00599	1	10/22/2018 04:18	WG1184313
Bromoform	U		0.00717	0.0300	1	10/22/2018 04:18	WG1184313
Bromomethane	U		0.00443	0.0150	1	10/22/2018 04:18	WG1184313
n-Butylbenzene	U		0.00460	0.0150	1	10/22/2018 04:18	WG1184313
sec-Butylbenzene	U		0.00303	0.0150	1	10/22/2018 04:18	WG1184313
tert-Butylbenzene	U		0.00186	0.00599	1	10/22/2018 04:18	WG1184313
Carbon disulfide	U		0.00487	0.0150	1	10/22/2018 04:18	WG1184313
Carbon tetrachloride	U		0.00129	0.00599	1	10/22/2018 04:18	WG1184313
Chlorobenzene	U		0.000687	0.00300	1	10/22/2018 04:18	WG1184313
Chlorodibromomethane	U		0.000539	0.00300	1	10/22/2018 04:18	WG1184313
Chloroethane	U		0.00129	0.00599	1	10/22/2018 04:18	WG1184313
Chloroform	0.00196	U	0.000497	0.00300	1	10/22/2018 04:18	WG1184313
Chloromethane	U		0.00167	0.0150	1	10/22/2018 04:18	WG1184313
2-Chlorotoluene	U		0.00110	0.00300	1	10/22/2018 04:18	WG1184313
4-Chlorotoluene	U		0.00135	0.00599	1	10/22/2018 04:18	WG1184313
1,2-Dibromo-3-Chloropropane	U		0.00611	0.0300	1	10/22/2018 04:18	WG1184313
1,2-Dibromoethane	U		0.000629	0.00300	1	10/22/2018 04:18	WG1184313
Dibromomethane	U		0.00120	0.00599	1	10/22/2018 04:18	WG1184313
1,2-Dichlorobenzene	U		0.00174	0.00599	1	10/22/2018 04:18	WG1184313
1,3-Dichlorobenzene	U		0.00204	0.00599	1	10/22/2018 04:18	WG1184313
1,4-Dichlorobenzene	U		0.00236	0.00599	1	10/22/2018 04:18	WG1184313
Dichlorodifluoromethane	U		0.000980	0.00300	1	10/22/2018 04:18	WG1184313
1,1-Dichloroethane	U		0.000689	0.00300	1	10/22/2018 04:18	WG1184313
1,2-Dichloroethane	U		0.000569	0.00300	1	10/22/2018 04:18	WG1184313
1,1-Dichloroethene	U		0.000599	0.00300	1	10/22/2018 04:18	WG1184313
cis-1,2-Dichloroethene	0.00234	J	0.000827	0.00300	1	10/22/2018 04:18	WG1184313
trans-1,2-Dichloroethene	U		0.00171	0.00599	1	10/22/2018 04:18	WG1184313
1,2-Dichloropropane	U		0.00152	0.00599	1	10/22/2018 04:18	WG1184313
1,1-Dichloropropene	U		0.000839	0.00300	1	10/22/2018 04:18	WG1184313
1,3-Dichloropropane	U		0.00210	0.00599	1	10/22/2018 04:18	WG1184313
cis-1,3-Dichloropropene	U		0.000812	0.00300	1	10/22/2018 04:18	WG1184313
trans-1,3-Dichloropropene	U		0.00183	0.00599	1	10/22/2018 04:18	WG1184313
trans-1,4-Dichloro-2-butene	U		0.00168	0.00599	1	10/22/2018 04:18	WG1184313
2,2-Dichloropropane	U	U	0.000950	0.00300	1	10/22/2018 04:18	WG1184313
Di-isopropyl ether	U		0.00419	0.0120	10	10/23/2018 21:58	WG1185140
Ethylbenzene	U		0.000635	0.00300	1	10/22/2018 04:18	WG1184313
Hexachloro-1,3-butadiene	U		0.0152	0.0300	1	10/22/2018 04:18	WG1184313
2-Hexanone	U		0.0120	0.0300	1	10/22/2018 04:18	WG1184313
n-Hexane	U		0.00127	0.00599	1	10/22/2018 04:18	WG1184313
Iodomethane	U		0.00725	0.0150	1	10/22/2018 04:18	WG1184313
Isopropylbenzene	U		0.00103	0.00300	1	10/22/2018 04:18	WG1184313
p-Isopropyltoluene	U		0.00279	0.00599	1	10/22/2018 04:18	WG1184313
2-Butanone (MEK)	0.0558		0.0150	0.0300	1	10/22/2018 04:18	WG1184313
Methylene Chloride	U		0.00796	0.0300	1	10/22/2018 04:18	WG1184313
4-Methyl-2-pentanone (MIBK)	U		0.0120	0.0300	1	10/22/2018 04:18	WG1184313

J J4 J

JC 11/14/18

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.00354	0.0120	10	10/23/2018 21:58	WG1185140
Naphthalene	U		0.00374	0.0150	1	10/22/2018 04:18	WG1184313
n-Propylbenzene	U		0.00141	0.00599	1	10/22/2018 04:18	WG1184313
Styrene	U		0.00327	0.0150	1	10/22/2018 04:18	WG1184313
1,1,1,2-Tetrachloroethane	U		0.000599	0.00300	1	10/22/2018 04:18	WG1184313
1,1,2,2-Tetrachloroethane	U		0.000467	0.00300	1	10/22/2018 04:18	WG1184313
1,1,2-Trichlorotrifluoroethane	U		0.000809	0.00300	1	10/22/2018 04:18	WG1184313
Tetrachloroethene	7.13		0.0336	0.120	40	10/25/2018 01:18	WG1185815
Toluene	0.00162	J J	0.00150	0.00599	1	10/22/2018 04:18	WG1184313
1,2,3-Trichlorobenzene	U		0.000749	0.00300	1	10/22/2018 04:18	WG1184313
1,2,4-Trichlorobenzene	U		0.0578	0.150	10	10/23/2018 21:58	WG1185140
1,1,1-Trichloroethane	U		0.000330	0.00300	1	10/22/2018 04:18	WG1184313
1,1,2-Trichloroethane	U		0.00106	0.00300	1	10/22/2018 04:18	WG1184313
Trichloroethene	U		0.00479	0.0120	10	10/23/2018 21:58	WG1185140
Trichlorofluoromethane	U		0.000599	0.00300	1	10/22/2018 04:18	WG1184313
1,2,3-Trichloropropane	U		0.00611	0.0150	1	10/22/2018 04:18	WG1184313
1,2,4-Trimethylbenzene	U		0.00139	0.00599	1	10/22/2018 04:18	WG1184313
1,2,3-Trimethylbenzene	U		0.00138	0.00599	1	10/22/2018 04:18	WG1184313
1,3,5-Trimethylbenzene	U		0.00129	0.00599	1	10/22/2018 04:18	WG1184313
Vinyl acetate	U		0.00422	0.0150	1	10/22/2018 04:18	WG1184313
Vinyl chloride	U		0.000818	0.00300	1	10/22/2018 04:18	WG1184313
Xylenes, Total	U		0.00573	0.00779	1	10/22/2018 04:18	WG1184313
(S) Toluene-d8	*99.7*			*75.0-131*		*10/22/2018 04:18*	WG1184313
(S) Toluene-d8	*117*			*75.0-131*		*10/23/2018 21:58*	WG1185140
(S) Toluene-d8	*106*			*75.0-131*		*10/25/2018 01:18*	WG1185815
(S) Dibromofluoromethane	*112*			*65.0-129*		*10/22/2018 04:18*	WG1184313
(S) Dibromofluoromethane	*99.8*			*65.0-129*		*10/23/2018 21:58*	WG1185140
(S) Dibromofluoromethane	*101*			*65.0-129*		*10/25/2018 01:18*	WG1185815
(S) 4-Bromofluorobenzene	*122*			*67.0-138*		*10/22/2018 04:18*	WG1184313
(S) 4-Bromofluorobenzene	*94.2*			*67.0-138*		*10/23/2018 21:58*	WG1185140
(S) 4-Bromofluorobenzene	*104*			*67.0-138*		*10/25/2018 01:18*	WG1185815

JC 11/14/18

Sample Narrative:

L1036155-22 WG1184313, WG1185140: Not all compounds reportable at lower dilution.

L1036155-22 WG1184313, WG1185140: Cannot be reanalyzed at a lower dilution due to high levels of target analytes.

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	86.8		1	10/24/2018 09:40	WG1184862

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0158	0.0288	1	10/22/2018 04:38	WG1184313
Acrylonitrile	U		0.00219	0.0144	1	10/22/2018 04:38	WG1184313
Benzene	U		0.0184	0.0461	40	10/23/2018 22:39	WG1185140
Bromobenzene	U		0.00121	0.0144	1	10/22/2018 04:38	WG1184313
Bromodichloromethane	U		0.000908	0.00288	1	10/22/2018 04:38	WG1184313
Bromochloromethane	U		0.00130	0.00576	1	10/22/2018 04:38	WG1184313
Bromoform	U		0.00689	0.0288	1	10/22/2018 04:38	WG1184313
Bromomethane	U		0.00426	0.0144	1	10/22/2018 04:38	WG1184313
n-Butylbenzene	U		0.00442	0.0144	1	10/22/2018 04:38	WG1184313
sec-Butylbenzene	U		0.00292	0.0144	1	10/22/2018 04:38	WG1184313
tert-Butylbenzene	U		0.00179	0.00576	1	10/22/2018 04:38	WG1184313
Carbon disulfide	U		0.00468	0.0144	1	10/22/2018 04:38	WG1184313
Carbon tetrachloride	U		0.00124	0.00576	1	10/22/2018 04:38	WG1184313
Chlorobenzene	U		0.000660	0.00288	1	10/22/2018 04:38	WG1184313
Chlorodibromomethane	0.000554 J	J	0.000518	0.00288	1	10/22/2018 04:38	WG1184313
Chloroethane	U		0.00124	0.00576	1	10/22/2018 04:38	WG1184313
Chloroform	0.00198 U	B J	0.000478	0.00288	1	10/22/2018 04:38	WG1184313
Chloromethane	U		0.00160	0.0144	1	10/22/2018 04:38	WG1184313
2-Chlorotoluene	U		0.00106	0.00288	1	10/22/2018 04:38	WG1184313
4-Chlorotoluene	U		0.00130	0.00576	1	10/22/2018 04:38	WG1184313
1,2-Dibromo-3-Chloropropane	U		0.00588	0.0288	1	10/22/2018 04:38	WG1184313
1,2-Dibromoethane	U		0.000605	0.00288	1	10/22/2018 04:38	WG1184313
Dibromomethane	U		0.00115	0.00576	1	10/22/2018 04:38	WG1184313
1,2-Dichlorobenzene	U		0.00167	0.00576	1	10/22/2018 04:38	WG1184313
1,3-Dichlorobenzene	U		0.00196	0.00576	1	10/22/2018 04:38	WG1184313
1,4-Dichlorobenzene	U		0.00227	0.00576	1	10/22/2018 04:38	WG1184313
Dichlorodifluoromethane	U		0.000943	0.00288	1	10/22/2018 04:38	WG1184313
1,1-Dichloroethane	U		0.000663	0.00288	1	10/22/2018 04:38	WG1184313
1,2-Dichloroethane	U		0.000547	0.00288	1	10/22/2018 04:38	WG1184313
1,1-Dichloroethene	U		0.000576	0.00288	1	10/22/2018 04:38	WG1184313
cis-1,2-Dichloroethene	0.00359		0.000795	0.00288	1	10/22/2018 04:38	WG1184313
trans-1,2-Dichloroethene	U		0.00165	0.00576	1	10/22/2018 04:38	WG1184313
1,2-Dichloropropane	U		0.00146	0.00576	1	10/22/2018 04:38	WG1184313
1,1-Dichloropropene	U		0.000807	0.00288	1	10/22/2018 04:38	WG1184313
1,3-Dichloropropane	U		0.00202	0.00576	1	10/22/2018 04:38	WG1184313
cis-1,3-Dichloropropene	U		0.000781	0.00288	1	10/22/2018 04:38	WG1184313
trans-1,3-Dichloropropene	U		0.00176	0.00576	1	10/22/2018 04:38	WG1184313
trans-1,4-Dichloro-2-butene	U		0.00161	0.00576	1	10/22/2018 04:38	WG1184313
2,2-Dichloropropane	U U	J4	0.000914	0.00288	1	10/22/2018 04:38	WG1184313
Di-isopropyl ether	U		0.0161	0.0461	40	10/23/2018 22:39	WG1185140
Ethylbenzene	U		0.000611	0.00288	1	10/22/2018 04:38	WG1184313
Hexachloro-1,3-butadiene	U		0.0146	0.0288	1	10/22/2018 04:38	WG1184313
2-Hexanone	U		0.0115	0.0288	1	10/22/2018 04:38	WG1184313
n-Hexane	U		0.00122	0.00576	1	10/22/2018 04:38	WG1184313
Iodomethane	U		0.00697	0.0144	1	10/22/2018 04:38	WG1184313
Isopropylbenzene	U		0.000994	0.00288	1	10/22/2018 04:38	WG1184313
p-Isopropyltoluene	U		0.00268	0.00576	1	10/22/2018 04:38	WG1184313
2-Butanone (MEK)	0.0333		0.0144	0.0288	1	10/22/2018 04:38	WG1184313
Methylene Chloride	U		0.00765	0.0288	1	10/22/2018 04:38	WG1184313
4-Methyl-2-pentanone (MIBK)	U		0.0115	0.0288	1	10/22/2018 04:38	WG1184313

JC 11/14/18

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

Analyte	Result (dry) mg/kg		Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U			0.0136	0.0461	40	10/23/2018 22:39	WG1185140
Naphthalene	U			0.00359	0.0144	1	10/22/2018 04:38	WG1184313
n-Propylbenzene	U			0.00136	0.00576	1	10/22/2018 04:38	WG1184313
Styrene	U			0.00315	0.0144	1	10/22/2018 04:38	WG1184313
1,1,1,2-Tetrachloroethane	U			0.000576	0.00288	1	10/22/2018 04:38	WG1184313
1,1,2,2-Tetrachloroethane	U			0.000449	0.00288	1	10/22/2018 04:38	WG1184313
1,1,2-Trichlorotrifluoroethane	U			0.000778	0.00288	1	10/22/2018 04:38	WG1184313
Tetrachloroethene	25.3	J+	V3	0.0323	0.115	40	10/23/2018 22:39	WG1185140
Toluene	U			0.00144	0.00576	1	10/22/2018 04:38	WG1184313
1,2,3-Trichlorobenzene	U			0.000720	0.00288	1	10/22/2018 04:38	WG1184313
1,2,4-Trichlorobenzene	U			0.222	0.576	40	10/23/2018 22:39	WG1185140
1,1,1-Trichloroethane	U			0.000317	0.00288	1	10/22/2018 04:38	WG1184313
1,1,2-Trichloroethane	U			0.00102	0.00288	1	10/22/2018 04:38	WG1184313
Trichloroethene	U			0.0184	0.0461	40	10/23/2018 22:39	WG1185140
Trichlorofluoromethane	U			0.000576	0.00288	1	10/22/2018 04:38	WG1184313
1,2,3-Trichloropropane	U			0.00588	0.0144	1	10/22/2018 04:38	WG1184313
1,2,4-Trimethylbenzene	U			0.00134	0.00576	1	10/22/2018 04:38	WG1184313
1,2,3-Trimethylbenzene	U			0.00133	0.00576	1	10/22/2018 04:38	WG1184313
1,3,5-Trimethylbenzene	U			0.00124	0.00576	1	10/22/2018 04:38	WG1184313
Vinyl acetate	U			0.00406	0.0144	1	10/22/2018 04:38	WG1184313
Vinyl chloride	U			0.000787	0.00288	1	10/22/2018 04:38	WG1184313
Xylenes, Total	U			0.00551	0.00749	1	10/22/2018 04:38	WG1184313
(S) Toluene-d8	*97.2*				*75.0-131*		*10/22/2018 04:38*	WG1184313
(S) Toluene-d8	*127*				*75.0-131*		*10/23/2018 22:39*	WG1185140
(S) Dibromofluoromethane	*111*				*65.0-129*		*10/22/2018 04:38*	WG1184313
(S) Dibromofluoromethane	*94.6*				*65.0-129*		*10/23/2018 22:39*	WG1185140
(S) 4-Bromofluorobenzene	*122*				*67.0-138*		*10/22/2018 04:38*	WG1184313
(S) 4-Bromofluorobenzene	*84.5*				*67.0-138*		*10/23/2018 22:39*	WG1185140

Sample Narrative:

L1036155-23 WG1184313, WG1185140: Not all compounds reportable at lower dilution.

L1036155-23 WG1184313, WG1185140: Cannot be reanalyzed at a lower dilution due to high levels of target analytes.

JC 11/14/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	91.0		1	10/24/2018 09:40	WG1184862

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch	
	mg/kg		mg/kg	mg/kg		date / time		
Acetone	U		0.0151	0.0275	1	10/22/2018 04:58	WG1184313	
Acrylonitrile	U		0.00209	0.0137	1	10/22/2018 04:58	WG1184313	
Benzene	U		0.00879	0.0220	20	10/23/2018 22:19	WG1185140	
Bromobenzene	U		0.00115	0.0137	1	10/22/2018 04:58	WG1184313	
Bromodichloromethane	U		0.000866	0.00275	1	10/22/2018 04:58	WG1184313	
Bromochloromethane	U		0.00124	0.00549	1	10/22/2018 04:58	WG1184313	
Bromoform	U		0.00657	0.0275	1	10/22/2018 04:58	WG1184313	
Bromomethane	U		0.00407	0.0137	1	10/22/2018 04:58	WG1184313	
n-Butylbenzene	U		0.00422	0.0137	1	10/22/2018 04:58	WG1184313	
sec-Butylbenzene	U		0.00278	0.0137	1	10/22/2018 04:58	WG1184313	
tert-Butylbenzene	U		0.00170	0.00549	1	10/22/2018 04:58	WG1184313	
Carbon disulfide	U		0.00446	0.0137	1	10/22/2018 04:58	WG1184313	
Carbon tetrachloride	U		0.00119	0.00549	1	10/22/2018 04:58	WG1184313	
Chlorobenzene	U		0.000630	0.00275	1	10/22/2018 04:58	WG1184313	
Chlorodibromomethane	U		0.000494	0.00275	1	10/22/2018 04:58	WG1184313	
Chloroethane	U		0.00119	0.00549	1	10/22/2018 04:58	WG1184313	
Chloroform	0.00171	U B J	0.000456	0.00275	1	10/22/2018 04:58	WG1184313	
Chloromethane	U		0.00153	0.0137	1	10/22/2018 04:58	WG1184313	
2-Chlorotoluene	U		0.00101	0.00275	1	10/22/2018 04:58	WG1184313	
4-Chlorotoluene	U		0.00124	0.00549	1	10/22/2018 04:58	WG1184313	
1,2-Dibromo-3-Chloropropane	U		0.00560	0.0275	1	10/22/2018 04:58	WG1184313	
1,2-Dibromoethane	U		0.000577	0.00275	1	10/22/2018 04:58	WG1184313	
Dibromomethane	U		0.00110	0.00549	1	10/22/2018 04:58	WG1184313	
1,2-Dichlorobenzene	U		0.00159	0.00549	1	10/22/2018 04:58	WG1184313	
1,3-Dichlorobenzene	U		0.00187	0.00549	1	10/22/2018 04:58	WG1184313	
1,4-Dichlorobenzene	U		0.00216	0.00549	1	10/22/2018 04:58	WG1184313	
Dichlorodifluoromethane	U		0.000899	0.00275	1	10/22/2018 04:58	WG1184313	
1,1-Dichloroethane	U		0.000632	0.00275	1	10/22/2018 04:58	WG1184313	
1,2-Dichloroethane	U		0.000522	0.00275	1	10/22/2018 04:58	WG1184313	
1,1-Dichloroethene	U		0.000549	0.00275	1	10/22/2018 04:58	WG1184313	
cis-1,2-Dichloroethene	0.00353		0.000758	0.00275	1	10/22/2018 04:58	WG1184313	
trans-1,2-Dichloroethene	U		0.00157	0.00549	1	10/22/2018 04:58	WG1184313	
1,2-Dichloropropane	U		0.00140	0.00549	1	10/22/2018 04:58	WG1184313	
1,1-Dichloropropene	U		0.000769	0.00275	1	10/22/2018 04:58	WG1184313	
1,3-Dichloropropane	U		0.00192	0.00549	1	10/22/2018 04:58	WG1184313	
cis-1,3-Dichloropropene	U		0.000745	0.00275	1	10/22/2018 04:58	WG1184313	
trans-1,3-Dichloropropene	U		0.00168	0.00549	1	10/22/2018 04:58	WG1184313	
trans-1,4-Dichloro-2-butene	U		0.00154	0.00549	1	10/22/2018 04:58	WG1184313	
2,2-Dichloropropane	U	U J4	0.000871	0.00275	1	10/22/2018 04:58	WG1184313	
Di-isopropyl ether	U		0.00769	0.0220	20	10/23/2018 22:19	WG1185140	
Ethylbenzene	U		0.000582	0.00275	1	10/22/2018 04:58	WG1184313	
Hexachloro-1,3-butadiene	U		0.0140	0.0275	1	10/22/2018 04:58	WG1184313	
2-Hexanone	U		0.0110	0.0275	1	10/22/2018 04:58	WG1184313	
n-Hexane	U		0.00116	0.00549	1	10/22/2018 04:58	WG1184313	
Iodomethane	U		0.00665	0.0137	1	10/22/2018 04:58	WG1184313	
Isopropylbenzene	U		0.000948	0.00275	1	10/22/2018 04:58	WG1184313	
p-Isopropyltoluene	U		0.00256	0.00549	1	10/22/2018 04:58	WG1184313	JC 11/14/18
2-Butanone (MEK)	0.0179	J J	0.0137	0.0275	1	10/22/2018 04:58	WG1184313	
Methylene Chloride	U		0.00730	0.0275	1	10/22/2018 04:58	WG1184313	
4-Methyl-2-pentanone (MIBK)	U		0.0110	0.0275	1	10/22/2018 04:58	WG1184313	

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.00648	0.0220	20	10/23/2018 22:19	WG1185140
Naphthalene	U		0.00343	0.0137	1	10/22/2018 04:58	WG1184313
n-Propylbenzene	U		0.00130	0.00549	1	10/22/2018 04:58	WG1184313
Styrene	U		0.00300	0.0137	1	10/22/2018 04:58	WG1184313
1,1,1,2-Tetrachloroethane	U		0.000549	0.00275	1	10/22/2018 04:58	WG1184313
1,1,2,2-Tetrachloroethane	U		0.000429	0.00275	1	10/22/2018 04:58	WG1184313
1,1,2-Trichlorotrifluoroethane	U		0.000742	0.00275	1	10/22/2018 04:58	WG1184313
Tetrachloroethene	13.1		0.0154	0.0549	20	10/23/2018 22:19	WG1185140
Toluene	U		0.00137	0.00549	1	10/22/2018 04:58	WG1184313
1,2,3-Trichlorobenzene	U		0.000687	0.00275	1	10/22/2018 04:58	WG1184313
1,2,4-Trichlorobenzene	U		0.106	0.275	20	10/23/2018 22:19	WG1185140
1,1,1-Trichloroethane	U		0.000302	0.00275	1	10/22/2018 04:58	WG1184313
1,1,2-Trichloroethane	U		0.000970	0.00275	1	10/22/2018 04:58	WG1184313
Trichloroethene	0.0284		0.00879	0.0220	20	10/23/2018 22:19	WG1185140
Trichlorofluoromethane	U		0.000549	0.00275	1	10/22/2018 04:58	WG1184313
1,2,3-Trichloropropane	U		0.00560	0.0137	1	10/22/2018 04:58	WG1184313
1,2,4-Trimethylbenzene	0.00228	J	0.00127	0.00549	1	10/22/2018 04:58	WG1184313
1,2,3-Trimethylbenzene	U		0.00126	0.00549	1	10/22/2018 04:58	WG1184313
1,3,5-Trimethylbenzene	U		0.00119	0.00549	1	10/22/2018 04:58	WG1184313
Vinyl acetate	U		0.00387	0.0137	1	10/22/2018 04:58	WG1184313
Vinyl chloride	U		0.000750	0.00275	1	10/22/2018 04:58	WG1184313
Xylenes, Total	U		0.00525	0.00714	1	10/22/2018 04:58	WG1184313
(S) Toluene-d8	*96.7*			*75.0-131*		*10/22/2018 04:58*	WG1184313
(S) Toluene-d8	*116*			*75.0-131*		*10/23/2018 22:19*	WG1185140
(S) Dibromofluoromethane	*112*			*65.0-129*		*10/22/2018 04:58*	WG1184313
(S) Dibromofluoromethane	*102*			*65.0-129*		*10/23/2018 22:19*	WG1185140
(S) 4-Bromofluorobenzene	*121*			*67.0-138*		*10/22/2018 04:58*	WG1184313
(S) 4-Bromofluorobenzene	*87.8*			*67.0-138*		*10/23/2018 22:19*	WG1185140

Sample Narrative:

L1036155-24 WG1184313, WG1185140: Not all compounds reportable at lower dilution.

L1036155-24 WG1184313, WG1185140: Cannot be reanalyzed at a lower dilution due to high levels of target analytes.

JC 11/14/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	89.0		1	10/24/2018 09:40	WG1184862

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0154	0.0281	1	10/22/2018 05:18	WG1184313
Acrylonitrile	U		0.00214	0.0140	1	10/22/2018 05:18	WG1184313
Benzene	U		0.0899	0.225	200	10/23/2018 23:20	WG1185140
Bromobenzene	U		0.00118	0.0140	1	10/22/2018 05:18	WG1184313
Bromodichloromethane	U		0.000886	0.00281	1	10/22/2018 05:18	WG1184313
Bromochloromethane	U		0.00127	0.00562	1	10/22/2018 05:18	WG1184313
Bromoform	U		0.00672	0.0281	1	10/22/2018 05:18	WG1184313
Bromomethane	U		0.00416	0.0140	1	10/22/2018 05:18	WG1184313
n-Butylbenzene	U		0.00432	0.0140	1	10/22/2018 05:18	WG1184313
sec-Butylbenzene	U		0.00284	0.0140	1	10/22/2018 05:18	WG1184313
tert-Butylbenzene	U		0.00174	0.00562	1	10/22/2018 05:18	WG1184313
Carbon disulfide	U		0.00456	0.0140	1	10/22/2018 05:18	WG1184313
Carbon tetrachloride	U		0.00121	0.00562	1	10/22/2018 05:18	WG1184313
Chlorobenzene	U		0.000644	0.00281	1	10/22/2018 05:18	WG1184313
Chlorodibromomethane	0.000852 J	J	0.000506	0.00281	1	10/22/2018 05:18	WG1184313
Chloroethane	U		0.00121	0.00562	1	10/22/2018 05:18	WG1184313
Chloroform	0.00214 U	B J	0.000466	0.00281	1	10/22/2018 05:18	WG1184313
Chloromethane	U		0.00156	0.0140	1	10/22/2018 05:18	WG1184313
2-Chlorotoluene	U		0.00103	0.00281	1	10/22/2018 05:18	WG1184313
4-Chlorotoluene	U		0.00127	0.00562	1	10/22/2018 05:18	WG1184313
1,2-Dibromo-3-Chloropropane	U		0.00573	0.0281	1	10/22/2018 05:18	WG1184313
1,2-Dibromoethane	U		0.000590	0.00281	1	10/22/2018 05:18	WG1184313
Dibromomethane	U		0.00112	0.00562	1	10/22/2018 05:18	WG1184313
1,2-Dichlorobenzene	U		0.00163	0.00562	1	10/22/2018 05:18	WG1184313
1,3-Dichlorobenzene	U		0.00191	0.00562	1	10/22/2018 05:18	WG1184313
1,4-Dichlorobenzene	U		0.00221	0.00562	1	10/22/2018 05:18	WG1184313
Dichlorodifluoromethane	U		0.000919	0.00281	1	10/22/2018 05:18	WG1184313
1,1-Dichloroethane	U		0.000646	0.00281	1	10/22/2018 05:18	WG1184313
1,2-Dichloroethane	U		0.000534	0.00281	1	10/22/2018 05:18	WG1184313
1,1-Dichloroethene	0.00239 J	J	0.000562	0.00281	1	10/22/2018 05:18	WG1184313
cis-1,2-Dichloroethene	0.105		0.000775	0.00281	1	10/22/2018 05:18	WG1184313
trans-1,2-Dichloroethene	0.00200 J	J	0.00161	0.00562	1	10/22/2018 05:18	WG1184313
1,2-Dichloropropane	U		0.00143	0.00562	1	10/22/2018 05:18	WG1184313
1,1-Dichloropropene	U		0.000787	0.00281	1	10/22/2018 05:18	WG1184313
1,3-Dichloropropane	U		0.00197	0.00562	1	10/22/2018 05:18	WG1184313
cis-1,3-Dichloropropene	U		0.000762	0.00281	1	10/22/2018 05:18	WG1184313
trans-1,3-Dichloropropene	U		0.00172	0.00562	1	10/22/2018 05:18	WG1184313
trans-1,4-Dichloro-2-butene	U		0.00157	0.00562	1	10/22/2018 05:18	WG1184313
2,2-Dichloropropane	U U	J4	0.000891	0.00281	1	10/22/2018 05:18	WG1184313
Di-isopropyl ether	U		0.0787	0.225	200	10/23/2018 23:20	WG1185140
Ethylbenzene	0.000806 J	J	0.000596	0.00281	1	10/22/2018 05:18	WG1184313
Hexachloro-1,3-butadiene	U		0.0143	0.0281	1	10/22/2018 05:18	WG1184313
2-Hexanone	U		0.0112	0.0281	1	10/22/2018 05:18	WG1184313
n-Hexane	U		0.00119	0.00562	1	10/22/2018 05:18	WG1184313
Iodomethane	U		0.00680	0.0140	1	10/22/2018 05:18	WG1184313
Isopropylbenzene	U		0.000970	0.00281	1	10/22/2018 05:18	WG1184313
p-Isopropyltoluene	0.00394 J	J	0.00262	0.00562	1	10/22/2018 05:18	WG1184313
2-Butanone (MEK)	0.0256 J	J	0.0140	0.0281	1	10/22/2018 05:18	WG1184313
Methylene Chloride	U		0.00746	0.0281	1	10/22/2018 05:18	WG1184313
4-Methyl-2-pentanone (MIBK)	U		0.0112	0.0281	1	10/22/2018 05:18	WG1184313

JC 11/14/18

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

Analyte	Result (dry) mg/kg		Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U			0.0663	0.225	200	10/23/2018 23:20	WG1185140
Naphthalene	U			0.00351	0.0140	1	10/22/2018 05:18	WG1184313
n-Propylbenzene	0.00321	J	J	0.00133	0.00562	1	10/22/2018 05:18	WG1184313
Styrene	U			0.00307	0.0140	1	10/22/2018 05:18	WG1184313
1,1,1,2-Tetrachloroethane	U			0.000562	0.00281	1	10/22/2018 05:18	WG1184313
1,1,2,2-Tetrachloroethane	U			0.000438	0.00281	1	10/22/2018 05:18	WG1184313
1,1,2-Trichlorotrifluoroethane	U			0.000759	0.00281	1	10/22/2018 05:18	WG1184313
Tetrachloroethene	112	J+	V3	0.157	0.562	200	10/23/2018 23:20	WG1185140
Toluene	0.00203	J	J	0.00140	0.00562	1	10/22/2018 05:18	WG1184313
1,2,3-Trichlorobenzene	U			0.000702	0.00281	1	10/22/2018 05:18	WG1184313
1,2,4-Trichlorobenzene	U			1.08	2.81	200	10/23/2018 23:20	WG1185140
1,1,1-Trichloroethane	U			0.000309	0.00281	1	10/22/2018 05:18	WG1184313
1,1,2-Trichloroethane	U			0.000992	0.00281	1	10/22/2018 05:18	WG1184313
Trichloroethene	0.908			0.0899	0.225	200	10/23/2018 23:20	WG1185140
Trichlorofluoromethane	U			0.000562	0.00281	1	10/22/2018 05:18	WG1184313
1,2,3-Trichloropropane	U			0.00573	0.0140	1	10/22/2018 05:18	WG1184313
1,2,4-Trimethylbenzene	0.0136			0.00130	0.00562	1	10/22/2018 05:18	WG1184313
1,2,3-Trimethylbenzene	0.00393	J	J	0.00129	0.00562	1	10/22/2018 05:18	WG1184313
1,3,5-Trimethylbenzene	0.00399	J	J	0.00121	0.00562	1	10/22/2018 05:18	WG1184313
Vinyl acetate	U			0.00396	0.0140	1	10/22/2018 05:18	WG1184313
Vinyl chloride	U			0.000768	0.00281	1	10/22/2018 05:18	WG1184313
Xylenes, Total	U			0.00537	0.00730	1	10/22/2018 05:18	WG1184313
(S) Toluene-d8	*89.7*				*75.0-131*		*10/22/2018 05:18*	WG1184313
(S) Toluene-d8	*120*				*75.0-131*		*10/23/2018 23:20*	WG1185140
(S) Dibromofluoromethane	*111*				*65.0-129*		*10/22/2018 05:18*	WG1184313
(S) Dibromofluoromethane	*95.1*				*65.0-129*		*10/23/2018 23:20*	WG1185140
(S) 4-Bromofluorobenzene	*121*				*67.0-138*		*10/22/2018 05:18*	WG1184313
(S) 4-Bromofluorobenzene	*78.4*				*67.0-138*		*10/23/2018 23:20*	WG1185140

Sample Narrative:

L1036155-25 WG1184313, WG1185140: Not all compounds reportable at lower dilution.

L1036155-25 WG1184313, WG1185140: Cannot be reanalyzed at a lower dilution due to high levels of target analytes.

JC 11/14/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	84.9		1	10/24/2018 09:40	WG1184862

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		1.30	2.36	80	10/24/2018 01:06	WG1185221
Acrylonitrile	U		0.00224	0.0147	1	10/22/2018 15:59	WG1184455
Benzene	U		0.000471	0.00118	1	10/22/2018 15:59	WG1184455
Bromobenzene	U		0.00124	0.0147	1	10/22/2018 15:59	WG1184455
Bromodichloromethane	U		0.000928	0.00294	1	10/22/2018 15:59	WG1184455
Bromochloromethane	U		0.00133	0.00589	1	10/22/2018 15:59	WG1184455
Bromoform	U		0.00704	0.0294	1	10/22/2018 15:59	WG1184455
Bromomethane	U		0.00436	0.0147	1	10/22/2018 15:59	WG1184455
n-Butylbenzene	U		0.00452	0.0147	1	10/22/2018 15:59	WG1184455
sec-Butylbenzene	U		0.00298	0.0147	1	10/22/2018 15:59	WG1184455
tert-Butylbenzene	U		0.00183	0.00589	1	10/22/2018 15:59	WG1184455
Carbon disulfide	U		0.00478	0.0147	1	10/22/2018 15:59	WG1184455
Carbon tetrachloride	U		0.00127	0.00589	1	10/22/2018 15:59	WG1184455
Chlorobenzene	U		0.000675	0.00294	1	10/22/2018 15:59	WG1184455
Chlorodibromomethane	U		0.000530	0.00294	1	10/22/2018 15:59	WG1184455
Chloroethane	U		0.00127	0.00589	1	10/22/2018 15:59	WG1184455
Chloroform	0.00115	U	0.000489	0.00294	1	10/22/2018 15:59	WG1184455
Chloromethane	U		0.00164	0.0147	1	10/22/2018 15:59	WG1184455
2-Chlorotoluene	U		0.00108	0.00294	1	10/22/2018 15:59	WG1184455
4-Chlorotoluene	U		0.00133	0.00589	1	10/22/2018 15:59	WG1184455
1,2-Dibromo-3-Chloropropane	U		0.00601	0.0294	1	10/22/2018 15:59	WG1184455
1,2-Dibromoethane	U		0.000618	0.00294	1	10/22/2018 15:59	WG1184455
Dibromomethane	U		0.00118	0.00589	1	10/22/2018 15:59	WG1184455
1,2-Dichlorobenzene	U		0.00171	0.00589	1	10/22/2018 15:59	WG1184455
1,3-Dichlorobenzene	U		0.00200	0.00589	1	10/22/2018 15:59	WG1184455
1,4-Dichlorobenzene	U		0.00232	0.00589	1	10/22/2018 15:59	WG1184455
Dichlorodifluoromethane	U		0.0770	0.236	80	10/24/2018 01:06	WG1185221
1,1-Dichloroethane	U		0.000677	0.00294	1	10/22/2018 15:59	WG1184455
1,2-Dichloroethane	U		0.000560	0.00294	1	10/22/2018 15:59	WG1184455
1,1-Dichloroethene	U		0.000589	0.00294	1	10/22/2018 15:59	WG1184455
cis-1,2-Dichloroethene	U		0.0650	0.236	80	10/24/2018 01:06	WG1185221
trans-1,2-Dichloroethene	U		0.00168	0.00589	1	10/22/2018 15:59	WG1184455
1,2-Dichloropropane	U		0.00150	0.00589	1	10/22/2018 15:59	WG1184455
1,1-Dichloropropene	U		0.000825	0.00294	1	10/22/2018 15:59	WG1184455
1,3-Dichloropropane	U		0.00206	0.00589	1	10/22/2018 15:59	WG1184455
cis-1,3-Dichloropropene	U		0.000799	0.00294	1	10/22/2018 15:59	WG1184455
trans-1,3-Dichloropropene	U	U J4	0.00180	0.00589	1	10/22/2018 15:59	WG1184455
trans-1,4-Dichloro-2-butene	U		0.00165	0.00589	1	10/22/2018 15:59	WG1184455
2,2-Dichloropropane	U		0.000934	0.00294	1	10/22/2018 15:59	WG1184455
Di-isopropyl ether	U		0.000412	0.00118	1	10/22/2018 15:59	WG1184455
Ethylbenzene	0.00214	J J	0.000624	0.00294	1	10/22/2018 15:59	WG1184455
Hexachloro-1,3-butadiene	U		0.0150	0.0294	1	10/22/2018 15:59	WG1184455
2-Hexanone	U		0.0118	0.0294	1	10/22/2018 15:59	WG1184455
n-Hexane	U		0.00125	0.00589	1	10/22/2018 15:59	WG1184455
Iodomethane	U		0.00713	0.0147	1	10/22/2018 15:59	WG1184455
Isopropylbenzene	U		0.00102	0.00294	1	10/22/2018 15:59	WG1184455
p-Isopropyltoluene	U		0.00274	0.00589	1	10/22/2018 15:59	WG1184455
2-Butanone (MEK)	0.0207	J J	0.0147	0.0294	1	10/22/2018 15:59	WG1184455
Methylene Chloride	U		0.00782	0.0294	1	10/22/2018 15:59	WG1184455
4-Methyl-2-pentanone (MIBK)	U		0.0118	0.0294	1	10/22/2018 15:59	WG1184455

JC 11/14/18

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

Analyte	Result (dry) mg/kg		Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U			0.000348	0.00118	1	10/22/2018 15:59	WG1184455
Naphthalene	0.00764	J	J	0.00368	0.0147	1	10/22/2018 15:59	WG1184455
n-Propylbenzene	U			0.00139	0.00589	1	10/22/2018 15:59	WG1184455
Styrene	U			0.00322	0.0147	1	10/22/2018 15:59	WG1184455
1,1,1,2-Tetrachloroethane	U	U	J4	0.000589	0.00294	1	10/22/2018 15:59	WG1184455
1,1,2,2-Tetrachloroethane	U			0.0368	0.236	80	10/24/2018 01:06	WG1185221
1,1,2-Trichlorotrifluoroethane	U			0.000795	0.00294	1	10/22/2018 15:59	WG1184455
Tetrachloroethene	14.4	J	J0	0.0660	0.236	80	10/24/2018 01:06	WG1185221
Toluene	0.00858			0.00147	0.00589	1	10/22/2018 15:59	WG1184455
1,2,3-Trichlorobenzene	U			0.0589	0.236	80	10/24/2018 01:06	WG1185221
1,2,4-Trichlorobenzene	U			0.00568	0.0147	1	10/22/2018 15:59	WG1184455
1,1,1-Trichloroethane	U			0.000324	0.00294	1	10/22/2018 15:59	WG1184455
1,1,2-Trichloroethane	U			0.00104	0.00294	1	10/22/2018 15:59	WG1184455
Trichloroethene	0.0142			0.000471	0.00118	1	10/22/2018 15:59	WG1184455
Trichlorofluoromethane	U			0.000589	0.00294	1	10/22/2018 15:59	WG1184455
1,2,3-Trichloropropane	U			0.00601	0.0147	1	10/22/2018 15:59	WG1184455
1,2,4-Trimethylbenzene	0.00354	J	J	0.00137	0.00589	1	10/22/2018 15:59	WG1184455
1,2,3-Trimethylbenzene	U			0.00135	0.00589	1	10/22/2018 15:59	WG1184455
1,3,5-Trimethylbenzene	U			0.00127	0.00589	1	10/22/2018 15:59	WG1184455
Vinyl acetate	U			0.00415	0.0147	1	10/22/2018 15:59	WG1184455
Vinyl chloride	U			0.000805	0.00294	1	10/22/2018 15:59	WG1184455
Xylenes, Total	0.00775			0.00563	0.00766	1	10/22/2018 15:59	WG1184455
(S) Toluene-d8	*115*				*75.0-131*		*10/22/2018 15:59*	WG1184455
(S) Toluene-d8	*97.2*				*75.0-131*		*10/24/2018 01:06*	WG1185221
(S) Dibromofluoromethane	*88.8*				*65.0-129*		*10/22/2018 15:59*	WG1184455
(S) Dibromofluoromethane	*120*				*65.0-129*		*10/24/2018 01:06*	WG1185221
(S) 4-Bromofluorobenzene	*93.4*				*67.0-138*		*10/22/2018 15:59*	WG1184455
(S) 4-Bromofluorobenzene	*123*				*67.0-138*		*10/24/2018 01:06*	WG1185221

Sample Narrative:

L1036155-26 WG1185221, WG1184455: Cannot be reanalyzed at a lower dilution due to high levels of target analytes.

L1036155-26 WG1185221, WG1184455: Not all compounds reportable at lower dilution.

JC 11/14/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	90.9		1	10/24/2018 09:40	WG1184862

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	0.0214 J	J	0.0151	0.0275	1	10/23/2018 16:01	WG1185221
Acrylonitrile	U		0.00209	0.0137	1	10/22/2018 16:17	WG1184455
Benzene	U		0.000440	0.00110	1	10/22/2018 16:17	WG1184455
Bromobenzene	U		0.00115	0.0137	1	10/22/2018 16:17	WG1184455
Bromodichloromethane	U		0.000867	0.00275	1	10/22/2018 16:17	WG1184455
Bromochloromethane	U		0.00124	0.00550	1	10/22/2018 16:17	WG1184455
Bromoform	U		0.00658	0.0275	1	10/22/2018 16:17	WG1184455
Bromomethane	U		0.00407	0.0137	1	10/22/2018 16:17	WG1184455
n-Butylbenzene	U		0.00422	0.0137	1	10/22/2018 16:17	WG1184455
sec-Butylbenzene	U		0.00278	0.0137	1	10/22/2018 16:17	WG1184455
tert-Butylbenzene	U		0.00170	0.00550	1	10/22/2018 16:17	WG1184455
Carbon disulfide	U		0.00447	0.0137	1	10/22/2018 16:17	WG1184455
Carbon tetrachloride	U		0.00119	0.00550	1	10/22/2018 16:17	WG1184455
Chlorobenzene	U		0.000630	0.00275	1	10/22/2018 16:17	WG1184455
Chlorodibromomethane	U		0.000495	0.00275	1	10/22/2018 16:17	WG1184455
Chloroethane	U		0.00119	0.00550	1	10/22/2018 16:17	WG1184455
Chloroform	U		0.000456	0.00275	1	10/22/2018 16:17	WG1184455
Chloromethane	U		0.00153	0.0137	1	10/22/2018 16:17	WG1184455
2-Chlorotoluene	U		0.00101	0.00275	1	10/22/2018 16:17	WG1184455
4-Chlorotoluene	U		0.00124	0.00550	1	10/22/2018 16:17	WG1184455
1,2-Dibromo-3-Chloropropane	U		0.00561	0.0275	1	10/22/2018 16:17	WG1184455
1,2-Dibromoethane	U		0.000577	0.00275	1	10/22/2018 16:17	WG1184455
Dibromomethane	U		0.00110	0.00550	1	10/22/2018 16:17	WG1184455
1,2-Dichlorobenzene	U		0.00159	0.00550	1	10/22/2018 16:17	WG1184455
1,3-Dichlorobenzene	U		0.00187	0.00550	1	10/22/2018 16:17	WG1184455
1,4-Dichlorobenzene	U		0.00217	0.00550	1	10/22/2018 16:17	WG1184455
Dichlorodifluoromethane	U		0.000900	0.00275	1	10/23/2018 16:01	WG1185221
1,1-Dichloroethane	U		0.000632	0.00275	1	10/22/2018 16:17	WG1184455
1,2-Dichloroethane	U		0.000522	0.00275	1	10/22/2018 16:17	WG1184455
1,1-Dichloroethene	U		0.000550	0.00275	1	10/22/2018 16:17	WG1184455
cis-1,2-Dichloroethene	0.00981		0.000759	0.00275	1	10/23/2018 16:01	WG1185221
trans-1,2-Dichloroethene	U		0.00157	0.00550	1	10/22/2018 16:17	WG1184455
1,2-Dichloropropane	U		0.00140	0.00550	1	10/22/2018 16:17	WG1184455
1,1-Dichloropropene	U		0.000770	0.00275	1	10/22/2018 16:17	WG1184455
1,3-Dichloropropane	U		0.00192	0.00550	1	10/22/2018 16:17	WG1184455
cis-1,3-Dichloropropene	U		0.000746	0.00275	1	10/22/2018 16:17	WG1184455
trans-1,3-Dichloropropene	U U	J4	0.00168	0.00550	1	10/22/2018 16:17	WG1184455
trans-1,4-Dichloro-2-butene	U		0.00154	0.00550	1	10/22/2018 16:17	WG1184455
2,2-Dichloropropane	U		0.000872	0.00275	1	10/22/2018 16:17	WG1184455
Di-isopropyl ether	U		0.000385	0.00110	1	10/22/2018 16:17	WG1184455
Ethylbenzene	U		0.000583	0.00275	1	10/22/2018 16:17	WG1184455
Hexachloro-1,3-butadiene	U		0.0140	0.0275	1	10/22/2018 16:17	WG1184455
2-Hexanone	U		0.0110	0.0275	1	10/22/2018 16:17	WG1184455
n-Hexane	U		0.00117	0.00550	1	10/23/2018 16:01	WG1185221
Iodomethane	U		0.00665	0.0137	1	10/22/2018 16:17	WG1184455
Isopropylbenzene	U		0.000949	0.00275	1	10/22/2018 16:17	WG1184455
p-Isopropyltoluene	U		0.00256	0.00550	1	10/22/2018 16:17	WG1184455
2-Butanone (MEK)	U		0.0137	0.0275	1	10/22/2018 16:17	WG1184455
Methylene Chloride	U		0.00730	0.0275	1	10/22/2018 16:17	WG1184455
4-Methyl-2-pentanone (MIBK)	U		0.0110	0.0275	1	10/22/2018 16:17	WG1184455

JC 11/14/18

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000324	0.00110	1	10/22/2018 16:17	WG1184455
Naphthalene	U		0.00343	0.0137	1	10/22/2018 16:17	WG1184455
n-Propylbenzene	U		0.00130	0.00550	1	10/22/2018 16:17	WG1184455
Styrene	U		0.00300	0.0137	1	10/22/2018 16:17	WG1184455
1,1,1,2-Tetrachloroethane	U	U J4	0.000550	0.00275	1	10/22/2018 16:17	WG1184455
1,1,2,2-Tetrachloroethane	U		0.000429	0.00275	1	10/23/2018 16:01	WG1185221
1,1,2-Trichlorotrifluoroethane	U		0.000742	0.00275	1	10/22/2018 16:17	WG1184455
Tetrachloroethene	0.612		0.000770	0.00275	1	10/24/2018 23:43	WG1185845
Toluene	U		0.00137	0.00550	1	10/22/2018 16:17	WG1184455
1,2,3-Trichlorobenzene	U		0.000687	0.00275	1	10/23/2018 16:01	WG1185221
1,2,4-Trichlorobenzene	U		0.00530	0.0137	1	10/22/2018 16:17	WG1184455
1,1,1-Trichloroethane	U		0.000302	0.00275	1	10/22/2018 16:17	WG1184455
1,1,2-Trichloroethane	U		0.000971	0.00275	1	10/22/2018 16:17	WG1184455
Trichloroethene	0.00725		0.000440	0.00110	1	10/22/2018 16:17	WG1184455
Trichlorofluoromethane	U		0.000550	0.00275	1	10/22/2018 16:17	WG1184455
1,2,3-Trichloropropane	U		0.00561	0.0137	1	10/22/2018 16:17	WG1184455
1,2,4-Trimethylbenzene	U		0.00128	0.00550	1	10/22/2018 16:17	WG1184455
1,2,3-Trimethylbenzene	U		0.00126	0.00550	1	10/22/2018 16:17	WG1184455
1,3,5-Trimethylbenzene	U		0.00119	0.00550	1	10/22/2018 16:17	WG1184455
Vinyl acetate	U		0.00387	0.0137	1	10/22/2018 16:17	WG1184455
Vinyl chloride	U		0.000751	0.00275	1	10/22/2018 16:17	WG1184455
Xylenes, Total	U		0.00526	0.00715	1	10/22/2018 16:17	WG1184455
(S) Toluene-d8	*107*			*75.0-131*		*10/22/2018 16:17*	WG1184455
(S) Toluene-d8	*101*			*75.0-131*		*10/23/2018 16:01*	WG1185221
(S) Toluene-d8	*107*			*75.0-131*		*10/24/2018 23:43*	WG1185845
(S) Dibromofluoromethane	*87.3*			*65.0-129*		*10/22/2018 16:17*	WG1184455
(S) Dibromofluoromethane	*114*			*65.0-129*		*10/23/2018 16:01*	WG1185221
(S) Dibromofluoromethane	*97.8*			*65.0-129*		*10/24/2018 23:43*	WG1185845
(S) 4-Bromofluorobenzene	*91.7*			*67.0-138*		*10/22/2018 16:17*	WG1184455
(S) 4-Bromofluorobenzene	*121*			*67.0-138*		*10/23/2018 16:01*	WG1185221
(S) 4-Bromofluorobenzene	*103*			*67.0-138*		*10/24/2018 23:43*	WG1185845

JC 11/14/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	89.8		1	10/24/2018 09:40	WG1184862

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0153	0.0278	1	10/23/2018 16:21	WG1185221
Acrylonitrile	U		0.00212	0.0139	1	10/22/2018 16:36	WG1184455
Benzene	U		0.000445	0.00111	1	10/22/2018 16:36	WG1184455
Bromobenzene	U		0.00117	0.0139	1	10/22/2018 16:36	WG1184455
Bromodichloromethane	U		0.000878	0.00278	1	10/22/2018 16:36	WG1184455
Bromochloromethane	U		0.00126	0.00557	1	10/22/2018 16:36	WG1184455
Bromoform	U		0.00666	0.0278	1	10/22/2018 16:36	WG1184455
Bromomethane	U		0.00412	0.0139	1	10/22/2018 16:36	WG1184455
n-Butylbenzene	U		0.00428	0.0139	1	10/22/2018 16:36	WG1184455
sec-Butylbenzene	U		0.00282	0.0139	1	10/22/2018 16:36	WG1184455
tert-Butylbenzene	U		0.00173	0.00557	1	10/22/2018 16:36	WG1184455
Carbon disulfide	U		0.00452	0.0139	1	10/22/2018 16:36	WG1184455
Carbon tetrachloride	U		0.00120	0.00557	1	10/22/2018 16:36	WG1184455
Chlorobenzene	U		0.000638	0.00278	1	10/22/2018 16:36	WG1184455
Chlorodibromomethane	U		0.000501	0.00278	1	10/22/2018 16:36	WG1184455
Chloroethane	U		0.00120	0.00557	1	10/22/2018 16:36	WG1184455
Chloroform	0.00103	U B J	0.000462	0.00278	1	10/22/2018 16:36	WG1184455
Chloromethane	U		0.00155	0.0139	1	10/22/2018 16:36	WG1184455
2-Chlorotoluene	U		0.00102	0.00278	1	10/22/2018 16:36	WG1184455
4-Chlorotoluene	U		0.00126	0.00557	1	10/22/2018 16:36	WG1184455
1,2-Dibromo-3-Chloropropane	U		0.00568	0.0278	1	10/22/2018 16:36	WG1184455
1,2-Dibromoethane	U		0.000585	0.00278	1	10/22/2018 16:36	WG1184455
Dibromomethane	U		0.00111	0.00557	1	10/22/2018 16:36	WG1184455
1,2-Dichlorobenzene	U		0.00161	0.00557	1	10/22/2018 16:36	WG1184455
1,3-Dichlorobenzene	U		0.00189	0.00557	1	10/22/2018 16:36	WG1184455
1,4-Dichlorobenzene	U		0.00219	0.00557	1	10/22/2018 16:36	WG1184455
Dichlorodifluoromethane	U		0.000911	0.00278	1	10/23/2018 16:21	WG1185221
1,1-Dichloroethane	U		0.000640	0.00278	1	10/22/2018 16:36	WG1184455
1,2-Dichloroethane	U		0.000529	0.00278	1	10/22/2018 16:36	WG1184455
1,1-Dichloroethene	U		0.000557	0.00278	1	10/22/2018 16:36	WG1184455
cis-1,2-Dichloroethene	0.00190	J J	0.000768	0.00278	1	10/23/2018 16:21	WG1185221
trans-1,2-Dichloroethene	U		0.00159	0.00557	1	10/22/2018 16:36	WG1184455
1,2-Dichloropropane	U		0.00141	0.00557	1	10/22/2018 16:36	WG1184455
1,1-Dichloropropene	U		0.000780	0.00278	1	10/22/2018 16:36	WG1184455
1,3-Dichloropropane	U		0.00195	0.00557	1	10/22/2018 16:36	WG1184455
cis-1,3-Dichloropropene	U		0.000755	0.00278	1	10/22/2018 16:36	WG1184455
trans-1,3-Dichloropropene	U	U J4	0.00170	0.00557	1	10/22/2018 16:36	WG1184455
trans-1,4-Dichloro-2-butene	U		0.00156	0.00557	1	10/22/2018 16:36	WG1184455
2,2-Dichloropropane	U		0.000883	0.00278	1	10/22/2018 16:36	WG1184455
Di-isopropyl ether	U		0.000390	0.00111	1	10/22/2018 16:36	WG1184455
Ethylbenzene	U		0.000590	0.00278	1	10/22/2018 16:36	WG1184455
Hexachloro-1,3-butadiene	U		0.0141	0.0278	1	10/22/2018 16:36	WG1184455
2-Hexanone	U		0.0111	0.0278	1	10/22/2018 16:36	WG1184455
n-Hexane	U		0.00118	0.00557	1	10/22/2018 16:36	WG1184455
Iodomethane	U		0.00674	0.0139	1	10/22/2018 16:36	WG1184455
Isopropylbenzene	U		0.000961	0.00278	1	10/22/2018 16:36	WG1184455
p-Isopropyltoluene	U		0.00259	0.00557	1	10/22/2018 16:36	WG1184455
2-Butanone (MEK)	0.0232	J J	0.0139	0.0278	1	10/22/2018 16:36	WG1184455
Methylene Chloride	U		0.00739	0.0278	1	10/22/2018 16:36	WG1184455
4-Methyl-2-pentanone (MIBK)	U		0.0111	0.0278	1	10/22/2018 16:36	WG1184455

JC 11/14/18

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000329	0.00111	1	10/22/2018 16:36	WG1184455
Naphthalene	U		0.00347	0.0139	1	10/22/2018 16:36	WG1184455
n-Propylbenzene	U		0.00131	0.00557	1	10/22/2018 16:36	WG1184455
Styrene	U		0.00304	0.0139	1	10/22/2018 16:36	WG1184455
1,1,1,2-Tetrachloroethane	U	U J4	0.000557	0.00278	1	10/22/2018 16:36	WG1184455
1,1,2,2-Tetrachloroethane	U		0.000434	0.00278	1	10/23/2018 16:21	WG1185221
1,1,2-Trichlorotrifluoroethane	U		0.000752	0.00278	1	10/22/2018 16:36	WG1184455
Tetrachloroethene	0.495		0.000780	0.00278	1	10/22/2018 16:36	WG1184455
Toluene	U		0.00139	0.00557	1	10/22/2018 16:36	WG1184455
1,2,3-Trichlorobenzene	U		0.000696	0.00278	1	10/23/2018 16:21	WG1185221
1,2,4-Trichlorobenzene	U		0.00537	0.0139	1	10/22/2018 16:36	WG1184455
1,1,1-Trichloroethane	U		0.000306	0.00278	1	10/22/2018 16:36	WG1184455
1,1,2-Trichloroethane	U		0.000983	0.00278	1	10/22/2018 16:36	WG1184455
Trichloroethene	0.00390		0.000445	0.00111	1	10/22/2018 16:36	WG1184455
Trichlorofluoromethane	U		0.000557	0.00278	1	10/22/2018 16:36	WG1184455
1,2,3-Trichloropropane	U		0.00568	0.0139	1	10/22/2018 16:36	WG1184455
1,2,4-Trimethylbenzene	U		0.00129	0.00557	1	10/22/2018 16:36	WG1184455
1,2,3-Trimethylbenzene	U		0.00128	0.00557	1	10/22/2018 16:36	WG1184455
1,3,5-Trimethylbenzene	U		0.00120	0.00557	1	10/22/2018 16:36	WG1184455
Vinyl acetate	U		0.00392	0.0139	1	10/22/2018 16:36	WG1184455
Vinyl chloride	U		0.000761	0.00278	1	10/22/2018 16:36	WG1184455
Xylenes, Total	U		0.00532	0.00724	1	10/22/2018 16:36	WG1184455
(S) Toluene-d8	*107*			*75.0-131*		*10/22/2018 16:36*	WG1184455
(S) Toluene-d8	*99.1*			*75.0-131*		*10/23/2018 16:21*	WG1185221
(S) Dibromofluoromethane	*89.0*			*65.0-129*		*10/22/2018 16:36*	WG1184455
(S) Dibromofluoromethane	*114*			*65.0-129*		*10/23/2018 16:21*	WG1185221
(S) 4-Bromofluorobenzene	*93.5*			*67.0-138*		*10/22/2018 16:36*	WG1184455
(S) 4-Bromofluorobenzene	*122*			*67.0-138*		*10/23/2018 16:21*	WG1185221

JC 11/14/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	91.1		1	10/24/2018 09:40	WG1184862

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0150	0.0274	1	10/23/2018 16:41	WG1185221
Acrylonitrile	U		0.00209	0.0137	1	10/22/2018 16:54	WG1184455
Benzene	U		0.000439	0.00110	1	10/22/2018 16:54	WG1184455
Bromobenzene	U		0.00115	0.0137	1	10/22/2018 16:54	WG1184455
Bromodichloromethane	U		0.000865	0.00274	1	10/22/2018 16:54	WG1184455
Bromochloromethane	U		0.00124	0.00549	1	10/22/2018 16:54	WG1184455
Bromoform	U		0.00656	0.0274	1	10/22/2018 16:54	WG1184455
Bromomethane	U		0.00406	0.0137	1	10/22/2018 16:54	WG1184455
n-Butylbenzene	U		0.00421	0.0137	1	10/22/2018 16:54	WG1184455
sec-Butylbenzene	U		0.00278	0.0137	1	10/22/2018 16:54	WG1184455
tert-Butylbenzene	U		0.00170	0.00549	1	10/22/2018 16:54	WG1184455
Carbon disulfide	U		0.00446	0.0137	1	10/22/2018 16:54	WG1184455
Carbon tetrachloride	U		0.00119	0.00549	1	10/22/2018 16:54	WG1184455
Chlorobenzene	U		0.000629	0.00274	1	10/22/2018 16:54	WG1184455
Chlorodibromomethane	U		0.000494	0.00274	1	10/22/2018 16:54	WG1184455
Chloroethane	U		0.00119	0.00549	1	10/22/2018 16:54	WG1184455
Chloroform	U		0.000455	0.00274	1	10/22/2018 16:54	WG1184455
Chloromethane	U		0.00153	0.0137	1	10/22/2018 16:54	WG1184455
2-Chlorotoluene	U		0.00101	0.00274	1	10/22/2018 16:54	WG1184455
4-Chlorotoluene	U		0.00124	0.00549	1	10/22/2018 16:54	WG1184455
1,2-Dibromo-3-Chloropropane	U		0.00560	0.0274	1	10/22/2018 16:54	WG1184455
1,2-Dibromoethane	U		0.000576	0.00274	1	10/22/2018 16:54	WG1184455
Dibromomethane	U		0.00110	0.00549	1	10/22/2018 16:54	WG1184455
1,2-Dichlorobenzene	U		0.00159	0.00549	1	10/22/2018 16:54	WG1184455
1,3-Dichlorobenzene	U		0.00187	0.00549	1	10/22/2018 16:54	WG1184455
1,4-Dichlorobenzene	U		0.00216	0.00549	1	10/22/2018 16:54	WG1184455
Dichlorodifluoromethane	U		0.000898	0.00274	1	10/23/2018 16:41	WG1185221
1,1-Dichloroethane	U		0.000631	0.00274	1	10/22/2018 16:54	WG1184455
1,2-Dichloroethane	U		0.000521	0.00274	1	10/22/2018 16:54	WG1184455
1,1-Dichloroethene	U		0.000549	0.00274	1	10/22/2018 16:54	WG1184455
cis-1,2-Dichloroethene	0.00332		0.000757	0.00274	1	10/23/2018 16:41	WG1185221
trans-1,2-Dichloroethene	U		0.00157	0.00549	1	10/22/2018 16:54	WG1184455
1,2-Dichloropropane	U		0.00139	0.00549	1	10/22/2018 16:54	WG1184455
1,1-Dichloropropene	U		0.000768	0.00274	1	10/22/2018 16:54	WG1184455
1,3-Dichloropropane	U		0.00192	0.00549	1	10/22/2018 16:54	WG1184455
cis-1,3-Dichloropropene	U		0.000744	0.00274	1	10/22/2018 16:54	WG1184455
trans-1,3-Dichloropropene	U	U J4	0.00168	0.00549	1	10/22/2018 16:54	WG1184455
trans-1,4-Dichloro-2-butene	U		0.00154	0.00549	1	10/22/2018 16:54	WG1184455
2,2-Dichloropropane	U		0.000870	0.00274	1	10/22/2018 16:54	WG1184455
Di-isopropyl ether	U		0.000384	0.00110	1	10/22/2018 16:54	WG1184455
Ethylbenzene	U		0.000582	0.00274	1	10/22/2018 16:54	WG1184455
Hexachloro-1,3-butadiene	U		0.0139	0.0274	1	10/22/2018 16:54	WG1184455
2-Hexanone	U		0.0110	0.0274	1	10/22/2018 16:54	WG1184455
n-Hexane	U		0.00116	0.00549	1	10/23/2018 16:41	WG1185221
Iodomethane	U		0.00664	0.0137	1	10/22/2018 16:54	WG1184455
Isopropylbenzene	U		0.000947	0.00274	1	10/22/2018 16:54	WG1184455
p-Isopropyltoluene	U		0.00256	0.00549	1	10/22/2018 16:54	WG1184455
2-Butanone (MEK)	0.0236	J J	0.0137	0.0274	1	10/22/2018 16:54	WG1184455
Methylene Chloride	U		0.00729	0.0274	1	10/22/2018 16:54	WG1184455
4-Methyl-2-pentanone (MIBK)	U		0.0110	0.0274	1	10/22/2018 16:54	WG1184455

JC 11/14/18

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000324	0.00110	1	10/22/2018 16:54	WG1184455
Naphthalene	U		0.00342	0.0137	1	10/22/2018 16:54	WG1184455
n-Propylbenzene	U		0.00130	0.00549	1	10/22/2018 16:54	WG1184455
Styrene	U		0.00300	0.0137	1	10/22/2018 16:54	WG1184455
1,1,1,2-Tetrachloroethane	U	U J4	0.000549	0.00274	1	10/22/2018 16:54	WG1184455
1,1,2,2-Tetrachloroethane	U		0.000428	0.00274	1	10/23/2018 16:41	WG1185221
1,1,2-Trichlorotrifluoroethane	U		0.000741	0.00274	1	10/22/2018 16:54	WG1184455
Tetrachloroethene	1.81		0.000768	0.00274	1	10/22/2018 16:54	WG1184455
Toluene	U		0.00137	0.00549	1	10/22/2018 16:54	WG1184455
1,2,3-Trichlorobenzene	U		0.000686	0.00274	1	10/23/2018 16:41	WG1185221
1,2,4-Trichlorobenzene	U		0.00529	0.0137	1	10/22/2018 16:54	WG1184455
1,1,1-Trichloroethane	U		0.000302	0.00274	1	10/22/2018 16:54	WG1184455
1,1,2-Trichloroethane	U		0.000969	0.00274	1	10/22/2018 16:54	WG1184455
Trichloroethene	0.0301		0.000439	0.00110	1	10/22/2018 16:54	WG1184455
Trichlorofluoromethane	U		0.000549	0.00274	1	10/22/2018 16:54	WG1184455
1,2,3-Trichloropropane	U		0.00560	0.0137	1	10/22/2018 16:54	WG1184455
1,2,4-Trimethylbenzene	U		0.00127	0.00549	1	10/22/2018 16:54	WG1184455
1,2,3-Trimethylbenzene	U		0.00126	0.00549	1	10/22/2018 16:54	WG1184455
1,3,5-Trimethylbenzene	U		0.00119	0.00549	1	10/22/2018 16:54	WG1184455
Vinyl acetate	U		0.00386	0.0137	1	10/22/2018 16:54	WG1184455
Vinyl chloride	U		0.000750	0.00274	1	10/22/2018 16:54	WG1184455
Xylenes, Total	U		0.00525	0.00713	1	10/22/2018 16:54	WG1184455
(S) Toluene-d8	*106*			*75.0-131*		*10/22/2018 16:54*	WG1184455
(S) Toluene-d8	*97.8*			*75.0-131*		*10/23/2018 16:41*	WG1185221
(S) Dibromofluoromethane	*90.1*			*65.0-129*		*10/22/2018 16:54*	WG1184455
(S) Dibromofluoromethane	*113*			*65.0-129*		*10/23/2018 16:41*	WG1185221
(S) 4-Bromofluorobenzene	*94.3*			*67.0-138*		*10/22/2018 16:54*	WG1184455
(S) 4-Bromofluorobenzene	*120*			*67.0-138*		*10/23/2018 16:41*	WG1185221

JC 11/14/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	84.9		1	10/24/2018 09:40	WG1184862

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.161	0.294	10	10/24/2018 00:06	WG1185221
Acrylonitrile	U		0.00224	0.0147	1	10/22/2018 17:13	WG1184455
Benzene	U		0.000471	0.00118	1	10/22/2018 17:13	WG1184455
Bromobenzene	U		0.00124	0.0147	1	10/22/2018 17:13	WG1184455
Bromodichloromethane	U		0.000928	0.00294	1	10/22/2018 17:13	WG1184455
Bromochloromethane	U		0.00133	0.00589	1	10/22/2018 17:13	WG1184455
Bromoform	U		0.00704	0.0294	1	10/22/2018 17:13	WG1184455
Bromomethane	U		0.00436	0.0147	1	10/22/2018 17:13	WG1184455
n-Butylbenzene	U		0.00452	0.0147	1	10/22/2018 17:13	WG1184455
sec-Butylbenzene	U		0.00298	0.0147	1	10/22/2018 17:13	WG1184455
tert-Butylbenzene	U		0.00182	0.00589	1	10/22/2018 17:13	WG1184455
Carbon disulfide	U		0.00478	0.0147	1	10/22/2018 17:13	WG1184455
Carbon tetrachloride	U		0.00127	0.00589	1	10/22/2018 17:13	WG1184455
Chlorobenzene	U		0.000675	0.00294	1	10/22/2018 17:13	WG1184455
Chlorodibromomethane	U		0.000530	0.00294	1	10/22/2018 17:13	WG1184455
Chloroethane	U		0.00127	0.00589	1	10/22/2018 17:13	WG1184455
Chloroform	0.00116	U B J	0.000489	0.00294	1	10/22/2018 17:13	WG1184455
Chloromethane	U		0.00164	0.0147	1	10/22/2018 17:13	WG1184455
2-Chlorotoluene	U		0.00108	0.00294	1	10/22/2018 17:13	WG1184455
4-Chlorotoluene	U		0.00133	0.00589	1	10/22/2018 17:13	WG1184455
1,2-Dibromo-3-Chloropropane	U		0.00600	0.0294	1	10/22/2018 17:13	WG1184455
1,2-Dibromoethane	U		0.000618	0.00294	1	10/22/2018 17:13	WG1184455
Dibromomethane	U		0.00118	0.00589	1	10/22/2018 17:13	WG1184455
1,2-Dichlorobenzene	U		0.00171	0.00589	1	10/22/2018 17:13	WG1184455
1,3-Dichlorobenzene	U		0.00200	0.00589	1	10/22/2018 17:13	WG1184455
1,4-Dichlorobenzene	U		0.00232	0.00589	1	10/22/2018 17:13	WG1184455
Dichlorodifluoromethane	U		0.00963	0.0294	10	10/24/2018 00:06	WG1185221
1,1-Dichloroethane	U		0.000677	0.00294	1	10/22/2018 17:13	WG1184455
1,2-Dichloroethane	U		0.000559	0.00294	1	10/22/2018 17:13	WG1184455
1,1-Dichloroethene	U		0.000589	0.00294	1	10/22/2018 17:13	WG1184455
cis-1,2-Dichloroethene	0.0429		0.00812	0.0294	10	10/24/2018 00:06	WG1185221
trans-1,2-Dichloroethene	U		0.00168	0.00589	1	10/22/2018 17:13	WG1184455
1,2-Dichloropropane	U		0.00150	0.00589	1	10/22/2018 17:13	WG1184455
1,1-Dichloropropene	U		0.000824	0.00294	1	10/22/2018 17:13	WG1184455
1,3-Dichloropropane	U		0.00206	0.00589	1	10/22/2018 17:13	WG1184455
cis-1,3-Dichloropropene	U		0.000798	0.00294	1	10/22/2018 17:13	WG1184455
trans-1,3-Dichloropropene	U	U J4	0.00180	0.00589	1	10/22/2018 17:13	WG1184455
trans-1,4-Dichloro-2-butene	U		0.00165	0.00589	1	10/22/2018 17:13	WG1184455
2,2-Dichloropropane	U		0.000934	0.00294	1	10/22/2018 17:13	WG1184455
Di-isopropyl ether	U		0.000412	0.00118	1	10/22/2018 17:13	WG1184455
Ethylbenzene	U		0.000624	0.00294	1	10/22/2018 17:13	WG1184455
Hexachloro-1,3-butadiene	U		0.0150	0.0294	1	10/22/2018 17:13	WG1184455
2-Hexanone	U		0.0118	0.0294	1	10/22/2018 17:13	WG1184455
n-Hexane	U		0.00125	0.00589	1	10/22/2018 17:13	WG1184455
Iodomethane	U		0.00712	0.0147	1	10/22/2018 17:13	WG1184455
Isopropylbenzene	U		0.00102	0.00294	1	10/22/2018 17:13	WG1184455
p-Isopropyltoluene	U		0.00274	0.00589	1	10/22/2018 17:13	WG1184455
2-Butanone (MEK)	U		0.0147	0.0294	1	10/22/2018 17:13	WG1184455
Methylene Chloride	U		0.00782	0.0294	1	10/22/2018 17:13	WG1184455
4-Methyl-2-pentanone (MIBK)	U		0.0118	0.0294	1	10/22/2018 17:13	WG1184455

JC 11/14/18

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

Analyte	Result (dry) mg/kg		Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U			0.000347	0.00118	1	10/22/2018 17:13	WG1184455
Naphthalene	U			0.00367	0.0147	1	10/22/2018 17:13	WG1184455
n-Propylbenzene	U			0.00139	0.00589	1	10/22/2018 17:13	WG1184455
Styrene	U			0.00321	0.0147	1	10/22/2018 17:13	WG1184455
1,1,1,2-Tetrachloroethane	U	U	J4	0.000589	0.00294	1	10/22/2018 17:13	WG1184455
1,1,2,2-Tetrachloroethane	U			0.00459	0.0294	10	10/24/2018 00:06	WG1185221
1,1,2-Trichlorotrifluoroethane	U			0.000795	0.00294	1	10/22/2018 17:13	WG1184455
Tetrachloroethene	2.05	J	J0	0.00824	0.0294	10	10/24/2018 00:06	WG1185221
Toluene	U			0.00147	0.00589	1	10/22/2018 17:13	WG1184455
1,2,3-Trichlorobenzene	U			0.00736	0.0294	10	10/24/2018 00:06	WG1185221
1,2,4-Trichlorobenzene	U			0.00567	0.0147	1	10/22/2018 17:13	WG1184455
1,1,1-Trichloroethane	U			0.000324	0.00294	1	10/22/2018 17:13	WG1184455
1,1,2-Trichloroethane	U			0.00104	0.00294	1	10/22/2018 17:13	WG1184455
Trichloroethene	0.0634			0.000471	0.00118	1	10/22/2018 17:13	WG1184455
Trichlorofluoromethane	U			0.000589	0.00294	1	10/22/2018 17:13	WG1184455
1,2,3-Trichloropropane	U			0.00600	0.0147	1	10/22/2018 17:13	WG1184455
1,2,4-Trimethylbenzene	U			0.00137	0.00589	1	10/22/2018 17:13	WG1184455
1,2,3-Trimethylbenzene	U			0.00135	0.00589	1	10/22/2018 17:13	WG1184455
1,3,5-Trimethylbenzene	U			0.00127	0.00589	1	10/22/2018 17:13	WG1184455
Vinyl acetate	U			0.00414	0.0147	1	10/22/2018 17:13	WG1184455
Vinyl chloride	U			0.000804	0.00294	1	10/22/2018 17:13	WG1184455
Xylenes, Total	U			0.00563	0.00765	1	10/22/2018 17:13	WG1184455
(S) Toluene-d8	*108*				*75.0-131*		*10/22/2018 17:13*	WG1184455
(S) Toluene-d8	*98.1*				*75.0-131*		*10/24/2018 00:06*	WG1185221
(S) Dibromofluoromethane	*89.0*				*65.0-129*		*10/22/2018 17:13*	WG1184455
(S) Dibromofluoromethane	*116*				*65.0-129*		*10/24/2018 00:06*	WG1185221
(S) 4-Bromofluorobenzene	*94.3*				*67.0-138*		*10/22/2018 17:13*	WG1184455
(S) 4-Bromofluorobenzene	*123*				*67.0-138*		*10/24/2018 00:06*	WG1185221

Sample Narrative:

L1036155-30 WG1185221, WG1184455: Cannot be reanalyzed at a lower dilution due to high levels of target analytes.

L1036155-30 WG1185221, WG1184455: Not all compounds reportable at lower dilution.

JC 11/14/18

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		1.05	25.0	1	10/19/2018 11:37	WG1183421
Acrylonitrile	U		0.873	5.00	1	10/19/2018 11:37	WG1183421
Benzene	U		0.0896	0.500	1	10/19/2018 11:37	WG1183421
Bromobenzene	U		0.133	0.500	1	10/19/2018 11:37	WG1183421
Bromodichloromethane	U		0.0800	0.500	1	10/19/2018 11:37	WG1183421
Bromochloromethane	U		0.145	0.500	1	10/19/2018 11:37	WG1183421
Bromoform	U		0.186	0.500	1	10/19/2018 11:37	WG1183421
Bromomethane	U		0.157	2.50	1	10/19/2018 11:37	WG1183421
n-Butylbenzene	U		0.143	0.500	1	10/19/2018 11:37	WG1183421
sec-Butylbenzene	U		0.134	0.500	1	10/19/2018 11:37	WG1183421
tert-Butylbenzene	U		0.183	0.500	1	10/19/2018 11:37	WG1183421
Carbon disulfide	U		0.101	0.500	1	10/19/2018 11:37	WG1183421
Carbon tetrachloride	U		0.159	0.500	1	10/19/2018 11:37	WG1183421
Chlorobenzene	U		0.140	0.500	1	10/19/2018 11:37	WG1183421
Chlorodibromomethane	U		0.128	0.500	1	10/19/2018 11:37	WG1183421
Chloroethane	U		0.141	2.50	1	10/19/2018 11:37	WG1183421
Chloroform	U		0.0860	0.500	1	10/19/2018 11:37	WG1183421
Chloromethane	U		0.153	1.25	1	10/19/2018 11:37	WG1183421
2-Chlorotoluene	U		0.111	0.500	1	10/19/2018 11:37	WG1183421
4-Chlorotoluene	U		0.0972	0.500	1	10/19/2018 11:37	WG1183421
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	10/19/2018 11:37	WG1183421
1,2-Dibromoethane	U		0.193	0.500	1	10/19/2018 11:37	WG1183421
Dibromomethane	U		0.117	0.500	1	10/19/2018 11:37	WG1183421
1,2-Dichlorobenzene	U		0.101	0.500	1	10/19/2018 11:37	WG1183421
1,3-Dichlorobenzene	U		0.130	0.500	1	10/19/2018 11:37	WG1183421
1,4-Dichlorobenzene	U		0.121	0.500	1	10/19/2018 11:37	WG1183421
Dichlorodifluoromethane	U		0.127	2.50	1	10/19/2018 11:37	WG1183421
1,1-Dichloroethane	U		0.114	0.500	1	10/19/2018 11:37	WG1183421
1,2-Dichloroethane	U		0.108	0.500	1	10/19/2018 11:37	WG1183421
1,1-Dichloroethene	U		0.188	0.500	1	10/19/2018 11:37	WG1183421
cis-1,2-Dichloroethene	U		0.0933	0.500	1	10/19/2018 11:37	WG1183421
trans-1,2-Dichloroethene	U		0.152	0.500	1	10/19/2018 11:37	WG1183421
1,2-Dichloropropane	U		0.190	0.500	1	10/19/2018 11:37	WG1183421
1,1-Dichloropropene	U		0.128	0.500	1	10/19/2018 11:37	WG1183421
1,3-Dichloropropane	U		0.147	1.00	1	10/19/2018 11:37	WG1183421
cis-1,3-Dichloropropene	U		0.0976	0.500	1	10/19/2018 11:37	WG1183421
trans-1,3-Dichloropropene	U		0.222	0.500	1	10/19/2018 11:37	WG1183421
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	10/19/2018 11:37	WG1183421
2,2-Dichloropropane	U	J4	0.0929	0.500	1	10/19/2018 11:37	WG1183421
Di-isopropyl ether	U		0.0924	0.500	1	10/19/2018 11:37	WG1183421
Ethylbenzene	U		0.158	0.500	1	10/19/2018 11:37	WG1183421
Hexachloro-1,3-butadiene	U		0.157	1.00	1	10/19/2018 11:37	WG1183421
2-Hexanone	U		0.757	5.00	1	10/19/2018 11:37	WG1183421
n-Hexane	U		0.305	5.00	1	10/19/2018 11:37	WG1183421
Iodomethane	U		0.377	10.0	1	10/19/2018 11:37	WG1183421
Isopropylbenzene	U		0.126	0.500	1	10/19/2018 11:37	WG1183421
p-Isopropyltoluene	U		0.138	0.500	1	10/19/2018 11:37	WG1183421
2-Butanone (MEK)	U		1.28	5.00	1	10/19/2018 11:37	WG1183421
Methylene Chloride	U		1.07	2.50	1	10/19/2018 11:37	WG1183421
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	10/19/2018 11:37	WG1183421
Methyl tert-butyl ether	U		0.102	0.500	1	10/19/2018 11:37	WG1183421
Naphthalene	U		0.174	2.50	1	10/19/2018 11:37	WG1183421
n-Propylbenzene	U		0.162	0.500	1	10/19/2018 11:37	WG1183421
Styrene	U		0.117	0.500	1	10/19/2018 11:37	WG1183421
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	10/19/2018 11:37	WG1183421
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	10/19/2018 11:37	WG1183421

JC 11/14/18

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

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	10/19/2018 11:37	WG1183421
Tetrachloroethene	U		0.199	0.500	1	10/19/2018 11:37	WG1183421
Toluene	U		0.412	0.500	1	10/19/2018 11:37	WG1183421
1,2,3-Trichlorobenzene	U		0.164	0.500	1	10/19/2018 11:37	WG1183421
1,2,4-Trichlorobenzene	U		0.355	0.500	1	10/19/2018 11:37	WG1183421
1,1,1-Trichloroethane	U		0.0940	0.500	1	10/19/2018 11:37	WG1183421
1,1,2-Trichloroethane	U		0.186	0.500	1	10/19/2018 11:37	WG1183421
Trichloroethene	U		0.153	0.500	1	10/19/2018 11:37	WG1183421
Trichlorofluoromethane	U		0.130	2.50	1	10/19/2018 11:37	WG1183421
1,2,3-Trichloropropane	U		0.247	2.50	1	10/19/2018 11:37	WG1183421
1,2,4-Trimethylbenzene	U		0.123	0.500	1	10/19/2018 11:37	WG1183421
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	10/19/2018 11:37	WG1183421
1,3,5-Trimethylbenzene	U		0.124	0.500	1	10/19/2018 11:37	WG1183421
Vinyl acetate	U		0.645	5.00	1	10/19/2018 11:37	WG1183421
Vinyl chloride	U		0.118	0.500	1	10/19/2018 11:37	WG1183421
Xylenes, Total	U		0.316	1.50	1	10/19/2018 11:37	WG1183421
(S) Toluene-d8	*99.4*			*80.0-120*		*10/19/2018 11:37*	WG1183421
(S) Dibromofluoromethane	*103*			*75.0-120*		*10/19/2018 11:37*	WG1183421
(S) 4-Bromofluorobenzene	*99.1*			*77.0-126*		*10/19/2018 11:37*	WG1183421

JC 11/14/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	81.7		1	10/24/2018 12:49	WG1185667

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch	
	mg/kg		mg/kg	mg/kg		date / time		
Acetone	U		0.0168	0.0306	1	10/23/2018 17:01	WG1185221	
Acrylonitrile	U		0.00233	0.0153	1	10/22/2018 18:08	WG1184455	
Benzene	U		0.000490	0.00122	1	10/22/2018 18:08	WG1184455	
Bromobenzene	U		0.00129	0.0153	1	10/22/2018 18:08	WG1184455	
Bromodichloromethane	U		0.000965	0.00306	1	10/22/2018 18:08	WG1184455	
Bromochloromethane	U		0.00138	0.00612	1	10/22/2018 18:08	WG1184455	
Bromoform	U		0.00732	0.0306	1	10/22/2018 18:08	WG1184455	
Bromomethane	U		0.00453	0.0153	1	10/22/2018 18:08	WG1184455	
n-Butylbenzene	U		0.00470	0.0153	1	10/22/2018 18:08	WG1184455	
sec-Butylbenzene	U		0.00310	0.0153	1	10/22/2018 18:08	WG1184455	
tert-Butylbenzene	U		0.00190	0.00612	1	10/22/2018 18:08	WG1184455	
Carbon disulfide	U		0.00497	0.0153	1	10/22/2018 18:08	WG1184455	
Carbon tetrachloride	U		0.00132	0.00612	1	10/22/2018 18:08	WG1184455	
Chlorobenzene	U		0.000702	0.00306	1	10/22/2018 18:08	WG1184455	
Chlorodibromomethane	U		0.000551	0.00306	1	10/22/2018 18:08	WG1184455	
Chloroethane	U		0.00132	0.00612	1	10/22/2018 18:08	WG1184455	
Chloroform	0.00110	U B J	0.000508	0.00306	1	10/22/2018 18:08	WG1184455	
Chloromethane	U		0.00170	0.0153	1	10/22/2018 18:08	WG1184455	
2-Chlorotoluene	U		0.00113	0.00306	1	10/22/2018 18:08	WG1184455	
4-Chlorotoluene	U		0.00138	0.00612	1	10/22/2018 18:08	WG1184455	
1,2-Dibromo-3-Chloropropane	U		0.00624	0.0306	1	10/22/2018 18:08	WG1184455	
1,2-Dibromoethane	U		0.000643	0.00306	1	10/22/2018 18:08	WG1184455	
Dibromomethane	U		0.00122	0.00612	1	10/22/2018 18:08	WG1184455	
1,2-Dichlorobenzene	U		0.00178	0.00612	1	10/22/2018 18:08	WG1184455	
1,3-Dichlorobenzene	U		0.00208	0.00612	1	10/22/2018 18:08	WG1184455	
1,4-Dichlorobenzene	U		0.00241	0.00612	1	10/22/2018 18:08	WG1184455	
Dichlorodifluoromethane	U		0.00100	0.00306	1	10/23/2018 17:01	WG1185221	
1,1-Dichloroethane	U		0.000704	0.00306	1	10/22/2018 18:08	WG1184455	
1,2-Dichloroethane	U		0.000582	0.00306	1	10/22/2018 18:08	WG1184455	
1,1-Dichloroethene	U		0.000612	0.00306	1	10/22/2018 18:08	WG1184455	
cis-1,2-Dichloroethene	0.00113	J	0.000845	0.00306	1	10/23/2018 17:01	WG1185221	
trans-1,2-Dichloroethene	U		0.00175	0.00612	1	10/22/2018 18:08	WG1184455	
1,2-Dichloropropane	U		0.00156	0.00612	1	10/22/2018 18:08	WG1184455	
1,1-Dichloropropene	U		0.000857	0.00306	1	10/22/2018 18:08	WG1184455	
1,3-Dichloropropane	U		0.00214	0.00612	1	10/22/2018 18:08	WG1184455	
cis-1,3-Dichloropropene	U		0.000830	0.00306	1	10/22/2018 18:08	WG1184455	
trans-1,3-Dichloropropene	U	U	0.00187	0.00612	1	10/22/2018 18:08	WG1184455	
trans-1,4-Dichloro-2-butene	U		0.00171	0.00612	1	10/22/2018 18:08	WG1184455	
2,2-Dichloropropane	U		0.000971	0.00306	1	10/22/2018 18:08	WG1184455	
Di-isopropyl ether	U		0.000429	0.00122	1	10/22/2018 18:08	WG1184455	
Ethylbenzene	U		0.000649	0.00306	1	10/22/2018 18:08	WG1184455	
Hexachloro-1,3-butadiene	U		0.0156	0.0306	1	10/22/2018 18:08	WG1184455	
2-Hexanone	U		0.0122	0.0306	1	10/22/2018 18:08	WG1184455	
n-Hexane	U		0.00130	0.00612	1	10/22/2018 18:08	WG1184455	
Iodomethane	U		0.00741	0.0153	1	10/22/2018 18:08	WG1184455	
Isopropylbenzene	U		0.00106	0.00306	1	10/22/2018 18:08	WG1184455	
p-Isopropyltoluene	U		0.00285	0.00612	1	10/22/2018 18:08	WG1184455	
2-Butanone (MEK)	0.0386		0.0153	0.0306	1	10/22/2018 18:08	WG1184455	
Methylene Chloride	U		0.00813	0.0306	1	10/22/2018 18:08	WG1184455	JC 11/15/18
4-Methyl-2-pentanone (MIBK)	U		0.0122	0.0306	1	10/22/2018 18:08	WG1184455	

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

Analyte	Result (dry) mg/kg		Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U			0.000361	0.00122	1	10/22/2018 18:08	WG1184455
Naphthalene	U			0.00382	0.0153	1	10/22/2018 18:08	WG1184455
n-Propylbenzene	U			0.00144	0.00612	1	10/22/2018 18:08	WG1184455
Styrene	U			0.00334	0.0153	1	10/22/2018 18:08	WG1184455
1,1,1,2-Tetrachloroethane	U	U	J4	0.000612	0.00306	1	10/22/2018 18:08	WG1184455
1,1,2,2-Tetrachloroethane	U			0.000478	0.00306	1	10/23/2018 17:01	WG1185221
1,1,2-Trichlorotrifluoroethane	U			0.000827	0.00306	1	10/22/2018 18:08	WG1184455
Tetrachloroethene	0.0143			0.000857	0.00306	1	10/25/2018 00:02	WG1185845
Toluene	U			0.00153	0.00612	1	10/22/2018 18:08	WG1184455
1,2,3-Trichlorobenzene	U			0.000765	0.00306	1	10/23/2018 17:01	WG1185221
1,2,4-Trichlorobenzene	U			0.00590	0.0153	1	10/22/2018 18:08	WG1184455
1,1,1-Trichloroethane	U			0.000337	0.00306	1	10/22/2018 18:08	WG1184455
1,1,2-Trichloroethane	U			0.00108	0.00306	1	10/22/2018 18:08	WG1184455
Trichloroethene	0.000626	J	J	0.000490	0.00122	1	10/22/2018 18:08	WG1184455
Trichlorofluoromethane	U			0.000612	0.00306	1	10/22/2018 18:08	WG1184455
1,2,3-Trichloropropane	U			0.00624	0.0153	1	10/22/2018 18:08	WG1184455
1,2,4-Trimethylbenzene	U			0.00142	0.00612	1	10/22/2018 18:08	WG1184455
1,2,3-Trimethylbenzene	U			0.00141	0.00612	1	10/22/2018 18:08	WG1184455
1,3,5-Trimethylbenzene	U			0.00132	0.00612	1	10/22/2018 18:08	WG1184455
Vinyl acetate	U			0.00431	0.0153	1	10/22/2018 18:08	WG1184455
Vinyl chloride	U			0.000836	0.00306	1	10/22/2018 18:08	WG1184455
Xylenes, Total	U			0.00585	0.00796	1	10/22/2018 18:08	WG1184455
(S) Toluene-d8	*105*				*75.0-131*		*10/22/2018 18:08*	WG1184455
(S) Toluene-d8	*98.1*				*75.0-131*		*10/23/2018 17:01*	WG1185221
(S) Toluene-d8	*102*				*75.0-131*		*10/25/2018 00:02*	WG1185845
(S) Dibromofluoromethane	*92.1*				*65.0-129*		*10/22/2018 18:08*	WG1184455
(S) Dibromofluoromethane	*115*				*65.0-129*		*10/23/2018 17:01*	WG1185221
(S) Dibromofluoromethane	*95.0*				*65.0-129*		*10/25/2018 00:02*	WG1185845
(S) 4-Bromofluorobenzene	*93.0*				*67.0-138*		*10/22/2018 18:08*	WG1184455
(S) 4-Bromofluorobenzene	*122*				*67.0-138*		*10/23/2018 17:01*	WG1185221
(S) 4-Bromofluorobenzene	*104*				*67.0-138*		*10/25/2018 00:02*	WG1185845

JC 11/15/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	92.5		1	10/24/2018 12:49	WG1185667

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0148	0.0270	1	10/23/2018 17:21	WG1185221
Acrylonitrile	U		0.00205	0.0135	1	10/22/2018 18:27	WG1184455
Benzene	U		0.000432	0.00108	1	10/22/2018 18:27	WG1184455
Bromobenzene	U		0.00113	0.0135	1	10/22/2018 18:27	WG1184455
Bromodichloromethane	U		0.000852	0.00270	1	10/22/2018 18:27	WG1184455
Bromochloromethane	U		0.00122	0.00540	1	10/22/2018 18:27	WG1184455
Bromoform	U		0.00646	0.0270	1	10/22/2018 18:27	WG1184455
Bromomethane	U		0.00400	0.0135	1	10/22/2018 18:27	WG1184455
n-Butylbenzene	U		0.00415	0.0135	1	10/22/2018 18:27	WG1184455
sec-Butylbenzene	U		0.00273	0.0135	1	10/22/2018 18:27	WG1184455
tert-Butylbenzene	U		0.00167	0.00540	1	10/22/2018 18:27	WG1184455
Carbon disulfide	U		0.00439	0.0135	1	10/22/2018 18:27	WG1184455
Carbon tetrachloride	U		0.00117	0.00540	1	10/22/2018 18:27	WG1184455
Chlorobenzene	U		0.000619	0.00270	1	10/22/2018 18:27	WG1184455
Chlorodibromomethane	U		0.000486	0.00270	1	10/22/2018 18:27	WG1184455
Chloroethane	U		0.00117	0.00540	1	10/22/2018 18:27	WG1184455
Chloroform	U		0.000448	0.00270	1	10/22/2018 18:27	WG1184455
Chloromethane	U		0.00150	0.0135	1	10/22/2018 18:27	WG1184455
2-Chlorotoluene	U		0.000994	0.00270	1	10/22/2018 18:27	WG1184455
4-Chlorotoluene	U		0.00122	0.00540	1	10/22/2018 18:27	WG1184455
1,2-Dibromo-3-Chloropropane	U		0.00551	0.0270	1	10/22/2018 18:27	WG1184455
1,2-Dibromoethane	U		0.000567	0.00270	1	10/22/2018 18:27	WG1184455
Dibromomethane	U		0.00108	0.00540	1	10/22/2018 18:27	WG1184455
1,2-Dichlorobenzene	U		0.00157	0.00540	1	10/22/2018 18:27	WG1184455
1,3-Dichlorobenzene	U		0.00184	0.00540	1	10/22/2018 18:27	WG1184455
1,4-Dichlorobenzene	U		0.00213	0.00540	1	10/22/2018 18:27	WG1184455
Dichlorodifluoromethane	U		0.000884	0.00270	1	10/23/2018 17:21	WG1185221
1,1-Dichloroethane	U		0.000621	0.00270	1	10/22/2018 18:27	WG1184455
1,2-Dichloroethane	U		0.000513	0.00270	1	10/22/2018 18:27	WG1184455
1,1-Dichloroethene	U		0.000540	0.00270	1	10/22/2018 18:27	WG1184455
cis-1,2-Dichloroethene	0.0164		0.000746	0.00270	1	10/23/2018 17:21	WG1185221
trans-1,2-Dichloroethene	U		0.00155	0.00540	1	10/22/2018 18:27	WG1184455
1,2-Dichloropropane	U		0.00137	0.00540	1	10/22/2018 18:27	WG1184455
1,1-Dichloropropene	U		0.000756	0.00270	1	10/22/2018 18:27	WG1184455
1,3-Dichloropropane	U		0.00189	0.00540	1	10/22/2018 18:27	WG1184455
cis-1,3-Dichloropropene	U		0.000733	0.00270	1	10/22/2018 18:27	WG1184455
trans-1,3-Dichloropropene	U U	J4	0.00165	0.00540	1	10/22/2018 18:27	WG1184455
trans-1,4-Dichloro-2-butene	U		0.00151	0.00540	1	10/22/2018 18:27	WG1184455
2,2-Dichloropropane	U		0.000857	0.00270	1	10/22/2018 18:27	WG1184455
Di-isopropyl ether	U		0.000378	0.00108	1	10/22/2018 18:27	WG1184455
Ethylbenzene	U		0.000573	0.00270	1	10/22/2018 18:27	WG1184455
Hexachloro-1,3-butadiene	U		0.0137	0.0270	1	10/22/2018 18:27	WG1184455
2-Hexanone	U		0.0108	0.0270	1	10/22/2018 18:27	WG1184455
n-Hexane	U		0.00115	0.00540	1	10/23/2018 17:21	WG1185221
Iodomethane	U		0.00654	0.0135	1	10/22/2018 18:27	WG1184455
Isopropylbenzene	U		0.000933	0.00270	1	10/22/2018 18:27	WG1184455
p-Isopropyltoluene	U		0.00252	0.00540	1	10/22/2018 18:27	WG1184455
2-Butanone (MEK)	0.0253 J	J	0.0135	0.0270	1	10/22/2018 18:27	WG1184455
Methylene Chloride	U		0.00718	0.0270	1	10/22/2018 18:27	WG1184455
4-Methyl-2-pentanone (MIBK)	U		0.0108	0.0270	1	10/22/2018 18:27	WG1184455

JC 11/15/18

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000319	0.00108	1	10/22/2018 18:27	WG1184455
Naphthalene	U		0.00337	0.0135	1	10/22/2018 18:27	WG1184455
n-Propylbenzene	U		0.00128	0.00540	1	10/22/2018 18:27	WG1184455
Styrene	U		0.00295	0.0135	1	10/22/2018 18:27	WG1184455
1,1,1,2-Tetrachloroethane	U	U J4	0.000540	0.00270	1	10/22/2018 18:27	WG1184455
1,1,2,2-Tetrachloroethane	U		0.000421	0.00270	1	10/23/2018 17:21	WG1185221
1,1,2-Trichlorotrifluoroethane	U		0.000729	0.00270	1	10/22/2018 18:27	WG1184455
Tetrachloroethene	0.0302		0.000756	0.00270	1	10/22/2018 18:27	WG1184455
Toluene	U		0.00135	0.00540	1	10/22/2018 18:27	WG1184455
1,2,3-Trichlorobenzene	U		0.000675	0.00270	1	10/23/2018 17:21	WG1185221
1,2,4-Trichlorobenzene	U		0.00521	0.0135	1	10/22/2018 18:27	WG1184455
1,1,1-Trichloroethane	U		0.000297	0.00270	1	10/22/2018 18:27	WG1184455
1,1,2-Trichloroethane	U		0.000954	0.00270	1	10/22/2018 18:27	WG1184455
Trichloroethene	0.00438		0.000432	0.00108	1	10/22/2018 18:27	WG1184455
Trichlorofluoromethane	U		0.000540	0.00270	1	10/22/2018 18:27	WG1184455
1,2,3-Trichloropropane	U		0.00551	0.0135	1	10/22/2018 18:27	WG1184455
1,2,4-Trimethylbenzene	U		0.00125	0.00540	1	10/22/2018 18:27	WG1184455
1,2,3-Trimethylbenzene	U		0.00124	0.00540	1	10/22/2018 18:27	WG1184455
1,3,5-Trimethylbenzene	U		0.00117	0.00540	1	10/22/2018 18:27	WG1184455
Vinyl acetate	U		0.00380	0.0135	1	10/22/2018 18:27	WG1184455
Vinyl chloride	U		0.000738	0.00270	1	10/22/2018 18:27	WG1184455
Xylenes, Total	U		0.00517	0.00702	1	10/22/2018 18:27	WG1184455
(S) Toluene-d8	*103*			*75.0-131*		*10/22/2018 18:27*	WG1184455
(S) Toluene-d8	*99.0*			*75.0-131*		*10/23/2018 17:21*	WG1185221
(S) Dibromofluoromethane	*91.8*			*65.0-129*		*10/22/2018 18:27*	WG1184455
(S) Dibromofluoromethane	*114*			*65.0-129*		*10/23/2018 17:21*	WG1185221
(S) 4-Bromofluorobenzene	*93.7*			*67.0-138*		*10/22/2018 18:27*	WG1184455
(S) 4-Bromofluorobenzene	*118*			*67.0-138*		*10/23/2018 17:21*	WG1185221

JC 11/15/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	94.8		1	10/24/2018 12:49	WG1185667

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0145	0.0264	1	10/23/2018 17:41	WG1185221
Acrylonitrile	U		0.00200	0.0132	1	10/22/2018 18:45	WG1184455
Benzene	U		0.000422	0.00105	1	10/22/2018 18:45	WG1184455
Bromobenzene	U		0.00111	0.0132	1	10/22/2018 18:45	WG1184455
Bromodichloromethane	U		0.000831	0.00264	1	10/22/2018 18:45	WG1184455
Bromochloromethane	U		0.00119	0.00527	1	10/22/2018 18:45	WG1184455
Bromoform	U		0.00631	0.0264	1	10/22/2018 18:45	WG1184455
Bromomethane	U		0.00390	0.0132	1	10/22/2018 18:45	WG1184455
n-Butylbenzene	U		0.00405	0.0132	1	10/22/2018 18:45	WG1184455
sec-Butylbenzene	U		0.00267	0.0132	1	10/22/2018 18:45	WG1184455
tert-Butylbenzene	U		0.00163	0.00527	1	10/22/2018 18:45	WG1184455
Carbon disulfide	U		0.00428	0.0132	1	10/22/2018 18:45	WG1184455
Carbon tetrachloride	U		0.00114	0.00527	1	10/22/2018 18:45	WG1184455
Chlorobenzene	U		0.000604	0.00264	1	10/22/2018 18:45	WG1184455
Chlorodibromomethane	U		0.000475	0.00264	1	10/22/2018 18:45	WG1184455
Chloroethane	U		0.00114	0.00527	1	10/22/2018 18:45	WG1184455
Chloroform	0.00135 U	B J	0.000438	0.00264	1	10/22/2018 18:45	WG1184455
Chloromethane	U		0.00147	0.0132	1	10/22/2018 18:45	WG1184455
2-Chlorotoluene	U		0.000970	0.00264	1	10/22/2018 18:45	WG1184455
4-Chlorotoluene	U		0.00119	0.00527	1	10/22/2018 18:45	WG1184455
1,2-Dibromo-3-Chloropropane	U		0.00538	0.0264	1	10/22/2018 18:45	WG1184455
1,2-Dibromoethane	U		0.000554	0.00264	1	10/22/2018 18:45	WG1184455
Dibromomethane	U		0.00105	0.00527	1	10/22/2018 18:45	WG1184455
1,2-Dichlorobenzene	U		0.00153	0.00527	1	10/22/2018 18:45	WG1184455
1,3-Dichlorobenzene	U		0.00179	0.00527	1	10/22/2018 18:45	WG1184455
1,4-Dichlorobenzene	U		0.00208	0.00527	1	10/22/2018 18:45	WG1184455
Dichlorodifluoromethane	U		0.000863	0.00264	1	10/23/2018 17:41	WG1185221
1,1-Dichloroethane	U		0.000607	0.00264	1	10/22/2018 18:45	WG1184455
1,2-Dichloroethane	U		0.000501	0.00264	1	10/22/2018 18:45	WG1184455
1,1-Dichloroethene	U		0.000527	0.00264	1	10/22/2018 18:45	WG1184455
cis-1,2-Dichloroethene	0.0277		0.000728	0.00264	1	10/23/2018 17:41	WG1185221
trans-1,2-Dichloroethene	U		0.00151	0.00527	1	10/22/2018 18:45	WG1184455
1,2-Dichloropropane	U		0.00134	0.00527	1	10/22/2018 18:45	WG1184455
1,1-Dichloropropene	U		0.000738	0.00264	1	10/22/2018 18:45	WG1184455
1,3-Dichloropropane	U		0.00185	0.00527	1	10/22/2018 18:45	WG1184455
cis-1,3-Dichloropropene	U		0.000715	0.00264	1	10/22/2018 18:45	WG1184455
trans-1,3-Dichloropropene	U U	J4	0.00161	0.00527	1	10/22/2018 18:45	WG1184455
trans-1,4-Dichloro-2-butene	U		0.00148	0.00527	1	10/22/2018 18:45	WG1184455
2,2-Dichloropropane	U		0.000836	0.00264	1	10/22/2018 18:45	WG1184455
Di-isopropyl ether	U		0.000369	0.00105	1	10/22/2018 18:45	WG1184455
Ethylbenzene	U		0.000559	0.00264	1	10/22/2018 18:45	WG1184455
Hexachloro-1,3-butadiene	U		0.0134	0.0264	1	10/22/2018 18:45	WG1184455
2-Hexanone	U		0.0105	0.0264	1	10/22/2018 18:45	WG1184455
n-Hexane	U		0.00112	0.00527	1	10/22/2018 18:45	WG1184455
Iodomethane	U		0.00638	0.0132	1	10/22/2018 18:45	WG1184455
Isopropylbenzene	U		0.000910	0.00264	1	10/22/2018 18:45	WG1184455
p-Isopropyltoluene	U		0.00246	0.00527	1	10/22/2018 18:45	WG1184455
2-Butanone (MEK)	0.0258 J	J	0.0132	0.0264	1	10/22/2018 18:45	WG1184455
Methylene Chloride	U		0.00700	0.0264	1	10/22/2018 18:45	WG1184455
4-Methyl-2-pentanone (MIBK)	U		0.0105	0.0264	1	10/22/2018 18:45	WG1184455

JC 11/15/18

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

Analyte	Result (dry) mg/kg		Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U			0.000311	0.00105	1	10/22/2018 18:45	WG1184455
Naphthalene	U			0.00329	0.0132	1	10/22/2018 18:45	WG1184455
n-Propylbenzene	U			0.00124	0.00527	1	10/22/2018 18:45	WG1184455
Styrene	U			0.00288	0.0132	1	10/22/2018 18:45	WG1184455
1,1,1,2-Tetrachloroethane	U	U	J4	0.000527	0.00264	1	10/22/2018 18:45	WG1184455
1,1,2,2-Tetrachloroethane	U			0.000411	0.00264	1	10/23/2018 17:41	WG1185221
1,1,2-Trichlorotrifluoroethane	U			0.000712	0.00264	1	10/22/2018 18:45	WG1184455
Tetrachloroethene	0.0301			0.000738	0.00264	1	10/22/2018 18:45	WG1184455
Toluene	U			0.00132	0.00527	1	10/22/2018 18:45	WG1184455
1,2,3-Trichlorobenzene	U			0.000659	0.00264	1	10/23/2018 17:41	WG1185221
1,2,4-Trichlorobenzene	U			0.00508	0.0132	1	10/22/2018 18:45	WG1184455
1,1,1-Trichloroethane	U			0.000290	0.00264	1	10/22/2018 18:45	WG1184455
1,1,2-Trichloroethane	U			0.000931	0.00264	1	10/22/2018 18:45	WG1184455
Trichloroethene	0.00471			0.000422	0.00105	1	10/22/2018 18:45	WG1184455
Trichlorofluoromethane	U			0.000527	0.00264	1	10/22/2018 18:45	WG1184455
1,2,3-Trichloropropane	U			0.00538	0.0132	1	10/22/2018 18:45	WG1184455
1,2,4-Trimethylbenzene	U			0.00122	0.00527	1	10/22/2018 18:45	WG1184455
1,2,3-Trimethylbenzene	U			0.00121	0.00527	1	10/22/2018 18:45	WG1184455
1,3,5-Trimethylbenzene	U			0.00114	0.00527	1	10/22/2018 18:45	WG1184455
Vinyl acetate	U			0.00371	0.0132	1	10/22/2018 18:45	WG1184455
Vinyl chloride	U			0.000720	0.00264	1	10/22/2018 18:45	WG1184455
Xylenes, Total	U			0.00504	0.00686	1	10/22/2018 18:45	WG1184455
(S) Toluene-d8	*103*				*75.0-131*		*10/22/2018 18:45*	WG1184455
(S) Toluene-d8	*99.9*				*75.0-131*		*10/23/2018 17:41*	WG1185221
(S) Dibromofluoromethane	*91.7*				*65.0-129*		*10/22/2018 18:45*	WG1184455
(S) Dibromofluoromethane	*113*				*65.0-129*		*10/23/2018 17:41*	WG1185221
(S) 4-Bromofluorobenzene	*95.6*				*67.0-138*		*10/22/2018 18:45*	WG1184455
(S) 4-Bromofluorobenzene	*120*				*67.0-138*		*10/23/2018 17:41*	WG1185221

JC 11/15/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	87.9		1	10/24/2018 12:49	WG1185667

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0156	0.0285	1	10/23/2018 18:02	WG1185221
Acrylonitrile	U		0.00216	0.0142	1	10/22/2018 19:03	WG1184455
Benzene	U		0.000455	0.00114	1	10/22/2018 19:03	WG1184455
Bromobenzene	U		0.00119	0.0142	1	10/22/2018 19:03	WG1184455
Bromodichloromethane	U		0.000897	0.00285	1	10/22/2018 19:03	WG1184455
Bromochloromethane	U		0.00129	0.00569	1	10/22/2018 19:03	WG1184455
Bromoform	U		0.00681	0.0285	1	10/22/2018 19:03	WG1184455
Bromomethane	U		0.00421	0.0142	1	10/22/2018 19:03	WG1184455
n-Butylbenzene	U		0.00437	0.0142	1	10/22/2018 19:03	WG1184455
sec-Butylbenzene	U		0.00288	0.0142	1	10/22/2018 19:03	WG1184455
tert-Butylbenzene	U		0.00176	0.00569	1	10/22/2018 19:03	WG1184455
Carbon disulfide	U		0.00462	0.0142	1	10/22/2018 19:03	WG1184455
Carbon tetrachloride	U		0.00123	0.00569	1	10/22/2018 19:03	WG1184455
Chlorobenzene	U		0.000652	0.00285	1	10/22/2018 19:03	WG1184455
Chlorodibromomethane	U		0.000512	0.00285	1	10/22/2018 19:03	WG1184455
Chloroethane	U		0.00123	0.00569	1	10/22/2018 19:03	WG1184455
Chloroform	U		0.000472	0.00285	1	10/22/2018 19:03	WG1184455
Chloromethane	U		0.00158	0.0142	1	10/22/2018 19:03	WG1184455
2-Chlorotoluene	U		0.00105	0.00285	1	10/22/2018 19:03	WG1184455
4-Chlorotoluene	U		0.00129	0.00569	1	10/22/2018 19:03	WG1184455
1,2-Dibromo-3-Chloropropane	U		0.00580	0.0285	1	10/22/2018 19:03	WG1184455
1,2-Dibromoethane	U		0.000597	0.00285	1	10/22/2018 19:03	WG1184455
Dibromomethane	U		0.00114	0.00569	1	10/22/2018 19:03	WG1184455
1,2-Dichlorobenzene	U		0.00165	0.00569	1	10/22/2018 19:03	WG1184455
1,3-Dichlorobenzene	U		0.00193	0.00569	1	10/22/2018 19:03	WG1184455
1,4-Dichlorobenzene	U		0.00224	0.00569	1	10/22/2018 19:03	WG1184455
Dichlorodifluoromethane	U		0.000931	0.00285	1	10/23/2018 18:02	WG1185221
1,1-Dichloroethane	U		0.000654	0.00285	1	10/22/2018 19:03	WG1184455
1,2-Dichloroethane	U		0.000541	0.00285	1	10/22/2018 19:03	WG1184455
1,1-Dichloroethene	U		0.000569	0.00285	1	10/22/2018 19:03	WG1184455
cis-1,2-Dichloroethene	U		0.000785	0.00285	1	10/22/2018 19:03	WG1184455
trans-1,2-Dichloroethene	U		0.00163	0.00569	1	10/22/2018 19:03	WG1184455
1,2-Dichloropropane	U		0.00145	0.00569	1	10/22/2018 19:03	WG1184455
1,1-Dichloropropene	U		0.000797	0.00285	1	10/22/2018 19:03	WG1184455
1,3-Dichloropropane	U		0.00199	0.00569	1	10/22/2018 19:03	WG1184455
cis-1,3-Dichloropropene	U		0.000772	0.00285	1	10/22/2018 19:03	WG1184455
trans-1,3-Dichloropropene	U	U J4	0.00174	0.00569	1	10/22/2018 19:03	WG1184455
trans-1,4-Dichloro-2-butene	U		0.00159	0.00569	1	10/22/2018 19:03	WG1184455
2,2-Dichloropropane	U		0.000902	0.00285	1	10/22/2018 19:03	WG1184455
Di-isopropyl ether	U		0.000398	0.00114	1	10/22/2018 19:03	WG1184455
Ethylbenzene	U		0.000603	0.00285	1	10/22/2018 19:03	WG1184455
Hexachloro-1,3-butadiene	U		0.0145	0.0285	1	10/22/2018 19:03	WG1184455
2-Hexanone	U		0.0114	0.0285	1	10/22/2018 19:03	WG1184455
n-Hexane	U		0.00121	0.00569	1	10/22/2018 19:03	WG1184455
Iodomethane	U		0.00689	0.0142	1	10/22/2018 19:03	WG1184455
Isopropylbenzene	U		0.000982	0.00285	1	10/22/2018 19:03	WG1184455
p-Isopropyltoluene	U		0.00265	0.00569	1	10/22/2018 19:03	WG1184455
2-Butanone (MEK)	0.0289		0.0142	0.0285	1	10/22/2018 19:03	WG1184455
Methylene Chloride	U		0.00756	0.0285	1	10/22/2018 19:03	WG1184455
4-Methyl-2-pentanone (MIBK)	U		0.0114	0.0285	1	10/22/2018 19:03	WG1184455

JC 11/15/18

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000336	0.00114	1	10/22/2018 19:03	WG1184455
Naphthalene	U		0.00355	0.0142	1	10/22/2018 19:03	WG1184455
n-Propylbenzene	U		0.00134	0.00569	1	10/22/2018 19:03	WG1184455
Styrene	U		0.00311	0.0142	1	10/22/2018 19:03	WG1184455
1,1,1,2-Tetrachloroethane	U U	J4	0.000569	0.00285	1	10/22/2018 19:03	WG1184455
1,1,2,2-Tetrachloroethane	U		0.000444	0.00285	1	10/23/2018 18:02	WG1185221
1,1,2-Trichlorotrifluoroethane	U		0.000768	0.00285	1	10/22/2018 19:03	WG1184455
Tetrachloroethene	0.0321		0.000797	0.00285	1	10/22/2018 19:03	WG1184455
Toluene	U		0.00142	0.00569	1	10/22/2018 19:03	WG1184455
1,2,3-Trichlorobenzene	U		0.000711	0.00285	1	10/23/2018 18:02	WG1185221
1,2,4-Trichlorobenzene	U		0.00549	0.0142	1	10/22/2018 19:03	WG1184455
1,1,1-Trichloroethane	U		0.000313	0.00285	1	10/22/2018 19:03	WG1184455
1,1,2-Trichloroethane	U		0.00100	0.00285	1	10/22/2018 19:03	WG1184455
Trichloroethene	0.00106 J	J	0.000455	0.00114	1	10/22/2018 19:03	WG1184455
Trichlorofluoromethane	U		0.000569	0.00285	1	10/22/2018 19:03	WG1184455
1,2,3-Trichloropropane	U		0.00580	0.0142	1	10/22/2018 19:03	WG1184455
1,2,4-Trimethylbenzene	U		0.00132	0.00569	1	10/22/2018 19:03	WG1184455
1,2,3-Trimethylbenzene	U		0.00131	0.00569	1	10/22/2018 19:03	WG1184455
1,3,5-Trimethylbenzene	U		0.00123	0.00569	1	10/22/2018 19:03	WG1184455
Vinyl acetate	U		0.00401	0.0142	1	10/22/2018 19:03	WG1184455
Vinyl chloride	U		0.000777	0.00285	1	10/22/2018 19:03	WG1184455
Xylenes, Total	U		0.00544	0.00740	1	10/22/2018 19:03	WG1184455
(S) Toluene-d8	*104*			*75.0-131*		*10/22/2018 19:03*	WG1184455
(S) Toluene-d8	*100*			*75.0-131*		*10/23/2018 18:02*	WG1185221
(S) Dibromofluoromethane	*91.8*			*65.0-129*		*10/22/2018 19:03*	WG1184455
(S) Dibromofluoromethane	*114*			*65.0-129*		*10/23/2018 18:02*	WG1185221
(S) 4-Bromofluorobenzene	*94.1*			*67.0-138*		*10/22/2018 19:03*	WG1184455
(S) 4-Bromofluorobenzene	*121*			*67.0-138*		*10/23/2018 18:02*	WG1185221

JC 11/15/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	91.6		1	10/24/2018 13:49	WG1185668

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch	
	mg/kg		mg/kg	mg/kg		date / time		
Acetone	U		0.0150	0.0273	1	10/23/2018 18:22	WG1185221	
Acrylonitrile	U		0.00207	0.0136	1	10/22/2018 19:22	WG1184455	
Benzene	U		0.000437	0.00109	1	10/22/2018 19:22	WG1184455	
Bromobenzene	U		0.00115	0.0136	1	10/22/2018 19:22	WG1184455	
Bromodichloromethane	U		0.000860	0.00273	1	10/22/2018 19:22	WG1184455	
Bromochloromethane	U		0.00123	0.00546	1	10/22/2018 19:22	WG1184455	
Bromoform	U		0.00653	0.0273	1	10/22/2018 19:22	WG1184455	
Bromomethane	U		0.00404	0.0136	1	10/22/2018 19:22	WG1184455	
n-Butylbenzene	U		0.00419	0.0136	1	10/22/2018 19:22	WG1184455	
sec-Butylbenzene	U		0.00276	0.0136	1	10/22/2018 19:22	WG1184455	
tert-Butylbenzene	U		0.00169	0.00546	1	10/22/2018 19:22	WG1184455	
Carbon disulfide	0.00546 J	J	0.00443	0.0136	1	10/22/2018 19:22	WG1184455	
Carbon tetrachloride	U		0.00118	0.00546	1	10/22/2018 19:22	WG1184455	
Chlorobenzene	U		0.000625	0.00273	1	10/22/2018 19:22	WG1184455	
Chlorodibromomethane	U		0.000491	0.00273	1	10/22/2018 19:22	WG1184455	
Chloroethane	U		0.00118	0.00546	1	10/22/2018 19:22	WG1184455	
Chloroform	U		0.000453	0.00273	1	10/22/2018 19:22	WG1184455	
Chloromethane	U		0.00152	0.0136	1	10/22/2018 19:22	WG1184455	
2-Chlorotoluene	U		0.00100	0.00273	1	10/22/2018 19:22	WG1184455	
4-Chlorotoluene	U		0.00123	0.00546	1	10/22/2018 19:22	WG1184455	
1,2-Dibromo-3-Chloropropane	U		0.00557	0.0273	1	10/22/2018 19:22	WG1184455	
1,2-Dibromoethane	U		0.000573	0.00273	1	10/22/2018 19:22	WG1184455	
Dibromomethane	U		0.00109	0.00546	1	10/22/2018 19:22	WG1184455	
1,2-Dichlorobenzene	U		0.00158	0.00546	1	10/22/2018 19:22	WG1184455	
1,3-Dichlorobenzene	U		0.00186	0.00546	1	10/22/2018 19:22	WG1184455	
1,4-Dichlorobenzene	U		0.00215	0.00546	1	10/22/2018 19:22	WG1184455	
Dichlorodifluoromethane	U		0.000893	0.00273	1	10/23/2018 18:22	WG1185221	
1,1-Dichloroethane	U		0.000628	0.00273	1	10/22/2018 19:22	WG1184455	
1,2-Dichloroethane	U		0.000519	0.00273	1	10/22/2018 19:22	WG1184455	
1,1-Dichloroethene	U		0.000546	0.00273	1	10/22/2018 19:22	WG1184455	
cis-1,2-Dichloroethene	0.0170		0.000753	0.00273	1	10/23/2018 18:22	WG1185221	
trans-1,2-Dichloroethene	U		0.00156	0.00546	1	10/22/2018 19:22	WG1184455	
1,2-Dichloropropane	U		0.00139	0.00546	1	10/22/2018 19:22	WG1184455	
1,1-Dichloropropene	U		0.000764	0.00273	1	10/22/2018 19:22	WG1184455	
1,3-Dichloropropane	U		0.00191	0.00546	1	10/22/2018 19:22	WG1184455	
cis-1,3-Dichloropropene	U		0.000740	0.00273	1	10/22/2018 19:22	WG1184455	
trans-1,3-Dichloropropene	U U	J4	0.00167	0.00546	1	10/22/2018 19:22	WG1184455	
trans-1,4-Dichloro-2-butene	U		0.00153	0.00546	1	10/22/2018 19:22	WG1184455	
2,2-Dichloropropane	U		0.000866	0.00273	1	10/22/2018 19:22	WG1184455	
Di-isopropyl ether	U		0.000382	0.00109	1	10/22/2018 19:22	WG1184455	
Ethylbenzene	U		0.000579	0.00273	1	10/22/2018 19:22	WG1184455	
Hexachloro-1,3-butadiene	U		0.0139	0.0273	1	10/22/2018 19:22	WG1184455	
2-Hexanone	U		0.0109	0.0273	1	10/22/2018 19:22	WG1184455	
n-Hexane	U		0.00116	0.00546	1	10/22/2018 19:22	WG1184455	
Iodomethane	U		0.00660	0.0136	1	10/22/2018 19:22	WG1184455	
Isopropylbenzene	U		0.000942	0.00273	1	10/22/2018 19:22	WG1184455	
p-Isopropyltoluene	U		0.00254	0.00546	1	10/22/2018 19:22	WG1184455	
2-Butanone (MEK)	0.0228 J	J	0.0136	0.0273	1	10/22/2018 19:22	WG1184455	
Methylene Chloride	U		0.00725	0.0273	1	10/22/2018 19:22	WG1184455	JC 11/15/18
4-Methyl-2-pentanone (MIBK)	U		0.0109	0.0273	1	10/22/2018 19:22	WG1184455	

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

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000322	0.00109	1	10/22/2018 19:22	WG1184455
Naphthalene	U		0.00341	0.0136	1	10/22/2018 19:22	WG1184455
n-Propylbenzene	U		0.00129	0.00546	1	10/22/2018 19:22	WG1184455
Styrene	U		0.00298	0.0136	1	10/22/2018 19:22	WG1184455
1,1,1,2-Tetrachloroethane	U	U J4	0.000546	0.00273	1	10/22/2018 19:22	WG1184455
1,1,2,2-Tetrachloroethane	U		0.000426	0.00273	1	10/23/2018 18:22	WG1185221
1,1,2-Trichlorotrifluoroethane	U		0.000737	0.00273	1	10/22/2018 19:22	WG1184455
Tetrachloroethene	0.0558		0.000764	0.00273	1	10/22/2018 19:22	WG1184455
Toluene	U		0.00136	0.00546	1	10/22/2018 19:22	WG1184455
1,2,3-Trichlorobenzene	U		0.000682	0.00273	1	10/23/2018 18:22	WG1185221
1,2,4-Trichlorobenzene	U		0.00526	0.0136	1	10/22/2018 19:22	WG1184455
1,1,1-Trichloroethane	U		0.000300	0.00273	1	10/22/2018 19:22	WG1184455
1,1,2-Trichloroethane	U		0.000964	0.00273	1	10/22/2018 19:22	WG1184455
Trichloroethene	0.00523		0.000437	0.00109	1	10/22/2018 19:22	WG1184455
Trichlorofluoromethane	U		0.000546	0.00273	1	10/22/2018 19:22	WG1184455
1,2,3-Trichloropropane	U		0.00557	0.0136	1	10/22/2018 19:22	WG1184455
1,2,4-Trimethylbenzene	U		0.00127	0.00546	1	10/22/2018 19:22	WG1184455
1,2,3-Trimethylbenzene	U		0.00126	0.00546	1	10/22/2018 19:22	WG1184455
1,3,5-Trimethylbenzene	U		0.00118	0.00546	1	10/22/2018 19:22	WG1184455
Vinyl acetate	U		0.00384	0.0136	1	10/22/2018 19:22	WG1184455
Vinyl chloride	U		0.000746	0.00273	1	10/22/2018 19:22	WG1184455
Xylenes, Total	U		0.00522	0.00710	1	10/22/2018 19:22	WG1184455
(S) Toluene-d8	*103*			*75.0-131*		*10/22/2018 19:22*	WG1184455
(S) Toluene-d8	*97.5*			*75.0-131*		*10/23/2018 18:22*	WG1185221
(S) Dibromofluoromethane	*94.1*			*65.0-129*		*10/22/2018 19:22*	WG1184455
(S) Dibromofluoromethane	*112*			*65.0-129*		*10/23/2018 18:22*	WG1185221
(S) 4-Bromofluorobenzene	*92.3*			*67.0-138*		*10/22/2018 19:22*	WG1184455
(S) 4-Bromofluorobenzene	*120*			*67.0-138*		*10/23/2018 18:22*	WG1185221

JC 11/15/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	92.2		1	10/24/2018 13:49	WG1185668

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0149	0.0271	1	10/23/2018 18:42	WG1185221
Acrylonitrile	U		0.00206	0.0136	1	10/22/2018 19:40	WG1184455
Benzene	U		0.000434	0.00108	1	10/22/2018 19:40	WG1184455
Bromobenzene	U		0.00114	0.0136	1	10/22/2018 19:40	WG1184455
Bromodichloromethane	U		0.000855	0.00271	1	10/22/2018 19:40	WG1184455
Bromochloromethane	U		0.00123	0.00542	1	10/22/2018 19:40	WG1184455
Bromoform	U		0.00649	0.0271	1	10/22/2018 19:40	WG1184455
Bromomethane	U		0.00401	0.0136	1	10/22/2018 19:40	WG1184455
n-Butylbenzene	U		0.00417	0.0136	1	10/22/2018 19:40	WG1184455
sec-Butylbenzene	U		0.00274	0.0136	1	10/22/2018 19:40	WG1184455
tert-Butylbenzene	U		0.00168	0.00542	1	10/22/2018 19:40	WG1184455
Carbon disulfide	U		0.00440	0.0136	1	10/22/2018 19:40	WG1184455
Carbon tetrachloride	U		0.00117	0.00542	1	10/22/2018 19:40	WG1184455
Chlorobenzene	U		0.000622	0.00271	1	10/22/2018 19:40	WG1184455
Chlorodibromomethane	U		0.000488	0.00271	1	10/22/2018 19:40	WG1184455
Chloroethane	U		0.00117	0.00542	1	10/22/2018 19:40	WG1184455
Chloroform	U		0.000450	0.00271	1	10/22/2018 19:40	WG1184455
Chloromethane	U		0.00151	0.0136	1	10/22/2018 19:40	WG1184455
2-Chlorotoluene	U		0.000998	0.00271	1	10/22/2018 19:40	WG1184455
4-Chlorotoluene	U		0.00123	0.00542	1	10/22/2018 19:40	WG1184455
1,2-Dibromo-3-Chloropropane	U		0.00553	0.0271	1	10/22/2018 19:40	WG1184455
1,2-Dibromoethane	U		0.000570	0.00271	1	10/22/2018 19:40	WG1184455
Dibromomethane	U		0.00108	0.00542	1	10/22/2018 19:40	WG1184455
1,2-Dichlorobenzene	U		0.00157	0.00542	1	10/22/2018 19:40	WG1184455
1,3-Dichlorobenzene	U		0.00184	0.00542	1	10/22/2018 19:40	WG1184455
1,4-Dichlorobenzene	U		0.00214	0.00542	1	10/22/2018 19:40	WG1184455
Dichlorodifluoromethane	U		0.000887	0.00271	1	10/23/2018 18:42	WG1185221
1,1-Dichloroethane	U		0.000624	0.00271	1	10/22/2018 19:40	WG1184455
1,2-Dichloroethane	U		0.000515	0.00271	1	10/22/2018 19:40	WG1184455
1,1-Dichloroethene	U		0.000542	0.00271	1	10/22/2018 19:40	WG1184455
cis-1,2-Dichloroethene	0.0894		0.000749	0.00271	1	10/23/2018 18:42	WG1185221
trans-1,2-Dichloroethene	U		0.00155	0.00542	1	10/22/2018 19:40	WG1184455
1,2-Dichloropropane	U		0.00138	0.00542	1	10/22/2018 19:40	WG1184455
1,1-Dichloropropene	U		0.000759	0.00271	1	10/22/2018 19:40	WG1184455
1,3-Dichloropropane	U		0.00190	0.00542	1	10/22/2018 19:40	WG1184455
cis-1,3-Dichloropropene	U		0.000736	0.00271	1	10/22/2018 19:40	WG1184455
trans-1,3-Dichloropropene	U	U J4	0.00166	0.00542	1	10/22/2018 19:40	WG1184455
trans-1,4-Dichloro-2-butene	U		0.00152	0.00542	1	10/22/2018 19:40	WG1184455
2,2-Dichloropropane	U		0.000860	0.00271	1	10/22/2018 19:40	WG1184455
Di-isopropyl ether	U		0.000380	0.00108	1	10/22/2018 19:40	WG1184455
Ethylbenzene	U		0.000575	0.00271	1	10/22/2018 19:40	WG1184455
Hexachloro-1,3-butadiene	U		0.0138	0.0271	1	10/22/2018 19:40	WG1184455
2-Hexanone	U		0.0108	0.0271	1	10/22/2018 19:40	WG1184455
n-Hexane	U		0.00115	0.00542	1	10/22/2018 19:40	WG1184455
Iodomethane	U		0.00656	0.0136	1	10/22/2018 19:40	WG1184455
Isopropylbenzene	U		0.000936	0.00271	1	10/22/2018 19:40	WG1184455
p-Isopropyltoluene	U		0.00253	0.00542	1	10/22/2018 19:40	WG1184455
2-Butanone (MEK)	0.0287		0.0136	0.0271	1	10/22/2018 19:40	WG1184455
Methylene Chloride	U		0.00720	0.0271	1	10/22/2018 19:40	WG1184455
4-Methyl-2-pentanone (MIBK)	U		0.0108	0.0271	1	10/22/2018 19:40	WG1184455

JC 11/15/18

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

Analyte	Result (dry) mg/kg		Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U			0.000320	0.00108	1	10/22/2018 19:40	WG1184455
Naphthalene	U			0.00338	0.0136	1	10/22/2018 19:40	WG1184455
n-Propylbenzene	U			0.00128	0.00542	1	10/22/2018 19:40	WG1184455
Styrene	U			0.00296	0.0136	1	10/22/2018 19:40	WG1184455
1,1,1,2-Tetrachloroethane	U	U	J4	0.000542	0.00271	1	10/22/2018 19:40	WG1184455
1,1,2,2-Tetrachloroethane	U			0.000423	0.00271	1	10/23/2018 18:42	WG1185221
1,1,2-Trichlorotrifluoroethane	U			0.000732	0.00271	1	10/22/2018 19:40	WG1184455
Tetrachloroethene	0.416			0.000759	0.00271	1	10/22/2018 19:40	WG1184455
Toluene	U			0.00136	0.00542	1	10/22/2018 19:40	WG1184455
1,2,3-Trichlorobenzene	U			0.000678	0.00271	1	10/23/2018 18:42	WG1185221
1,2,4-Trichlorobenzene	U			0.00523	0.0136	1	10/22/2018 19:40	WG1184455
1,1,1-Trichloroethane	U			0.000298	0.00271	1	10/22/2018 19:40	WG1184455
1,1,2-Trichloroethane	U			0.000958	0.00271	1	10/22/2018 19:40	WG1184455
Trichloroethene	0.0154			0.000434	0.00108	1	10/22/2018 19:40	WG1184455
Trichlorofluoromethane	U			0.000542	0.00271	1	10/22/2018 19:40	WG1184455
1,2,3-Trichloropropane	U			0.00553	0.0136	1	10/22/2018 19:40	WG1184455
1,2,4-Trimethylbenzene	U			0.00126	0.00542	1	10/22/2018 19:40	WG1184455
1,2,3-Trimethylbenzene	U			0.00125	0.00542	1	10/22/2018 19:40	WG1184455
1,3,5-Trimethylbenzene	U			0.00117	0.00542	1	10/22/2018 19:40	WG1184455
Vinyl acetate	U			0.00382	0.0136	1	10/22/2018 19:40	WG1184455
Vinyl chloride	0.00733			0.000741	0.00271	1	10/22/2018 19:40	WG1184455
Xylenes, Total	U			0.00519	0.00705	1	10/22/2018 19:40	WG1184455
(S) Toluene-d8	*104*				*75.0-131*		*10/22/2018 19:40*	WG1184455
(S) Toluene-d8	*96.9*				*75.0-131*		*10/23/2018 18:42*	WG1185221
(S) Dibromofluoromethane	*93.1*				*65.0-129*		*10/22/2018 19:40*	WG1184455
(S) Dibromofluoromethane	*114*				*65.0-129*		*10/23/2018 18:42*	WG1185221
(S) 4-Bromofluorobenzene	*94.6*				*67.0-138*		*10/22/2018 19:40*	WG1184455
(S) 4-Bromofluorobenzene	*121*				*67.0-138*		*10/23/2018 18:42*	WG1185221

JC 11/15/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	92.1		1	10/24/2018 13:49	WG1185668

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0149	0.0272	1	10/23/2018 19:02	WG1185221
Acrylonitrile	U		0.00206	0.0136	1	10/22/2018 19:58	WG1184455
Benzene	U		0.000434	0.00109	1	10/22/2018 19:58	WG1184455
Bromobenzene	U		0.00114	0.0136	1	10/22/2018 19:58	WG1184455
Bromodichloromethane	U		0.000856	0.00272	1	10/22/2018 19:58	WG1184455
Bromochloromethane	U		0.00123	0.00543	1	10/22/2018 19:58	WG1184455
Bromoform	U		0.00649	0.0272	1	10/22/2018 19:58	WG1184455
Bromomethane	U		0.00402	0.0136	1	10/22/2018 19:58	WG1184455
n-Butylbenzene	U		0.00417	0.0136	1	10/22/2018 19:58	WG1184455
sec-Butylbenzene	U		0.00275	0.0136	1	10/22/2018 19:58	WG1184455
tert-Butylbenzene	U		0.00168	0.00543	1	10/22/2018 19:58	WG1184455
Carbon disulfide	U		0.00441	0.0136	1	10/22/2018 19:58	WG1184455
Carbon tetrachloride	U		0.00117	0.00543	1	10/22/2018 19:58	WG1184455
Chlorobenzene	U		0.000622	0.00272	1	10/22/2018 19:58	WG1184455
Chlorodibromomethane	U		0.000489	0.00272	1	10/22/2018 19:58	WG1184455
Chloroethane	U		0.00117	0.00543	1	10/22/2018 19:58	WG1184455
Chloroform	U		0.000451	0.00272	1	10/22/2018 19:58	WG1184455
Chloromethane	U		0.00151	0.0136	1	10/22/2018 19:58	WG1184455
2-Chlorotoluene	U		0.000999	0.00272	1	10/22/2018 19:58	WG1184455
4-Chlorotoluene	U		0.00123	0.00543	1	10/22/2018 19:58	WG1184455
1,2-Dibromo-3-Chloropropane	U		0.00554	0.0272	1	10/22/2018 19:58	WG1184455
1,2-Dibromoethane	U		0.000570	0.00272	1	10/22/2018 19:58	WG1184455
Dibromomethane	U		0.00109	0.00543	1	10/22/2018 19:58	WG1184455
1,2-Dichlorobenzene	U		0.00157	0.00543	1	10/22/2018 19:58	WG1184455
1,3-Dichlorobenzene	U		0.00185	0.00543	1	10/22/2018 19:58	WG1184455
1,4-Dichlorobenzene	U		0.00214	0.00543	1	10/22/2018 19:58	WG1184455
Dichlorodifluoromethane	U		0.000888	0.00272	1	10/23/2018 19:02	WG1185221
1,1-Dichloroethane	U		0.000624	0.00272	1	10/22/2018 19:58	WG1184455
1,2-Dichloroethane	U		0.000516	0.00272	1	10/22/2018 19:58	WG1184455
1,1-Dichloroethene	U		0.000543	0.00272	1	10/22/2018 19:58	WG1184455
cis-1,2-Dichloroethene	U		0.000749	0.00272	1	10/22/2018 19:58	WG1184455
trans-1,2-Dichloroethene	U		0.00155	0.00543	1	10/22/2018 19:58	WG1184455
1,2-Dichloropropane	U		0.00138	0.00543	1	10/22/2018 19:58	WG1184455
1,1-Dichloropropene	U		0.000760	0.00272	1	10/22/2018 19:58	WG1184455
1,3-Dichloropropane	U		0.00190	0.00543	1	10/22/2018 19:58	WG1184455
cis-1,3-Dichloropropene	U		0.000736	0.00272	1	10/22/2018 19:58	WG1184455
trans-1,3-Dichloropropene	U	U J4	0.00166	0.00543	1	10/22/2018 19:58	WG1184455
trans-1,4-Dichloro-2-butene	U		0.00152	0.00543	1	10/22/2018 19:58	WG1184455
2,2-Dichloropropane	U		0.000861	0.00272	1	10/22/2018 19:58	WG1184455
Di-isopropyl ether	U		0.000380	0.00109	1	10/22/2018 19:58	WG1184455
Ethylbenzene	U		0.000576	0.00272	1	10/22/2018 19:58	WG1184455
Hexachloro-1,3-butadiene	U		0.0138	0.0272	1	10/22/2018 19:58	WG1184455
2-Hexanone	U		0.0109	0.0272	1	10/22/2018 19:58	WG1184455
n-Hexane	U		0.00115	0.00543	1	10/22/2018 19:58	WG1184455
Iodomethane	U		0.00657	0.0136	1	10/22/2018 19:58	WG1184455
Isopropylbenzene	U		0.000937	0.00272	1	10/22/2018 19:58	WG1184455
p-Isopropyltoluene	U		0.00253	0.00543	1	10/22/2018 19:58	WG1184455
2-Butanone (MEK)	U		0.0136	0.0272	1	10/22/2018 19:58	WG1184455
Methylene Chloride	U		0.00721	0.0272	1	10/22/2018 19:58	WG1184455
4-Methyl-2-pentanone (MIBK)	U		0.0109	0.0272	1	10/22/2018 19:58	WG1184455

JC 11/15/18

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000320	0.00109	1	10/22/2018 19:58	WG1184455
Naphthalene	U		0.00339	0.0136	1	10/22/2018 19:58	WG1184455
n-Propylbenzene	U		0.00128	0.00543	1	10/22/2018 19:58	WG1184455
Styrene	U		0.00296	0.0136	1	10/22/2018 19:58	WG1184455
1,1,1,2-Tetrachloroethane	U	U J4	0.000543	0.00272	1	10/22/2018 19:58	WG1184455
1,1,2,2-Tetrachloroethane	U		0.000424	0.00272	1	10/23/2018 19:02	WG1185221
1,1,2-Trichlorotrifluoroethane	U		0.000733	0.00272	1	10/22/2018 19:58	WG1184455
Tetrachloroethene	0.200		0.000760	0.00272	1	10/22/2018 19:58	WG1184455
Toluene	U		0.00136	0.00543	1	10/22/2018 19:58	WG1184455
1,2,3-Trichlorobenzene	U		0.000679	0.00272	1	10/23/2018 19:02	WG1185221
1,2,4-Trichlorobenzene	U		0.00523	0.0136	1	10/22/2018 19:58	WG1184455
1,1,1-Trichloroethane	U		0.000299	0.00272	1	10/22/2018 19:58	WG1184455
1,1,2-Trichloroethane	U		0.000959	0.00272	1	10/22/2018 19:58	WG1184455
Trichloroethene	0.00630		0.000434	0.00109	1	10/22/2018 19:58	WG1184455
Trichlorofluoromethane	U		0.000543	0.00272	1	10/22/2018 19:58	WG1184455
1,2,3-Trichloropropane	U		0.00554	0.0136	1	10/22/2018 19:58	WG1184455
1,2,4-Trimethylbenzene	U		0.00126	0.00543	1	10/22/2018 19:58	WG1184455
1,2,3-Trimethylbenzene	U		0.00125	0.00543	1	10/22/2018 19:58	WG1184455
1,3,5-Trimethylbenzene	U		0.00117	0.00543	1	10/22/2018 19:58	WG1184455
Vinyl acetate	U		0.00382	0.0136	1	10/22/2018 19:58	WG1184455
Vinyl chloride	U		0.000742	0.00272	1	10/22/2018 19:58	WG1184455
Xylenes, Total	U		0.00519	0.00706	1	10/22/2018 19:58	WG1184455
(S) Toluene-d8	*107*			*75.0-131*		*10/22/2018 19:58*	WG1184455
(S) Toluene-d8	*99.6*			*75.0-131*		*10/23/2018 19:02*	WG1185221
(S) Dibromofluoromethane	*94.6*			*65.0-129*		*10/22/2018 19:58*	WG1184455
(S) Dibromofluoromethane	*115*			*65.0-129*		*10/23/2018 19:02*	WG1185221
(S) 4-Bromofluorobenzene	*95.2*			*67.0-138*		*10/22/2018 19:58*	WG1184455
(S) 4-Bromofluorobenzene	*118*			*67.0-138*		*10/23/2018 19:02*	WG1185221

JC 11/15/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	86.4		1	10/24/2018 13:49	WG1185668

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0159	0.0289	1	10/23/2018 19:22	WG1185221
Acrylonitrile	U		0.00220	0.0145	1	10/22/2018 20:17	WG1184455
Benzene	U		0.000463	0.00116	1	10/22/2018 20:17	WG1184455
Bromobenzene	U		0.00122	0.0145	1	10/22/2018 20:17	WG1184455
Bromodichloromethane	U		0.000912	0.00289	1	10/22/2018 20:17	WG1184455
Bromochloromethane	U		0.00131	0.00579	1	10/22/2018 20:17	WG1184455
Bromoform	U		0.00692	0.0289	1	10/22/2018 20:17	WG1184455
Bromomethane	U		0.00428	0.0145	1	10/22/2018 20:17	WG1184455
n-Butylbenzene	U		0.00444	0.0145	1	10/22/2018 20:17	WG1184455
sec-Butylbenzene	U		0.00293	0.0145	1	10/22/2018 20:17	WG1184455
tert-Butylbenzene	U		0.00179	0.00579	1	10/22/2018 20:17	WG1184455
Carbon disulfide	U		0.00470	0.0145	1	10/22/2018 20:17	WG1184455
Carbon tetrachloride	U		0.00125	0.00579	1	10/22/2018 20:17	WG1184455
Chlorobenzene	U		0.000663	0.00289	1	10/22/2018 20:17	WG1184455
Chlorodibromomethane	U		0.000521	0.00289	1	10/22/2018 20:17	WG1184455
Chloroethane	U		0.00125	0.00579	1	10/22/2018 20:17	WG1184455
Chloroform	U		0.000480	0.00289	1	10/22/2018 20:17	WG1184455
Chloromethane	U		0.00161	0.0145	1	10/22/2018 20:17	WG1184455
2-Chlorotoluene	U		0.00106	0.00289	1	10/22/2018 20:17	WG1184455
4-Chlorotoluene	U		0.00131	0.00579	1	10/22/2018 20:17	WG1184455
1,2-Dibromo-3-Chloropropane	U		0.00590	0.0289	1	10/22/2018 20:17	WG1184455
1,2-Dibromoethane	U		0.000608	0.00289	1	10/22/2018 20:17	WG1184455
Dibromomethane	U		0.00116	0.00579	1	10/22/2018 20:17	WG1184455
1,2-Dichlorobenzene	U		0.00168	0.00579	1	10/22/2018 20:17	WG1184455
1,3-Dichlorobenzene	U		0.00197	0.00579	1	10/22/2018 20:17	WG1184455
1,4-Dichlorobenzene	U		0.00228	0.00579	1	10/22/2018 20:17	WG1184455
Dichlorodifluoromethane	U		0.000947	0.00289	1	10/23/2018 19:22	WG1185221
1,1-Dichloroethane	U		0.000665	0.00289	1	10/22/2018 20:17	WG1184455
1,2-Dichloroethane	U		0.000550	0.00289	1	10/22/2018 20:17	WG1184455
1,1-Dichloroethene	U		0.000579	0.00289	1	10/22/2018 20:17	WG1184455
cis-1,2-Dichloroethene	U		0.000799	0.00289	1	10/22/2018 20:17	WG1184455
trans-1,2-Dichloroethene	U		0.00165	0.00579	1	10/22/2018 20:17	WG1184455
1,2-Dichloropropane	U		0.00147	0.00579	1	10/22/2018 20:17	WG1184455
1,1-Dichloropropene	U		0.000810	0.00289	1	10/22/2018 20:17	WG1184455
1,3-Dichloropropane	U		0.00203	0.00579	1	10/22/2018 20:17	WG1184455
cis-1,3-Dichloropropene	U		0.000785	0.00289	1	10/22/2018 20:17	WG1184455
trans-1,3-Dichloropropene	U	U J4	0.00177	0.00579	1	10/22/2018 20:17	WG1184455
trans-1,4-Dichloro-2-butene	U		0.00162	0.00579	1	10/22/2018 20:17	WG1184455
2,2-Dichloropropane	U		0.000918	0.00289	1	10/22/2018 20:17	WG1184455
Di-isopropyl ether	U		0.000405	0.00116	1	10/22/2018 20:17	WG1184455
Ethylbenzene	U		0.000613	0.00289	1	10/22/2018 20:17	WG1184455
Hexachloro-1,3-butadiene	U		0.0147	0.0289	1	10/22/2018 20:17	WG1184455
2-Hexanone	U		0.0116	0.0289	1	10/22/2018 20:17	WG1184455
n-Hexane	U		0.00123	0.00579	1	10/22/2018 20:17	WG1184455
Iodomethane	U		0.00700	0.0145	1	10/22/2018 20:17	WG1184455
Isopropylbenzene	U		0.000999	0.00289	1	10/22/2018 20:17	WG1184455
p-Isopropyltoluene	U		0.00270	0.00579	1	10/22/2018 20:17	WG1184455
2-Butanone (MEK)	0.0277	J J	0.0145	0.0289	1	10/22/2018 20:17	WG1184455
Methylene Chloride	U		0.00768	0.0289	1	10/22/2018 20:17	WG1184455
4-Methyl-2-pentanone (MIBK)	U		0.0116	0.0289	1	10/22/2018 20:17	WG1184455

JC 11/15/18

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000341	0.00116	1	10/22/2018 20:17	WG1184455
Naphthalene	U		0.00361	0.0145	1	10/22/2018 20:17	WG1184455
n-Propylbenzene	U		0.00137	0.00579	1	10/22/2018 20:17	WG1184455
Styrene	U		0.00316	0.0145	1	10/22/2018 20:17	WG1184455
1,1,1,2-Tetrachloroethane	U	U J4	0.000579	0.00289	1	10/22/2018 20:17	WG1184455
1,1,2,2-Tetrachloroethane	U		0.000451	0.00289	1	10/23/2018 19:22	WG1185221
1,1,2-Trichlorotrifluoroethane	U		0.000781	0.00289	1	10/22/2018 20:17	WG1184455
Tetrachloroethene	0.0960		0.000810	0.00289	1	10/22/2018 20:17	WG1184455
Toluene	U		0.00145	0.00579	1	10/22/2018 20:17	WG1184455
1,2,3-Trichlorobenzene	U		0.000723	0.00289	1	10/23/2018 19:22	WG1185221
1,2,4-Trichlorobenzene	U		0.00558	0.0145	1	10/22/2018 20:17	WG1184455
1,1,1-Trichloroethane	U		0.000318	0.00289	1	10/22/2018 20:17	WG1184455
1,1,2-Trichloroethane	U		0.00102	0.00289	1	10/22/2018 20:17	WG1184455
Trichloroethene	0.00185		0.000463	0.00116	1	10/22/2018 20:17	WG1184455
Trichlorofluoromethane	U		0.000579	0.00289	1	10/22/2018 20:17	WG1184455
1,2,3-Trichloropropane	U		0.00590	0.0145	1	10/22/2018 20:17	WG1184455
1,2,4-Trimethylbenzene	U		0.00134	0.00579	1	10/22/2018 20:17	WG1184455
1,2,3-Trimethylbenzene	U		0.00133	0.00579	1	10/22/2018 20:17	WG1184455
1,3,5-Trimethylbenzene	U		0.00125	0.00579	1	10/22/2018 20:17	WG1184455
Vinyl acetate	U		0.00407	0.0145	1	10/22/2018 20:17	WG1184455
Vinyl chloride	U		0.000790	0.00289	1	10/22/2018 20:17	WG1184455
Xylenes, Total	U		0.00553	0.00752	1	10/22/2018 20:17	WG1184455
(S) Toluene-d8	*103*			*75.0-131*		*10/22/2018 20:17*	WG1184455
(S) Toluene-d8	*100*			*75.0-131*		*10/23/2018 19:22*	WG1185221
(S) Dibromofluoromethane	*95.3*			*65.0-129*		*10/22/2018 20:17*	WG1184455
(S) Dibromofluoromethane	*115*			*65.0-129*		*10/23/2018 19:22*	WG1185221
(S) 4-Bromofluorobenzene	*93.4*			*67.0-138*		*10/22/2018 20:17*	WG1184455
(S) 4-Bromofluorobenzene	*121*			*67.0-138*		*10/23/2018 19:22*	WG1185221

JC 11/15/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	87.5		1	10/24/2018 13:49	WG1185668

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0157	0.0286	1	10/23/2018 19:42	WG1185221
Acrylonitrile	U		0.00217	0.0143	1	10/22/2018 20:35	WG1184455
Benzene	U		0.000457	0.00114	1	10/22/2018 20:35	WG1184455
Bromobenzene	U		0.00120	0.0143	1	10/22/2018 20:35	WG1184455
Bromodichloromethane	U		0.000901	0.00286	1	10/22/2018 20:35	WG1184455
Bromochloromethane	U		0.00129	0.00571	1	10/22/2018 20:35	WG1184455
Bromoform	U		0.00683	0.0286	1	10/22/2018 20:35	WG1184455
Bromomethane	U		0.00423	0.0143	1	10/22/2018 20:35	WG1184455
n-Butylbenzene	U		0.00439	0.0143	1	10/22/2018 20:35	WG1184455
sec-Butylbenzene	U		0.00289	0.0143	1	10/22/2018 20:35	WG1184455
tert-Butylbenzene	U		0.00177	0.00571	1	10/22/2018 20:35	WG1184455
Carbon disulfide	U		0.00464	0.0143	1	10/22/2018 20:35	WG1184455
Carbon tetrachloride	U		0.00123	0.00571	1	10/22/2018 20:35	WG1184455
Chlorobenzene	U		0.000655	0.00286	1	10/22/2018 20:35	WG1184455
Chlorodibromomethane	U		0.000514	0.00286	1	10/22/2018 20:35	WG1184455
Chloroethane	U		0.00123	0.00571	1	10/22/2018 20:35	WG1184455
Chloroform	0.00122 U	B J	0.000474	0.00286	1	10/22/2018 20:35	WG1184455
Chloromethane	U		0.00159	0.0143	1	10/22/2018 20:35	WG1184455
2-Chlorotoluene	U		0.00105	0.00286	1	10/22/2018 20:35	WG1184455
4-Chlorotoluene	U		0.00129	0.00571	1	10/22/2018 20:35	WG1184455
1,2-Dibromo-3-Chloropropane	U		0.00583	0.0286	1	10/22/2018 20:35	WG1184455
1,2-Dibromoethane	U		0.000600	0.00286	1	10/22/2018 20:35	WG1184455
Dibromomethane	U		0.00114	0.00571	1	10/22/2018 20:35	WG1184455
1,2-Dichlorobenzene	U		0.00166	0.00571	1	10/22/2018 20:35	WG1184455
1,3-Dichlorobenzene	U		0.00194	0.00571	1	10/22/2018 20:35	WG1184455
1,4-Dichlorobenzene	U		0.00225	0.00571	1	10/22/2018 20:35	WG1184455
Dichlorodifluoromethane	U		0.000935	0.00286	1	10/23/2018 19:42	WG1185221
1,1-Dichloroethane	U		0.000657	0.00286	1	10/22/2018 20:35	WG1184455
1,2-Dichloroethane	U		0.000543	0.00286	1	10/22/2018 20:35	WG1184455
1,1-Dichloroethene	U		0.000571	0.00286	1	10/22/2018 20:35	WG1184455
cis-1,2-Dichloroethene	U		0.000789	0.00286	1	10/22/2018 20:35	WG1184455
trans-1,2-Dichloroethene	U		0.00163	0.00571	1	10/22/2018 20:35	WG1184455
1,2-Dichloropropane	U		0.00145	0.00571	1	10/22/2018 20:35	WG1184455
1,1-Dichloropropene	U		0.000800	0.00286	1	10/22/2018 20:35	WG1184455
1,3-Dichloropropane	U		0.00200	0.00571	1	10/22/2018 20:35	WG1184455
cis-1,3-Dichloropropene	U		0.000775	0.00286	1	10/22/2018 20:35	WG1184455
trans-1,3-Dichloropropene	U U	J4	0.00175	0.00571	1	10/22/2018 20:35	WG1184455
trans-1,4-Dichloro-2-butene	U		0.00160	0.00571	1	10/22/2018 20:35	WG1184455
2,2-Dichloropropane	U		0.000906	0.00286	1	10/22/2018 20:35	WG1184455
Di-isopropyl ether	U		0.000400	0.00114	1	10/22/2018 20:35	WG1184455
Ethylbenzene	U		0.000606	0.00286	1	10/22/2018 20:35	WG1184455
Hexachloro-1,3-butadiene	U		0.0145	0.0286	1	10/22/2018 20:35	WG1184455
2-Hexanone	U		0.0114	0.0286	1	10/22/2018 20:35	WG1184455
n-Hexane	U		0.00121	0.00571	1	10/22/2018 20:35	WG1184455
Iodomethane	U		0.00691	0.0143	1	10/22/2018 20:35	WG1184455
Isopropylbenzene	U		0.000986	0.00286	1	10/22/2018 20:35	WG1184455
p-Isopropyltoluene	U		0.00266	0.00571	1	10/22/2018 20:35	WG1184455
2-Butanone (MEK)	U		0.0143	0.0286	1	10/22/2018 20:35	WG1184455
Methylene Chloride	U		0.00759	0.0286	1	10/22/2018 20:35	WG1184455
4-Methyl-2-pentanone (MIBK)	U		0.0114	0.0286	1	10/22/2018 20:35	WG1184455

JC 11/15/18

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

Analyte	Result (dry) mg/kg		Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U			0.000337	0.00114	1	10/22/2018 20:35	WG1184455
Naphthalene	U			0.00357	0.0143	1	10/22/2018 20:35	WG1184455
n-Propylbenzene	U			0.00135	0.00571	1	10/22/2018 20:35	WG1184455
Styrene	U			0.00312	0.0143	1	10/22/2018 20:35	WG1184455
1,1,1,2-Tetrachloroethane	U	U	J4	0.000571	0.00286	1	10/22/2018 20:35	WG1184455
1,1,2,2-Tetrachloroethane	U			0.000446	0.00286	1	10/23/2018 19:42	WG1185221
1,1,2-Trichlorotrifluoroethane	U			0.000771	0.00286	1	10/22/2018 20:35	WG1184455
Tetrachloroethene	0.415			0.000800	0.00286	1	10/22/2018 20:35	WG1184455
Toluene	U			0.00143	0.00571	1	10/22/2018 20:35	WG1184455
1,2,3-Trichlorobenzene	U			0.000714	0.00286	1	10/23/2018 19:42	WG1185221
1,2,4-Trichlorobenzene	U			0.00551	0.0143	1	10/22/2018 20:35	WG1184455
1,1,1-Trichloroethane	U			0.000314	0.00286	1	10/22/2018 20:35	WG1184455
1,1,2-Trichloroethane	U			0.00101	0.00286	1	10/22/2018 20:35	WG1184455
Trichloroethene	0.00376			0.000457	0.00114	1	10/22/2018 20:35	WG1184455
Trichlorofluoromethane	U			0.000571	0.00286	1	10/22/2018 20:35	WG1184455
1,2,3-Trichloropropane	U			0.00583	0.0143	1	10/22/2018 20:35	WG1184455
1,2,4-Trimethylbenzene	U			0.00133	0.00571	1	10/22/2018 20:35	WG1184455
1,2,3-Trimethylbenzene	U			0.00131	0.00571	1	10/22/2018 20:35	WG1184455
1,3,5-Trimethylbenzene	U			0.00123	0.00571	1	10/22/2018 20:35	WG1184455
Vinyl acetate	U			0.00402	0.0143	1	10/22/2018 20:35	WG1184455
Vinyl chloride	U			0.000781	0.00286	1	10/22/2018 20:35	WG1184455
Xylenes, Total	U			0.00546	0.00743	1	10/22/2018 20:35	WG1184455
(S) Toluene-d8	*105*				*75.0-131*		*10/22/2018 20:35*	WG1184455
(S) Toluene-d8	*98.5*				*75.0-131*		*10/23/2018 19:42*	WG1185221
(S) Dibromofluoromethane	*94.0*				*65.0-129*		*10/22/2018 20:35*	WG1184455
(S) Dibromofluoromethane	*116*				*65.0-129*		*10/23/2018 19:42*	WG1185221
(S) 4-Bromofluorobenzene	*94.0*				*67.0-138*		*10/22/2018 20:35*	WG1184455
(S) 4-Bromofluorobenzene	*120*				*67.0-138*		*10/23/2018 19:42*	WG1185221

JC 11/15/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	90.8		1	10/24/2018 13:49	WG1185668

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

Analyte	Result (dry)	Qualifier		MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg			mg/kg	mg/kg		date / time	
Acetone	U			0.0151	0.0275	1	10/23/2018 20:02	WG1185221
Acrylonitrile	U			0.00209	0.0138	1	10/22/2018 20:54	WG1184455
Benzene	U			0.000441	0.00110	1	10/22/2018 20:54	WG1184455
Bromobenzene	U			0.00116	0.0138	1	10/22/2018 20:54	WG1184455
Bromodichloromethane	U			0.000868	0.00275	1	10/22/2018 20:54	WG1184455
Bromochloromethane	U			0.00124	0.00551	1	10/22/2018 20:54	WG1184455
Bromoform	U			0.00659	0.0275	1	10/22/2018 20:54	WG1184455
Bromomethane	U			0.00408	0.0138	1	10/22/2018 20:54	WG1184455
n-Butylbenzene	U			0.00423	0.0138	1	10/22/2018 20:54	WG1184455
sec-Butylbenzene	U			0.00279	0.0138	1	10/22/2018 20:54	WG1184455
tert-Butylbenzene	U			0.00171	0.00551	1	10/22/2018 20:54	WG1184455
Carbon disulfide	U			0.00447	0.0138	1	10/22/2018 20:54	WG1184455
Carbon tetrachloride	U			0.00119	0.00551	1	10/22/2018 20:54	WG1184455
Chlorobenzene	U			0.000631	0.00275	1	10/22/2018 20:54	WG1184455
Chlorodibromomethane	U			0.000496	0.00275	1	10/22/2018 20:54	WG1184455
Chloroethane	U			0.00119	0.00551	1	10/22/2018 20:54	WG1184455
Chloroform	U			0.000457	0.00275	1	10/22/2018 20:54	WG1184455
Chloromethane	U			0.00153	0.0138	1	10/22/2018 20:54	WG1184455
2-Chlorotoluene	U			0.00101	0.00275	1	10/22/2018 20:54	WG1184455
4-Chlorotoluene	U			0.00124	0.00551	1	10/22/2018 20:54	WG1184455
1,2-Dibromo-3-Chloropropane	U			0.00562	0.0275	1	10/22/2018 20:54	WG1184455
1,2-Dibromoethane	U			0.000578	0.00275	1	10/22/2018 20:54	WG1184455
Dibromomethane	U			0.00110	0.00551	1	10/22/2018 20:54	WG1184455
1,2-Dichlorobenzene	U			0.00160	0.00551	1	10/22/2018 20:54	WG1184455
1,3-Dichlorobenzene	U			0.00187	0.00551	1	10/22/2018 20:54	WG1184455
1,4-Dichlorobenzene	U			0.00217	0.00551	1	10/22/2018 20:54	WG1184455
Dichlorodifluoromethane	U			0.000901	0.00275	1	10/23/2018 20:02	WG1185221
1,1-Dichloroethane	U			0.000633	0.00275	1	10/22/2018 20:54	WG1184455
1,2-Dichloroethane	U			0.000523	0.00275	1	10/22/2018 20:54	WG1184455
1,1-Dichloroethene	U			0.000551	0.00275	1	10/22/2018 20:54	WG1184455
cis-1,2-Dichloroethene	U			0.000760	0.00275	1	10/22/2018 20:54	WG1184455
trans-1,2-Dichloroethene	U			0.00158	0.00551	1	10/22/2018 20:54	WG1184455
1,2-Dichloropropane	U			0.00140	0.00551	1	10/22/2018 20:54	WG1184455
1,1-Dichloropropene	U			0.000771	0.00275	1	10/22/2018 20:54	WG1184455
1,3-Dichloropropane	U			0.00193	0.00551	1	10/22/2018 20:54	WG1184455
cis-1,3-Dichloropropene	U			0.000747	0.00275	1	10/22/2018 20:54	WG1184455
trans-1,3-Dichloropropene	U	U	J4	0.00169	0.00551	1	10/22/2018 20:54	WG1184455
trans-1,4-Dichloro-2-butene	U			0.00154	0.00551	1	10/22/2018 20:54	WG1184455
2,2-Dichloropropane	U			0.000874	0.00275	1	10/22/2018 20:54	WG1184455
Di-isopropyl ether	U			0.000386	0.00110	1	10/22/2018 20:54	WG1184455
Ethylbenzene	U			0.000584	0.00275	1	10/22/2018 20:54	WG1184455
Hexachloro-1,3-butadiene	U			0.0140	0.0275	1	10/22/2018 20:54	WG1184455
2-Hexanone	U			0.0110	0.0275	1	10/22/2018 20:54	WG1184455
n-Hexane	U			0.00117	0.00551	1	10/23/2018 20:02	WG1185221
Iodomethane	U			0.00667	0.0138	1	10/22/2018 20:54	WG1184455
Isopropylbenzene	U			0.000951	0.00275	1	10/22/2018 20:54	WG1184455
p-Isopropyltoluene	U			0.00257	0.00551	1	10/22/2018 20:54	WG1184455
2-Butanone (MEK)	0.0274	J	J	0.0138	0.0275	1	10/22/2018 20:54	WG1184455
Methylene Chloride	U			0.00732	0.0275	1	10/22/2018 20:54	WG1184455
4-Methyl-2-pentanone (MIBK)	U			0.0110	0.0275	1	10/22/2018 20:54	WG1184455

JC 11/15/18

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

Analyte	Result (dry) mg/kg		Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U			0.000325	0.00110	1	10/22/2018 20:54	WG1184455
Naphthalene	U			0.00344	0.0138	1	10/22/2018 20:54	WG1184455
n-Propylbenzene	U			0.00130	0.00551	1	10/22/2018 20:54	WG1184455
Styrene	U			0.00301	0.0138	1	10/22/2018 20:54	WG1184455
1,1,1,2-Tetrachloroethane	U	U	J4	0.000551	0.00275	1	10/22/2018 20:54	WG1184455
1,1,2,2-Tetrachloroethane	U			0.000430	0.00275	1	10/23/2018 20:02	WG1185221
1,1,2-Trichlorotrifluoroethane	U			0.000744	0.00275	1	10/22/2018 20:54	WG1184455
Tetrachloroethene	1.29			0.000771	0.00275	1	10/22/2018 20:54	WG1184455
Toluene	U			0.00138	0.00551	1	10/22/2018 20:54	WG1184455
1,2,3-Trichlorobenzene	U			0.000689	0.00275	1	10/23/2018 20:02	WG1185221
1,2,4-Trichlorobenzene	U			0.00531	0.0138	1	10/22/2018 20:54	WG1184455
1,1,1-Trichloroethane	U			0.000303	0.00275	1	10/22/2018 20:54	WG1184455
1,1,2-Trichloroethane	U			0.000973	0.00275	1	10/22/2018 20:54	WG1184455
Trichloroethene	0.00533			0.000441	0.00110	1	10/22/2018 20:54	WG1184455
Trichlorofluoromethane	U			0.000551	0.00275	1	10/22/2018 20:54	WG1184455
1,2,3-Trichloropropane	U			0.00562	0.0138	1	10/22/2018 20:54	WG1184455
1,2,4-Trimethylbenzene	U			0.00128	0.00551	1	10/22/2018 20:54	WG1184455
1,2,3-Trimethylbenzene	U			0.00127	0.00551	1	10/22/2018 20:54	WG1184455
1,3,5-Trimethylbenzene	U			0.00119	0.00551	1	10/22/2018 20:54	WG1184455
Vinyl acetate	U			0.00388	0.0138	1	10/22/2018 20:54	WG1184455
Vinyl chloride	U			0.000752	0.00275	1	10/22/2018 20:54	WG1184455
Xylenes, Total	U			0.00527	0.00716	1	10/22/2018 20:54	WG1184455
(S) Toluene-d8	*105*				*75.0-131*		*10/22/2018 20:54*	WG1184455
(S) Toluene-d8	*98.9*				*75.0-131*		*10/23/2018 20:02*	WG1185221
(S) Dibromofluoromethane	*94.7*				*65.0-129*		*10/22/2018 20:54*	WG1184455
(S) Dibromofluoromethane	*113*				*65.0-129*		*10/23/2018 20:02*	WG1185221
(S) 4-Bromofluorobenzene	*93.5*				*67.0-138*		*10/22/2018 20:54*	WG1184455
(S) 4-Bromofluorobenzene	*119*				*67.0-138*		*10/23/2018 20:02*	WG1185221

JC 11/15/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	86.0		1	10/24/2018 13:49	WG1185668

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0159	0.0291	1	10/23/2018 20:22	WG1185221
Acrylonitrile	U		0.00221	0.0145	1	10/22/2018 21:12	WG1184455
Benzene	U		0.000465	0.00116	1	10/22/2018 21:12	WG1184455
Bromobenzene	U		0.00122	0.0145	1	10/22/2018 21:12	WG1184455
Bromodichloromethane	U		0.000917	0.00291	1	10/22/2018 21:12	WG1184455
Bromochloromethane	U		0.00131	0.00582	1	10/22/2018 21:12	WG1184455
Bromoform	U		0.00696	0.0291	1	10/22/2018 21:12	WG1184455
Bromomethane	U		0.00430	0.0145	1	10/22/2018 21:12	WG1184455
n-Butylbenzene	U		0.00447	0.0145	1	10/22/2018 21:12	WG1184455
sec-Butylbenzene	U		0.00294	0.0145	1	10/22/2018 21:12	WG1184455
tert-Butylbenzene	U		0.00180	0.00582	1	10/22/2018 21:12	WG1184455
Carbon disulfide	U		0.00472	0.0145	1	10/22/2018 21:12	WG1184455
Carbon tetrachloride	U		0.00126	0.00582	1	10/22/2018 21:12	WG1184455
Chlorobenzene	U		0.000667	0.00291	1	10/22/2018 21:12	WG1184455
Chlorodibromomethane	U		0.000524	0.00291	1	10/22/2018 21:12	WG1184455
Chloroethane	U		0.00126	0.00582	1	10/22/2018 21:12	WG1184455
Chloroform	0.00152	U B J	0.000483	0.00291	1	10/22/2018 21:12	WG1184455
Chloromethane	U		0.00162	0.0145	1	10/22/2018 21:12	WG1184455
2-Chlorotoluene	U		0.00107	0.00291	1	10/22/2018 21:12	WG1184455
4-Chlorotoluene	U		0.00131	0.00582	1	10/22/2018 21:12	WG1184455
1,2-Dibromo-3-Chloropropane	U		0.00593	0.0291	1	10/22/2018 21:12	WG1184455
1,2-Dibromoethane	U		0.000611	0.00291	1	10/22/2018 21:12	WG1184455
Dibromomethane	U		0.00116	0.00582	1	10/22/2018 21:12	WG1184455
1,2-Dichlorobenzene	U		0.00169	0.00582	1	10/22/2018 21:12	WG1184455
1,3-Dichlorobenzene	U		0.00198	0.00582	1	10/22/2018 21:12	WG1184455
1,4-Dichlorobenzene	U		0.00229	0.00582	1	10/22/2018 21:12	WG1184455
Dichlorodifluoromethane	U		0.000952	0.00291	1	10/23/2018 20:22	WG1185221
1,1-Dichloroethane	U		0.000669	0.00291	1	10/22/2018 21:12	WG1184455
1,2-Dichloroethane	U		0.000553	0.00291	1	10/22/2018 21:12	WG1184455
1,1-Dichloroethene	U		0.000582	0.00291	1	10/22/2018 21:12	WG1184455
cis-1,2-Dichloroethene	0.000940	J J	0.000803	0.00291	1	10/23/2018 20:22	WG1185221
trans-1,2-Dichloroethene	U		0.00166	0.00582	1	10/22/2018 21:12	WG1184455
1,2-Dichloropropane	U		0.00148	0.00582	1	10/22/2018 21:12	WG1184455
1,1-Dichloropropene	U		0.000814	0.00291	1	10/22/2018 21:12	WG1184455
1,3-Dichloropropane	U		0.00204	0.00582	1	10/22/2018 21:12	WG1184455
cis-1,3-Dichloropropene	U		0.000789	0.00291	1	10/22/2018 21:12	WG1184455
trans-1,3-Dichloropropene	U	U J4	0.00178	0.00582	1	10/22/2018 21:12	WG1184455
trans-1,4-Dichloro-2-butene	U		0.00163	0.00582	1	10/22/2018 21:12	WG1184455
2,2-Dichloropropane	U		0.000923	0.00291	1	10/22/2018 21:12	WG1184455
Di-isopropyl ether	U		0.000407	0.00116	1	10/22/2018 21:12	WG1184455
Ethylbenzene	U		0.000617	0.00291	1	10/22/2018 21:12	WG1184455
Hexachloro-1,3-butadiene	U		0.0148	0.0291	1	10/22/2018 21:12	WG1184455
2-Hexanone	U		0.0116	0.0291	1	10/22/2018 21:12	WG1184455
n-Hexane	U		0.00123	0.00582	1	10/23/2018 20:22	WG1185221
Iodomethane	U		0.00704	0.0145	1	10/22/2018 21:12	WG1184455
Isopropylbenzene	U		0.00100	0.00291	1	10/22/2018 21:12	WG1184455
p-Isopropyltoluene	U		0.00271	0.00582	1	10/22/2018 21:12	WG1184455
2-Butanone (MEK)	0.0402		0.0145	0.0291	1	10/22/2018 21:12	WG1184455
Methylene Chloride	U		0.00773	0.0291	1	10/22/2018 21:12	WG1184455
4-Methyl-2-pentanone (MIBK)	U		0.0116	0.0291	1	10/22/2018 21:12	WG1184455

JC 11/15/18

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

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

Analyte	Result (dry) mg/kg		Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U			0.000343	0.00116	1	10/22/2018 21:12	WG1184455
Naphthalene	U			0.00363	0.0145	1	10/22/2018 21:12	WG1184455
n-Propylbenzene	U			0.00137	0.00582	1	10/22/2018 21:12	WG1184455
Styrene	U			0.00318	0.0145	1	10/22/2018 21:12	WG1184455
1,1,1,2-Tetrachloroethane	U	U	J4	0.000582	0.00291	1	10/22/2018 21:12	WG1184455
1,1,2,2-Tetrachloroethane	U			0.000454	0.00291	1	10/23/2018 20:22	WG1185221
1,1,2-Trichlorotrifluoroethane	U			0.000785	0.00291	1	10/22/2018 21:12	WG1184455
Tetrachloroethene	0.663			0.000814	0.00291	1	10/22/2018 21:12	WG1184455
Toluene	U			0.00145	0.00582	1	10/22/2018 21:12	WG1184455
1,2,3-Trichlorobenzene	U			0.000727	0.00291	1	10/23/2018 20:22	WG1185221
1,2,4-Trichlorobenzene	U			0.00561	0.0145	1	10/22/2018 21:12	WG1184455
1,1,1-Trichloroethane	U			0.000320	0.00291	1	10/22/2018 21:12	WG1184455
1,1,2-Trichloroethane	U			0.00103	0.00291	1	10/22/2018 21:12	WG1184455
Trichloroethene	0.00852			0.000465	0.00116	1	10/22/2018 21:12	WG1184455
Trichlorofluoromethane	U			0.000582	0.00291	1	10/22/2018 21:12	WG1184455
1,2,3-Trichloropropane	U			0.00593	0.0145	1	10/22/2018 21:12	WG1184455
1,2,4-Trimethylbenzene	U			0.00135	0.00582	1	10/22/2018 21:12	WG1184455
1,2,3-Trimethylbenzene	U			0.00134	0.00582	1	10/22/2018 21:12	WG1184455
1,3,5-Trimethylbenzene	U			0.00126	0.00582	1	10/22/2018 21:12	WG1184455
Vinyl acetate	U			0.00410	0.0145	1	10/22/2018 21:12	WG1184455
Vinyl chloride	0.00303			0.000795	0.00291	1	10/22/2018 21:12	WG1184455
Xylenes, Total	U			0.00556	0.00756	1	10/22/2018 21:12	WG1184455
(S) Toluene-d8	*105*				*75.0-131*		*10/22/2018 21:12*	WG1184455
(S) Toluene-d8	*99.2*				*75.0-131*		*10/23/2018 20:22*	WG1185221
(S) Dibromofluoromethane	*94.0*				*65.0-129*		*10/22/2018 21:12*	WG1184455
(S) Dibromofluoromethane	*114*				*65.0-129*		*10/23/2018 20:22*	WG1185221
(S) 4-Bromofluorobenzene	*94.5*				*67.0-138*		*10/22/2018 21:12*	WG1184455
(S) 4-Bromofluorobenzene	*121*				*67.0-138*		*10/23/2018 20:22*	WG1185221

JC 11/15/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	89.1		1	10/24/2018 13:49	WG1185668

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch	
	mg/kg		mg/kg	mg/kg		date / time		
Acetone	U		0.0154	0.0281	1	10/24/2018 13:12	WG1185319	
Acrylonitrile	U		0.00213	0.0140	1	10/22/2018 18:41	WG1184727	
Benzene	0.00115		0.000449	0.00112	1	10/22/2018 18:41	WG1184727	
Bromobenzene	U		0.00118	0.0140	1	10/22/2018 18:41	WG1184727	
Bromodichloromethane	U		0.000885	0.00281	1	10/22/2018 18:41	WG1184727	
Bromochloromethane	U		0.00127	0.00561	1	10/22/2018 18:41	WG1184727	
Bromoform	U		0.00671	0.0281	1	10/22/2018 18:41	WG1184727	
Bromomethane	U		0.00415	0.0140	1	10/22/2018 18:41	WG1184727	
n-Butylbenzene	U		0.00431	0.0140	1	10/22/2018 18:41	WG1184727	
sec-Butylbenzene	U		0.00284	0.0140	1	10/22/2018 18:41	WG1184727	
tert-Butylbenzene	U		0.00174	0.00561	1	10/22/2018 18:41	WG1184727	
Carbon disulfide	U		0.00456	0.0140	1	10/22/2018 18:41	WG1184727	
Carbon tetrachloride	U		0.00121	0.00561	1	10/22/2018 18:41	WG1184727	
Chlorobenzene	U		0.000643	0.00281	1	10/22/2018 18:41	WG1184727	
Chlorodibromomethane	U		0.000505	0.00281	1	10/22/2018 18:41	WG1184727	
Chloroethane	U		0.00121	0.00561	1	10/22/2018 18:41	WG1184727	
Chloroform	0.00127	U B J	0.000466	0.00281	1	10/22/2018 18:41	WG1184727	
Chloromethane	U		0.00156	0.0140	1	10/22/2018 18:41	WG1184727	
2-Chlorotoluene	U		0.00103	0.00281	1	10/22/2018 18:41	WG1184727	
4-Chlorotoluene	U		0.00127	0.00561	1	10/22/2018 18:41	WG1184727	
1,2-Dibromo-3-Chloropropane	U		0.00573	0.0281	1	10/22/2018 18:41	WG1184727	
1,2-Dibromoethane	U		0.000589	0.00281	1	10/22/2018 18:41	WG1184727	
Dibromomethane	U		0.00112	0.00561	1	10/22/2018 18:41	WG1184727	
1,2-Dichlorobenzene	U		0.00163	0.00561	1	10/22/2018 18:41	WG1184727	
1,3-Dichlorobenzene	U		0.00191	0.00561	1	10/22/2018 18:41	WG1184727	
1,4-Dichlorobenzene	U		0.00221	0.00561	1	10/22/2018 18:41	WG1184727	
Dichlorodifluoromethane	U		0.000918	0.00281	1	10/22/2018 18:41	WG1184727	
1,1-Dichloroethane	U		0.000645	0.00281	1	10/22/2018 18:41	WG1184727	
1,2-Dichloroethane	U		0.000533	0.00281	1	10/22/2018 18:41	WG1184727	
1,1-Dichloroethene	U		0.000561	0.00281	1	10/22/2018 18:41	WG1184727	
cis-1,2-Dichloroethene	0.00250	J	0.000775	0.00281	1	10/22/2018 18:41	WG1184727	
trans-1,2-Dichloroethene	U		0.00161	0.00561	1	10/22/2018 18:41	WG1184727	
1,2-Dichloropropane	U		0.00143	0.00561	1	10/24/2018 13:12	WG1185319	
1,1-Dichloropropene	U		0.000786	0.00281	1	10/22/2018 18:41	WG1184727	
1,3-Dichloropropane	U		0.00196	0.00561	1	10/22/2018 18:41	WG1184727	
cis-1,3-Dichloropropene	U		0.000761	0.00281	1	10/22/2018 18:41	WG1184727	
trans-1,3-Dichloropropene	U		0.00172	0.00561	1	10/22/2018 18:41	WG1184727	
trans-1,4-Dichloro-2-butene	U		0.00157	0.00561	1	10/22/2018 18:41	WG1184727	
2,2-Dichloropropane	U		0.000890	0.00281	1	10/22/2018 18:41	WG1184727	
Di-isopropyl ether	U		0.000393	0.00112	1	10/22/2018 18:41	WG1184727	
Ethylbenzene	U		0.000595	0.00281	1	10/22/2018 18:41	WG1184727	
Hexachloro-1,3-butadiene	U		0.0143	0.0281	1	10/22/2018 18:41	WG1184727	JC 11/15/18
2-Hexanone	U		0.0112	0.0281	1	10/22/2018 18:41	WG1184727	
n-Hexane	U		0.00119	0.00561	1	10/24/2018 13:12	WG1185319	
Iodomethane	U		0.00679	0.0140	1	10/22/2018 18:41	WG1184727	
Isopropylbenzene	U		0.000969	0.00281	1	10/22/2018 18:41	WG1184727	
p-Isopropyltoluene	U		0.00262	0.00561	1	10/22/2018 18:41	WG1184727	
2-Butanone (MEK)	0.0297		0.0140	0.0281	1	10/24/2018 13:12	WG1185319	
Methylene Chloride	U		0.00745	0.0281	1	10/22/2018 18:41	WG1184727	
4-Methyl-2-pentanone (MIBK)	U		0.0112	0.0281	1	10/22/2018 18:41	WG1184727	

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000331	0.00112	1	10/22/2018 18:41	WG1184727
Naphthalene	U		0.00350	0.0140	1	10/22/2018 18:41	WG1184727
n-Propylbenzene	U		0.00132	0.00561	1	10/22/2018 18:41	WG1184727
Styrene	U		0.00306	0.0140	1	10/22/2018 18:41	WG1184727
1,1,1,2-Tetrachloroethane	U		0.000561	0.00281	1	10/22/2018 18:41	WG1184727
1,1,2,2-Tetrachloroethane	U		0.000438	0.00281	1	10/22/2018 18:41	WG1184727
1,1,2-Trichlorotrifluoroethane	U		0.000758	0.00281	1	10/22/2018 18:41	WG1184727
Tetrachloroethene	0.199		0.000786	0.00281	1	10/22/2018 18:41	WG1184727
Toluene	0.00291	J J	0.00140	0.00561	1	10/22/2018 18:41	WG1184727
1,2,3-Trichlorobenzene	U		0.000702	0.00281	1	10/22/2018 18:41	WG1184727
1,2,4-Trichlorobenzene	U		0.00541	0.0140	1	10/22/2018 18:41	WG1184727
1,1,1-Trichloroethane	U		0.000309	0.00281	1	10/22/2018 18:41	WG1184727
1,1,2-Trichloroethane	U		0.000991	0.00281	1	10/24/2018 13:12	WG1185319
Trichloroethene	0.00250		0.000449	0.00112	1	10/22/2018 18:41	WG1184727
Trichlorofluoromethane	U		0.000561	0.00281	1	10/22/2018 18:41	WG1184727
1,2,3-Trichloropropane	U		0.00573	0.0140	1	10/22/2018 18:41	WG1184727
1,2,4-Trimethylbenzene	U		0.00130	0.00561	1	10/22/2018 18:41	WG1184727
1,2,3-Trimethylbenzene	U		0.00129	0.00561	1	10/22/2018 18:41	WG1184727
1,3,5-Trimethylbenzene	U		0.00121	0.00561	1	10/22/2018 18:41	WG1184727
Vinyl acetate	U		0.00395	0.0140	1	10/22/2018 18:41	WG1184727
Vinyl chloride	U		0.000767	0.00281	1	10/22/2018 18:41	WG1184727
Xylenes, Total	U		0.00537	0.00730	1	10/22/2018 18:41	WG1184727
(S) Toluene-d8	*123*			*75.0-131*		*10/22/2018 18:41*	WG1184727
(S) Toluene-d8	*97.1*			*75.0-131*		*10/24/2018 13:12*	WG1185319
(S) Dibromofluoromethane	*92.5*			*65.0-129*		*10/22/2018 18:41*	WG1184727
(S) Dibromofluoromethane	*115*			*65.0-129*		*10/24/2018 13:12*	WG1185319
(S) 4-Bromofluorobenzene	*86.2*			*67.0-138*		*10/22/2018 18:41*	WG1184727
(S) 4-Bromofluorobenzene	*122*			*67.0-138*		*10/24/2018 13:12*	WG1185319

JC 11/15/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	83.8		1	10/24/2018 13:49	WG1185668

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0163	0.0298	1	10/24/2018 13:31	WG1185319
Acrylonitrile	U		0.00227	0.0149	1	10/22/2018 19:02	WG1184727
Benzene	U		0.000477	0.00119	1	10/22/2018 19:02	WG1184727
Bromobenzene	U		0.00125	0.0149	1	10/22/2018 19:02	WG1184727
Bromodichloromethane	U		0.000940	0.00298	1	10/22/2018 19:02	WG1184727
Bromochloromethane	U		0.00135	0.00597	1	10/22/2018 19:02	WG1184727
Bromoform	U		0.00714	0.0298	1	10/22/2018 19:02	WG1184727
Bromomethane	U		0.00442	0.0149	1	10/22/2018 19:02	WG1184727
n-Butylbenzene	U		0.00458	0.0149	1	10/22/2018 19:02	WG1184727
sec-Butylbenzene	U		0.00302	0.0149	1	10/22/2018 19:02	WG1184727
tert-Butylbenzene	U		0.00185	0.00597	1	10/22/2018 19:02	WG1184727
Carbon disulfide	U		0.00485	0.0149	1	10/22/2018 19:02	WG1184727
Carbon tetrachloride	U		0.00129	0.00597	1	10/22/2018 19:02	WG1184727
Chlorobenzene	U		0.000684	0.00298	1	10/22/2018 19:02	WG1184727
Chlorodibromomethane	U		0.000537	0.00298	1	10/22/2018 19:02	WG1184727
Chloroethane	U		0.00129	0.00597	1	10/22/2018 19:02	WG1184727
Chloroform	0.00162	U	0.000495	0.00298	1	10/22/2018 19:02	WG1184727
Chloromethane	U		0.00166	0.0149	1	10/22/2018 19:02	WG1184727
2-Chlorotoluene	U		0.00110	0.00298	1	10/22/2018 19:02	WG1184727
4-Chlorotoluene	U		0.00135	0.00597	1	10/22/2018 19:02	WG1184727
1,2-Dibromo-3-Chloropropane	U		0.00609	0.0298	1	10/22/2018 19:02	WG1184727
1,2-Dibromoethane	U		0.000627	0.00298	1	10/22/2018 19:02	WG1184727
Dibromomethane	U		0.00119	0.00597	1	10/22/2018 19:02	WG1184727
1,2-Dichlorobenzene	U		0.00173	0.00597	1	10/22/2018 19:02	WG1184727
1,3-Dichlorobenzene	U		0.00203	0.00597	1	10/22/2018 19:02	WG1184727
1,4-Dichlorobenzene	U		0.00235	0.00597	1	10/22/2018 19:02	WG1184727
Dichlorodifluoromethane	U		0.000976	0.00298	1	10/22/2018 19:02	WG1184727
1,1-Dichloroethane	U		0.000686	0.00298	1	10/22/2018 19:02	WG1184727
1,2-Dichloroethane	U		0.000567	0.00298	1	10/22/2018 19:02	WG1184727
1,1-Dichloroethene	U		0.000597	0.00298	1	10/22/2018 19:02	WG1184727
cis-1,2-Dichloroethene	0.00118	J	0.000823	0.00298	1	10/22/2018 19:02	WG1184727
trans-1,2-Dichloroethene	U		0.00171	0.00597	1	10/22/2018 19:02	WG1184727
1,2-Dichloropropane	U		0.00152	0.00597	1	10/24/2018 13:31	WG1185319
1,1-Dichloropropene	U		0.000835	0.00298	1	10/22/2018 19:02	WG1184727
1,3-Dichloropropane	U		0.00209	0.00597	1	10/22/2018 19:02	WG1184727
cis-1,3-Dichloropropene	U		0.000809	0.00298	1	10/22/2018 19:02	WG1184727
trans-1,3-Dichloropropene	U		0.00183	0.00597	1	10/22/2018 19:02	WG1184727
trans-1,4-Dichloro-2-butene	U		0.00167	0.00597	1	10/22/2018 19:02	WG1184727
2,2-Dichloropropane	U		0.000946	0.00298	1	10/22/2018 19:02	WG1184727
Di-isopropyl ether	U		0.000418	0.00119	1	10/22/2018 19:02	WG1184727
Ethylbenzene	U		0.000632	0.00298	1	10/22/2018 19:02	WG1184727
Hexachloro-1,3-butadiene	U		0.0152	0.0298	1	10/22/2018 19:02	WG1184727
2-Hexanone	U		0.0119	0.0298	1	10/22/2018 19:02	WG1184727
n-Hexane	U		0.00126	0.00597	1	10/24/2018 13:31	WG1185319
Iodomethane	U		0.00722	0.0149	1	10/22/2018 19:02	WG1184727
Isopropylbenzene	U		0.00103	0.00298	1	10/22/2018 19:02	WG1184727
p-Isopropyltoluene	U		0.00278	0.00597	1	10/22/2018 19:02	WG1184727
2-Butanone (MEK)	0.0676		0.0149	0.0298	1	10/24/2018 13:31	WG1185319
Methylene Chloride	U		0.00792	0.0298	1	10/22/2018 19:02	WG1184727
4-Methyl-2-pentanone (MIBK)	U		0.0119	0.0298	1	10/22/2018 19:02	WG1184727

B J

J

JC 11/15/18

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

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000352	0.00119	1	10/22/2018 19:02	WG1184727
Naphthalene	U		0.00372	0.0149	1	10/22/2018 19:02	WG1184727
n-Propylbenzene	U		0.00141	0.00597	1	10/22/2018 19:02	WG1184727
Styrene	U		0.00326	0.0149	1	10/22/2018 19:02	WG1184727
1,1,1,2-Tetrachloroethane	U		0.000597	0.00298	1	10/22/2018 19:02	WG1184727
1,1,2,2-Tetrachloroethane	U		0.000465	0.00298	1	10/22/2018 19:02	WG1184727
1,1,2-Trichlorotrifluoroethane	U		0.000806	0.00298	1	10/22/2018 19:02	WG1184727
Tetrachloroethene	0.154		0.000835	0.00298	1	10/22/2018 19:02	WG1184727
Toluene	0.00150 J	J	0.00149	0.00597	1	10/22/2018 19:02	WG1184727
1,2,3-Trichlorobenzene	U		0.000746	0.00298	1	10/22/2018 19:02	WG1184727
1,2,4-Trichlorobenzene	U		0.00575	0.0149	1	10/22/2018 19:02	WG1184727
1,1,1-Trichloroethane	U		0.000328	0.00298	1	10/22/2018 19:02	WG1184727
1,1,2-Trichloroethane	U		0.00105	0.00298	1	10/24/2018 13:31	WG1185319
Trichloroethene	0.00198		0.000477	0.00119	1	10/22/2018 19:02	WG1184727
Trichlorofluoromethane	U		0.000597	0.00298	1	10/22/2018 19:02	WG1184727
1,2,3-Trichloropropane	U		0.00609	0.0149	1	10/22/2018 19:02	WG1184727
1,2,4-Trimethylbenzene	U		0.00138	0.00597	1	10/22/2018 19:02	WG1184727
1,2,3-Trimethylbenzene	U		0.00137	0.00597	1	10/22/2018 19:02	WG1184727
1,3,5-Trimethylbenzene	U		0.00129	0.00597	1	10/22/2018 19:02	WG1184727
Vinyl acetate	U		0.00420	0.0149	1	10/22/2018 19:02	WG1184727
Vinyl chloride	U		0.000815	0.00298	1	10/22/2018 19:02	WG1184727
Xylenes, Total	U		0.00570	0.00776	1	10/22/2018 19:02	WG1184727
(S) Toluene-d8	*123*			*75.0-131*		*10/22/2018 19:02*	WG1184727
(S) Toluene-d8	*99.1*			*75.0-131*		*10/24/2018 13:31*	WG1185319
(S) Dibromofluoromethane	*95.1*			*65.0-129*		*10/22/2018 19:02*	WG1184727
(S) Dibromofluoromethane	*116*			*65.0-129*		*10/24/2018 13:31*	WG1185319
(S) 4-Bromofluorobenzene	*89.5*			*67.0-138*		*10/22/2018 19:02*	WG1184727
(S) 4-Bromofluorobenzene	*121*			*67.0-138*		*10/24/2018 13:31*	WG1185319

JC 11/15/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	86.3		1	10/24/2018 13:49	WG1185668

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch	
	mg/kg		mg/kg	mg/kg		date / time		
Acetone	U		0.159	0.290	10	10/24/2018 16:11	WG1185319	
Acrylonitrile	U		0.00220	0.0145	1	10/22/2018 19:22	WG1184727	
Benzene	U		0.000464	0.00116	1	10/22/2018 19:22	WG1184727	
Bromobenzene	U		0.00122	0.0145	1	10/22/2018 19:22	WG1184727	
Bromodichloromethane	U		0.000913	0.00290	1	10/22/2018 19:22	WG1184727	
Bromochloromethane	U		0.00131	0.00579	1	10/22/2018 19:22	WG1184727	
Bromoform	U		0.00693	0.0290	1	10/22/2018 19:22	WG1184727	
Bromomethane	U		0.00429	0.0145	1	10/22/2018 19:22	WG1184727	
n-Butylbenzene	U		0.00445	0.0145	1	10/22/2018 19:22	WG1184727	
sec-Butylbenzene	U		0.00293	0.0145	1	10/22/2018 19:22	WG1184727	
tert-Butylbenzene	U		0.00180	0.00579	1	10/22/2018 19:22	WG1184727	
Carbon disulfide	U		0.00470	0.0145	1	10/22/2018 19:22	WG1184727	
Carbon tetrachloride	U		0.00125	0.00579	1	10/22/2018 19:22	WG1184727	
Chlorobenzene	U		0.000664	0.00290	1	10/22/2018 19:22	WG1184727	
Chlorodibromomethane	U		0.000521	0.00290	1	10/22/2018 19:22	WG1184727	
Chloroethane	U		0.00125	0.00579	1	10/22/2018 19:22	WG1184727	
Chloroform	0.00111	U	0.000481	0.00290	1	10/22/2018 19:22	WG1184727	B J
Chloromethane	U		0.00161	0.0145	1	10/22/2018 19:22	WG1184727	
2-Chlorotoluene	U		0.00107	0.00290	1	10/22/2018 19:22	WG1184727	
4-Chlorotoluene	U		0.00131	0.00579	1	10/22/2018 19:22	WG1184727	
1,2-Dibromo-3-Chloropropane	U		0.00591	0.0290	1	10/22/2018 19:22	WG1184727	
1,2-Dibromoethane	U		0.000608	0.00290	1	10/22/2018 19:22	WG1184727	
Dibromomethane	U		0.00116	0.00579	1	10/22/2018 19:22	WG1184727	
1,2-Dichlorobenzene	U		0.00168	0.00579	1	10/22/2018 19:22	WG1184727	
1,3-Dichlorobenzene	U		0.00197	0.00579	1	10/22/2018 19:22	WG1184727	
1,4-Dichlorobenzene	U		0.00228	0.00579	1	10/22/2018 19:22	WG1184727	
Dichlorodifluoromethane	U		0.000948	0.00290	1	10/22/2018 19:22	WG1184727	
1,1-Dichloroethane	U		0.000666	0.00290	1	10/22/2018 19:22	WG1184727	
1,2-Dichloroethane	U		0.000550	0.00290	1	10/22/2018 19:22	WG1184727	
1,1-Dichloroethene	U		0.000579	0.00290	1	10/22/2018 19:22	WG1184727	
cis-1,2-Dichloroethene	0.00391		0.000800	0.00290	1	10/22/2018 19:22	WG1184727	
trans-1,2-Dichloroethene	U		0.00166	0.00579	1	10/22/2018 19:22	WG1184727	
1,2-Dichloropropane	U		0.0147	0.0579	10	10/24/2018 16:11	WG1185319	JC 11/15/18
1,1-Dichloropropene	U		0.000811	0.00290	1	10/22/2018 19:22	WG1184727	
1,3-Dichloropropane	U		0.00203	0.00579	1	10/22/2018 19:22	WG1184727	
cis-1,3-Dichloropropene	U		0.000786	0.00290	1	10/22/2018 19:22	WG1184727	
trans-1,3-Dichloropropene	U		0.00177	0.00579	1	10/22/2018 19:22	WG1184727	
trans-1,4-Dichloro-2-butene	U		0.00162	0.00579	1	10/22/2018 19:22	WG1184727	
2,2-Dichloropropane	U		0.000919	0.00290	1	10/22/2018 19:22	WG1184727	
Di-isopropyl ether	U		0.000406	0.00116	1	10/22/2018 19:22	WG1184727	
Ethylbenzene	U		0.000614	0.00290	1	10/22/2018 19:22	WG1184727	
Hexachloro-1,3-butadiene	U		0.0147	0.0290	1	10/22/2018 19:22	WG1184727	
2-Hexanone	U		0.0116	0.0290	1	10/22/2018 19:22	WG1184727	
n-Hexane	U		0.0123	0.0579	10	10/24/2018 16:11	WG1185319	
Iodomethane	U		0.00701	0.0145	1	10/22/2018 19:22	WG1184727	
Isopropylbenzene	U		0.00100	0.00290	1	10/22/2018 19:22	WG1184727	
p-Isopropyltoluene	U		0.00270	0.00579	1	10/22/2018 19:22	WG1184727	
2-Butanone (MEK)	U		0.145	0.290	10	10/24/2018 16:11	WG1185319	
Methylene Chloride	U		0.00769	0.0290	1	10/22/2018 19:22	WG1184727	
4-Methyl-2-pentanone (MIBK)	U		0.0116	0.0290	1	10/22/2018 19:22	WG1184727	

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch	
Methyl tert-butyl ether	U		0.000342	0.00116	1	10/22/2018 19:22	WG1184727	
Naphthalene	U		0.00362	0.0145	1	10/22/2018 19:22	WG1184727	
n-Propylbenzene	U		0.00137	0.00579	1	10/22/2018 19:22	WG1184727	
Styrene	U		0.00316	0.0145	1	10/22/2018 19:22	WG1184727	
1,1,1,2-Tetrachloroethane	U		0.000579	0.00290	1	10/22/2018 19:22	WG1184727	
1,1,2,2-Tetrachloroethane	U		0.000452	0.00290	1	10/22/2018 19:22	WG1184727	
1,1,2-Trichlorotrifluoroethane	U		0.000782	0.00290	1	10/22/2018 19:22	WG1184727	
Tetrachloroethene	1.57	UJ	J0	0.00811	0.0290	10	10/24/2018 16:11	WG1185319
Toluene	U		0.00145	0.00579	1	10/22/2018 19:22	WG1184727	
1,2,3-Trichlorobenzene	U		0.000724	0.00290	1	10/22/2018 19:22	WG1184727	
1,2,4-Trichlorobenzene	U		0.00559	0.0145	1	10/22/2018 19:22	WG1184727	
1,1,1-Trichloroethane	U		0.000319	0.00290	1	10/22/2018 19:22	WG1184727	
1,1,2-Trichloroethane	U		0.0102	0.0290	10	10/24/2018 16:11	WG1185319	
Trichloroethene	0.00413		0.000464	0.00116	1	10/22/2018 19:22	WG1184727	
Trichlorofluoromethane	U		0.000579	0.00290	1	10/22/2018 19:22	WG1184727	
1,2,3-Trichloropropane	U		0.00591	0.0145	1	10/22/2018 19:22	WG1184727	
1,2,4-Trimethylbenzene	U		0.00134	0.00579	1	10/22/2018 19:22	WG1184727	
1,2,3-Trimethylbenzene	U		0.00133	0.00579	1	10/22/2018 19:22	WG1184727	
1,3,5-Trimethylbenzene	U		0.00125	0.00579	1	10/22/2018 19:22	WG1184727	
Vinyl acetate	U		0.00408	0.0145	1	10/22/2018 19:22	WG1184727	
Vinyl chloride	U		0.000791	0.00290	1	10/22/2018 19:22	WG1184727	
Xylenes, Total	U		0.00554	0.00753	1	10/22/2018 19:22	WG1184727	
(S) Toluene-d8	*126*			*75.0-131*		*10/22/2018 19:22*	WG1184727	
(S) Toluene-d8	*99.0*			*75.0-131*		*10/24/2018 16:11*	WG1185319	
(S) Dibromofluoromethane	*89.1*			*65.0-129*		*10/22/2018 19:22*	WG1184727	
(S) Dibromofluoromethane	*120*			*65.0-129*		*10/24/2018 16:11*	WG1185319	
(S) 4-Bromofluorobenzene	*85.8*			*67.0-138*		*10/22/2018 19:22*	WG1184727	JC 11/15/18
(S) 4-Bromofluorobenzene	*130*			*67.0-138*		*10/24/2018 16:11*	WG1185319	

Sample Narrative:

L1036473-14 WG1185319, WG1184727: Cannot be reanalyzed at a lower dilution due to high levels of target analytes.

L1036473-14 WG1185319, WG1184727: Not all compounds reportable at lower dilution.

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	89.6		1	10/24/2018 13:36	WG1185670

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch	
	mg/kg		mg/kg	mg/kg		date / time		
Acetone	U		0.153	0.279	10	10/24/2018 16:32	WG1185319	
Acrylonitrile	U		0.00212	0.0140	1	10/22/2018 19:43	WG1184727	
Benzene	U		0.000447	0.00112	1	10/22/2018 19:43	WG1184727	
Bromobenzene	U		0.00117	0.0140	1	10/22/2018 19:43	WG1184727	
Bromodichloromethane	U		0.000880	0.00279	1	10/22/2018 19:43	WG1184727	
Bromochloromethane	U		0.00126	0.00558	1	10/22/2018 19:43	WG1184727	
Bromoform	U		0.00668	0.0279	1	10/22/2018 19:43	WG1184727	
Bromomethane	U		0.00413	0.0140	1	10/22/2018 19:43	WG1184727	
n-Butylbenzene	U		0.00429	0.0140	1	10/22/2018 19:43	WG1184727	
sec-Butylbenzene	U		0.00282	0.0140	1	10/22/2018 19:43	WG1184727	
tert-Butylbenzene	U		0.00173	0.00558	1	10/22/2018 19:43	WG1184727	
Carbon disulfide	U		0.00453	0.0140	1	10/22/2018 19:43	WG1184727	
Carbon tetrachloride	U		0.00121	0.00558	1	10/22/2018 19:43	WG1184727	
Chlorobenzene	U		0.000640	0.00279	1	10/22/2018 19:43	WG1184727	
Chlorodibromomethane	U		0.000502	0.00279	1	10/22/2018 19:43	WG1184727	
Chloroethane	U		0.00121	0.00558	1	10/22/2018 19:43	WG1184727	
Chloroform	0.00104	U B J	0.000463	0.00279	1	10/22/2018 19:43	WG1184727	
Chloromethane	U		0.00155	0.0140	1	10/22/2018 19:43	WG1184727	
2-Chlorotoluene	U		0.00103	0.00279	1	10/22/2018 19:43	WG1184727	
4-Chlorotoluene	U		0.00126	0.00558	1	10/22/2018 19:43	WG1184727	
1,2-Dibromo-3-Chloropropane	U		0.00569	0.0279	1	10/22/2018 19:43	WG1184727	
1,2-Dibromoethane	U		0.000586	0.00279	1	10/22/2018 19:43	WG1184727	
Dibromomethane	U		0.00112	0.00558	1	10/22/2018 19:43	WG1184727	
1,2-Dichlorobenzene	U		0.00162	0.00558	1	10/22/2018 19:43	WG1184727	
1,3-Dichlorobenzene	U		0.00190	0.00558	1	10/22/2018 19:43	WG1184727	
1,4-Dichlorobenzene	U		0.00220	0.00558	1	10/22/2018 19:43	WG1184727	
Dichlorodifluoromethane	U		0.000913	0.00279	1	10/22/2018 19:43	WG1184727	
1,1-Dichloroethane	U		0.000642	0.00279	1	10/22/2018 19:43	WG1184727	
1,2-Dichloroethane	U		0.000530	0.00279	1	10/22/2018 19:43	WG1184727	
1,1-Dichloroethene	U		0.000558	0.00279	1	10/22/2018 19:43	WG1184727	
cis-1,2-Dichloroethene	0.00354		0.000770	0.00279	1	10/22/2018 19:43	WG1184727	
trans-1,2-Dichloroethene	U		0.00160	0.00558	1	10/22/2018 19:43	WG1184727	
1,2-Dichloropropane	U		0.0142	0.0558	10	10/24/2018 16:32	WG1185319	
1,1-Dichloropropene	U		0.000781	0.00279	1	10/22/2018 19:43	WG1184727	
1,3-Dichloropropane	U		0.00195	0.00558	1	10/22/2018 19:43	WG1184727	
cis-1,3-Dichloropropene	U		0.000757	0.00279	1	10/22/2018 19:43	WG1184727	
trans-1,3-Dichloropropene	U		0.00171	0.00558	1	10/22/2018 19:43	WG1184727	
trans-1,4-Dichloro-2-butene	U		0.00156	0.00558	1	10/22/2018 19:43	WG1184727	
2,2-Dichloropropane	U		0.000885	0.00279	1	10/22/2018 19:43	WG1184727	
Di-isopropyl ether	U		0.000391	0.00112	1	10/22/2018 19:43	WG1184727	
Ethylbenzene	U		0.000592	0.00279	1	10/22/2018 19:43	WG1184727	
Hexachloro-1,3-butadiene	U		0.0142	0.0279	1	10/22/2018 19:43	WG1184727	
2-Hexanone	U		0.0112	0.0279	1	10/22/2018 19:43	WG1184727	
n-Hexane	U		0.0118	0.0558	10	10/24/2018 16:32	WG1185319	
Iodomethane	U		0.00675	0.0140	1	10/22/2018 19:43	WG1184727	
Isopropylbenzene	U		0.000963	0.00279	1	10/22/2018 19:43	WG1184727	
p-Isopropyltoluene	U		0.00260	0.00558	1	10/22/2018 19:43	WG1184727	JC 11/15/18
2-Butanone (MEK)	U		0.140	0.279	10	10/24/2018 16:32	WG1185319	
Methylene Chloride	U		0.00741	0.0279	1	10/22/2018 19:43	WG1184727	
4-Methyl-2-pentanone (MIBK)	U		0.0112	0.0279	1	10/22/2018 19:43	WG1184727	

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

Analyte	Result (dry) mg/kg		Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U			0.000329	0.00112	1	10/22/2018 19:43	WG1184727
Naphthalene	U			0.00348	0.0140	1	10/22/2018 19:43	WG1184727
n-Propylbenzene	U			0.00132	0.00558	1	10/22/2018 19:43	WG1184727
Styrene	U			0.00305	0.0140	1	10/22/2018 19:43	WG1184727
1,1,1,2-Tetrachloroethane	U			0.000558	0.00279	1	10/22/2018 19:43	WG1184727
1,1,2,2-Tetrachloroethane	U			0.000435	0.00279	1	10/22/2018 19:43	WG1184727
1,1,2-Trichlorotrifluoroethane	U			0.000754	0.00279	1	10/22/2018 19:43	WG1184727
Tetrachloroethene	2.37	J	J0	0.00781	0.0279	10	10/24/2018 16:32	WG1185319
Toluene	U			0.00140	0.00558	1	10/22/2018 19:43	WG1184727
1,2,3-Trichlorobenzene	U			0.000698	0.00279	1	10/22/2018 19:43	WG1184727
1,2,4-Trichlorobenzene	U			0.00538	0.0140	1	10/22/2018 19:43	WG1184727
1,1,1-Trichloroethane	U			0.000307	0.00279	1	10/22/2018 19:43	WG1184727
1,1,2-Trichloroethane	U			0.00986	0.0279	10	10/24/2018 16:32	WG1185319
Trichloroethene	0.00473			0.000447	0.00112	1	10/22/2018 19:43	WG1184727
Trichlorofluoromethane	U			0.000558	0.00279	1	10/22/2018 19:43	WG1184727
1,2,3-Trichloropropane	U			0.00569	0.0140	1	10/22/2018 19:43	WG1184727
1,2,4-Trimethylbenzene	U			0.00129	0.00558	1	10/22/2018 19:43	WG1184727
1,2,3-Trimethylbenzene	U			0.00128	0.00558	1	10/22/2018 19:43	WG1184727
1,3,5-Trimethylbenzene	U			0.00121	0.00558	1	10/22/2018 19:43	WG1184727
Vinyl acetate	U			0.00393	0.0140	1	10/22/2018 19:43	WG1184727
Vinyl chloride	U			0.000762	0.00279	1	10/22/2018 19:43	WG1184727
Xylenes, Total	U			0.00534	0.00726	1	10/22/2018 19:43	WG1184727
(S) Toluene-d8	*129*				*75.0-131*		*10/22/2018 19:43*	WG1184727
(S) Toluene-d8	*98.0*				*75.0-131*		*10/24/2018 16:32*	WG1185319
(S) Dibromofluoromethane	*85.3*				*65.0-129*		*10/22/2018 19:43*	WG1184727
(S) Dibromofluoromethane	*117*				*65.0-129*		*10/24/2018 16:32*	WG1185319
(S) 4-Bromofluorobenzene	*84.0*				*67.0-138*		*10/22/2018 19:43*	WG1184727
(S) 4-Bromofluorobenzene	*127*				*67.0-138*		*10/24/2018 16:32*	WG1185319

Sample Narrative:

L1036473-15 WG1185319, WG1184727: Cannot be reanalyzed at a lower dilution due to high levels of target analytes.

L1036473-15 WG1185319, WG1184727: Not all compounds reportable at lower dilution.

JC 11/15/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	91.0		1	10/24/2018 13:36	WG1185670

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.121	0.220	8	10/24/2018 16:52	WG1185319
Acrylonitrile	U		0.00209	0.0137	1	10/22/2018 20:03	WG1184727
Benzene	U		0.000440	0.00110	1	10/22/2018 20:03	WG1184727
Bromobenzene	U		0.00115	0.0137	1	10/22/2018 20:03	WG1184727
Bromodichloromethane	U		0.000866	0.00275	1	10/22/2018 20:03	WG1184727
Bromochloromethane	U		0.00124	0.00550	1	10/22/2018 20:03	WG1184727
Bromoform	U		0.00657	0.0275	1	10/22/2018 20:03	WG1184727
Bromomethane	U		0.00407	0.0137	1	10/22/2018 20:03	WG1184727
n-Butylbenzene	U		0.00422	0.0137	1	10/22/2018 20:03	WG1184727
sec-Butylbenzene	U		0.00278	0.0137	1	10/22/2018 20:03	WG1184727
tert-Butylbenzene	U		0.00170	0.00550	1	10/22/2018 20:03	WG1184727
Carbon disulfide	U		0.00446	0.0137	1	10/22/2018 20:03	WG1184727
Carbon tetrachloride	U		0.00119	0.00550	1	10/22/2018 20:03	WG1184727
Chlorobenzene	U		0.000630	0.00275	1	10/22/2018 20:03	WG1184727
Chlorodibromomethane	U		0.000495	0.00275	1	10/22/2018 20:03	WG1184727
Chloroethane	U		0.00119	0.00550	1	10/22/2018 20:03	WG1184727
Chloroform	0.00127	U B J	0.000456	0.00275	1	10/22/2018 20:03	WG1184727
Chloromethane	U		0.00153	0.0137	1	10/22/2018 20:03	WG1184727
2-Chlorotoluene	U		0.00101	0.00275	1	10/22/2018 20:03	WG1184727
4-Chlorotoluene	U		0.00124	0.00550	1	10/22/2018 20:03	WG1184727
1,2-Dibromo-3-Chloropropane	U		0.00561	0.0275	1	10/22/2018 20:03	WG1184727
1,2-Dibromoethane	U		0.000577	0.00275	1	10/22/2018 20:03	WG1184727
Dibromomethane	U		0.00110	0.00550	1	10/22/2018 20:03	WG1184727
1,2-Dichlorobenzene	U		0.00159	0.00550	1	10/22/2018 20:03	WG1184727
1,3-Dichlorobenzene	U		0.00187	0.00550	1	10/22/2018 20:03	WG1184727
1,4-Dichlorobenzene	U		0.00217	0.00550	1	10/22/2018 20:03	WG1184727
Dichlorodifluoromethane	U		0.000899	0.00275	1	10/22/2018 20:03	WG1184727
1,1-Dichloroethane	U		0.000632	0.00275	1	10/22/2018 20:03	WG1184727
1,2-Dichloroethane	U		0.000522	0.00275	1	10/22/2018 20:03	WG1184727
1,1-Dichloroethene	U		0.000550	0.00275	1	10/22/2018 20:03	WG1184727
cis-1,2-Dichloroethene	0.00135	J	0.000759	0.00275	1	10/22/2018 20:03	WG1184727
trans-1,2-Dichloroethene	U		0.00157	0.00550	1	10/22/2018 20:03	WG1184727
1,2-Dichloropropane	U		0.0112	0.0440	8	10/24/2018 16:52	WG1185319
1,1-Dichloropropene	U		0.000770	0.00275	1	10/22/2018 20:03	WG1184727
1,3-Dichloropropane	U		0.00192	0.00550	1	10/22/2018 20:03	WG1184727
cis-1,3-Dichloropropene	U		0.000745	0.00275	1	10/22/2018 20:03	WG1184727
trans-1,3-Dichloropropene	U		0.00168	0.00550	1	10/22/2018 20:03	WG1184727
trans-1,4-Dichloro-2-butene	U		0.00154	0.00550	1	10/22/2018 20:03	WG1184727
2,2-Dichloropropane	U		0.000872	0.00275	1	10/22/2018 20:03	WG1184727
Di-isopropyl ether	U		0.000385	0.00110	1	10/22/2018 20:03	WG1184727
Ethylbenzene	U		0.000583	0.00275	1	10/22/2018 20:03	WG1184727
Hexachloro-1,3-butadiene	U		0.0140	0.0275	1	10/22/2018 20:03	WG1184727
2-Hexanone	U		0.0110	0.0275	1	10/22/2018 20:03	WG1184727
n-Hexane	U		0.00932	0.0440	8	10/24/2018 16:52	WG1185319
Iodomethane	U		0.00665	0.0137	1	10/22/2018 20:03	WG1184727
Isopropylbenzene	U		0.000949	0.00275	1	10/22/2018 20:03	WG1184727
p-Isopropyltoluene	U		0.00256	0.00550	1	10/22/2018 20:03	WG1184727
2-Butanone (MEK)	U		0.110	0.220	8	10/24/2018 16:52	WG1185319
Methylene Chloride	U		0.00730	0.0275	1	10/22/2018 20:03	WG1184727
4-Methyl-2-pentanone (MIBK)	U		0.0110	0.0275	1	10/22/2018 20:03	WG1184727

JC 11/15/18

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

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

Analyte	Result (dry) mg/kg		Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U			0.000324	0.00110	1	10/22/2018 20:03	WG1184727
Naphthalene	U			0.00343	0.0137	1	10/22/2018 20:03	WG1184727
n-Propylbenzene	U			0.00130	0.00550	1	10/22/2018 20:03	WG1184727
Styrene	U			0.00300	0.0137	1	10/22/2018 20:03	WG1184727
1,1,1,2-Tetrachloroethane	U			0.000550	0.00275	1	10/22/2018 20:03	WG1184727
1,1,2,2-Tetrachloroethane	U			0.000429	0.00275	1	10/22/2018 20:03	WG1184727
1,1,2-Trichlorotrifluoroethane	U			0.000742	0.00275	1	10/22/2018 20:03	WG1184727
Tetrachloroethene	1.15	J	J0	0.00616	0.0220	8	10/24/2018 16:52	WG1185319
Toluene	U			0.00137	0.00550	1	10/22/2018 20:03	WG1184727
1,2,3-Trichlorobenzene	U			0.000687	0.00275	1	10/22/2018 20:03	WG1184727
1,2,4-Trichlorobenzene	U			0.00530	0.0137	1	10/22/2018 20:03	WG1184727
1,1,1-Trichloroethane	U			0.000302	0.00275	1	10/22/2018 20:03	WG1184727
1,1,2-Trichloroethane	U			0.00776	0.0220	8	10/24/2018 16:52	WG1185319
Trichloroethene	0.00325			0.000440	0.00110	1	10/22/2018 20:03	WG1184727
Trichlorofluoromethane	U			0.000550	0.00275	1	10/22/2018 20:03	WG1184727
1,2,3-Trichloropropane	U			0.00561	0.0137	1	10/22/2018 20:03	WG1184727
1,2,4-Trimethylbenzene	U			0.00128	0.00550	1	10/22/2018 20:03	WG1184727
1,2,3-Trimethylbenzene	U			0.00126	0.00550	1	10/22/2018 20:03	WG1184727
1,3,5-Trimethylbenzene	U			0.00119	0.00550	1	10/22/2018 20:03	WG1184727
Vinyl acetate	U			0.00387	0.0137	1	10/22/2018 20:03	WG1184727
Vinyl chloride	U			0.000751	0.00275	1	10/22/2018 20:03	WG1184727
Xylenes, Total	U			0.00526	0.00715	1	10/22/2018 20:03	WG1184727
(S) Toluene-d8	*126*				*75.0-131*		*10/22/2018 20:03*	WG1184727
(S) Toluene-d8	*96.1*				*75.0-131*		*10/24/2018 16:52*	WG1185319
(S) Dibromofluoromethane	*92.1*				*65.0-129*		*10/22/2018 20:03*	WG1184727
(S) Dibromofluoromethane	*120*				*65.0-129*		*10/24/2018 16:52*	WG1185319
(S) 4-Bromofluorobenzene	*88.0*				*67.0-138*		*10/22/2018 20:03*	WG1184727
(S) 4-Bromofluorobenzene	*123*				*67.0-138*		*10/24/2018 16:52*	WG1185319

Sample Narrative:

L1036473-16 WG1185319, WG1184727: Cannot be reanalyzed at a lower dilution due to high levels of target analytes.

L1036473-16 WG1185319, WG1184727: Not all compounds reportable at lower dilution.

JC 11/15/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	90.4		1	10/24/2018 13:36	WG1185670

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0152	0.0277	1	10/24/2018 13:51	WG1185319
Acrylonitrile	U		0.00210	0.0138	1	10/22/2018 20:24	WG1184727
Benzene	U		0.000443	0.00111	1	10/22/2018 20:24	WG1184727
Bromobenzene	U		0.00116	0.0138	1	10/22/2018 20:24	WG1184727
Bromodichloromethane	U		0.000872	0.00277	1	10/22/2018 20:24	WG1184727
Bromochloromethane	U		0.00125	0.00553	1	10/22/2018 20:24	WG1184727
Bromoform	U		0.00662	0.0277	1	10/22/2018 20:24	WG1184727
Bromomethane	U		0.00409	0.0138	1	10/22/2018 20:24	WG1184727
n-Butylbenzene	U		0.00425	0.0138	1	10/22/2018 20:24	WG1184727
sec-Butylbenzene	U		0.00280	0.0138	1	10/22/2018 20:24	WG1184727
tert-Butylbenzene	U		0.00171	0.00553	1	10/22/2018 20:24	WG1184727
Carbon disulfide	U		0.00449	0.0138	1	10/22/2018 20:24	WG1184727
Carbon tetrachloride	U		0.00119	0.00553	1	10/22/2018 20:24	WG1184727
Chlorobenzene	U		0.000634	0.00277	1	10/22/2018 20:24	WG1184727
Chlorodibromomethane	U		0.000498	0.00277	1	10/22/2018 20:24	WG1184727
Chloroethane	U		0.00119	0.00553	1	10/22/2018 20:24	WG1184727
Chloroform	0.000779	U B J	0.000459	0.00277	1	10/22/2018 20:24	WG1184727
Chloromethane	U		0.00154	0.0138	1	10/22/2018 20:24	WG1184727
2-Chlorotoluene	U		0.00102	0.00277	1	10/22/2018 20:24	WG1184727
4-Chlorotoluene	U		0.00125	0.00553	1	10/22/2018 20:24	WG1184727
1,2-Dibromo-3-Chloropropane	U		0.00564	0.0277	1	10/22/2018 20:24	WG1184727
1,2-Dibromoethane	U		0.000581	0.00277	1	10/22/2018 20:24	WG1184727
Dibromomethane	U		0.00111	0.00553	1	10/22/2018 20:24	WG1184727
1,2-Dichlorobenzene	U		0.00160	0.00553	1	10/22/2018 20:24	WG1184727
1,3-Dichlorobenzene	U		0.00188	0.00553	1	10/22/2018 20:24	WG1184727
1,4-Dichlorobenzene	U		0.00218	0.00553	1	10/22/2018 20:24	WG1184727
Dichlorodifluoromethane	U		0.000905	0.00277	1	10/22/2018 20:24	WG1184727
1,1-Dichloroethane	U		0.000636	0.00277	1	10/22/2018 20:24	WG1184727
1,2-Dichloroethane	U		0.000526	0.00277	1	10/22/2018 20:24	WG1184727
1,1-Dichloroethene	U		0.000553	0.00277	1	10/22/2018 20:24	WG1184727
cis-1,2-Dichloroethene	U		0.000763	0.00277	1	10/22/2018 20:24	WG1184727
trans-1,2-Dichloroethene	U		0.00158	0.00553	1	10/22/2018 20:24	WG1184727
1,2-Dichloropropane	U		0.00141	0.00553	1	10/24/2018 13:51	WG1185319
1,1-Dichloropropene	U		0.000774	0.00277	1	10/22/2018 20:24	WG1184727
1,3-Dichloropropane	U		0.00194	0.00553	1	10/22/2018 20:24	WG1184727
cis-1,3-Dichloropropene	U		0.000750	0.00277	1	10/22/2018 20:24	WG1184727
trans-1,3-Dichloropropene	U		0.00169	0.00553	1	10/22/2018 20:24	WG1184727
trans-1,4-Dichloro-2-butene	U		0.00155	0.00553	1	10/22/2018 20:24	WG1184727
2,2-Dichloropropane	U		0.000877	0.00277	1	10/22/2018 20:24	WG1184727
Di-isopropyl ether	U		0.000387	0.00111	1	10/22/2018 20:24	WG1184727
Ethylbenzene	U		0.000586	0.00277	1	10/22/2018 20:24	WG1184727
Hexachloro-1,3-butadiene	U		0.0141	0.0277	1	10/22/2018 20:24	WG1184727
2-Hexanone	U		0.0111	0.0277	1	10/22/2018 20:24	WG1184727
n-Hexane	U		0.00117	0.00553	1	10/24/2018 13:51	WG1185319
Iodomethane	U		0.00669	0.0138	1	10/22/2018 20:24	WG1184727
Isopropylbenzene	U		0.000955	0.00277	1	10/22/2018 20:24	WG1184727
p-Isopropyltoluene	U		0.00258	0.00553	1	10/22/2018 20:24	WG1184727
2-Butanone (MEK)	U		0.0138	0.0277	1	10/24/2018 13:51	WG1185319
Methylene Chloride	U		0.00735	0.0277	1	10/22/2018 20:24	WG1184727
4-Methyl-2-pentanone (MIBK)	U		0.0111	0.0277	1	10/22/2018 20:24	WG1184727

JC 11/15/18

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

Analyte	Result (dry) mg/kg		Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U			0.000326	0.00111	1	10/22/2018 20:24	WG1184727
Naphthalene	U			0.00345	0.0138	1	10/22/2018 20:24	WG1184727
n-Propylbenzene	U			0.00131	0.00553	1	10/22/2018 20:24	WG1184727
Styrene	U			0.00302	0.0138	1	10/22/2018 20:24	WG1184727
1,1,1,2-Tetrachloroethane	U			0.000553	0.00277	1	10/22/2018 20:24	WG1184727
1,1,2,2-Tetrachloroethane	U			0.000431	0.00277	1	10/22/2018 20:24	WG1184727
1,1,2-Trichlorotrifluoroethane	U			0.000747	0.00277	1	10/22/2018 20:24	WG1184727
Tetrachloroethene	0.0155	J	J0	0.000774	0.00277	1	10/24/2018 13:51	WG1185319
Toluene	U			0.00138	0.00553	1	10/22/2018 20:24	WG1184727
1,2,3-Trichlorobenzene	U			0.000691	0.00277	1	10/22/2018 20:24	WG1184727
1,2,4-Trichlorobenzene	U			0.00533	0.0138	1	10/22/2018 20:24	WG1184727
1,1,1-Trichloroethane	U			0.000304	0.00277	1	10/22/2018 20:24	WG1184727
1,1,2-Trichloroethane	U			0.000977	0.00277	1	10/24/2018 13:51	WG1185319
Trichloroethene	U			0.000443	0.00111	1	10/22/2018 20:24	WG1184727
Trichlorofluoromethane	U			0.000553	0.00277	1	10/22/2018 20:24	WG1184727
1,2,3-Trichloropropane	U			0.00564	0.0138	1	10/22/2018 20:24	WG1184727
1,2,4-Trimethylbenzene	U			0.00128	0.00553	1	10/22/2018 20:24	WG1184727
1,2,3-Trimethylbenzene	U			0.00127	0.00553	1	10/22/2018 20:24	WG1184727
1,3,5-Trimethylbenzene	U			0.00119	0.00553	1	10/22/2018 20:24	WG1184727
Vinyl acetate	U			0.00389	0.0138	1	10/22/2018 20:24	WG1184727
Vinyl chloride	U			0.000756	0.00277	1	10/22/2018 20:24	WG1184727
Xylenes, Total	U			0.00529	0.00719	1	10/22/2018 20:24	WG1184727
(S) Toluene-d8	*125*				*75.0-131*		*10/22/2018 20:24*	WG1184727
(S) Toluene-d8	*98.6*				*75.0-131*		*10/24/2018 13:51*	WG1185319
(S) Dibromofluoromethane	*89.3*				*65.0-129*		*10/22/2018 20:24*	WG1184727
(S) Dibromofluoromethane	*115*				*65.0-129*		*10/24/2018 13:51*	WG1185319
(S) 4-Bromofluorobenzene	*91.0*				*67.0-138*		*10/22/2018 20:24*	WG1184727
(S) 4-Bromofluorobenzene	*119*				*67.0-138*		*10/24/2018 13:51*	WG1185319

JC 11/15/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	87.8		1	10/24/2018 13:36	WG1185670

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch	
	mg/kg		mg/kg	mg/kg		date / time		
Acetone	U		0.0156	0.0285	1	10/24/2018 14:12	WG1185319	
Acrylonitrile	U		0.00216	0.0142	1	10/22/2018 20:44	WG1184727	
Benzene	U		0.000456	0.00114	1	10/22/2018 20:44	WG1184727	
Bromobenzene	U		0.00120	0.0142	1	10/22/2018 20:44	WG1184727	
Bromodichloromethane	U		0.000897	0.00285	1	10/22/2018 20:44	WG1184727	
Bromochloromethane	U		0.00129	0.00569	1	10/22/2018 20:44	WG1184727	
Bromoform	U		0.00681	0.0285	1	10/22/2018 20:44	WG1184727	
Bromomethane	U		0.00421	0.0142	1	10/22/2018 20:44	WG1184727	
n-Butylbenzene	U		0.00437	0.0142	1	10/22/2018 20:44	WG1184727	
sec-Butylbenzene	U		0.00288	0.0142	1	10/22/2018 20:44	WG1184727	
tert-Butylbenzene	U		0.00177	0.00569	1	10/22/2018 20:44	WG1184727	
Carbon disulfide	U		0.00462	0.0142	1	10/22/2018 20:44	WG1184727	
Carbon tetrachloride	U		0.00123	0.00569	1	10/22/2018 20:44	WG1184727	
Chlorobenzene	U		0.000653	0.00285	1	10/22/2018 20:44	WG1184727	
Chlorodibromomethane	U		0.000512	0.00285	1	10/22/2018 20:44	WG1184727	
Chloroethane	U		0.00123	0.00569	1	10/22/2018 20:44	WG1184727	
Chloroform	0.00179	U B J	0.000473	0.00285	1	10/22/2018 20:44	WG1184727	
Chloromethane	U		0.00158	0.0142	1	10/22/2018 20:44	WG1184727	
2-Chlorotoluene	U		0.00105	0.00285	1	10/22/2018 20:44	WG1184727	
4-Chlorotoluene	U		0.00129	0.00569	1	10/22/2018 20:44	WG1184727	
1,2-Dibromo-3-Chloropropane	U		0.00581	0.0285	1	10/22/2018 20:44	WG1184727	
1,2-Dibromoethane	U		0.000598	0.00285	1	10/22/2018 20:44	WG1184727	
Dibromomethane	U		0.00114	0.00569	1	10/22/2018 20:44	WG1184727	
1,2-Dichlorobenzene	U		0.00165	0.00569	1	10/22/2018 20:44	WG1184727	
1,3-Dichlorobenzene	U		0.00194	0.00569	1	10/22/2018 20:44	WG1184727	
1,4-Dichlorobenzene	U		0.00224	0.00569	1	10/22/2018 20:44	WG1184727	
Dichlorodifluoromethane	U		0.000932	0.00285	1	10/22/2018 20:44	WG1184727	
1,1-Dichloroethane	U		0.000655	0.00285	1	10/22/2018 20:44	WG1184727	
1,2-Dichloroethane	U		0.000541	0.00285	1	10/22/2018 20:44	WG1184727	
1,1-Dichloroethene	U		0.000569	0.00285	1	10/22/2018 20:44	WG1184727	
cis-1,2-Dichloroethene	0.0322		0.000786	0.00285	1	10/22/2018 20:44	WG1184727	
trans-1,2-Dichloroethene	U		0.00163	0.00569	1	10/22/2018 20:44	WG1184727	
1,2-Dichloropropane	U		0.00145	0.00569	1	10/24/2018 14:12	WG1185319	
1,1-Dichloropropene	U		0.000797	0.00285	1	10/22/2018 20:44	WG1184727	
1,3-Dichloropropane	U		0.00199	0.00569	1	10/22/2018 20:44	WG1184727	
cis-1,3-Dichloropropene	U		0.000772	0.00285	1	10/22/2018 20:44	WG1184727	
trans-1,3-Dichloropropene	U		0.00174	0.00569	1	10/22/2018 20:44	WG1184727	
trans-1,4-Dichloro-2-butene	U		0.00159	0.00569	1	10/22/2018 20:44	WG1184727	
2,2-Dichloropropane	U		0.000903	0.00285	1	10/22/2018 20:44	WG1184727	
Di-isopropyl ether	U		0.000399	0.00114	1	10/22/2018 20:44	WG1184727	
Ethylbenzene	U		0.000604	0.00285	1	10/22/2018 20:44	WG1184727	
Hexachloro-1,3-butadiene	U		0.0145	0.0285	1	10/22/2018 20:44	WG1184727	
2-Hexanone	U		0.0114	0.0285	1	10/22/2018 20:44	WG1184727	
n-Hexane	U		0.00121	0.00569	1	10/24/2018 14:12	WG1185319	
Iodomethane	U		0.00689	0.0142	1	10/22/2018 20:44	WG1184727	
Isopropylbenzene	U		0.000983	0.00285	1	10/22/2018 20:44	WG1184727	
p-Isopropyltoluene	U		0.00265	0.00569	1	10/22/2018 20:44	WG1184727	JC 11/15/18
2-Butanone (MEK)	0.0408		0.0142	0.0285	1	10/24/2018 14:12	WG1185319	
Methylene Chloride	U		0.00756	0.0285	1	10/22/2018 20:44	WG1184727	
4-Methyl-2-pentanone (MIBK)	U		0.0114	0.0285	1	10/22/2018 20:44	WG1184727	

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000336	0.00114	1	10/22/2018 20:44	WG1184727
Naphthalene	U		0.00355	0.0142	1	10/22/2018 20:44	WG1184727
n-Propylbenzene	U		0.00134	0.00569	1	10/22/2018 20:44	WG1184727
Styrene	U		0.00311	0.0142	1	10/22/2018 20:44	WG1184727
1,1,1,2-Tetrachloroethane	U		0.000569	0.00285	1	10/22/2018 20:44	WG1184727
1,1,2,2-Tetrachloroethane	U		0.000444	0.00285	1	10/22/2018 20:44	WG1184727
1,1,2-Trichlorotrifluoroethane	U		0.000769	0.00285	1	10/22/2018 20:44	WG1184727
Tetrachloroethene	0.0116 J	J0	0.000797	0.00285	1	10/24/2018 14:12	WG1185319
Toluene	0.00195 J	J	0.00142	0.00569	1	10/22/2018 20:44	WG1184727
1,2,3-Trichlorobenzene	U		0.000712	0.00285	1	10/22/2018 20:44	WG1184727
1,2,4-Trichlorobenzene	U		0.00549	0.0142	1	10/22/2018 20:44	WG1184727
1,1,1-Trichloroethane	U		0.000313	0.00285	1	10/22/2018 20:44	WG1184727
1,1,2-Trichloroethane	U		0.00101	0.00285	1	10/24/2018 14:12	WG1185319
Trichloroethene	0.0285		0.000456	0.00114	1	10/22/2018 20:44	WG1184727
Trichlorofluoromethane	U		0.000569	0.00285	1	10/22/2018 20:44	WG1184727
1,2,3-Trichloropropane	U		0.00581	0.0142	1	10/22/2018 20:44	WG1184727
1,2,4-Trimethylbenzene	U		0.00132	0.00569	1	10/22/2018 20:44	WG1184727
1,2,3-Trimethylbenzene	U		0.00131	0.00569	1	10/22/2018 20:44	WG1184727
1,3,5-Trimethylbenzene	U		0.00123	0.00569	1	10/22/2018 20:44	WG1184727
Vinyl acetate	U		0.00401	0.0142	1	10/22/2018 20:44	WG1184727
Vinyl chloride	U		0.000778	0.00285	1	10/22/2018 20:44	WG1184727
Xylenes, Total	U		0.00544	0.00740	1	10/22/2018 20:44	WG1184727
(S) Toluene-d8	*121*			*75.0-131*		*10/22/2018 20:44*	WG1184727
(S) Toluene-d8	*100*			*75.0-131*		*10/24/2018 14:12*	WG1185319
(S) Dibromofluoromethane	*92.8*			*65.0-129*		*10/22/2018 20:44*	WG1184727
(S) Dibromofluoromethane	*113*			*65.0-129*		*10/24/2018 14:12*	WG1185319
(S) 4-Bromofluorobenzene	*89.8*			*67.0-138*		*10/22/2018 20:44*	WG1184727
(S) 4-Bromofluorobenzene	*118*			*67.0-138*		*10/24/2018 14:12*	WG1185319

JC 11/15/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	88.8		1	10/24/2018 13:36	WG1185670

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch	
	mg/kg		mg/kg	mg/kg		date / time		
Acetone	U		0.0617	0.113	4	10/24/2018 17:12	WG1185319	
Acrylonitrile	U		0.00214	0.0141	1	10/22/2018 21:04	WG1184727	
Benzene	U		0.000451	0.00113	1	10/22/2018 21:04	WG1184727	
Bromobenzene	U		0.00118	0.0141	1	10/22/2018 21:04	WG1184727	
Bromodichloromethane	U		0.000887	0.00282	1	10/22/2018 21:04	WG1184727	
Bromochloromethane	U		0.00127	0.00563	1	10/22/2018 21:04	WG1184727	
Bromoform	U		0.00673	0.0282	1	10/22/2018 21:04	WG1184727	
Bromomethane	U		0.00417	0.0141	1	10/22/2018 21:04	WG1184727	
n-Butylbenzene	U		0.00432	0.0141	1	10/22/2018 21:04	WG1184727	
sec-Butylbenzene	U		0.00285	0.0141	1	10/22/2018 21:04	WG1184727	
tert-Butylbenzene	U		0.00175	0.00563	1	10/22/2018 21:04	WG1184727	
Carbon disulfide	U		0.00457	0.0141	1	10/22/2018 21:04	WG1184727	
Carbon tetrachloride	U		0.00122	0.00563	1	10/22/2018 21:04	WG1184727	
Chlorobenzene	U		0.000645	0.00282	1	10/22/2018 21:04	WG1184727	
Chlorodibromomethane	U		0.000507	0.00282	1	10/22/2018 21:04	WG1184727	
Chloroethane	U		0.00122	0.00563	1	10/22/2018 21:04	WG1184727	
Chloroform	0.00162	U B J	0.000467	0.00282	1	10/22/2018 21:04	WG1184727	
Chloromethane	U		0.00157	0.0141	1	10/22/2018 21:04	WG1184727	
2-Chlorotoluene	U		0.00104	0.00282	1	10/22/2018 21:04	WG1184727	
4-Chlorotoluene	U		0.00127	0.00563	1	10/22/2018 21:04	WG1184727	
1,2-Dibromo-3-Chloropropane	U		0.00574	0.0282	1	10/22/2018 21:04	WG1184727	
1,2-Dibromoethane	U		0.000591	0.00282	1	10/22/2018 21:04	WG1184727	
Dibromomethane	U		0.00113	0.00563	1	10/22/2018 21:04	WG1184727	
1,2-Dichlorobenzene	U		0.00163	0.00563	1	10/22/2018 21:04	WG1184727	
1,3-Dichlorobenzene	U		0.00191	0.00563	1	10/22/2018 21:04	WG1184727	
1,4-Dichlorobenzene	U		0.00222	0.00563	1	10/22/2018 21:04	WG1184727	
Dichlorodifluoromethane	U		0.000921	0.00282	1	10/22/2018 21:04	WG1184727	
1,1-Dichloroethane	U		0.000648	0.00282	1	10/22/2018 21:04	WG1184727	
1,2-Dichloroethane	U		0.000535	0.00282	1	10/22/2018 21:04	WG1184727	
1,1-Dichloroethene	U		0.000563	0.00282	1	10/22/2018 21:04	WG1184727	
cis-1,2-Dichloroethene	0.00584		0.000777	0.00282	1	10/22/2018 21:04	WG1184727	
trans-1,2-Dichloroethene	U		0.00161	0.00563	1	10/22/2018 21:04	WG1184727	
1,2-Dichloropropane	U		0.00572	0.0225	4	10/24/2018 17:12	WG1185319	JC 11/15/18
1,1-Dichloropropene	U		0.000788	0.00282	1	10/22/2018 21:04	WG1184727	
1,3-Dichloropropane	U		0.00197	0.00563	1	10/22/2018 21:04	WG1184727	
cis-1,3-Dichloropropene	U		0.000764	0.00282	1	10/22/2018 21:04	WG1184727	
trans-1,3-Dichloropropene	U		0.00172	0.00563	1	10/22/2018 21:04	WG1184727	
trans-1,4-Dichloro-2-butene	U		0.00158	0.00563	1	10/22/2018 21:04	WG1184727	
2,2-Dichloropropane	U		0.000893	0.00282	1	10/22/2018 21:04	WG1184727	
Di-isopropyl ether	U		0.000394	0.00113	1	10/22/2018 21:04	WG1184727	
Ethylbenzene	U		0.000597	0.00282	1	10/22/2018 21:04	WG1184727	
Hexachloro-1,3-butadiene	U		0.0143	0.0282	1	10/22/2018 21:04	WG1184727	
2-Hexanone	U		0.0113	0.0282	1	10/22/2018 21:04	WG1184727	
n-Hexane	U		0.00478	0.0225	4	10/24/2018 17:12	WG1185319	
Iodomethane	U		0.00681	0.0141	1	10/22/2018 21:04	WG1184727	
Isopropylbenzene	U		0.000972	0.00282	1	10/22/2018 21:04	WG1184727	
p-Isopropyltoluene	U		0.00262	0.00563	1	10/22/2018 21:04	WG1184727	
2-Butanone (MEK)	U		0.0563	0.113	4	10/24/2018 17:12	WG1185319	
Methylene Chloride	U		0.00748	0.0282	1	10/22/2018 21:04	WG1184727	
4-Methyl-2-pentanone (MIBK)	U		0.0113	0.0282	1	10/22/2018 21:04	WG1184727	

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

Analyte	Result (dry) mg/kg		Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U			0.000332	0.00113	1	10/22/2018 21:04	WG1184727
Naphthalene	U			0.00351	0.0141	1	10/22/2018 21:04	WG1184727
n-Propylbenzene	U			0.00133	0.00563	1	10/22/2018 21:04	WG1184727
Styrene	U			0.00307	0.0141	1	10/22/2018 21:04	WG1184727
1,1,1,2-Tetrachloroethane	U			0.000563	0.00282	1	10/22/2018 21:04	WG1184727
1,1,2,2-Tetrachloroethane	U			0.000439	0.00282	1	10/22/2018 21:04	WG1184727
1,1,2-Trichlorotrifluoroethane	U			0.000760	0.00282	1	10/22/2018 21:04	WG1184727
Tetrachloroethene	0.917	J	J0	0.00315	0.0113	4	10/24/2018 17:12	WG1185319
Toluene	0.00193	J	J	0.00141	0.00563	1	10/22/2018 21:04	WG1184727
1,2,3-Trichlorobenzene	U			0.000704	0.00282	1	10/22/2018 21:04	WG1184727
1,2,4-Trichlorobenzene	U			0.00543	0.0141	1	10/22/2018 21:04	WG1184727
1,1,1-Trichloroethane	U			0.000310	0.00282	1	10/22/2018 21:04	WG1184727
1,1,2-Trichloroethane	U			0.00398	0.0113	4	10/24/2018 17:12	WG1185319
Trichloroethene	0.00621			0.000451	0.00113	1	10/22/2018 21:04	WG1184727
Trichlorofluoromethane	U			0.000563	0.00282	1	10/22/2018 21:04	WG1184727
1,2,3-Trichloropropane	U			0.00574	0.0141	1	10/22/2018 21:04	WG1184727
1,2,4-Trimethylbenzene	U			0.00131	0.00563	1	10/22/2018 21:04	WG1184727
1,2,3-Trimethylbenzene	U			0.00130	0.00563	1	10/22/2018 21:04	WG1184727
1,3,5-Trimethylbenzene	U			0.00122	0.00563	1	10/22/2018 21:04	WG1184727
Vinyl acetate	U			0.00396	0.0141	1	10/22/2018 21:04	WG1184727
Vinyl chloride	U			0.000769	0.00282	1	10/22/2018 21:04	WG1184727
Xylenes, Total	U			0.00538	0.00732	1	10/22/2018 21:04	WG1184727
(S) Toluene-d8	*128*				*75.0-131*		*10/22/2018 21:04*	WG1184727
(S) Toluene-d8	*98.3*				*75.0-131*		*10/24/2018 17:12*	WG1185319
(S) Dibromofluoromethane	*84.8*				*65.0-129*		*10/22/2018 21:04*	WG1184727
(S) Dibromofluoromethane	*118*				*65.0-129*		*10/24/2018 17:12*	WG1185319
(S) 4-Bromofluorobenzene	*77.3*				*67.0-138*		*10/22/2018 21:04*	WG1184727
(S) 4-Bromofluorobenzene	*124*				*67.0-138*		*10/24/2018 17:12*	WG1185319

Sample Narrative:

L1036473-19 WG1185319, WG1184727: Cannot be reanalyzed at a lower dilution due to high levels of target analytes.

L1036473-19 WG1185319, WG1184727: Not all compounds reportable at lower dilution.

JC 11/15/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	91.3		1	10/24/2018 13:36	WG1185670

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch	
	mg/kg		mg/kg	mg/kg		date / time		
Acetone	U		0.150	0.274	10	10/24/2018 17:32	WG1185319	
Acrylonitrile	U		0.00208	0.0137	1	10/22/2018 21:25	WG1184727	
Benzene	U		0.000438	0.00110	1	10/22/2018 21:25	WG1184727	
Bromobenzene	U		0.00115	0.0137	1	10/22/2018 21:25	WG1184727	
Bromodichloromethane	U		0.000863	0.00274	1	10/22/2018 21:25	WG1184727	
Bromochloromethane	U		0.00124	0.00548	1	10/22/2018 21:25	WG1184727	
Bromoform	U		0.00655	0.0274	1	10/22/2018 21:25	WG1184727	
Bromomethane	U		0.00405	0.0137	1	10/22/2018 21:25	WG1184727	
n-Butylbenzene	U		0.00421	0.0137	1	10/22/2018 21:25	WG1184727	
sec-Butylbenzene	U		0.00277	0.0137	1	10/22/2018 21:25	WG1184727	
tert-Butylbenzene	U		0.00170	0.00548	1	10/22/2018 21:25	WG1184727	
Carbon disulfide	U		0.00445	0.0137	1	10/22/2018 21:25	WG1184727	
Carbon tetrachloride	U		0.00118	0.00548	1	10/22/2018 21:25	WG1184727	
Chlorobenzene	U		0.000628	0.00274	1	10/22/2018 21:25	WG1184727	
Chlorodibromomethane	U		0.000493	0.00274	1	10/22/2018 21:25	WG1184727	
Chloroethane	U		0.00118	0.00548	1	10/22/2018 21:25	WG1184727	
Chloroform	0.00127	U	B J	0.000455	0.00274	1	10/22/2018 21:25	WG1184727	
Chloromethane	U		0.00152	0.0137	1	10/22/2018 21:25	WG1184727	
2-Chlorotoluene	U		0.00101	0.00274	1	10/22/2018 21:25	WG1184727	
4-Chlorotoluene	U		0.00124	0.00548	1	10/22/2018 21:25	WG1184727	
1,2-Dibromo-3-Chloropropane	U		0.00559	0.0274	1	10/22/2018 21:25	WG1184727	
1,2-Dibromoethane	U		0.000575	0.00274	1	10/22/2018 21:25	WG1184727	
Dibromomethane	U		0.00110	0.00548	1	10/22/2018 21:25	WG1184727	
1,2-Dichlorobenzene	U		0.00159	0.00548	1	10/22/2018 21:25	WG1184727	
1,3-Dichlorobenzene	U		0.00186	0.00548	1	10/22/2018 21:25	WG1184727	
1,4-Dichlorobenzene	U		0.00216	0.00548	1	10/22/2018 21:25	WG1184727	
Dichlorodifluoromethane	U		0.000896	0.00274	1	10/22/2018 21:25	WG1184727	
1,1-Dichloroethane	U		0.000630	0.00274	1	10/22/2018 21:25	WG1184727	
1,2-Dichloroethane	U		0.000520	0.00274	1	10/22/2018 21:25	WG1184727	
1,1-Dichloroethene	U		0.000548	0.00274	1	10/22/2018 21:25	WG1184727	
cis-1,2-Dichloroethene	0.00458		0.000756	0.00274	1	10/22/2018 21:25	WG1184727	
trans-1,2-Dichloroethene	U		0.00157	0.00548	1	10/22/2018 21:25	WG1184727	
1,2-Dichloropropane	U		0.0139	0.0548	10	10/24/2018 17:32	WG1185319	
1,1-Dichloropropene	U		0.000767	0.00274	1	10/22/2018 21:25	WG1184727	
1,3-Dichloropropane	U		0.00192	0.00548	1	10/22/2018 21:25	WG1184727	
cis-1,3-Dichloropropene	U		0.000743	0.00274	1	10/22/2018 21:25	WG1184727	
trans-1,3-Dichloropropene	U		0.00168	0.00548	1	10/22/2018 21:25	WG1184727	JC 11/15/18
trans-1,4-Dichloro-2-butene	U		0.00153	0.00548	1	10/22/2018 21:25	WG1184727	
2,2-Dichloropropane	U		0.000869	0.00274	1	10/22/2018 21:25	WG1184727	
Di-isopropyl ether	U		0.000383	0.00110	1	10/22/2018 21:25	WG1184727	
Ethylbenzene	U		0.000581	0.00274	1	10/22/2018 21:25	WG1184727	
Hexachloro-1,3-butadiene	U		0.0139	0.0274	1	10/22/2018 21:25	WG1184727	
2-Hexanone	U		0.0110	0.0274	1	10/22/2018 21:25	WG1184727	
n-Hexane	U		0.0116	0.0548	10	10/24/2018 17:32	WG1185319	
Iodomethane	U		0.00663	0.0137	1	10/22/2018 21:25	WG1184727	
Isopropylbenzene	U		0.000945	0.00274	1	10/22/2018 21:25	WG1184727	
p-Isopropyltoluene	U		0.00255	0.00548	1	10/22/2018 21:25	WG1184727	
2-Butanone (MEK)	U		0.137	0.274	10	10/24/2018 17:32	WG1185319	
Methylene Chloride	U		0.00727	0.0274	1	10/22/2018 21:25	WG1184727	
4-Methyl-2-pentanone (MIBK)	U		0.0110	0.0274	1	10/22/2018 21:25	WG1184727	

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

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000323	0.00110	1	10/22/2018 21:25	WG1184727
Naphthalene	U		0.00342	0.0137	1	10/22/2018 21:25	WG1184727
n-Propylbenzene	U		0.00129	0.00548	1	10/22/2018 21:25	WG1184727
Styrene	U		0.00299	0.0137	1	10/22/2018 21:25	WG1184727
1,1,1,2-Tetrachloroethane	U		0.000548	0.00274	1	10/22/2018 21:25	WG1184727
1,1,2,2-Tetrachloroethane	U		0.000427	0.00274	1	10/22/2018 21:25	WG1184727
1,1,2-Trichlorotrifluoroethane	U		0.000739	0.00274	1	10/22/2018 21:25	WG1184727
Tetrachloroethene	2.29	J J0	0.00767	0.0274	10	10/24/2018 17:32	WG1185319
Toluene	U		0.00137	0.00548	1	10/22/2018 21:25	WG1184727
1,2,3-Trichlorobenzene	U		0.000685	0.00274	1	10/22/2018 21:25	WG1184727
1,2,4-Trichlorobenzene	U		0.00528	0.0137	1	10/22/2018 21:25	WG1184727
1,1,1-Trichloroethane	U		0.000301	0.00274	1	10/22/2018 21:25	WG1184727
1,1,2-Trichloroethane	U		0.00967	0.0274	10	10/24/2018 17:32	WG1185319
Trichloroethene	0.00740		0.000438	0.00110	1	10/22/2018 21:25	WG1184727
Trichlorofluoromethane	U		0.000548	0.00274	1	10/22/2018 21:25	WG1184727
1,2,3-Trichloropropane	U		0.00559	0.0137	1	10/22/2018 21:25	WG1184727
1,2,4-Trimethylbenzene	U		0.00127	0.00548	1	10/22/2018 21:25	WG1184727
1,2,3-Trimethylbenzene	U		0.00126	0.00548	1	10/22/2018 21:25	WG1184727
1,3,5-Trimethylbenzene	U		0.00118	0.00548	1	10/22/2018 21:25	WG1184727
Vinyl acetate	U		0.00386	0.0137	1	10/22/2018 21:25	WG1184727
Vinyl chloride	U		0.000748	0.00274	1	10/22/2018 21:25	WG1184727
Xylenes, Total	U		0.00524	0.00712	1	10/22/2018 21:25	WG1184727
(S) Toluene-d8	*129*			*75.0-131*		*10/22/2018 21:25*	WG1184727
(S) Toluene-d8	*96.5*			*75.0-131*		*10/24/2018 17:32*	WG1185319
(S) Dibromofluoromethane	*84.8*			*65.0-129*		*10/22/2018 21:25*	WG1184727
(S) Dibromofluoromethane	*117*			*65.0-129*		*10/24/2018 17:32*	WG1185319
(S) 4-Bromofluorobenzene	*81.5*			*67.0-138*		*10/22/2018 21:25*	WG1184727
(S) 4-Bromofluorobenzene	*128*			*67.0-138*		*10/24/2018 17:32*	WG1185319

Sample Narrative:

L1036473-20 WG1185319, WG1184727: Cannot be reanalyzed at a lower dilution due to high levels of target analytes.

L1036473-20 WG1185319, WG1184727: Not all compounds reportable at lower dilution.

JC 11/15/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	89.1		1	10/24/2018 13:36	WG1185670

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		1.24	2.25	80	10/24/2018 19:32	WG1185319
Acrylonitrile	U		0.00213	0.0140	1	10/22/2018 21:45	WG1184727
Benzene	U		0.000449	0.00112	1	10/22/2018 21:45	WG1184727
Bromobenzene	U		0.00118	0.0140	1	10/22/2018 21:45	WG1184727
Bromodichloromethane	U		0.0707	0.225	80	10/24/2018 19:32	WG1185319
Bromochloromethane	U		0.00127	0.00561	1	10/22/2018 21:45	WG1184727
Bromoform	U		0.00671	0.0281	1	10/22/2018 21:45	WG1184727
Bromomethane	U		0.00415	0.0140	1	10/22/2018 21:45	WG1184727
n-Butylbenzene	U		0.00431	0.0140	1	10/22/2018 21:45	WG1184727
sec-Butylbenzene	U		0.00284	0.0140	1	10/22/2018 21:45	WG1184727
tert-Butylbenzene	U		0.00174	0.00561	1	10/22/2018 21:45	WG1184727
Carbon disulfide	U		0.00456	0.0140	1	10/22/2018 21:45	WG1184727
Carbon tetrachloride	U		0.00121	0.00561	1	10/22/2018 21:45	WG1184727
Chlorobenzene	U		0.000643	0.00281	1	10/22/2018 21:45	WG1184727
Chlorodibromomethane	U		0.000505	0.00281	1	10/22/2018 21:45	WG1184727
Chloroethane	U		0.00121	0.00561	1	10/22/2018 21:45	WG1184727
Chloroform	0.00111	U B J	0.000466	0.00281	1	10/22/2018 21:45	WG1184727
Chloromethane	U		0.00156	0.0140	1	10/22/2018 21:45	WG1184727
2-Chlorotoluene	U		0.00103	0.00281	1	10/22/2018 21:45	WG1184727
4-Chlorotoluene	U		0.00127	0.00561	1	10/22/2018 21:45	WG1184727
1,2-Dibromo-3-Chloropropane	U		0.00573	0.0281	1	10/22/2018 21:45	WG1184727
1,2-Dibromoethane	U		0.000590	0.00281	1	10/22/2018 21:45	WG1184727
Dibromomethane	U		0.00112	0.00561	1	10/22/2018 21:45	WG1184727
1,2-Dichlorobenzene	U		0.00163	0.00561	1	10/22/2018 21:45	WG1184727
1,3-Dichlorobenzene	U		0.00191	0.00561	1	10/22/2018 21:45	WG1184727
1,4-Dichlorobenzene	U		0.00221	0.00561	1	10/22/2018 21:45	WG1184727
Dichlorodifluoromethane	U		0.000919	0.00281	1	10/22/2018 21:45	WG1184727
1,1-Dichloroethane	U		0.000646	0.00281	1	10/22/2018 21:45	WG1184727
1,2-Dichloroethane	U		0.000533	0.00281	1	10/22/2018 21:45	WG1184727
1,1-Dichloroethene	U		0.000561	0.00281	1	10/22/2018 21:45	WG1184727
cis-1,2-Dichloroethene	0.00229	J J	0.000775	0.00281	1	10/22/2018 21:45	WG1184727
trans-1,2-Dichloroethene	U		0.00161	0.00561	1	10/22/2018 21:45	WG1184727
1,2-Dichloropropane	U		0.00143	0.00561	1	10/22/2018 21:45	WG1184727
1,1-Dichloropropene	U		0.000786	0.00281	1	10/22/2018 21:45	WG1184727
1,3-Dichloropropane	U		0.00197	0.00561	1	10/22/2018 21:45	WG1184727
cis-1,3-Dichloropropene	U		0.000761	0.00281	1	10/22/2018 21:45	WG1184727
trans-1,3-Dichloropropene	U		0.00172	0.00561	1	10/22/2018 21:45	WG1184727
trans-1,4-Dichloro-2-butene	U		0.00157	0.00561	1	10/22/2018 21:45	WG1184727
2,2-Dichloropropane	U		0.000890	0.00281	1	10/22/2018 21:45	WG1184727
Di-isopropyl ether	U		0.000393	0.00112	1	10/22/2018 21:45	WG1184727
Ethylbenzene	U		0.000595	0.00281	1	10/22/2018 21:45	WG1184727
Hexachloro-1,3-butadiene	U		0.0143	0.0281	1	10/22/2018 21:45	WG1184727
2-Hexanone	U		0.0112	0.0281	1	10/22/2018 21:45	WG1184727
n-Hexane	U		0.0952	0.449	80	10/24/2018 19:32	WG1185319
Iodomethane	U		0.00679	0.0140	1	10/22/2018 21:45	WG1184727
Isopropylbenzene	U		0.000969	0.00281	1	10/22/2018 21:45	WG1184727
p-Isopropyltoluene	U		0.00262	0.00561	1	10/22/2018 21:45	WG1184727
2-Butanone (MEK)	U		1.12	2.25	80	10/24/2018 19:32	WG1185319
Methylene Chloride	U		0.00746	0.0281	1	10/22/2018 21:45	WG1184727
4-Methyl-2-pentanone (MIBK)	U		0.0112	0.0281	1	10/22/2018 21:45	WG1184727

JC 11/15/18

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

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

Analyte	Result (dry) mg/kg		Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U			0.000331	0.00112	1	10/22/2018 21:45	WG1184727
Naphthalene	U			0.00350	0.0140	1	10/22/2018 21:45	WG1184727
n-Propylbenzene	U			0.00132	0.00561	1	10/22/2018 21:45	WG1184727
Styrene	U			0.00307	0.0140	1	10/22/2018 21:45	WG1184727
1,1,1,2-Tetrachloroethane	U			0.000561	0.00281	1	10/22/2018 21:45	WG1184727
1,1,2,2-Tetrachloroethane	U			0.000438	0.00281	1	10/22/2018 21:45	WG1184727
1,1,2-Trichlorotrifluoroethane	U			0.000758	0.00281	1	10/22/2018 21:45	WG1184727
Tetrachloroethene	15.7	J	J0	0.0629	0.225	80	10/24/2018 19:32	WG1185319
Toluene	0.00193	J	J	0.00140	0.00561	1	10/22/2018 21:45	WG1184727
1,2,3-Trichlorobenzene	U			0.000702	0.00281	1	10/22/2018 21:45	WG1184727
1,2,4-Trichlorobenzene	U			0.00541	0.0140	1	10/22/2018 21:45	WG1184727
1,1,1-Trichloroethane	U			0.000309	0.00281	1	10/22/2018 21:45	WG1184727
1,1,2-Trichloroethane	U			0.0793	0.225	80	10/24/2018 19:32	WG1185319
Trichloroethene	0.0186	J		0.000449	0.00112	1	10/22/2018 21:45	WG1184727
Trichlorofluoromethane	U			0.000561	0.00281	1	10/22/2018 21:45	WG1184727
1,2,3-Trichloropropane	U			0.00573	0.0140	1	10/22/2018 21:45	WG1184727
1,2,4-Trimethylbenzene	0.00139	J	J	0.00130	0.00561	1	10/22/2018 21:45	WG1184727
1,2,3-Trimethylbenzene	U			0.00129	0.00561	1	10/22/2018 21:45	WG1184727
1,3,5-Trimethylbenzene	U			0.00121	0.00561	1	10/22/2018 21:45	WG1184727
Vinyl acetate	U			0.00395	0.0140	1	10/22/2018 21:45	WG1184727
Vinyl chloride	U			0.000767	0.00281	1	10/22/2018 21:45	WG1184727
Xylenes, Total	U			0.00537	0.00730	1	10/22/2018 21:45	WG1184727
(S) Toluene-d8	*132*		J1		*75.0-131*		*10/22/2018 21:45*	WG1184727
(S) Toluene-d8	*97.8*				*75.0-131*		*10/24/2018 19:32*	WG1185319
(S) Dibromofluoromethane	*87.2*				*65.0-129*		*10/22/2018 21:45*	WG1184727
(S) Dibromofluoromethane	*119*				*65.0-129*		*10/24/2018 19:32*	WG1185319
(S) 4-Bromofluorobenzene	*80.8*				*67.0-138*		*10/22/2018 21:45*	WG1184727
(S) 4-Bromofluorobenzene	*123*				*67.0-138*		*10/24/2018 19:32*	WG1185319

Sample Narrative:

L1036473-21 WG1185319, WG1184727: Cannot be reanalyzed at a lower dilution due to high levels of target analytes.

L1036473-21 WG1185319, WG1184727: Not all compounds reportable at lower dilution.

JC 11/15/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	90.8		1	10/24/2018 13:36	WG1185670

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0604	0.110	4	10/24/2018 17:52	WG1185319
Acrylonitrile	U		0.00209	0.0138	1	10/22/2018 22:05	WG1184727
Benzene	U		0.000441	0.00110	1	10/22/2018 22:05	WG1184727
Bromobenzene	U		0.00116	0.0138	1	10/22/2018 22:05	WG1184727
Bromodichloromethane	U		0.000868	0.00275	1	10/22/2018 22:05	WG1184727
Bromochloromethane	U		0.00124	0.00551	1	10/22/2018 22:05	WG1184727
Bromoform	U		0.00659	0.0275	1	10/22/2018 22:05	WG1184727
Bromomethane	U		0.00408	0.0138	1	10/22/2018 22:05	WG1184727
n-Butylbenzene	U		0.00423	0.0138	1	10/22/2018 22:05	WG1184727
sec-Butylbenzene	U		0.00279	0.0138	1	10/22/2018 22:05	WG1184727
tert-Butylbenzene	U		0.00171	0.00551	1	10/22/2018 22:05	WG1184727
Carbon disulfide	U		0.00447	0.0138	1	10/22/2018 22:05	WG1184727
Carbon tetrachloride	U		0.00119	0.00551	1	10/22/2018 22:05	WG1184727
Chlorobenzene	U		0.000631	0.00275	1	10/22/2018 22:05	WG1184727
Chlorodibromomethane	U		0.000496	0.00275	1	10/22/2018 22:05	WG1184727
Chloroethane	U		0.00119	0.00551	1	10/22/2018 22:05	WG1184727
Chloroform	0.00118	U	0.000457	0.00275	1	10/22/2018 22:05	WG1184727
Chloromethane	U		0.00153	0.0138	1	10/22/2018 22:05	WG1184727
2-Chlorotoluene	U		0.00101	0.00275	1	10/22/2018 22:05	WG1184727
4-Chlorotoluene	U		0.00124	0.00551	1	10/22/2018 22:05	WG1184727
1,2-Dibromo-3-Chloropropane	U		0.00562	0.0275	1	10/22/2018 22:05	WG1184727
1,2-Dibromoethane	U		0.000578	0.00275	1	10/22/2018 22:05	WG1184727
Dibromomethane	U		0.00110	0.00551	1	10/22/2018 22:05	WG1184727
1,2-Dichlorobenzene	U		0.00160	0.00551	1	10/22/2018 22:05	WG1184727
1,3-Dichlorobenzene	U		0.00187	0.00551	1	10/22/2018 22:05	WG1184727
1,4-Dichlorobenzene	U		0.00217	0.00551	1	10/22/2018 22:05	WG1184727
Dichlorodifluoromethane	U		0.000901	0.00275	1	10/22/2018 22:05	WG1184727
1,1-Dichloroethane	U		0.000633	0.00275	1	10/22/2018 22:05	WG1184727
1,2-Dichloroethane	U		0.000523	0.00275	1	10/22/2018 22:05	WG1184727
1,1-Dichloroethene	U		0.000551	0.00275	1	10/22/2018 22:05	WG1184727
cis-1,2-Dichloroethene	U		0.000760	0.00275	1	10/22/2018 22:05	WG1184727
trans-1,2-Dichloroethene	U		0.00158	0.00551	1	10/22/2018 22:05	WG1184727
1,2-Dichloropropane	U		0.00560	0.0220	4	10/24/2018 17:52	WG1185319
1,1-Dichloropropene	U		0.000771	0.00275	1	10/22/2018 22:05	WG1184727
1,3-Dichloropropane	U		0.00193	0.00551	1	10/22/2018 22:05	WG1184727
cis-1,3-Dichloropropene	U		0.000747	0.00275	1	10/22/2018 22:05	WG1184727
trans-1,3-Dichloropropene	U		0.00169	0.00551	1	10/22/2018 22:05	WG1184727
trans-1,4-Dichloro-2-butene	U		0.00154	0.00551	1	10/22/2018 22:05	WG1184727
2,2-Dichloropropane	U		0.000873	0.00275	1	10/22/2018 22:05	WG1184727
Di-isopropyl ether	U		0.000386	0.00110	1	10/22/2018 22:05	WG1184727
Ethylbenzene	U		0.000584	0.00275	1	10/22/2018 22:05	WG1184727
Hexachloro-1,3-butadiene	U		0.0140	0.0275	1	10/22/2018 22:05	WG1184727
2-Hexanone	U		0.0110	0.0275	1	10/22/2018 22:05	WG1184727
n-Hexane	U		0.00467	0.0220	4	10/24/2018 17:52	WG1185319
Iodomethane	U		0.00666	0.0138	1	10/22/2018 22:05	WG1184727
Isopropylbenzene	U		0.000951	0.00275	1	10/22/2018 22:05	WG1184727
p-Isopropyltoluene	U		0.00257	0.00551	1	10/22/2018 22:05	WG1184727
2-Butanone (MEK)	U		0.0551	0.110	4	10/24/2018 17:52	WG1185319
Methylene Chloride	U		0.00731	0.0275	1	10/22/2018 22:05	WG1184727
4-Methyl-2-pentanone (MIBK)	U		0.0110	0.0275	1	10/22/2018 22:05	WG1184727

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

JC 11/15/18

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

Analyte	Result (dry) mg/kg		Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U			0.000325	0.00110	1	10/22/2018 22:05	WG1184727
Naphthalene	U			0.00344	0.0138	1	10/22/2018 22:05	WG1184727
n-Propylbenzene	U			0.00130	0.00551	1	10/22/2018 22:05	WG1184727
Styrene	U			0.00301	0.0138	1	10/22/2018 22:05	WG1184727
1,1,1,2-Tetrachloroethane	U			0.000551	0.00275	1	10/22/2018 22:05	WG1184727
1,1,2,2-Tetrachloroethane	U			0.000430	0.00275	1	10/22/2018 22:05	WG1184727
1,1,2-Trichlorotrifluoroethane	U			0.000743	0.00275	1	10/22/2018 22:05	WG1184727
Tetrachloroethene	0.868	J	J0	0.00308	0.0110	4	10/24/2018 17:52	WG1185319
Toluene	U			0.00138	0.00551	1	10/22/2018 22:05	WG1184727
1,2,3-Trichlorobenzene	U			0.000688	0.00275	1	10/22/2018 22:05	WG1184727
1,2,4-Trichlorobenzene	U			0.00531	0.0138	1	10/22/2018 22:05	WG1184727
1,1,1-Trichloroethane	U			0.000303	0.00275	1	10/22/2018 22:05	WG1184727
1,1,2-Trichloroethane	U			0.00389	0.0110	4	10/24/2018 17:52	WG1185319
Trichloroethene	0.00529			0.000441	0.00110	1	10/22/2018 22:05	WG1184727
Trichlorofluoromethane	U			0.000551	0.00275	1	10/22/2018 22:05	WG1184727
1,2,3-Trichloropropane	U			0.00562	0.0138	1	10/22/2018 22:05	WG1184727
1,2,4-Trimethylbenzene	U			0.00128	0.00551	1	10/22/2018 22:05	WG1184727
1,2,3-Trimethylbenzene	U			0.00127	0.00551	1	10/22/2018 22:05	WG1184727
1,3,5-Trimethylbenzene	U			0.00119	0.00551	1	10/22/2018 22:05	WG1184727
Vinyl acetate	U			0.00388	0.0138	1	10/22/2018 22:05	WG1184727
Vinyl chloride	U			0.000752	0.00275	1	10/22/2018 22:05	WG1184727
Xylenes, Total	U			0.00526	0.00716	1	10/22/2018 22:05	WG1184727
(S) Toluene-d8	*127*				*75.0-131*		*10/22/2018 22:05*	WG1184727
(S) Toluene-d8	*98.2*				*75.0-131*		*10/24/2018 17:52*	WG1185319
(S) Dibromofluoromethane	*93.5*				*65.0-129*		*10/22/2018 22:05*	WG1184727
(S) Dibromofluoromethane	*119*				*65.0-129*		*10/24/2018 17:52*	WG1185319
(S) 4-Bromofluorobenzene	*89.2*				*67.0-138*		*10/22/2018 22:05*	WG1184727
(S) 4-Bromofluorobenzene	*122*				*67.0-138*		*10/24/2018 17:52*	WG1185319

Sample Narrative:

L1036473-22 WG1185319, WG1184727: Cannot be reanalyzed at a lower dilution due to high levels of target analytes.

L1036473-22 WG1185319, WG1184727: Not all compounds reportable at lower dilution.

JC 11/15/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	82.1		1	10/24/2018 13:36	WG1185670

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch	
	mg/kg		mg/kg	mg/kg		date / time		
Acetone	0.0288 J	J	0.0167	0.0305	1	10/24/2018 14:32	WG1185319	
Acrylonitrile	U		0.00232	0.0152	1	10/22/2018 22:26	WG1184727	
Benzene	U		0.000487	0.00122	1	10/22/2018 22:26	WG1184727	
Bromobenzene	U		0.00128	0.0152	1	10/22/2018 22:26	WG1184727	
Bromodichloromethane	U		0.000960	0.00305	1	10/22/2018 22:26	WG1184727	
Bromochloromethane	U		0.00138	0.00609	1	10/22/2018 22:26	WG1184727	
Bromoform	U		0.00729	0.0305	1	10/22/2018 22:26	WG1184727	
Bromomethane	U		0.00451	0.0152	1	10/22/2018 22:26	WG1184727	
n-Butylbenzene	U		0.00468	0.0152	1	10/22/2018 22:26	WG1184727	
sec-Butylbenzene	U		0.00308	0.0152	1	10/22/2018 22:26	WG1184727	
tert-Butylbenzene	U		0.00189	0.00609	1	10/22/2018 22:26	WG1184727	
Carbon disulfide	U		0.00495	0.0152	1	10/22/2018 22:26	WG1184727	
Carbon tetrachloride	U		0.00132	0.00609	1	10/22/2018 22:26	WG1184727	
Chlorobenzene	U		0.000698	0.00305	1	10/22/2018 22:26	WG1184727	
Chlorodibromomethane	U		0.000548	0.00305	1	10/22/2018 22:26	WG1184727	
Chloroethane	U		0.00132	0.00609	1	10/22/2018 22:26	WG1184727	
Chloroform	0.00119 U	B J	0.000506	0.00305	1	10/22/2018 22:26	WG1184727	
Chloromethane	U		0.00169	0.0152	1	10/22/2018 22:26	WG1184727	
2-Chlorotoluene	U		0.00112	0.00305	1	10/22/2018 22:26	WG1184727	
4-Chlorotoluene	U		0.00138	0.00609	1	10/22/2018 22:26	WG1184727	
1,2-Dibromo-3-Chloropropane	U		0.00621	0.0305	1	10/22/2018 22:26	WG1184727	
1,2-Dibromoethane	U		0.000640	0.00305	1	10/22/2018 22:26	WG1184727	
Dibromomethane	U		0.00122	0.00609	1	10/22/2018 22:26	WG1184727	
1,2-Dichlorobenzene	U		0.00177	0.00609	1	10/22/2018 22:26	WG1184727	
1,3-Dichlorobenzene	U		0.00207	0.00609	1	10/22/2018 22:26	WG1184727	
1,4-Dichlorobenzene	U		0.00240	0.00609	1	10/22/2018 22:26	WG1184727	
Dichlorodifluoromethane	U		0.000997	0.00305	1	10/22/2018 22:26	WG1184727	
1,1-Dichloroethane	U		0.000701	0.00305	1	10/22/2018 22:26	WG1184727	
1,2-Dichloroethane	U		0.000579	0.00305	1	10/22/2018 22:26	WG1184727	
1,1-Dichloroethene	U		0.000609	0.00305	1	10/22/2018 22:26	WG1184727	
cis-1,2-Dichloroethene	0.00515		0.000841	0.00305	1	10/22/2018 22:26	WG1184727	
trans-1,2-Dichloroethene	U		0.00174	0.00609	1	10/22/2018 22:26	WG1184727	
1,2-Dichloropropane	U		0.00155	0.00609	1	10/24/2018 14:32	WG1185319	
1,1-Dichloropropene	U		0.000853	0.00305	1	10/22/2018 22:26	WG1184727	
1,3-Dichloropropane	U		0.00213	0.00609	1	10/22/2018 22:26	WG1184727	
cis-1,3-Dichloropropene	U		0.000826	0.00305	1	10/22/2018 22:26	WG1184727	
trans-1,3-Dichloropropene	U		0.00186	0.00609	1	10/22/2018 22:26	WG1184727	
trans-1,4-Dichloro-2-butene	U		0.00171	0.00609	1	10/22/2018 22:26	WG1184727	
2,2-Dichloropropane	U		0.000966	0.00305	1	10/22/2018 22:26	WG1184727	
Di-isopropyl ether	U		0.000426	0.00122	1	10/22/2018 22:26	WG1184727	
Ethylbenzene	U		0.000646	0.00305	1	10/22/2018 22:26	WG1184727	
Hexachloro-1,3-butadiene	U		0.0155	0.0305	1	10/22/2018 22:26	WG1184727	
2-Hexanone	U		0.0122	0.0305	1	10/22/2018 22:26	WG1184727	
n-Hexane	0.00663		0.00129	0.00609	1	10/24/2018 14:32	WG1185319	
Iodomethane	U		0.00737	0.0152	1	10/22/2018 22:26	WG1184727	
Isopropylbenzene	U		0.00105	0.00305	1	10/22/2018 22:26	WG1184727	
p-Isopropyltoluene	U		0.00284	0.00609	1	10/22/2018 22:26	WG1184727	
2-Butanone (MEK)	U		0.0152	0.0305	1	10/24/2018 14:32	WG1185319	JC 11/15/18
Methylene Chloride	U		0.00809	0.0305	1	10/22/2018 22:26	WG1184727	
4-Methyl-2-pentanone (MIBK)	U		0.0122	0.0305	1	10/22/2018 22:26	WG1184727	

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000359	0.00122	1	10/22/2018 22:26	WG1184727
Naphthalene	U		0.00380	0.0152	1	10/22/2018 22:26	WG1184727
n-Propylbenzene	U		0.00144	0.00609	1	10/22/2018 22:26	WG1184727
Styrene	U		0.00333	0.0152	1	10/22/2018 22:26	WG1184727
1,1,1,2-Tetrachloroethane	U		0.000609	0.00305	1	10/22/2018 22:26	WG1184727
1,1,2,2-Tetrachloroethane	U		0.000475	0.00305	1	10/22/2018 22:26	WG1184727
1,1,2-Trichlorotrifluoroethane	U		0.000823	0.00305	1	10/22/2018 22:26	WG1184727
Tetrachloroethene	0.0153 J	J0	0.000853	0.00305	1	10/24/2018 14:32	WG1185319
Toluene	0.00546 J	J	0.00152	0.00609	1	10/22/2018 22:26	WG1184727
1,2,3-Trichlorobenzene	U		0.000762	0.00305	1	10/22/2018 22:26	WG1184727
1,2,4-Trichlorobenzene	U		0.00587	0.0152	1	10/22/2018 22:26	WG1184727
1,1,1-Trichloroethane	U		0.000335	0.00305	1	10/22/2018 22:26	WG1184727
1,1,2-Trichloroethane	U		0.00108	0.00305	1	10/24/2018 14:32	WG1185319
Trichloroethene	0.00639		0.000487	0.00122	1	10/22/2018 22:26	WG1184727
Trichlorofluoromethane	U		0.000609	0.00305	1	10/22/2018 22:26	WG1184727
1,2,3-Trichloropropane	U		0.00621	0.0152	1	10/22/2018 22:26	WG1184727
1,2,4-Trimethylbenzene	U		0.00141	0.00609	1	10/22/2018 22:26	WG1184727
1,2,3-Trimethylbenzene	U		0.00140	0.00609	1	10/22/2018 22:26	WG1184727
1,3,5-Trimethylbenzene	U		0.00132	0.00609	1	10/22/2018 22:26	WG1184727
Vinyl acetate	U		0.00429	0.0152	1	10/22/2018 22:26	WG1184727
Vinyl chloride	U		0.000832	0.00305	1	10/22/2018 22:26	WG1184727
Xylenes, Total	U		0.00582	0.00792	1	10/22/2018 22:26	WG1184727
(S) Toluene-d8	*127*			*75.0-131*		*10/22/2018 22:26*	WG1184727
(S) Toluene-d8	*98.5*			*75.0-131*		*10/24/2018 14:32*	WG1185319
(S) Dibromofluoromethane	*94.8*			*65.0-129*		*10/22/2018 22:26*	WG1184727
(S) Dibromofluoromethane	*116*			*65.0-129*		*10/24/2018 14:32*	WG1185319
(S) 4-Bromofluorobenzene	*88.2*			*67.0-138*		*10/22/2018 22:26*	WG1184727
(S) 4-Bromofluorobenzene	*122*			*67.0-138*		*10/24/2018 14:32*	WG1185319

JC 11/15/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	83.3		1	10/24/2018 13:36	WG1185670

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0173	0.0315	1.05	10/24/2018 14:52	WG1185319
Acrylonitrile	U		0.00241	0.0159	1.06	10/22/2018 22:46	WG1184727
Benzene	U		0.000509	0.00127	1.06	10/22/2018 22:46	WG1184727
Bromobenzene	U		0.00133	0.0159	1.06	10/22/2018 22:46	WG1184727
Bromodichloromethane	U		0.00100	0.00318	1.06	10/22/2018 22:46	WG1184727
Bromochloromethane	U		0.00144	0.00636	1.06	10/22/2018 22:46	WG1184727
Bromoform	U		0.00761	0.0318	1.06	10/22/2018 22:46	WG1184727
Bromomethane	U		0.00471	0.0159	1.06	10/22/2018 22:46	WG1184727
n-Butylbenzene	U		0.00489	0.0159	1.06	10/22/2018 22:46	WG1184727
sec-Butylbenzene	U		0.00322	0.0159	1.06	10/22/2018 22:46	WG1184727
tert-Butylbenzene	U		0.00197	0.00636	1.06	10/22/2018 22:46	WG1184727
Carbon disulfide	U		0.00516	0.0159	1.06	10/22/2018 22:46	WG1184727
Carbon tetrachloride	U		0.00137	0.00636	1.06	10/22/2018 22:46	WG1184727
Chlorobenzene	U		0.000729	0.00318	1.06	10/22/2018 22:46	WG1184727
Chlorodibromomethane	U		0.000573	0.00318	1.06	10/22/2018 22:46	WG1184727
Chloroethane	U		0.00137	0.00636	1.06	10/22/2018 22:46	WG1184727
Chloroform	0.00156	U B J	0.000528	0.00318	1.06	10/22/2018 22:46	WG1184727
Chloromethane	U		0.00176	0.0159	1.06	10/22/2018 22:46	WG1184727
2-Chlorotoluene	U		0.00117	0.00318	1.06	10/22/2018 22:46	WG1184727
4-Chlorotoluene	U		0.00144	0.00636	1.06	10/22/2018 22:46	WG1184727
1,2-Dibromo-3-Chloropropane	U		0.00649	0.0318	1.06	10/22/2018 22:46	WG1184727
1,2-Dibromoethane	U		0.000667	0.00318	1.06	10/22/2018 22:46	WG1184727
Dibromomethane	U		0.00127	0.00636	1.06	10/22/2018 22:46	WG1184727
1,2-Dichlorobenzene	U		0.00185	0.00636	1.06	10/22/2018 22:46	WG1184727
1,3-Dichlorobenzene	U		0.00216	0.00636	1.06	10/22/2018 22:46	WG1184727
1,4-Dichlorobenzene	U		0.00251	0.00636	1.06	10/22/2018 22:46	WG1184727
Dichlorodifluoromethane	U		0.00104	0.00318	1.06	10/22/2018 22:46	WG1184727
1,1-Dichloroethane	U		0.000732	0.00318	1.06	10/22/2018 22:46	WG1184727
1,2-Dichloroethane	U		0.000605	0.00318	1.06	10/22/2018 22:46	WG1184727
1,1-Dichloroethene	U		0.000636	0.00318	1.06	10/22/2018 22:46	WG1184727
cis-1,2-Dichloroethene	0.00854		0.000877	0.00318	1.06	10/22/2018 22:46	WG1184727
trans-1,2-Dichloroethene	U		0.00182	0.00636	1.06	10/22/2018 22:46	WG1184727
1,2-Dichloropropane	U		0.00160	0.00630	1.05	10/24/2018 14:52	WG1185319
1,1-Dichloropropene	U		0.000891	0.00318	1.06	10/22/2018 22:46	WG1184727
1,3-Dichloropropane	U		0.00223	0.00636	1.06	10/22/2018 22:46	WG1184727
cis-1,3-Dichloropropene	U		0.000863	0.00318	1.06	10/22/2018 22:46	WG1184727
trans-1,3-Dichloropropene	U		0.00194	0.00636	1.06	10/22/2018 22:46	WG1184727
trans-1,4-Dichloro-2-butene	U		0.00178	0.00636	1.06	10/22/2018 22:46	WG1184727
2,2-Dichloropropane	U		0.00101	0.00318	1.06	10/22/2018 22:46	WG1184727
Di-isopropyl ether	U		0.000445	0.00127	1.06	10/22/2018 22:46	WG1184727
Ethylbenzene	U		0.000675	0.00318	1.06	10/22/2018 22:46	WG1184727
Hexachloro-1,3-butadiene	U		0.0162	0.0318	1.06	10/22/2018 22:46	WG1184727
2-Hexanone	U		0.0127	0.0318	1.06	10/22/2018 22:46	WG1184727
n-Hexane	U		0.00133	0.00630	1.05	10/24/2018 14:52	WG1185319
Iodomethane	U		0.00769	0.0159	1.06	10/22/2018 22:46	WG1184727
Isopropylbenzene	U		0.00110	0.00318	1.06	10/22/2018 22:46	WG1184727
p-Isopropyltoluene	U		0.00296	0.00636	1.06	10/22/2018 22:46	WG1184727
2-Butanone (MEK)	U		0.0157	0.0315	1.05	10/24/2018 14:52	WG1185319
Methylene Chloride	U		0.00845	0.0318	1.06	10/22/2018 22:46	WG1184727
4-Methyl-2-pentanone (MIBK)	U		0.0127	0.0318	1.06	10/22/2018 22:46	WG1184727

JC 11/15/18

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

Analyte	Result (dry) mg/kg		Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U			0.000376	0.00127	1.06	10/22/2018 22:46	WG1184727
Naphthalene	U			0.00397	0.0159	1.06	10/22/2018 22:46	WG1184727
n-Propylbenzene	U			0.00150	0.00636	1.06	10/22/2018 22:46	WG1184727
Styrene	U			0.00347	0.0159	1.06	10/22/2018 22:46	WG1184727
1,1,1,2-Tetrachloroethane	U			0.000636	0.00318	1.06	10/22/2018 22:46	WG1184727
1,1,2,2-Tetrachloroethane	U			0.000496	0.00318	1.06	10/22/2018 22:46	WG1184727
1,1,2-Trichlorotrifluoroethane	U			0.000859	0.00318	1.06	10/22/2018 22:46	WG1184727
Tetrachloroethene	0.00703	J	J0	0.000882	0.00315	1.05	10/24/2018 14:52	WG1185319
Toluene	0.00302	J	J	0.00158	0.00636	1.06	10/22/2018 22:46	WG1184727
1,2,3-Trichlorobenzene	U			0.000795	0.00318	1.06	10/22/2018 22:46	WG1184727
1,2,4-Trichlorobenzene	U			0.00613	0.0159	1.06	10/22/2018 22:46	WG1184727
1,1,1-Trichloroethane	U			0.000350	0.00318	1.06	10/22/2018 22:46	WG1184727
1,1,2-Trichloroethane	U			0.00111	0.00315	1.05	10/24/2018 14:52	WG1185319
Trichloroethene	0.00919			0.000509	0.00127	1.06	10/22/2018 22:46	WG1184727
Trichlorofluoromethane	U			0.000636	0.00318	1.06	10/22/2018 22:46	WG1184727
1,2,3-Trichloropropane	U			0.00649	0.0159	1.06	10/22/2018 22:46	WG1184727
1,2,4-Trimethylbenzene	U			0.00148	0.00636	1.06	10/22/2018 22:46	WG1184727
1,2,3-Trimethylbenzene	U			0.00146	0.00636	1.06	10/22/2018 22:46	WG1184727
1,3,5-Trimethylbenzene	U			0.00137	0.00636	1.06	10/22/2018 22:46	WG1184727
Vinyl acetate	U			0.00448	0.0159	1.06	10/22/2018 22:46	WG1184727
Vinyl chloride	U			0.000869	0.00318	1.06	10/22/2018 22:46	WG1184727
Xylenes, Total	U			0.00609	0.00827	1.06	10/22/2018 22:46	WG1184727
(S) Toluene-d8	*124*				*75.0-131*		*10/22/2018 22:46*	WG1184727
(S) Toluene-d8	*98.9*				*75.0-131*		*10/24/2018 14:52*	WG1185319
(S) Dibromofluoromethane	*85.6*				*65.0-129*		*10/22/2018 22:46*	WG1184727
(S) Dibromofluoromethane	*116*				*65.0-129*		*10/24/2018 14:52*	WG1185319
(S) 4-Bromofluorobenzene	*88.2*				*67.0-138*		*10/22/2018 22:46*	WG1184727
(S) 4-Bromofluorobenzene	*120*				*67.0-138*		*10/24/2018 14:52*	WG1185319

JC 11/15/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	87.6		1	10/24/2018 14:00	WG1185671

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch	
	mg/kg		mg/kg	mg/kg		date / time		
Acetone	U		0.0220	0.0402	1.41	10/24/2018 15:12	WG1185319	
Acrylonitrile	U		0.00306	0.0201	1.41	10/22/2018 23:06	WG1184727	
Benzene	U		0.000644	0.00161	1.41	10/22/2018 23:06	WG1184727	
Bromobenzene	U		0.00169	0.0201	1.41	10/22/2018 23:06	WG1184727	
Bromodichloromethane	U		0.00127	0.00402	1.41	10/22/2018 23:06	WG1184727	
Bromochloromethane	U		0.00181	0.00805	1.41	10/22/2018 23:06	WG1184727	
Bromoform	U		0.00962	0.0402	1.41	10/22/2018 23:06	WG1184727	
Bromomethane	U		0.00596	0.0201	1.41	10/22/2018 23:06	WG1184727	
n-Butylbenzene	U		0.00617	0.0201	1.41	10/22/2018 23:06	WG1184727	
sec-Butylbenzene	U		0.00407	0.0201	1.41	10/22/2018 23:06	WG1184727	
tert-Butylbenzene	U		0.00249	0.00805	1.41	10/22/2018 23:06	WG1184727	
Carbon disulfide	U		0.00653	0.0201	1.41	10/22/2018 23:06	WG1184727	
Carbon tetrachloride	U		0.00173	0.00805	1.41	10/22/2018 23:06	WG1184727	
Chlorobenzene	U		0.000922	0.00402	1.41	10/22/2018 23:06	WG1184727	
Chlorodibromomethane	U		0.000724	0.00402	1.41	10/22/2018 23:06	WG1184727	
Chloroethane	U		0.00173	0.00805	1.41	10/22/2018 23:06	WG1184727	
Chloroform	0.00180	U	0.000668	0.00402	1.41	10/22/2018 23:06	WG1184727	
Chloromethane	U		0.00224	0.0201	1.41	10/22/2018 23:06	WG1184727	JC 11/15/18
2-Chlorotoluene	U		0.00148	0.00402	1.41	10/22/2018 23:06	WG1184727	
4-Chlorotoluene	U		0.00181	0.00805	1.41	10/22/2018 23:06	WG1184727	
1,2-Dibromo-3-Chloropropane	U		0.00821	0.0402	1.41	10/22/2018 23:06	WG1184727	
1,2-Dibromoethane	U		0.000845	0.00402	1.41	10/22/2018 23:06	WG1184727	
Dibromomethane	U		0.00161	0.00805	1.41	10/22/2018 23:06	WG1184727	
1,2-Dichlorobenzene	U		0.00233	0.00805	1.41	10/22/2018 23:06	WG1184727	
1,3-Dichlorobenzene	U		0.00274	0.00805	1.41	10/22/2018 23:06	WG1184727	
1,4-Dichlorobenzene	U		0.00317	0.00805	1.41	10/22/2018 23:06	WG1184727	
Dichlorodifluoromethane	U		0.00131	0.00402	1.41	10/22/2018 23:06	WG1184727	
1,1-Dichloroethane	U		0.000926	0.00402	1.41	10/22/2018 23:06	WG1184727	
1,2-Dichloroethane	U		0.000765	0.00402	1.41	10/22/2018 23:06	WG1184727	
1,1-Dichloroethene	U		0.000805	0.00402	1.41	10/22/2018 23:06	WG1184727	
cis-1,2-Dichloroethene	0.00620		0.00111	0.00402	1.41	10/22/2018 23:06	WG1184727	
trans-1,2-Dichloroethene	U		0.00231	0.00805	1.41	10/22/2018 23:06	WG1184727	
1,2-Dichloropropane	U		0.00204	0.00805	1.41	10/24/2018 15:12	WG1185319	
1,1-Dichloropropene	U		0.00113	0.00402	1.41	10/22/2018 23:06	WG1184727	
1,3-Dichloropropane	U		0.00282	0.00805	1.41	10/22/2018 23:06	WG1184727	
cis-1,3-Dichloropropene	U		0.00109	0.00402	1.41	10/22/2018 23:06	WG1184727	
trans-1,3-Dichloropropene	U		0.00247	0.00805	1.41	10/22/2018 23:06	WG1184727	
trans-1,4-Dichloro-2-butene	U		0.00225	0.00805	1.41	10/22/2018 23:06	WG1184727	
2,2-Dichloropropane	U		0.00128	0.00402	1.41	10/22/2018 23:06	WG1184727	
Di-isopropyl ether	U		0.000564	0.00161	1.41	10/22/2018 23:06	WG1184727	
Ethylbenzene	U		0.000853	0.00402	1.41	10/22/2018 23:06	WG1184727	
Hexachloro-1,3-butadiene	U		0.0204	0.0402	1.41	10/22/2018 23:06	WG1184727	
2-Hexanone	U		0.0161	0.0402	1.41	10/22/2018 23:06	WG1184727	
n-Hexane	U		0.00170	0.00805	1.41	10/24/2018 15:12	WG1185319	
Iodomethane	U		0.00974	0.0201	1.41	10/22/2018 23:06	WG1184727	
Isopropylbenzene	U		0.00139	0.00402	1.41	10/22/2018 23:06	WG1184727	
p-Isopropyltoluene	U		0.00374	0.00805	1.41	10/22/2018 23:06	WG1184727	
2-Butanone (MEK)	U		0.0201	0.0402	1.41	10/24/2018 15:12	WG1185319	
Methylene Chloride	U		0.0107	0.0402	1.41	10/22/2018 23:06	WG1184727	
4-Methyl-2-pentanone (MIBK)	U		0.0161	0.0402	1.41	10/22/2018 23:06	WG1184727	

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000475	0.00161	1.41	10/22/2018 23:06	WG1184727
Naphthalene	U		0.00502	0.0201	1.41	10/22/2018 23:06	WG1184727
n-Propylbenzene	U		0.00189	0.00805	1.41	10/22/2018 23:06	WG1184727
Styrene	U		0.00439	0.0201	1.41	10/22/2018 23:06	WG1184727
1,1,1,2-Tetrachloroethane	U		0.000805	0.00402	1.41	10/22/2018 23:06	WG1184727
1,1,2,2-Tetrachloroethane	U		0.000628	0.00402	1.41	10/22/2018 23:06	WG1184727
1,1,2-Trichlorotrifluoroethane	U		0.00109	0.00402	1.41	10/22/2018 23:06	WG1184727
Tetrachloroethene	0.00843 J	J0	0.00113	0.00402	1.41	10/24/2018 15:12	WG1185319
Toluene	U		0.00201	0.00805	1.41	10/22/2018 23:06	WG1184727
1,2,3-Trichlorobenzene	U		0.00101	0.00402	1.41	10/22/2018 23:06	WG1184727
1,2,4-Trichlorobenzene	U		0.00776	0.0201	1.41	10/22/2018 23:06	WG1184727
1,1,1-Trichloroethane	U		0.000443	0.00402	1.41	10/22/2018 23:06	WG1184727
1,1,2-Trichloroethane	U		0.00142	0.00402	1.41	10/24/2018 15:12	WG1185319
Trichloroethene	0.00315		0.000644	0.00161	1.41	10/22/2018 23:06	WG1184727
Trichlorofluoromethane	U		0.000805	0.00402	1.41	10/22/2018 23:06	WG1184727
1,2,3-Trichloropropane	U		0.00821	0.0201	1.41	10/22/2018 23:06	WG1184727
1,2,4-Trimethylbenzene	U		0.00187	0.00805	1.41	10/22/2018 23:06	WG1184727
1,2,3-Trimethylbenzene	U		0.00185	0.00805	1.41	10/22/2018 23:06	WG1184727
1,3,5-Trimethylbenzene	U		0.00173	0.00805	1.41	10/22/2018 23:06	WG1184727
Vinyl acetate	U		0.00566	0.0201	1.41	10/22/2018 23:06	WG1184727
Vinyl chloride	U		0.00110	0.00402	1.41	10/22/2018 23:06	WG1184727
Xylenes, Total	U		0.00769	0.0105	1.41	10/22/2018 23:06	WG1184727
(S) Toluene-d8	*125*			*75.0-131*		*10/22/2018 23:06*	WG1184727
(S) Toluene-d8	*99.7*			*75.0-131*		*10/24/2018 15:12*	WG1185319
(S) Dibromofluoromethane	*94.3*			*65.0-129*		*10/22/2018 23:06*	WG1184727
(S) Dibromofluoromethane	*115*			*65.0-129*		*10/24/2018 15:12*	WG1185319
(S) 4-Bromofluorobenzene	*90.6*			*67.0-138*		*10/22/2018 23:06*	WG1184727
(S) 4-Bromofluorobenzene	*121*			*67.0-138*		*10/24/2018 15:12*	WG1185319

JC 11/15/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	87.0		1	10/24/2018 14:00	WG1185671

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch	
	mg/kg		mg/kg	mg/kg		date / time		
Acetone	U		0.183	0.333	11.6	10/24/2018 18:12	WG1185319	
Acrylonitrile	U		0.00253	0.0167	1.16	10/22/2018 23:27	WG1184727	
Benzene	U		0.000534	0.00133	1.16	10/22/2018 23:27	WG1184727	
Bromobenzene	U		0.00140	0.0167	1.16	10/22/2018 23:27	WG1184727	
Bromodichloromethane	U		0.00105	0.00333	1.16	10/22/2018 23:27	WG1184727	
Bromochloromethane	U		0.00151	0.00667	1.16	10/22/2018 23:27	WG1184727	
Bromoform	U		0.00798	0.0333	1.16	10/22/2018 23:27	WG1184727	
Bromomethane	U		0.00493	0.0167	1.16	10/22/2018 23:27	WG1184727	
n-Butylbenzene	U		0.00512	0.0167	1.16	10/22/2018 23:27	WG1184727	
sec-Butylbenzene	U		0.00337	0.0167	1.16	10/22/2018 23:27	WG1184727	
tert-Butylbenzene	U		0.00207	0.00667	1.16	10/22/2018 23:27	WG1184727	
Carbon disulfide	U		0.00542	0.0167	1.16	10/22/2018 23:27	WG1184727	JC 11/15/18
Carbon tetrachloride	U		0.00144	0.00667	1.16	10/22/2018 23:27	WG1184727	
Chlorobenzene	U		0.000765	0.00333	1.16	10/22/2018 23:27	WG1184727	
Chlorodibromomethane	U		0.000600	0.00333	1.16	10/22/2018 23:27	WG1184727	
Chloroethane	U		0.00144	0.00667	1.16	10/22/2018 23:27	WG1184727	
Chloroform	0.00182	U B J	0.000553	0.00333	1.16	10/22/2018 23:27	WG1184727	
Chloromethane	U		0.00185	0.0167	1.16	10/22/2018 23:27	WG1184727	
2-Chlorotoluene	U		0.00123	0.00333	1.16	10/22/2018 23:27	WG1184727	
4-Chlorotoluene	U		0.00151	0.00667	1.16	10/22/2018 23:27	WG1184727	
1,2-Dibromo-3-Chloropropane	U		0.00681	0.0333	1.16	10/22/2018 23:27	WG1184727	
1,2-Dibromoethane	U		0.000700	0.00333	1.16	10/22/2018 23:27	WG1184727	
Dibromomethane	U		0.00133	0.00667	1.16	10/22/2018 23:27	WG1184727	
1,2-Dichlorobenzene	U		0.00193	0.00667	1.16	10/22/2018 23:27	WG1184727	
1,3-Dichlorobenzene	U		0.00227	0.00667	1.16	10/22/2018 23:27	WG1184727	
1,4-Dichlorobenzene	U		0.00262	0.00667	1.16	10/22/2018 23:27	WG1184727	
Dichlorodifluoromethane	U		0.00109	0.00333	1.16	10/22/2018 23:27	WG1184727	
1,1-Dichloroethane	U		0.000767	0.00333	1.16	10/22/2018 23:27	WG1184727	
1,2-Dichloroethane	U		0.000634	0.00333	1.16	10/22/2018 23:27	WG1184727	
1,1-Dichloroethene	U		0.000667	0.00333	1.16	10/22/2018 23:27	WG1184727	
cis-1,2-Dichloroethene	U		0.000920	0.00333	1.16	10/22/2018 23:27	WG1184727	
trans-1,2-Dichloroethene	U		0.00191	0.00667	1.16	10/22/2018 23:27	WG1184727	
1,2-Dichloropropane	U		0.0169	0.0667	11.6	10/24/2018 18:12	WG1185319	
1,1-Dichloropropene	U		0.000934	0.00333	1.16	10/22/2018 23:27	WG1184727	
1,3-Dichloropropane	U		0.00233	0.00667	1.16	10/22/2018 23:27	WG1184727	
cis-1,3-Dichloropropene	U		0.000904	0.00333	1.16	10/22/2018 23:27	WG1184727	
trans-1,3-Dichloropropene	U		0.00204	0.00667	1.16	10/22/2018 23:27	WG1184727	
trans-1,4-Dichloro-2-butene	U		0.00186	0.00667	1.16	10/22/2018 23:27	WG1184727	
2,2-Dichloropropane	U		0.00106	0.00333	1.16	10/22/2018 23:27	WG1184727	
Di-isopropyl ether	U		0.000467	0.00133	1.16	10/22/2018 23:27	WG1184727	
Ethylbenzene	U		0.000707	0.00333	1.16	10/22/2018 23:27	WG1184727	
Hexachloro-1,3-butadiene	U		0.0169	0.0333	1.16	10/22/2018 23:27	WG1184727	
2-Hexanone	U		0.0133	0.0333	1.16	10/22/2018 23:27	WG1184727	
n-Hexane	U		0.0141	0.0667	11.6	10/24/2018 18:12	WG1185319	
Iodomethane	U		0.00807	0.0167	1.16	10/22/2018 23:27	WG1184727	
Isopropylbenzene	U		0.00115	0.00333	1.16	10/22/2018 23:27	WG1184727	
p-Isopropyltoluene	U		0.00310	0.00667	1.16	10/22/2018 23:27	WG1184727	
2-Butanone (MEK)	U		0.167	0.333	11.6	10/24/2018 18:12	WG1185319	
Methylene Chloride	U		0.00885	0.0333	1.16	10/22/2018 23:27	WG1184727	
4-Methyl-2-pentanone (MIBK)	U		0.0133	0.0333	1.16	10/22/2018 23:27	WG1184727	

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000393	0.00133	1.16	10/22/2018 23:27	WG1184727
Naphthalene	U		0.00416	0.0167	1.16	10/22/2018 23:27	WG1184727
n-Propylbenzene	U		0.00158	0.00667	1.16	10/22/2018 23:27	WG1184727
Styrene	U		0.00365	0.0167	1.16	10/22/2018 23:27	WG1184727
1,1,1,2-Tetrachloroethane	U		0.000667	0.00333	1.16	10/22/2018 23:27	WG1184727
1,1,2,2-Tetrachloroethane	U		0.000520	0.00333	1.16	10/22/2018 23:27	WG1184727
1,1,2-Trichlorotrifluoroethane	U		0.000900	0.00333	1.16	10/22/2018 23:27	WG1184727
Tetrachloroethene	1.79 J	J0	0.00934	0.0333	11.6	10/24/2018 18:12	WG1185319
Toluene	0.00296 J	J	0.00167	0.00667	1.16	10/22/2018 23:27	WG1184727
1,2,3-Trichlorobenzene	U		0.000834	0.00333	1.16	10/22/2018 23:27	WG1184727
1,2,4-Trichlorobenzene	U		0.00643	0.0167	1.16	10/22/2018 23:27	WG1184727
1,1,1-Trichloroethane	U		0.000367	0.00333	1.16	10/22/2018 23:27	WG1184727
1,1,2-Trichloroethane	U		0.0117	0.0333	11.6	10/24/2018 18:12	WG1185319
Trichloroethene	0.00212		0.000534	0.00133	1.16	10/22/2018 23:27	WG1184727
Trichlorofluoromethane	U		0.000667	0.00333	1.16	10/22/2018 23:27	WG1184727
1,2,3-Trichloropropane	U		0.00681	0.0167	1.16	10/22/2018 23:27	WG1184727
1,2,4-Trimethylbenzene	U		0.00154	0.00667	1.16	10/22/2018 23:27	WG1184727
1,2,3-Trimethylbenzene	U		0.00153	0.00667	1.16	10/22/2018 23:27	WG1184727
1,3,5-Trimethylbenzene	U		0.00144	0.00667	1.16	10/22/2018 23:27	WG1184727
Vinyl acetate	U		0.00469	0.0167	1.16	10/22/2018 23:27	WG1184727
Vinyl chloride	U		0.000911	0.00333	1.16	10/22/2018 23:27	WG1184727
Xylenes, Total	U		0.00637	0.00867	1.16	10/22/2018 23:27	WG1184727
(S) Toluene-d8	*122*			*75.0-131*		*10/22/2018 23:27*	WG1184727
(S) Toluene-d8	*97.5*			*75.0-131*		*10/24/2018 18:12*	WG1185319
(S) Dibromofluoromethane	*86.2*			*65.0-129*		*10/22/2018 23:27*	WG1184727
(S) Dibromofluoromethane	*119*			*65.0-129*		*10/24/2018 18:12*	WG1185319
(S) 4-Bromofluorobenzene	*91.1*			*67.0-138*		*10/22/2018 23:27*	WG1184727
(S) 4-Bromofluorobenzene	*123*			*67.0-138*		*10/24/2018 18:12*	WG1185319

JC 11/15/18

Sample Narrative:

L1036473-26 WG1185319, WG1184727: Cannot be reanalyzed at a lower dilution due to high levels of target analytes.

L1036473-26 WG1185319, WG1184727: Not all compounds reportable at lower dilution.

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	89.7		1	10/24/2018 14:00	WG1185671

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch	
	mg/kg		mg/kg	mg/kg		date / time		
Acetone	U		0.611	1.11	40	10/24/2018 19:12	WG1185319	
Acrylonitrile	U		0.00212	0.0139	1	10/22/2018 23:47	WG1184727	
Benzene	U		0.000446	0.00111	1	10/22/2018 23:47	WG1184727	
Bromobenzene	U		0.00117	0.0139	1	10/22/2018 23:47	WG1184727	
Bromodichloromethane	U		0.000878	0.00279	1	10/22/2018 23:47	WG1184727	
Bromochloromethane	U		0.00126	0.00557	1	10/22/2018 23:47	WG1184727	
Bromoform	U		0.00667	0.0279	1	10/22/2018 23:47	WG1184727	
Bromomethane	U		0.00412	0.0139	1	10/22/2018 23:47	WG1184727	
n-Butylbenzene	U		0.00428	0.0139	1	10/22/2018 23:47	WG1184727	
sec-Butylbenzene	U		0.00282	0.0139	1	10/22/2018 23:47	WG1184727	
tert-Butylbenzene	U		0.00173	0.00557	1	10/22/2018 23:47	WG1184727	
Carbon disulfide	U		0.00453	0.0139	1	10/22/2018 23:47	WG1184727	
Carbon tetrachloride	U		0.00120	0.00557	1	10/22/2018 23:47	WG1184727	
Chlorobenzene	U		0.000639	0.00279	1	10/22/2018 23:47	WG1184727	
Chlorodibromomethane	U		0.000502	0.00279	1	10/22/2018 23:47	WG1184727	
Chloroethane	U		0.00120	0.00557	1	10/22/2018 23:47	WG1184727	
Chloroform	0.00109	U	0.000463	0.00279	1	10/22/2018 23:47	WG1184727	B J
Chloromethane	U		0.00155	0.0139	1	10/22/2018 23:47	WG1184727	
2-Chlorotoluene	U		0.00103	0.00279	1	10/22/2018 23:47	WG1184727	
4-Chlorotoluene	U		0.00126	0.00557	1	10/22/2018 23:47	WG1184727	
1,2-Dibromo-3-Chloropropane	U		0.00568	0.0279	1	10/22/2018 23:47	WG1184727	
1,2-Dibromoethane	U		0.000585	0.00279	1	10/22/2018 23:47	WG1184727	
Dibromomethane	U		0.00111	0.00557	1	10/22/2018 23:47	WG1184727	
1,2-Dichlorobenzene	U		0.00162	0.00557	1	10/22/2018 23:47	WG1184727	
1,3-Dichlorobenzene	U		0.00189	0.00557	1	10/22/2018 23:47	WG1184727	
1,4-Dichlorobenzene	U		0.00220	0.00557	1	10/22/2018 23:47	WG1184727	
Dichlorodifluoromethane	U		0.000912	0.00279	1	10/22/2018 23:47	WG1184727	
1,1-Dichloroethane	U		0.000641	0.00279	1	10/22/2018 23:47	WG1184727	
1,2-Dichloroethane	U		0.000529	0.00279	1	10/22/2018 23:47	WG1184727	
1,1-Dichloroethene	U		0.000557	0.00279	1	10/22/2018 23:47	WG1184727	
cis-1,2-Dichloroethene	0.0195		0.000769	0.00279	1	10/22/2018 23:47	WG1184727	
trans-1,2-Dichloroethene	U		0.00159	0.00557	1	10/22/2018 23:47	WG1184727	
1,2-Dichloropropane	U		0.0566	0.223	40	10/24/2018 19:12	WG1185319	
1,1-Dichloropropene	U		0.000780	0.00279	1	10/22/2018 23:47	WG1184727	
1,3-Dichloropropane	U		0.00195	0.00557	1	10/22/2018 23:47	WG1184727	JC 11/15/18
cis-1,3-Dichloropropene	U		0.000756	0.00279	1	10/22/2018 23:47	WG1184727	
trans-1,3-Dichloropropene	U		0.00171	0.00557	1	10/22/2018 23:47	WG1184727	
trans-1,4-Dichloro-2-butene	U		0.00156	0.00557	1	10/22/2018 23:47	WG1184727	
2,2-Dichloropropane	U		0.000884	0.00279	1	10/22/2018 23:47	WG1184727	
Di-isopropyl ether	U		0.000390	0.00111	1	10/22/2018 23:47	WG1184727	
Ethylbenzene	U		0.000591	0.00279	1	10/22/2018 23:47	WG1184727	
Hexachloro-1,3-butadiene	U		0.0142	0.0279	1	10/22/2018 23:47	WG1184727	
2-Hexanone	U		0.0111	0.0279	1	10/22/2018 23:47	WG1184727	
n-Hexane	U		0.0473	0.223	40	10/24/2018 19:12	WG1185319	
Iodomethane	U		0.00674	0.0139	1	10/22/2018 23:47	WG1184727	
Isopropylbenzene	U		0.000962	0.00279	1	10/22/2018 23:47	WG1184727	
p-Isopropyltoluene	U		0.00260	0.00557	1	10/22/2018 23:47	WG1184727	
2-Butanone (MEK)	U		0.557	1.11	40	10/24/2018 19:12	WG1185319	
Methylene Chloride	U		0.00740	0.0279	1	10/22/2018 23:47	WG1184727	
4-Methyl-2-pentanone (MIBK)	U		0.0111	0.0279	1	10/22/2018 23:47	WG1184727	

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

Analyte	Result (dry) mg/kg		Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch	
Methyl tert-butyl ether	U			0.000329	0.00111	1	10/22/2018 23:47	WG1184727	
Naphthalene	U			0.00348	0.0139	1	10/22/2018 23:47	WG1184727	
n-Propylbenzene	U			0.00132	0.00557	1	10/22/2018 23:47	WG1184727	
Styrene	U			0.00304	0.0139	1	10/22/2018 23:47	WG1184727	
1,1,1,2-Tetrachloroethane	U			0.000557	0.00279	1	10/22/2018 23:47	WG1184727	
1,1,2,2-Tetrachloroethane	U			0.000435	0.00279	1	10/22/2018 23:47	WG1184727	
1,1,2-Trichlorotrifluoroethane	U			0.000752	0.00279	1	10/22/2018 23:47	WG1184727	
Tetrachloroethene	5.70	J	J0	0.0312	0.111	40	10/24/2018 19:12	WG1185319	
Toluene	0.00330	J	J	0.00139	0.00557	1	10/22/2018 23:47	WG1184727	
1,2,3-Trichlorobenzene	U			0.000697	0.00279	1	10/22/2018 23:47	WG1184727	
1,2,4-Trichlorobenzene	U			0.00537	0.0139	1	10/22/2018 23:47	WG1184727	
1,1,1-Trichloroethane	U			0.000307	0.00279	1	10/22/2018 23:47	WG1184727	
1,1,2-Trichloroethane	U			0.0393	0.111	40	10/24/2018 19:12	WG1185319	
Trichloroethene	0.111			0.000446	0.00111	1	10/22/2018 23:47	WG1184727	
Trichlorofluoromethane	U			0.000557	0.00279	1	10/22/2018 23:47	WG1184727	
1,2,3-Trichloropropane	U			0.00568	0.0139	1	10/22/2018 23:47	WG1184727	
1,2,4-Trimethylbenzene	U			0.00129	0.00557	1	10/22/2018 23:47	WG1184727	
1,2,3-Trimethylbenzene	U			0.00128	0.00557	1	10/22/2018 23:47	WG1184727	
1,3,5-Trimethylbenzene	U			0.00120	0.00557	1	10/22/2018 23:47	WG1184727	
Vinyl acetate	U			0.00392	0.0139	1	10/22/2018 23:47	WG1184727	
Vinyl chloride	U			0.000761	0.00279	1	10/22/2018 23:47	WG1184727	
Xylenes, Total	U			0.00533	0.00725	1	10/22/2018 23:47	WG1184727	
(S) Toluene-d8	*123*				*75.0-131*		*10/22/2018 23:47*	WG1184727	
(S) Toluene-d8	*98.5*				*75.0-131*		*10/24/2018 19:12*	WG1185319	
(S) Dibromofluoromethane	*92.9*				*65.0-129*		*10/22/2018 23:47*	WG1184727	JC 11/15/18
(S) Dibromofluoromethane	*119*				*65.0-129*		*10/24/2018 19:12*	WG1185319	
(S) 4-Bromofluorobenzene	*89.5*				*67.0-138*		*10/22/2018 23:47*	WG1184727	
(S) 4-Bromofluorobenzene	*124*				*67.0-138*		*10/24/2018 19:12*	WG1185319	

Sample Narrative:

L1036473-27 WG1185319, WG1184727: Cannot be reanalyzed at a lower dilution due to high levels of target analytes.

L1036473-27 WG1185319, WG1184727: Not all compounds reportable at lower dilution.

JC 11/15/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	83.2		1	10/24/2018 14:00	WG1185671

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch	
	mg/kg		mg/kg	mg/kg		date / time		
Acetone	U		0.0165	0.0300	1	10/24/2018 15:32	WG1185319	
Acrylonitrile	U		0.00228	0.0150	1	10/23/2018 00:07	WG1184727	
Benzene	U		0.000481	0.00120	1	10/23/2018 00:07	WG1184727	
Bromobenzene	U		0.00126	0.0150	1	10/23/2018 00:07	WG1184727	
Bromodichloromethane	U		0.000947	0.00300	1	10/23/2018 00:07	WG1184727	
Bromochloromethane	U		0.00136	0.00601	1	10/23/2018 00:07	WG1184727	
Bromoform	U		0.00719	0.0300	1	10/23/2018 00:07	WG1184727	
Bromomethane	U		0.00445	0.0150	1	10/23/2018 00:07	WG1184727	
n-Butylbenzene	U		0.00462	0.0150	1	10/23/2018 00:07	WG1184727	
sec-Butylbenzene	U		0.00304	0.0150	1	10/23/2018 00:07	WG1184727	
tert-Butylbenzene	U		0.00186	0.00601	1	10/23/2018 00:07	WG1184727	
Carbon disulfide	U		0.00488	0.0150	1	10/23/2018 00:07	WG1184727	
Carbon tetrachloride	U		0.00130	0.00601	1	10/23/2018 00:07	WG1184727	
Chlorobenzene	U		0.000689	0.00300	1	10/23/2018 00:07	WG1184727	
Chlorodibromomethane	U		0.000541	0.00300	1	10/23/2018 00:07	WG1184727	
Chloroethane	U		0.00130	0.00601	1	10/23/2018 00:07	WG1184727	
Chloroform	0.00132	U	B J	0.000499	0.00300	1	10/23/2018 00:07	WG1184727
Chloromethane	U		0.00167	0.0150	1	10/23/2018 00:07	WG1184727	
2-Chlorotoluene	U		0.00111	0.00300	1	10/23/2018 00:07	WG1184727	
4-Chlorotoluene	U		0.00136	0.00601	1	10/23/2018 00:07	WG1184727	
1,2-Dibromo-3-Chloropropane	U		0.00613	0.0300	1	10/23/2018 00:07	WG1184727	
1,2-Dibromoethane	U		0.000631	0.00300	1	10/23/2018 00:07	WG1184727	
Dibromomethane	U		0.00120	0.00601	1	10/23/2018 00:07	WG1184727	
1,2-Dichlorobenzene	U		0.00174	0.00601	1	10/23/2018 00:07	WG1184727	
1,3-Dichlorobenzene	U		0.00204	0.00601	1	10/23/2018 00:07	WG1184727	
1,4-Dichlorobenzene	U		0.00237	0.00601	1	10/23/2018 00:07	WG1184727	
Dichlorodifluoromethane	U		0.000983	0.00300	1	10/23/2018 00:07	WG1184727	
1,1-Dichloroethane	U		0.000691	0.00300	1	10/23/2018 00:07	WG1184727	
1,2-Dichloroethane	U		0.000571	0.00300	1	10/23/2018 00:07	WG1184727	
1,1-Dichloroethene	U		0.000601	0.00300	1	10/23/2018 00:07	WG1184727	
cis-1,2-Dichloroethene	U		0.000829	0.00300	1	10/23/2018 00:07	WG1184727	
trans-1,2-Dichloroethene	U		0.00172	0.00601	1	10/23/2018 00:07	WG1184727	
1,2-Dichloropropane	U		0.00153	0.00601	1	10/24/2018 15:32	WG1185319	
1,1-Dichloropropene	U		0.000841	0.00300	1	10/23/2018 00:07	WG1184727	
1,3-Dichloropropane	U		0.00210	0.00601	1	10/23/2018 00:07	WG1184727	JC 11/15/18
cis-1,3-Dichloropropene	U		0.000815	0.00300	1	10/23/2018 00:07	WG1184727	
trans-1,3-Dichloropropene	U		0.00184	0.00601	1	10/23/2018 00:07	WG1184727	
trans-1,4-Dichloro-2-butene	U		0.00168	0.00601	1	10/23/2018 00:07	WG1184727	
2,2-Dichloropropane	U		0.000953	0.00300	1	10/23/2018 00:07	WG1184727	
Di-isopropyl ether	U		0.000421	0.00120	1	10/23/2018 00:07	WG1184727	
Ethylbenzene	U		0.000637	0.00300	1	10/23/2018 00:07	WG1184727	
Hexachloro-1,3-butadiene	U		0.0153	0.0300	1	10/23/2018 00:07	WG1184727	
2-Hexanone	U		0.0120	0.0300	1	10/23/2018 00:07	WG1184727	
n-Hexane	U		0.00127	0.00601	1	10/24/2018 15:32	WG1185319	
Iodomethane	U		0.00727	0.0150	1	10/23/2018 00:07	WG1184727	
Isopropylbenzene	U		0.00104	0.00300	1	10/23/2018 00:07	WG1184727	
p-Isopropyltoluene	U		0.00280	0.00601	1	10/23/2018 00:07	WG1184727	
2-Butanone (MEK)	U		0.0150	0.0300	1	10/24/2018 15:32	WG1185319	
Methylene Chloride	U		0.00798	0.0300	1	10/23/2018 00:07	WG1184727	
4-Methyl-2-pentanone (MIBK)	U		0.0120	0.0300	1	10/23/2018 00:07	WG1184727	

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

Analyte	Result (dry) mg/kg		Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch	
Methyl tert-butyl ether	U			0.000355	0.00120	1	10/23/2018 00:07	WG1184727	
Naphthalene	U			0.00375	0.0150	1	10/23/2018 00:07	WG1184727	
n-Propylbenzene	U			0.00142	0.00601	1	10/23/2018 00:07	WG1184727	
Styrene	U			0.00328	0.0150	1	10/23/2018 00:07	WG1184727	
1,1,1,2-Tetrachloroethane	U			0.000601	0.00300	1	10/23/2018 00:07	WG1184727	
1,1,2,2-Tetrachloroethane	U			0.000469	0.00300	1	10/23/2018 00:07	WG1184727	
1,1,2-Trichlorotrifluoroethane	U			0.000811	0.00300	1	10/23/2018 00:07	WG1184727	JC 11/15/18
Tetrachloroethene	0.00171	J	J J0	0.000841	0.00300	1	10/24/2018 15:32	WG1185319	
Toluene	U			0.00150	0.00601	1	10/23/2018 00:07	WG1184727	
1,2,3-Trichlorobenzene	U			0.000751	0.00300	1	10/23/2018 00:07	WG1184727	
1,2,4-Trichlorobenzene	U			0.00579	0.0150	1	10/23/2018 00:07	WG1184727	
1,1,1-Trichloroethane	U			0.000331	0.00300	1	10/23/2018 00:07	WG1184727	
1,1,2-Trichloroethane	U			0.00106	0.00300	1	10/24/2018 15:32	WG1185319	
Trichloroethene	U			0.000481	0.00120	1	10/23/2018 00:07	WG1184727	
Trichlorofluoromethane	U			0.000601	0.00300	1	10/23/2018 00:07	WG1184727	
1,2,3-Trichloropropane	U			0.00613	0.0150	1	10/23/2018 00:07	WG1184727	
1,2,4-Trimethylbenzene	U			0.00139	0.00601	1	10/23/2018 00:07	WG1184727	
1,2,3-Trimethylbenzene	U			0.00138	0.00601	1	10/23/2018 00:07	WG1184727	
1,3,5-Trimethylbenzene	U			0.00130	0.00601	1	10/23/2018 00:07	WG1184727	
Vinyl acetate	U			0.00423	0.0150	1	10/23/2018 00:07	WG1184727	
Vinyl chloride	U			0.000821	0.00300	1	10/23/2018 00:07	WG1184727	
Xylenes, Total	U			0.00574	0.00781	1	10/23/2018 00:07	WG1184727	
(S) Toluene-d8	*123*				*75.0-131*		*10/23/2018 00:07*	WG1184727	
(S) Toluene-d8	*98.6*				*75.0-131*		*10/24/2018 15:32*	WG1185319	
(S) Dibromofluoromethane	*91.8*				*65.0-129*		*10/23/2018 00:07*	WG1184727	
(S) Dibromofluoromethane	*116*				*65.0-129*		*10/24/2018 15:32*	WG1185319	
(S) 4-Bromofluorobenzene	*89.5*				*67.0-138*		*10/23/2018 00:07*	WG1184727	
(S) 4-Bromofluorobenzene	*122*				*67.0-138*		*10/24/2018 15:32*	WG1185319	

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	91.7		1	10/24/2018 14:00	WG1185671

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch	
	mg/kg		mg/kg	mg/kg		date / time		
Acetone	U		0.0149	0.0273	1	10/24/2018 15:52	WG1185319	
Acrylonitrile	U		0.00207	0.0136	1	10/23/2018 00:28	WG1184727	
Benzene	U		0.000436	0.00109	1	10/23/2018 00:28	WG1184727	
Bromobenzene	U		0.00115	0.0136	1	10/23/2018 00:28	WG1184727	
Bromodichloromethane	U		0.000859	0.00273	1	10/23/2018 00:28	WG1184727	
Bromochloromethane	U		0.00123	0.00545	1	10/23/2018 00:28	WG1184727	
Bromoform	U		0.00652	0.0273	1	10/23/2018 00:28	WG1184727	
Bromomethane	U		0.00404	0.0136	1	10/23/2018 00:28	WG1184727	
n-Butylbenzene	U		0.00419	0.0136	1	10/23/2018 00:28	WG1184727	
sec-Butylbenzene	U		0.00276	0.0136	1	10/23/2018 00:28	WG1184727	
tert-Butylbenzene	U		0.00169	0.00545	1	10/23/2018 00:28	WG1184727	
Carbon disulfide	U		0.00443	0.0136	1	10/23/2018 00:28	WG1184727	
Carbon tetrachloride	U		0.00118	0.00545	1	10/23/2018 00:28	WG1184727	
Chlorobenzene	U		0.000625	0.00273	1	10/23/2018 00:28	WG1184727	
Chlorodibromomethane	U		0.000491	0.00273	1	10/23/2018 00:28	WG1184727	
Chloroethane	U		0.00118	0.00545	1	10/23/2018 00:28	WG1184727	
Chloroform	0.00101	U B J	0.000453	0.00273	1	10/23/2018 00:28	WG1184727	
Chloromethane	U		0.00152	0.0136	1	10/23/2018 00:28	WG1184727	
2-Chlorotoluene	U		0.00100	0.00273	1	10/23/2018 00:28	WG1184727	JC 11/15/18
4-Chlorotoluene	U		0.00123	0.00545	1	10/23/2018 00:28	WG1184727	
1,2-Dibromo-3-Chloropropane	U		0.00556	0.0273	1	10/23/2018 00:28	WG1184727	
1,2-Dibromoethane	U		0.000573	0.00273	1	10/23/2018 00:28	WG1184727	
Dibromomethane	U		0.00109	0.00545	1	10/23/2018 00:28	WG1184727	
1,2-Dichlorobenzene	U		0.00158	0.00545	1	10/23/2018 00:28	WG1184727	
1,3-Dichlorobenzene	U		0.00185	0.00545	1	10/23/2018 00:28	WG1184727	
1,4-Dichlorobenzene	U		0.00215	0.00545	1	10/23/2018 00:28	WG1184727	
Dichlorodifluoromethane	U		0.000892	0.00273	1	10/23/2018 00:28	WG1184727	
1,1-Dichloroethane	U		0.000627	0.00273	1	10/23/2018 00:28	WG1184727	
1,2-Dichloroethane	U		0.000518	0.00273	1	10/23/2018 00:28	WG1184727	
1,1-Dichloroethene	U		0.000545	0.00273	1	10/23/2018 00:28	WG1184727	
cis-1,2-Dichloroethene	U		0.000753	0.00273	1	10/23/2018 00:28	WG1184727	
trans-1,2-Dichloroethene	U		0.00156	0.00545	1	10/23/2018 00:28	WG1184727	
1,2-Dichloropropane	U		0.00139	0.00545	1	10/24/2018 15:52	WG1185319	
1,1-Dichloropropene	U		0.000764	0.00273	1	10/23/2018 00:28	WG1184727	
1,3-Dichloropropane	U		0.00191	0.00545	1	10/23/2018 00:28	WG1184727	
cis-1,3-Dichloropropene	U		0.000740	0.00273	1	10/23/2018 00:28	WG1184727	
trans-1,3-Dichloropropene	U		0.00167	0.00545	1	10/23/2018 00:28	WG1184727	
trans-1,4-Dichloro-2-butene	U		0.00153	0.00545	1	10/23/2018 00:28	WG1184727	
2,2-Dichloropropane	U		0.000865	0.00273	1	10/23/2018 00:28	WG1184727	
Di-isopropyl ether	U		0.000382	0.00109	1	10/23/2018 00:28	WG1184727	
Ethylbenzene	U		0.000578	0.00273	1	10/23/2018 00:28	WG1184727	
Hexachloro-1,3-butadiene	U		0.0139	0.0273	1	10/23/2018 00:28	WG1184727	
2-Hexanone	U		0.0109	0.0273	1	10/23/2018 00:28	WG1184727	
n-Hexane	U		0.00116	0.00545	1	10/24/2018 15:52	WG1185319	
Iodomethane	U		0.00660	0.0136	1	10/23/2018 00:28	WG1184727	
Isopropylbenzene	U		0.000941	0.00273	1	10/23/2018 00:28	WG1184727	
p-Isopropyltoluene	U		0.00254	0.00545	1	10/23/2018 00:28	WG1184727	
2-Butanone (MEK)	U		0.0136	0.0273	1	10/24/2018 15:52	WG1185319	
Methylene Chloride	U		0.00724	0.0273	1	10/23/2018 00:28	WG1184727	
4-Methyl-2-pentanone (MIBK)	U		0.0109	0.0273	1	10/23/2018 00:28	WG1184727	

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000322	0.00109	1	10/23/2018 00:28	WG1184727
Naphthalene	U		0.00340	0.0136	1	10/23/2018 00:28	WG1184727
n-Propylbenzene	U		0.00129	0.00545	1	10/23/2018 00:28	WG1184727
Styrene	U		0.00298	0.0136	1	10/23/2018 00:28	WG1184727
1,1,1,2-Tetrachloroethane	U		0.000545	0.00273	1	10/23/2018 00:28	WG1184727
1,1,2,2-Tetrachloroethane	U		0.000425	0.00273	1	10/23/2018 00:28	WG1184727
1,1,2-Trichlorotrifluoroethane	U		0.000736	0.00273	1	10/23/2018 00:28	WG1184727
Tetrachloroethene	0.138		0.000764	0.00273	1	10/23/2018 00:28	WG1184727
Toluene	0.00570		0.00136	0.00545	1	10/23/2018 00:28	WG1184727
1,2,3-Trichlorobenzene	U		0.000682	0.00273	1	10/23/2018 00:28	WG1184727
1,2,4-Trichlorobenzene	U		0.00526	0.0136	1	10/23/2018 00:28	WG1184727
1,1,1-Trichloroethane	U		0.000300	0.00273	1	10/23/2018 00:28	WG1184727
1,1,2-Trichloroethane	U		0.000963	0.00273	1	10/24/2018 15:52	WG1185319
Trichloroethene	0.000945 J	J	0.000436	0.00109	1	10/23/2018 00:28	WG1184727
Trichlorofluoromethane	U		0.000545	0.00273	1	10/23/2018 00:28	WG1184727
1,2,3-Trichloropropane	U		0.00556	0.0136	1	10/23/2018 00:28	WG1184727
1,2,4-Trimethylbenzene	U		0.00127	0.00545	1	10/23/2018 00:28	WG1184727
1,2,3-Trimethylbenzene	U		0.00125	0.00545	1	10/23/2018 00:28	WG1184727
1,3,5-Trimethylbenzene	U		0.00118	0.00545	1	10/23/2018 00:28	WG1184727
Vinyl acetate	U		0.00384	0.0136	1	10/23/2018 00:28	WG1184727
Vinyl chloride	U		0.000745	0.00273	1	10/23/2018 00:28	WG1184727
Xylenes, Total	U		0.00521	0.00709	1	10/23/2018 00:28	WG1184727
(S) Toluene-d8	*121*			*75.0-131*		*10/23/2018 00:28*	WG1184727
(S) Toluene-d8	*99.9*			*75.0-131*		*10/24/2018 15:52*	WG1185319
(S) Dibromofluoromethane	*75.8*			*65.0-129*		*10/23/2018 00:28*	WG1184727
(S) Dibromofluoromethane	*113*			*65.0-129*		*10/24/2018 15:52*	WG1185319
(S) 4-Bromofluorobenzene	*89.1*			*67.0-138*		*10/23/2018 00:28*	WG1184727
(S) 4-Bromofluorobenzene	*119*			*67.0-138*		*10/24/2018 15:52*	WG1185319

JC 11/15/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	83.8		1	10/24/2018 14:00	WG1185671

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0654	0.119	4	10/24/2018 18:32	WG1185319
Acrylonitrile	U		0.00227	0.0149	1	10/23/2018 00:48	WG1184727
Benzene	U		0.000477	0.00119	1	10/23/2018 00:48	WG1184727
Bromobenzene	U		0.00125	0.0149	1	10/23/2018 00:48	WG1184727
Bromodichloromethane	U		0.000940	0.00298	1	10/23/2018 00:48	WG1184727
Bromochloromethane	U		0.00135	0.00597	1	10/23/2018 00:48	WG1184727
Bromoform	U		0.00713	0.0298	1	10/23/2018 00:48	WG1184727
Bromomethane	U		0.00441	0.0149	1	10/23/2018 00:48	WG1184727
n-Butylbenzene	U		0.00458	0.0149	1	10/23/2018 00:48	WG1184727
sec-Butylbenzene	U		0.00302	0.0149	1	10/23/2018 00:48	WG1184727
tert-Butylbenzene	U		0.00185	0.00597	1	10/23/2018 00:48	WG1184727
Carbon disulfide	U		0.00484	0.0149	1	10/23/2018 00:48	WG1184727
Carbon tetrachloride	U		0.00129	0.00597	1	10/23/2018 00:48	WG1184727
Chlorobenzene	U		0.000684	0.00298	1	10/23/2018 00:48	WG1184727
Chlorodibromomethane	U		0.000537	0.00298	1	10/23/2018 00:48	WG1184727
Chloroethane	U		0.00129	0.00597	1	10/23/2018 00:48	WG1184727
Chloroform	0.00112	U B J	0.000495	0.00298	1	10/23/2018 00:48	WG1184727
Chloromethane	U		0.00166	0.0149	1	10/23/2018 00:48	WG1184727
2-Chlorotoluene	U		0.00110	0.00298	1	10/23/2018 00:48	WG1184727
4-Chlorotoluene	U		0.00135	0.00597	1	10/23/2018 00:48	WG1184727
1,2-Dibromo-3-Chloropropane	U		0.00608	0.0298	1	10/23/2018 00:48	WG1184727
1,2-Dibromoethane	U		0.000626	0.00298	1	10/23/2018 00:48	WG1184727
Dibromomethane	U		0.00119	0.00597	1	10/23/2018 00:48	WG1184727
1,2-Dichlorobenzene	U		0.00173	0.00597	1	10/23/2018 00:48	WG1184727
1,3-Dichlorobenzene	U		0.00203	0.00597	1	10/23/2018 00:48	WG1184727
1,4-Dichlorobenzene	U		0.00235	0.00597	1	10/23/2018 00:48	WG1184727
Dichlorodifluoromethane	U		0.000976	0.00298	1	10/23/2018 00:48	WG1184727
1,1-Dichloroethane	U		0.000686	0.00298	1	10/23/2018 00:48	WG1184727
1,2-Dichloroethane	U		0.000567	0.00298	1	10/23/2018 00:48	WG1184727
1,1-Dichloroethene	U		0.000597	0.00298	1	10/23/2018 00:48	WG1184727
cis-1,2-Dichloroethene	U		0.000823	0.00298	1	10/23/2018 00:48	WG1184727
trans-1,2-Dichloroethene	U		0.00171	0.00597	1	10/23/2018 00:48	WG1184727
1,2-Dichloropropane	U		0.00606	0.0239	4	10/24/2018 18:32	WG1185319
1,1-Dichloropropene	U		0.000835	0.00298	1	10/23/2018 00:48	WG1184727
1,3-Dichloropropane	U		0.00209	0.00597	1	10/23/2018 00:48	WG1184727
cis-1,3-Dichloropropene	U		0.000809	0.00298	1	10/23/2018 00:48	WG1184727
trans-1,3-Dichloropropene	U		0.00183	0.00597	1	10/23/2018 00:48	WG1184727
trans-1,4-Dichloro-2-butene	U		0.00167	0.00597	1	10/23/2018 00:48	WG1184727
2,2-Dichloropropane	U		0.000946	0.00298	1	10/23/2018 00:48	WG1184727
Di-isopropyl ether	U		0.000418	0.00119	1	10/23/2018 00:48	WG1184727
Ethylbenzene	U		0.000632	0.00298	1	10/23/2018 00:48	WG1184727
Hexachloro-1,3-butadiene	U		0.0152	0.0298	1	10/23/2018 00:48	WG1184727
2-Hexanone	U		0.0119	0.0298	1	10/23/2018 00:48	WG1184727
n-Hexane	U		0.00506	0.0239	4	10/24/2018 18:32	WG1185319
Iodomethane	U		0.00722	0.0149	1	10/23/2018 00:48	WG1184727
Isopropylbenzene	U		0.00103	0.00298	1	10/23/2018 00:48	WG1184727
p-Isopropyltoluene	U		0.00278	0.00597	1	10/23/2018 00:48	WG1184727
2-Butanone (MEK)	U		0.0597	0.119	4	10/24/2018 18:32	WG1185319
Methylene Chloride	U		0.00792	0.0298	1	10/23/2018 00:48	WG1184727
4-Methyl-2-pentanone (MIBK)	U		0.0119	0.0298	1	10/23/2018 00:48	WG1184727

JC 11/15/18

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

Analyte	Result (dry) mg/kg		Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U			0.000352	0.00119	1	10/23/2018 00:48	WG1184727
Naphthalene	U			0.00372	0.0149	1	10/23/2018 00:48	WG1184727
n-Propylbenzene	U			0.00141	0.00597	1	10/23/2018 00:48	WG1184727
Styrene	U			0.00326	0.0149	1	10/23/2018 00:48	WG1184727
1,1,1,2-Tetrachloroethane	U			0.000597	0.00298	1	10/23/2018 00:48	WG1184727
1,1,2,2-Tetrachloroethane	U			0.000465	0.00298	1	10/23/2018 00:48	WG1184727
1,1,2-Trichlorotrifluoroethane	U			0.000805	0.00298	1	10/23/2018 00:48	WG1184727
Tetrachloroethene	0.604	J	J0	0.00334	0.0119	4	10/24/2018 18:32	WG1185319
Toluene	U			0.00149	0.00597	1	10/23/2018 00:48	WG1184727
1,2,3-Trichlorobenzene	U			0.000746	0.00298	1	10/23/2018 00:48	WG1184727
1,2,4-Trichlorobenzene	U			0.00575	0.0149	1	10/23/2018 00:48	WG1184727
1,1,1-Trichloroethane	U			0.000328	0.00298	1	10/23/2018 00:48	WG1184727
1,1,2-Trichloroethane	U			0.00421	0.0119	4	10/24/2018 18:32	WG1185319
Trichloroethene	0.00123			0.000477	0.00119	1	10/23/2018 00:48	WG1184727
Trichlorofluoromethane	U			0.000597	0.00298	1	10/23/2018 00:48	WG1184727
1,2,3-Trichloropropane	U			0.00608	0.0149	1	10/23/2018 00:48	WG1184727
1,2,4-Trimethylbenzene	U			0.00138	0.00597	1	10/23/2018 00:48	WG1184727
1,2,3-Trimethylbenzene	U			0.00137	0.00597	1	10/23/2018 00:48	WG1184727
1,3,5-Trimethylbenzene	U			0.00129	0.00597	1	10/23/2018 00:48	WG1184727
Vinyl acetate	U			0.00420	0.0149	1	10/23/2018 00:48	WG1184727
Vinyl chloride	U			0.000815	0.00298	1	10/23/2018 00:48	WG1184727
Xylenes, Total	U			0.00570	0.00775	1	10/23/2018 00:48	WG1184727
(S) Toluene-d8	*123*				*75.0-131*		*10/23/2018 00:48*	WG1184727
(S) Toluene-d8	*99.0*				*75.0-131*		*10/24/2018 18:32*	WG1185319
(S) Dibromofluoromethane	*98.6*				*65.0-129*		*10/23/2018 00:48*	WG1184727
(S) Dibromofluoromethane	*119*				*65.0-129*		*10/24/2018 18:32*	WG1185319
(S) 4-Bromofluorobenzene	*85.6*				*67.0-138*		*10/23/2018 00:48*	WG1184727
(S) 4-Bromofluorobenzene	*122*				*67.0-138*		*10/24/2018 18:32*	WG1185319

JC 11/15/18

Sample Narrative:

L1036473-30 WG1185319, WG1184727: Cannot be reanalyzed at a lower dilution due to high levels of target analytes.

L1036473-30 WG1185319, WG1184727: Not all compounds reportable at lower dilution.

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	88.5		1	10/24/2018 14:00	WG1185671

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch	
	mg/kg		mg/kg	mg/kg		date / time		
Acetone	U		0.0619	0.113	4	10/24/2018 18:52	WG1185319	
Acrylonitrile	U		0.00215	0.0141	1	10/23/2018 01:08	WG1184727	
Benzene	U		0.000452	0.00113	1	10/23/2018 01:08	WG1184727	
Bromobenzene	U		0.00119	0.0141	1	10/23/2018 01:08	WG1184727	
Bromodichloromethane	U		0.000891	0.00283	1	10/23/2018 01:08	WG1184727	
Bromochloromethane	U		0.00128	0.00565	1	10/23/2018 01:08	WG1184727	
Bromoform	U		0.00676	0.0283	1	10/23/2018 01:08	WG1184727	
Bromomethane	U		0.00418	0.0141	1	10/23/2018 01:08	WG1184727	
n-Butylbenzene	U		0.00434	0.0141	1	10/23/2018 01:08	WG1184727	
sec-Butylbenzene	U		0.00286	0.0141	1	10/23/2018 01:08	WG1184727	
tert-Butylbenzene	U		0.00175	0.00565	1	10/23/2018 01:08	WG1184727	
Carbon disulfide	U		0.00459	0.0141	1	10/23/2018 01:08	WG1184727	
Carbon tetrachloride	U		0.00122	0.00565	1	10/23/2018 01:08	WG1184727	
Chlorobenzene	U		0.000648	0.00283	1	10/23/2018 01:08	WG1184727	
Chlorodibromomethane	U		0.000509	0.00283	1	10/23/2018 01:08	WG1184727	
Chloroethane	U		0.00122	0.00565	1	10/23/2018 01:08	WG1184727	
Chloroform	0.00153	U B J	0.000469	0.00283	1	10/23/2018 01:08	WG1184727	
Chloromethane	U		0.00157	0.0141	1	10/23/2018 01:08	WG1184727	
2-Chlorotoluene	U		0.00104	0.00283	1	10/23/2018 01:08	WG1184727	
4-Chlorotoluene	U		0.00128	0.00565	1	10/23/2018 01:08	WG1184727	JC 11/15/18
1,2-Dibromo-3-Chloropropane	U		0.00576	0.0283	1	10/23/2018 01:08	WG1184727	
1,2-Dibromoethane	U		0.000593	0.00283	1	10/23/2018 01:08	WG1184727	
Dibromomethane	U		0.00113	0.00565	1	10/23/2018 01:08	WG1184727	
1,2-Dichlorobenzene	U		0.00164	0.00565	1	10/23/2018 01:08	WG1184727	
1,3-Dichlorobenzene	U		0.00192	0.00565	1	10/23/2018 01:08	WG1184727	
1,4-Dichlorobenzene	U		0.00223	0.00565	1	10/23/2018 01:08	WG1184727	
Dichlorodifluoromethane	U		0.000925	0.00283	1	10/23/2018 01:08	WG1184727	
1,1-Dichloroethane	U		0.000650	0.00283	1	10/23/2018 01:08	WG1184727	
1,2-Dichloroethane	U		0.000537	0.00283	1	10/23/2018 01:08	WG1184727	
1,1-Dichloroethene	U		0.000565	0.00283	1	10/23/2018 01:08	WG1184727	
cis-1,2-Dichloroethene	U		0.000780	0.00283	1	10/23/2018 01:08	WG1184727	
trans-1,2-Dichloroethene	U		0.00162	0.00565	1	10/23/2018 01:08	WG1184727	
1,2-Dichloropropane	U		0.00574	0.0226	4	10/24/2018 18:52	WG1185319	
1,1-Dichloropropene	U		0.000791	0.00283	1	10/23/2018 01:08	WG1184727	
1,3-Dichloropropane	U		0.00198	0.00565	1	10/23/2018 01:08	WG1184727	
cis-1,3-Dichloropropene	U		0.000766	0.00283	1	10/23/2018 01:08	WG1184727	
trans-1,3-Dichloropropene	U		0.00173	0.00565	1	10/23/2018 01:08	WG1184727	
trans-1,4-Dichloro-2-butene	U		0.00158	0.00565	1	10/23/2018 01:08	WG1184727	
2,2-Dichloropropane	U		0.000896	0.00283	1	10/23/2018 01:08	WG1184727	
Di-isopropyl ether	U		0.000396	0.00113	1	10/23/2018 01:08	WG1184727	
Ethylbenzene	U		0.000599	0.00283	1	10/23/2018 01:08	WG1184727	
Hexachloro-1,3-butadiene	U		0.0144	0.0283	1	10/23/2018 01:08	WG1184727	
2-Hexanone	U		0.0113	0.0283	1	10/23/2018 01:08	WG1184727	
n-Hexane	U		0.00479	0.0226	4	10/24/2018 18:52	WG1185319	
Iodomethane	U		0.00684	0.0141	1	10/23/2018 01:08	WG1184727	
Isopropylbenzene	U		0.000975	0.00283	1	10/23/2018 01:08	WG1184727	
p-Isopropyltoluene	U		0.00263	0.00565	1	10/23/2018 01:08	WG1184727	
2-Butanone (MEK)	U		0.0565	0.113	4	10/24/2018 18:52	WG1185319	
Methylene Chloride	U		0.00750	0.0283	1	10/23/2018 01:08	WG1184727	
4-Methyl-2-pentanone (MIBK)	U		0.0113	0.0283	1	10/23/2018 01:08	WG1184727	

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

Analyte	Result (dry) mg/kg		Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch	
Methyl tert-butyl ether	U			0.000333	0.00113	1	10/23/2018 01:08	WG1184727	
Naphthalene	U			0.00353	0.0141	1	10/23/2018 01:08	WG1184727	
n-Propylbenzene	U			0.00133	0.00565	1	10/23/2018 01:08	WG1184727	
Styrene	U			0.00309	0.0141	1	10/23/2018 01:08	WG1184727	
1,1,1,2-Tetrachloroethane	U			0.000565	0.00283	1	10/23/2018 01:08	WG1184727	
1,1,2,2-Tetrachloroethane	U			0.000441	0.00283	1	10/23/2018 01:08	WG1184727	
1,1,2-Trichlorotrifluoroethane	U			0.000763	0.00283	1	10/23/2018 01:08	WG1184727	
Tetrachloroethene	0.517	J	J0	0.00316	0.0113	4	10/24/2018 18:52	WG1185319	
Toluene	0.00188	J	J	0.00141	0.00565	1	10/23/2018 01:08	WG1184727	
1,2,3-Trichlorobenzene	U			0.000706	0.00283	1	10/23/2018 01:08	WG1184727	
1,2,4-Trichlorobenzene	U			0.00545	0.0141	1	10/23/2018 01:08	WG1184727	
1,1,1-Trichloroethane	U	U	J3	0.000311	0.00283	1	10/23/2018 01:08	WG1184727	
1,1,2-Trichloroethane	U			0.00399	0.0113	4	10/24/2018 18:52	WG1185319	
Trichloroethene	0.00270			0.000452	0.00113	1	10/23/2018 01:08	WG1184727	
Trichlorofluoromethane	U			0.000565	0.00283	1	10/23/2018 01:08	WG1184727	
1,2,3-Trichloropropane	U			0.00576	0.0141	1	10/23/2018 01:08	WG1184727	
1,2,4-Trimethylbenzene	U			0.00131	0.00565	1	10/23/2018 01:08	WG1184727	
1,2,3-Trimethylbenzene	U			0.00130	0.00565	1	10/23/2018 01:08	WG1184727	
1,3,5-Trimethylbenzene	U			0.00122	0.00565	1	10/23/2018 01:08	WG1184727	
Vinyl acetate	U			0.00398	0.0141	1	10/23/2018 01:08	WG1184727	
Vinyl chloride	U			0.000772	0.00283	1	10/23/2018 01:08	WG1184727	
Xylenes, Total	U			0.00540	0.00735	1	10/23/2018 01:08	WG1184727	
(S) Toluene-d8	*126*				*75.0-131*		*10/23/2018 01:08*	WG1184727	JC 11/15/18
(S) Toluene-d8	*99.3*				*75.0-131*		*10/24/2018 18:52*	WG1185319	
(S) Dibromofluoromethane	*95.3*				*65.0-129*		*10/23/2018 01:08*	WG1184727	
(S) Dibromofluoromethane	*118*				*65.0-129*		*10/24/2018 18:52*	WG1185319	
(S) 4-Bromofluorobenzene	*86.4*				*67.0-138*		*10/23/2018 01:08*	WG1184727	
(S) 4-Bromofluorobenzene	*124*				*67.0-138*		*10/24/2018 18:52*	WG1185319	

Sample Narrative:

L1036473-31 WG1185319, WG1184727: Cannot be reanalyzed at a lower dilution due to high levels of target analytes.

L1036473-31 WG1185319, WG1184727: Not all compounds reportable at lower dilution.

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	89.5		1	10/24/2018 14:00	WG1185671

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.306	0.559	20	10/26/2018 05:16	WG1186559
Acrylonitrile	U		0.0425	0.279	20	10/26/2018 05:16	WG1186559
Benzene	U		0.00894	0.0224	20	10/26/2018 05:16	WG1186559
Bromobenzene	U		0.0235	0.279	20	10/26/2018 05:16	WG1186559
Bromodichloromethane	U		0.0177	0.0559	20	10/26/2018 05:16	WG1186559
Bromochloromethane	U		0.0253	0.112	20	10/26/2018 05:16	WG1186559
Bromoform	U		0.134	0.559	20	10/26/2018 05:16	WG1186559
Bromomethane	U		0.0827	0.279	20	10/26/2018 05:16	WG1186559
n-Butylbenzene	U		0.0858	0.279	20	10/26/2018 05:16	WG1186559
sec-Butylbenzene	U		0.0566	0.279	20	10/26/2018 05:16	WG1186559
tert-Butylbenzene	U		0.0347	0.112	20	10/26/2018 05:16	WG1186559
Carbon disulfide	U		0.0908	0.279	20	10/26/2018 05:16	WG1186559
Carbon tetrachloride	U		0.0241	0.112	20	10/26/2018 05:16	WG1186559
Chlorobenzene	U		0.0129	0.0559	20	10/26/2018 05:16	WG1186559
Chlorodibromomethane	U		0.0101	0.0559	20	10/26/2018 05:16	WG1186559
Chloroethane	U		0.0241	0.112	20	10/26/2018 05:16	WG1186559
Chloroform	U		0.00928	0.0559	20	10/26/2018 05:16	WG1186559
Chloromethane	U		0.0311	0.279	20	10/26/2018 05:16	WG1186559
2-Chlorotoluene	U		0.0206	0.0559	20	10/26/2018 05:16	WG1186559
4-Chlorotoluene	U		0.0253	0.112	20	10/26/2018 05:16	WG1186559
1,2-Dibromo-3-Chloropropane	U		0.114	0.559	20	10/26/2018 05:16	WG1186559
1,2-Dibromoethane	U		0.0117	0.0559	20	10/26/2018 05:16	WG1186559
Dibromomethane	U		0.0224	0.112	20	10/26/2018 05:16	WG1186559
1,2-Dichlorobenzene	U		0.0324	0.112	20	10/26/2018 05:16	WG1186559
1,3-Dichlorobenzene	U		0.0380	0.112	20	10/26/2018 05:16	WG1186559
1,4-Dichlorobenzene	U		0.0440	0.112	20	10/26/2018 05:16	WG1186559
Dichlorodifluoromethane	U		0.0183	0.0559	20	10/26/2018 05:16	WG1186559
1,1-Dichloroethane	U		0.0129	0.0559	20	10/26/2018 05:16	WG1186559
1,2-Dichloroethane	U		0.0106	0.0559	20	10/26/2018 05:16	WG1186559
1,1-Dichloroethene	U		0.0112	0.0559	20	10/26/2018 05:16	WG1186559
cis-1,2-Dichloroethene	U		0.0154	0.0559	20	10/26/2018 05:16	WG1186559
trans-1,2-Dichloroethene	U		0.0320	0.112	20	10/26/2018 05:16	WG1186559
1,2-Dichloropropane	U		0.0284	0.112	20	10/26/2018 05:16	WG1186559
1,1-Dichloropropene	U		0.0156	0.0559	20	10/26/2018 05:16	WG1186559
1,3-Dichloropropane	U		0.0391	0.112	20	10/26/2018 05:16	WG1186559
cis-1,3-Dichloropropene	U		0.0152	0.0559	20	10/26/2018 05:16	WG1186559
trans-1,3-Dichloropropene	U		0.0342	0.112	20	10/26/2018 05:16	WG1186559
trans-1,4-Dichloro-2-butene	U		0.0313	0.112	20	10/26/2018 05:16	WG1186559
2,2-Dichloropropane	U		0.0178	0.0559	20	10/26/2018 05:16	WG1186559
Di-isopropyl ether	U		0.00782	0.0224	20	10/26/2018 05:16	WG1186559
Ethylbenzene	U		0.0118	0.0559	20	10/26/2018 05:16	WG1186559
Hexachloro-1,3-butadiene	U		0.284	0.559	20	10/26/2018 05:16	WG1186559
2-Hexanone	U		0.224	0.559	20	10/26/2018 05:16	WG1186559
n-Hexane	U		0.0237	0.112	20	10/26/2018 05:16	WG1186559
Iodomethane	U		0.135	0.279	20	10/26/2018 05:16	WG1186559
Isopropylbenzene	U		0.0193	0.0559	20	10/26/2018 05:16	WG1186559
p-Isopropyltoluene	U		0.0521	0.112	20	10/26/2018 05:16	WG1186559
2-Butanone (MEK)	U		0.279	0.559	20	10/26/2018 05:16	WG1186559
Methylene Chloride	U		0.149	0.559	20	10/26/2018 05:16	WG1186559
4-Methyl-2-pentanone (MIBK)	U		0.224	0.559	20	10/26/2018 05:16	WG1186559

JC 11/15/18

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch	
Methyl tert-butyl ether	U		0.00659	0.0224	20	10/26/2018 05:16	WG1186559	
Naphthalene	U		0.0697	0.279	20	10/26/2018 05:16	WG1186559	
n-Propylbenzene	U		0.0264	0.112	20	10/26/2018 05:16	WG1186559	
Styrene	U		0.0610	0.279	20	10/26/2018 05:16	WG1186559	
1,1,1,2-Tetrachloroethane	U		0.0112	0.0559	20	10/26/2018 05:16	WG1186559	
1,1,2,2-Tetrachloroethane	U		0.00872	0.0559	20	10/26/2018 05:16	WG1186559	
1,1,2-Trichlorotrifluoroethane	U		0.0151	0.0559	20	10/26/2018 05:16	WG1186559	
Tetrachloroethene	7.72		0.0156	0.0559	20	10/26/2018 05:16	WG1186559	
Toluene	U		0.0279	0.112	20	10/26/2018 05:16	WG1186559	
1,2,3-Trichlorobenzene	U		0.0140	0.0559	20	10/26/2018 05:16	WG1186559	
1,2,4-Trichlorobenzene	U		0.108	0.279	20	10/26/2018 05:16	WG1186559	
1,1,1-Trichloroethane	U		0.00615	0.0559	20	10/26/2018 05:16	WG1186559	
1,1,2-Trichloroethane	U		0.0198	0.0559	20	10/26/2018 05:16	WG1186559	JC 11/15/18
Trichloroethene	0.0853		0.00894	0.0224	20	10/26/2018 05:16	WG1186559	
Trichlorofluoromethane	U		0.0112	0.0559	20	10/26/2018 05:16	WG1186559	
1,2,3-Trichloropropane	U		0.114	0.279	20	10/26/2018 05:16	WG1186559	
1,2,4-Trimethylbenzene	U		0.0259	0.112	20	10/26/2018 05:16	WG1186559	
1,2,3-Trimethylbenzene	U		0.0257	0.112	20	10/26/2018 05:16	WG1186559	
1,3,5-Trimethylbenzene	U		0.0241	0.112	20	10/26/2018 05:16	WG1186559	
Vinyl acetate	U		0.0787	0.279	20	10/26/2018 05:16	WG1186559	
Vinyl chloride	U		0.0153	0.0559	20	10/26/2018 05:16	WG1186559	
Xylenes, Total	U		0.107	0.145	20	10/26/2018 05:16	WG1186559	
(S) Toluene-d8	*104*			*75.0-131*		*10/26/2018 05:16*	WG1186559	
(S) Dibromofluoromethane	*98.2*			*65.0-129*		*10/26/2018 05:16*	WG1186559	
(S) 4-Bromofluorobenzene	*106*			*67.0-138*		*10/26/2018 05:16*	WG1186559	

Sample Narrative:

L1036473-32 WG1186559: Diluted due to high levels of target analytes.

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	87.7		1	10/24/2018 14:00	WG1185671

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch	
	mg/kg		mg/kg	mg/kg		date / time		
Acetone	U		0.341	0.621	21.8	10/26/2018 05:35	WG1186559	
Acrylonitrile	U		0.0472	0.311	21.8	10/26/2018 05:35	WG1186559	
Benzene	U		0.00994	0.0248	21.8	10/26/2018 05:35	WG1186559	
Bromobenzene	U		0.0261	0.311	21.8	10/26/2018 05:35	WG1186559	
Bromodichloromethane	U		0.0196	0.0621	21.8	10/26/2018 05:35	WG1186559	
Bromochloromethane	U		0.0280	0.124	21.8	10/26/2018 05:35	WG1186559	
Bromoform	U		0.148	0.621	21.8	10/26/2018 05:35	WG1186559	
Bromomethane	U		0.0920	0.311	21.8	10/26/2018 05:35	WG1186559	
n-Butylbenzene	U		0.0954	0.311	21.8	10/26/2018 05:35	WG1186559	
sec-Butylbenzene	U		0.0629	0.311	21.8	10/26/2018 05:35	WG1186559	
tert-Butylbenzene	U		0.0385	0.124	21.8	10/26/2018 05:35	WG1186559	JC 11/15/18
Carbon disulfide	U		0.101	0.311	21.8	10/26/2018 05:35	WG1186559	
Carbon tetrachloride	U		0.0268	0.124	21.8	10/26/2018 05:35	WG1186559	
Chlorobenzene	U		0.0142	0.0621	21.8	10/26/2018 05:35	WG1186559	
Chlorodibromomethane	U		0.0112	0.0621	21.8	10/26/2018 05:35	WG1186559	
Chloroethane	U		0.0268	0.124	21.8	10/26/2018 05:35	WG1186559	
Chloroform	U		0.0103	0.0621	21.8	10/26/2018 05:35	WG1186559	
Chloromethane	U		0.0345	0.311	21.8	10/26/2018 05:35	WG1186559	
2-Chlorotoluene	U		0.0228	0.0621	21.8	10/26/2018 05:35	WG1186559	
4-Chlorotoluene	U		0.0280	0.124	21.8	10/26/2018 05:35	WG1186559	
1,2-Dibromo-3-Chloropropane	U		0.127	0.621	21.8	10/26/2018 05:35	WG1186559	
1,2-Dibromoethane	U		0.0130	0.0621	21.8	10/26/2018 05:35	WG1186559	
Dibromomethane	U		0.0248	0.124	21.8	10/26/2018 05:35	WG1186559	
1,2-Dichlorobenzene	U		0.0360	0.124	21.8	10/26/2018 05:35	WG1186559	
1,3-Dichlorobenzene	U		0.0423	0.124	21.8	10/26/2018 05:35	WG1186559	
1,4-Dichlorobenzene	U		0.0489	0.124	21.8	10/26/2018 05:35	WG1186559	
Dichlorodifluoromethane	U		0.0203	0.0621	21.8	10/26/2018 05:35	WG1186559	
1,1-Dichloroethane	U		0.0142	0.0621	21.8	10/26/2018 05:35	WG1186559	
1,2-Dichloroethane	U		0.0119	0.0621	21.8	10/26/2018 05:35	WG1186559	
1,1-Dichloroethene	U		0.0124	0.0621	21.8	10/26/2018 05:35	WG1186559	
cis-1,2-Dichloroethene	U		0.0171	0.0621	21.8	10/26/2018 05:35	WG1186559	
trans-1,2-Dichloroethene	U		0.0356	0.124	21.8	10/26/2018 05:35	WG1186559	
1,2-Dichloropropane	U		0.0316	0.124	21.8	10/26/2018 05:35	WG1186559	
1,1-Dichloropropene	U		0.0174	0.0621	21.8	10/26/2018 05:35	WG1186559	
1,3-Dichloropropane	U		0.0435	0.124	21.8	10/26/2018 05:35	WG1186559	
cis-1,3-Dichloropropene	U		0.0169	0.0621	21.8	10/26/2018 05:35	WG1186559	
trans-1,3-Dichloropropene	U		0.0381	0.124	21.8	10/26/2018 05:35	WG1186559	
trans-1,4-Dichloro-2-butene	U		0.0348	0.124	21.8	10/26/2018 05:35	WG1186559	
2,2-Dichloropropane	U		0.0197	0.0621	21.8	10/26/2018 05:35	WG1186559	
Di-isopropyl ether	U		0.00870	0.0248	21.8	10/26/2018 05:35	WG1186559	
Ethylbenzene	U		0.0132	0.0621	21.8	10/26/2018 05:35	WG1186559	
Hexachloro-1,3-butadiene	U		0.316	0.621	21.8	10/26/2018 05:35	WG1186559	
2-Hexanone	U		0.248	0.621	21.8	10/26/2018 05:35	WG1186559	
n-Hexane	U		0.0263	0.124	21.8	10/26/2018 05:35	WG1186559	
Iodomethane	U		0.150	0.311	21.8	10/26/2018 05:35	WG1186559	
Isopropylbenzene	U		0.0214	0.0621	21.8	10/26/2018 05:35	WG1186559	
p-Isopropyltoluene	U		0.0579	0.124	21.8	10/26/2018 05:35	WG1186559	
2-Butanone (MEK)	U		0.310	0.621	21.8	10/26/2018 05:35	WG1186559	
Methylene Chloride	U		0.165	0.621	21.8	10/26/2018 05:35	WG1186559	
4-Methyl-2-pentanone (MIBK)	U		0.248	0.621	21.8	10/26/2018 05:35	WG1186559	

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.00733	0.0248	21.8	10/26/2018 05:35	WG1186559
Naphthalene	U		0.0775	0.311	21.8	10/26/2018 05:35	WG1186559
n-Propylbenzene	U		0.0293	0.124	21.8	10/26/2018 05:35	WG1186559
Styrene	U		0.0678	0.311	21.8	10/26/2018 05:35	WG1186559
1,1,1,2-Tetrachloroethane	U		0.0124	0.0621	21.8	10/26/2018 05:35	WG1186559
1,1,2,2-Tetrachloroethane	U		0.00969	0.0621	21.8	10/26/2018 05:35	WG1186559
1,1,2-Trichlorotrifluoroethane	U		0.0168	0.0621	21.8	10/26/2018 05:35	WG1186559
Tetrachloroethene	8.01		0.0174	0.0621	21.8	10/26/2018 05:35	WG1186559
Toluene	U		0.0310	0.124	21.8	10/26/2018 05:35	WG1186559
1,2,3-Trichlorobenzene	U		0.0155	0.0621	21.8	10/26/2018 05:35	WG1186559
1,2,4-Trichlorobenzene	U		0.120	0.311	21.8	10/26/2018 05:35	WG1186559
1,1,1-Trichloroethane	U		0.00684	0.0621	21.8	10/26/2018 05:35	WG1186559
1,1,2-Trichloroethane	U		0.0219	0.0621	21.8	10/26/2018 05:35	WG1186559
Trichloroethene	0.102		0.00994	0.0248	21.8	10/26/2018 05:35	WG1186559
Trichlorofluoromethane	U		0.0124	0.0621	21.8	10/26/2018 05:35	WG1186559
1,2,3-Trichloropropane	U		0.127	0.311	21.8	10/26/2018 05:35	WG1186559
1,2,4-Trimethylbenzene	U		0.0288	0.124	21.8	10/26/2018 05:35	WG1186559
1,2,3-Trimethylbenzene	U		0.0286	0.124	21.8	10/26/2018 05:35	WG1186559
1,3,5-Trimethylbenzene	U		0.0268	0.124	21.8	10/26/2018 05:35	WG1186559
Vinyl acetate	U		0.0874	0.311	21.8	10/26/2018 05:35	WG1186559
Vinyl chloride	U		0.0170	0.0621	21.8	10/26/2018 05:35	WG1186559
Xylenes, Total	U		0.119	0.162	21.8	10/26/2018 05:35	WG1186559
(S) Toluene-d8	*108*			*75.0-131*		*10/26/2018 05:35*	WG1186559
(S) Dibromofluoromethane	*98.8*			*65.0-129*		*10/26/2018 05:35*	WG1186559
(S) 4-Bromofluorobenzene	*103*			*67.0-138*		*10/26/2018 05:35*	WG1186559

JC 11/15/18

Sample Narrative:

L1036473-33 WG1186559: Diluted due to high levels of target analytes.

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	92.5		1	10/26/2018 11:19	WG1186450

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch	
	mg/kg		mg/kg	mg/kg		date / time		
Acetone	U		0.0149	0.0273	1.01	10/28/2018 14:08	WG1187558	
Acrylonitrile	U		0.00208	0.0137	1.01	10/26/2018 13:05	WG1186927	
Benzene	U		0.000437	0.00109	1.01	10/26/2018 13:05	WG1186927	
Bromobenzene	U		0.00115	0.0137	1.01	10/26/2018 13:05	WG1186927	
Bromodichloromethane	U		0.000861	0.00273	1.01	10/26/2018 13:05	WG1186927	
Bromochloromethane	U		0.00123	0.00546	1.01	10/26/2018 13:05	WG1186927	
Bromoform	U		0.00653	0.0273	1.01	10/26/2018 13:05	WG1186927	
Bromomethane	U		0.00404	0.0137	1.01	10/26/2018 13:05	WG1186927	
n-Butylbenzene	U		0.00420	0.0137	1.01	10/26/2018 13:05	WG1186927	
sec-Butylbenzene	U		0.00277	0.0137	1.01	10/26/2018 13:05	WG1186927	
tert-Butylbenzene	U		0.00169	0.00546	1.01	10/26/2018 13:05	WG1186927	
Carbon disulfide	0.00592	J	0.00443	0.0137	1.01	10/26/2018 13:05	WG1186927	
Carbon tetrachloride	U		0.00118	0.00546	1.01	10/26/2018 13:05	WG1186927	
Chlorobenzene	U		0.000626	0.00273	1.01	10/26/2018 13:05	WG1186927	
Chlorodibromomethane	U		0.000491	0.00273	1.01	10/26/2018 13:05	WG1186927	
Chloroethane	U		0.00118	0.00546	1.01	10/26/2018 13:05	WG1186927	
Chloroform	U		0.000453	0.00273	1.01	10/26/2018 13:05	WG1186927	
Chloromethane	U		0.00151	0.0137	1.01	10/26/2018 13:05	WG1186927	
2-Chlorotoluene	U		0.00100	0.00273	1.01	10/26/2018 13:05	WG1186927	
4-Chlorotoluene	U		0.00123	0.00546	1.01	10/26/2018 13:05	WG1186927	
1,2-Dibromo-3-Chloropropane	U		0.00557	0.0273	1.01	10/26/2018 13:05	WG1186927	
1,2-Dibromoethane	U		0.000573	0.00273	1.01	10/26/2018 13:05	WG1186927	
Dibromomethane	U		0.00109	0.00546	1.01	10/26/2018 13:05	WG1186927	
1,2-Dichlorobenzene	U		0.00158	0.00546	1.01	10/26/2018 13:05	WG1186927	
1,3-Dichlorobenzene	U		0.00186	0.00546	1.01	10/26/2018 13:05	WG1186927	
1,4-Dichlorobenzene	U		0.00215	0.00546	1.01	10/26/2018 13:05	WG1186927	
Dichlorodifluoromethane	U		0.000893	0.00273	1.01	10/26/2018 13:05	WG1186927	
1,1-Dichloroethane	U		0.000628	0.00273	1.01	10/26/2018 13:05	WG1186927	
1,2-Dichloroethane	U		0.000519	0.00273	1.01	10/26/2018 13:05	WG1186927	
1,1-Dichloroethene	U		0.000546	0.00273	1.01	10/26/2018 13:05	WG1186927	
cis-1,2-Dichloroethene	0.165		0.000754	0.00273	1.01	10/26/2018 13:05	WG1186927	
trans-1,2-Dichloroethene	U		0.00156	0.00546	1.01	10/26/2018 13:05	WG1186927	
1,2-Dichloropropane	U		0.00138	0.00546	1.01	10/26/2018 13:05	WG1186927	
1,1-Dichloropropene	U	U	0.000764	0.00273	1.01	10/26/2018 13:05	WG1186927	
1,3-Dichloropropane	U		0.00191	0.00546	1.01	10/26/2018 13:05	WG1186927	
cis-1,3-Dichloropropene	U		0.000741	0.00273	1.01	10/26/2018 13:05	WG1186927	
trans-1,3-Dichloropropene	U		0.00167	0.00546	1.01	10/26/2018 13:05	WG1186927	
trans-1,4-Dichloro-2-butene	U		0.00152	0.00546	1.01	10/26/2018 13:05	WG1186927	
2,2-Dichloropropane	U		0.000866	0.00273	1.01	10/26/2018 13:05	WG1186927	
Di-isopropyl ether	U		0.000383	0.00109	1.01	10/26/2018 13:05	WG1186927	
Ethylbenzene	U		0.000578	0.00273	1.01	10/26/2018 13:05	WG1186927	
Hexachloro-1,3-butadiene	U		0.0138	0.0273	1.01	10/26/2018 13:05	WG1186927	
2-Hexanone	U		0.0109	0.0273	1.01	10/26/2018 13:05	WG1186927	
n-Hexane	U		0.00116	0.00546	1.01	10/26/2018 13:05	WG1186927	
Iodomethane	U		0.00661	0.0137	1.01	10/26/2018 13:05	WG1186927	
Isopropylbenzene	U		0.000943	0.00273	1.01	10/26/2018 13:05	WG1186927	
p-Isopropyltoluene	U		0.00254	0.00546	1.01	10/26/2018 13:05	WG1186927	
2-Butanone (MEK)	0.0430	J	0.0136	0.0273	1.01	10/26/2018 13:05	WG1186927	JC 11/16/18
Methylene Chloride	U		0.00726	0.0273	1.01	10/26/2018 13:05	WG1186927	
4-Methyl-2-pentanone (MIBK)	U		0.0109	0.0273	1.01	10/26/2018 13:05	WG1186927	

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000322	0.00109	1.01	10/26/2018 13:05	WG1186927
Naphthalene	U		0.00341	0.0137	1.01	10/26/2018 13:05	WG1186927
n-Propylbenzene	U		0.00129	0.00546	1.01	10/26/2018 13:05	WG1186927
Styrene	U		0.00298	0.0137	1.01	10/26/2018 13:05	WG1186927
1,1,1,2-Tetrachloroethane	U		0.000546	0.00273	1.01	10/26/2018 13:05	WG1186927
1,1,2,2-Tetrachloroethane	U		0.000426	0.00273	1.01	10/26/2018 13:05	WG1186927
1,1,2-Trichlorotrifluoroethane	U		0.000737	0.00273	1.01	10/26/2018 13:05	WG1186927
Tetrachloroethene	0.0954		0.000764	0.00273	1.01	10/26/2018 13:05	WG1186927
Toluene	0.00161	J J	0.00136	0.00546	1.01	10/26/2018 13:05	WG1186927
1,2,3-Trichlorobenzene	U		0.000682	0.00273	1.01	10/26/2018 13:05	WG1186927
1,2,4-Trichlorobenzene	U		0.00527	0.0137	1.01	10/26/2018 13:05	WG1186927
1,1,1-Trichloroethane	U		0.000301	0.00273	1.01	10/26/2018 13:05	WG1186927
1,1,2-Trichloroethane	U		0.000965	0.00273	1.01	10/26/2018 13:05	WG1186927
Trichloroethene	0.0118		0.000437	0.00109	1.01	10/26/2018 13:05	WG1186927
Trichlorofluoromethane	U		0.000546	0.00273	1.01	10/26/2018 13:05	WG1186927
1,2,3-Trichloropropane	U		0.00557	0.0137	1.01	10/26/2018 13:05	WG1186927
1,2,4-Trimethylbenzene	0.00139	J J	0.00127	0.00546	1.01	10/26/2018 13:05	WG1186927
1,2,3-Trimethylbenzene	U		0.00125	0.00546	1.01	10/26/2018 13:05	WG1186927
1,3,5-Trimethylbenzene	U		0.00118	0.00546	1.01	10/26/2018 13:05	WG1186927
Vinyl acetate	U		0.00385	0.0137	1.01	10/26/2018 13:05	WG1186927
Vinyl chloride	0.0508		0.000746	0.00273	1.01	10/26/2018 13:05	WG1186927
Xylenes, Total	U		0.00522	0.00710	1.01	10/26/2018 13:05	WG1186927
(S) Toluene-d8	*92.4*			*75.0-131*		*10/26/2018 13:05*	WG1186927
(S) Toluene-d8	*82.1*			*75.0-131*		*10/28/2018 14:08*	WG1187558
(S) Dibromofluoromethane	*107*			*65.0-129*		*10/26/2018 13:05*	WG1186927
(S) Dibromofluoromethane	*86.2*			*65.0-129*		*10/28/2018 14:08*	WG1187558
(S) 4-Bromofluorobenzene	*108*			*67.0-138*		*10/26/2018 13:05*	WG1186927
(S) 4-Bromofluorobenzene	*104*			*67.0-138*		*10/28/2018 14:08*	WG1187558

JC 11/16/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	92.9		1	10/26/2018 11:19	WG1186450

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch	
	mg/kg		mg/kg	mg/kg		date / time		
Acetone	U		0.147	0.269	10	10/28/2018 14:27	WG1187558	
Acrylonitrile	U		0.00204	0.0135	1	10/26/2018 13:24	WG1186927	
Benzene	U		0.000430	0.00108	1	10/26/2018 13:24	WG1186927	
Bromobenzene	U		0.00113	0.0135	1	10/26/2018 13:24	WG1186927	
Bromodichloromethane	U		0.000848	0.00269	1	10/26/2018 13:24	WG1186927	
Bromochloromethane	U		0.00122	0.00538	1	10/26/2018 13:24	WG1186927	
Bromoform	U		0.00644	0.0269	1	10/26/2018 13:24	WG1186927	
Bromomethane	U		0.00398	0.0135	1	10/26/2018 13:24	WG1186927	
n-Butylbenzene	U		0.00413	0.0135	1	10/26/2018 13:24	WG1186927	
sec-Butylbenzene	U		0.00272	0.0135	1	10/26/2018 13:24	WG1186927	
tert-Butylbenzene	U		0.00167	0.00538	1	10/26/2018 13:24	WG1186927	
Carbon disulfide	0.00619	J	0.00437	0.0135	1	10/26/2018 13:24	WG1186927	
Carbon tetrachloride	U		0.00116	0.00538	1	10/26/2018 13:24	WG1186927	
Chlorobenzene	U		0.000617	0.00269	1	10/26/2018 13:24	WG1186927	
Chlorodibromomethane	U		0.000484	0.00269	1	10/26/2018 13:24	WG1186927	
Chloroethane	U		0.00116	0.00538	1	10/26/2018 13:24	WG1186927	
Chloroform	U		0.000447	0.00269	1	10/26/2018 13:24	WG1186927	
Chloromethane	U		0.00150	0.0135	1	10/26/2018 13:24	WG1186927	
2-Chlorotoluene	U		0.000990	0.00269	1	10/26/2018 13:24	WG1186927	
4-Chlorotoluene	U		0.00122	0.00538	1	10/26/2018 13:24	WG1186927	
1,2-Dibromo-3-Chloropropane	U		0.00549	0.0269	1	10/26/2018 13:24	WG1186927	
1,2-Dibromoethane	U		0.000565	0.00269	1	10/26/2018 13:24	WG1186927	
Dibromomethane	U		0.00108	0.00538	1	10/26/2018 13:24	WG1186927	
1,2-Dichlorobenzene	U		0.00156	0.00538	1	10/26/2018 13:24	WG1186927	
1,3-Dichlorobenzene	U		0.00183	0.00538	1	10/26/2018 13:24	WG1186927	
1,4-Dichlorobenzene	U		0.00212	0.00538	1	10/26/2018 13:24	WG1186927	
Dichlorodifluoromethane	U		0.000880	0.00269	1	10/26/2018 13:24	WG1186927	
1,1-Dichloroethane	U		0.000619	0.00269	1	10/26/2018 13:24	WG1186927	
1,2-Dichloroethane	U		0.000511	0.00269	1	10/26/2018 13:24	WG1186927	
1,1-Dichloroethene	U		0.000538	0.00269	1	10/26/2018 13:24	WG1186927	
cis-1,2-Dichloroethene	0.0964		0.000743	0.00269	1	10/26/2018 13:24	WG1186927	
trans-1,2-Dichloroethene	U		0.00154	0.00538	1	10/26/2018 13:24	WG1186927	
1,2-Dichloropropane	U		0.00137	0.00538	1	10/26/2018 13:24	WG1186927	
1,1-Dichloropropene	U	U	0.000753	0.00269	1	10/26/2018 13:24	WG1186927	
1,3-Dichloropropane	U		0.00188	0.00538	1	10/26/2018 13:24	WG1186927	
cis-1,3-Dichloropropene	U		0.000730	0.00269	1	10/26/2018 13:24	WG1186927	
trans-1,3-Dichloropropene	U		0.00165	0.00538	1	10/26/2018 13:24	WG1186927	
trans-1,4-Dichloro-2-butene	U		0.00151	0.00538	1	10/26/2018 13:24	WG1186927	
2,2-Dichloropropane	U		0.000853	0.00269	1	10/26/2018 13:24	WG1186927	
Di-isopropyl ether	U		0.000377	0.00108	1	10/26/2018 13:24	WG1186927	
Ethylbenzene	U		0.000570	0.00269	1	10/26/2018 13:24	WG1186927	
Hexachloro-1,3-butadiene	U		0.0137	0.0269	1	10/26/2018 13:24	WG1186927	
2-Hexanone	U		0.0108	0.0269	1	10/26/2018 13:24	WG1186927	
n-Hexane	0.00540		0.00114	0.00538	1	10/26/2018 13:24	WG1186927	
Iodomethane	U		0.00651	0.0135	1	10/26/2018 13:24	WG1186927	JC 11/16/18
Isopropylbenzene	U		0.000929	0.00269	1	10/26/2018 13:24	WG1186927	
p-Isopropyltoluene	U		0.00251	0.00538	1	10/26/2018 13:24	WG1186927	
2-Butanone (MEK)	U		0.0135	0.0269	1	10/26/2018 13:24	WG1186927	
Methylene Chloride	U		0.00715	0.0269	1	10/26/2018 13:24	WG1186927	
4-Methyl-2-pentanone (MIBK)	U		0.0108	0.0269	1	10/26/2018 13:24	WG1186927	

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000317	0.00108	1	10/26/2018 13:24	WG1186927
Naphthalene	U		0.00336	0.0135	1	10/26/2018 13:24	WG1186927
n-Propylbenzene	U		0.00127	0.00538	1	10/26/2018 13:24	WG1186927
Styrene	U		0.00294	0.0135	1	10/26/2018 13:24	WG1186927
1,1,1,2-Tetrachloroethane	U		0.000538	0.00269	1	10/26/2018 13:24	WG1186927
1,1,2,2-Tetrachloroethane	U		0.000420	0.00269	1	10/26/2018 13:24	WG1186927
1,1,2-Trichlorotrifluoroethane	U		0.000726	0.00269	1	10/26/2018 13:24	WG1186927
Tetrachloroethene	6.24		0.00753	0.0269	10	10/28/2018 14:27	WG1187558
Toluene	0.00166 J	J	0.00135	0.00538	1	10/26/2018 13:24	WG1186927
1,2,3-Trichlorobenzene	U		0.000673	0.00269	1	10/26/2018 13:24	WG1186927
1,2,4-Trichlorobenzene	U		0.00519	0.0135	1	10/26/2018 13:24	WG1186927
1,1,1-Trichloroethane	U		0.000296	0.00269	1	10/26/2018 13:24	WG1186927
1,1,2-Trichloroethane	U		0.000950	0.00269	1	10/26/2018 13:24	WG1186927
Trichloroethene	0.143		0.000430	0.00108	1	10/26/2018 13:24	WG1186927
Trichlorofluoromethane	U		0.000538	0.00269	1	10/26/2018 13:24	WG1186927
1,2,3-Trichloropropane	U		0.00549	0.0135	1	10/26/2018 13:24	WG1186927
1,2,4-Trimethylbenzene	0.00210 J	J	0.00125	0.00538	1	10/26/2018 13:24	WG1186927
1,2,3-Trimethylbenzene	U		0.00124	0.00538	1	10/26/2018 13:24	WG1186927
1,3,5-Trimethylbenzene	U		0.00116	0.00538	1	10/26/2018 13:24	WG1186927
Vinyl acetate	U		0.00379	0.0135	1	10/26/2018 13:24	WG1186927
Vinyl chloride	U		0.000735	0.00269	1	10/26/2018 13:24	WG1186927
Xylenes, Total	U		0.00514	0.00700	1	10/26/2018 13:24	WG1186927
(S) Toluene-d8	*102*			*75.0-131*		*10/26/2018 13:24*	WG1186927
(S) Toluene-d8	*97.8*			*75.0-131*		*10/28/2018 14:27*	WG1187558
(S) Dibromofluoromethane	*109*			*65.0-129*		*10/26/2018 13:24*	WG1186927
(S) Dibromofluoromethane	*94.7*			*65.0-129*		*10/28/2018 14:27*	WG1187558
(S) 4-Bromofluorobenzene	*106*			*67.0-138*		*10/26/2018 13:24*	WG1186927
(S) 4-Bromofluorobenzene	*103*			*67.0-138*		*10/28/2018 14:27*	WG1187558

JC 11/16/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	94.9		1	10/26/2018 11:19	WG1186450

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch	
	mg/kg		mg/kg	mg/kg		date / time		
Acetone	U		0.0144	0.0263	1	10/30/2018 08:48	WG1188097	ok
Acrylonitrile	U	UJ	0.00200	0.0132	1	10/29/2018 14:59	WG1188021	
Benzene	U		0.000421	0.00105	1	10/29/2018 14:59	WG1188021	
Bromobenzene	U		0.00111	0.0132	1	10/29/2018 14:59	WG1188021	
Bromodichloromethane	U		0.000830	0.00263	1	10/29/2018 14:59	WG1188021	
Bromochloromethane	U		0.00119	0.00527	1	10/29/2018 14:59	WG1188021	
Bromoform	U		0.00630	0.0263	1	10/29/2018 14:59	WG1188021	
Bromomethane	U		0.00390	0.0132	1	10/29/2018 14:59	WG1188021	
n-Butylbenzene	U		0.00405	0.0132	1	10/29/2018 14:59	WG1188021	
sec-Butylbenzene	U		0.00267	0.0132	1	10/29/2018 14:59	WG1188021	
tert-Butylbenzene	U		0.00163	0.00527	1	10/29/2018 14:59	WG1188021	
Carbon disulfide	U		0.00428	0.0132	1	10/29/2018 14:59	WG1188021	
Carbon tetrachloride	U		0.00114	0.00527	1	10/29/2018 14:59	WG1188021	
Chlorobenzene	U		0.000604	0.00263	1	10/29/2018 14:59	WG1188021	
Chlorodibromomethane	U		0.000474	0.00263	1	10/29/2018 14:59	WG1188021	
Chloroethane	U	UJ	0.00114	0.00527	1	10/29/2018 14:59	WG1188021	
Chloroform	0.000575	J J	0.000437	0.00263	1	10/29/2018 14:59	WG1188021	
Chloromethane	U	UJ	0.00146	0.0132	1	10/29/2018 14:59	WG1188021	
2-Chlorotoluene	U		0.000969	0.00263	1	10/29/2018 14:59	WG1188021	
4-Chlorotoluene	U		0.00119	0.00527	1	10/29/2018 14:59	WG1188021	
1,2-Dibromo-3-Chloropropane	U		0.00537	0.0263	1	10/29/2018 14:59	WG1188021	
1,2-Dibromoethane	U		0.000553	0.00263	1	10/29/2018 14:59	WG1188021	
Dibromomethane	U		0.00105	0.00527	1	10/29/2018 14:59	WG1188021	
1,2-Dichlorobenzene	U		0.00153	0.00527	1	10/29/2018 14:59	WG1188021	
1,3-Dichlorobenzene	U		0.00179	0.00527	1	10/29/2018 14:59	WG1188021	
1,4-Dichlorobenzene	U		0.00208	0.00527	1	10/29/2018 14:59	WG1188021	
Dichlorodifluoromethane	U		0.000862	0.00263	1	10/30/2018 10:28	WG1188332	Ok
1,1-Dichloroethane	U	UJ	0.000606	0.00263	1	10/29/2018 14:59	WG1188021	
1,2-Dichloroethane	U		0.000500	0.00263	1	10/29/2018 14:59	WG1188021	
1,1-Dichloroethene	U	UJ	0.000527	0.00263	1	10/29/2018 14:59	WG1188021	
cis-1,2-Dichloroethene	0.143	J	0.000727	0.00263	1	10/29/2018 14:59	WG1188021	
trans-1,2-Dichloroethene	U	UJ	0.00151	0.00527	1	10/29/2018 14:59	WG1188021	
1,2-Dichloropropane	U		0.00134	0.00527	1	10/30/2018 10:28	WG1188332	ok
1,1-Dichloropropene	U	UJ	0.000737	0.00263	1	10/29/2018 14:59	WG1188021	
1,3-Dichloropropane	U		0.00184	0.00527	1	10/29/2018 14:59	WG1188021	
cis-1,3-Dichloropropene	U		0.000714	0.00263	1	10/29/2018 14:59	WG1188021	
trans-1,3-Dichloropropene	U		0.00161	0.00527	1	10/29/2018 14:59	WG1188021	
trans-1,4-Dichloro-2-butene	U		0.00147	0.00527	1	10/29/2018 14:59	WG1188021	
2,2-Dichloropropane	U	U J	0.000835	0.00263	1	10/29/2018 14:59	WG1188021	
Di-isopropyl ether	U	UJ	0.000369	0.00105	1	10/29/2018 14:59	WG1188021	
Ethylbenzene	U		0.000558	0.00263	1	10/29/2018 14:59	WG1188021	
Hexachloro-1,3-butadiene	U		0.0134	0.0263	1	10/29/2018 14:59	WG1188021	
2-Hexanone	U		0.0105	0.0263	1	10/29/2018 14:59	WG1188021	
n-Hexane	U		0.00112	0.00527	1	10/29/2018 14:59	WG1188021	
Iodomethane	U		0.00637	0.0132	1	10/29/2018 14:59	WG1188021	
Isopropylbenzene	U		0.000909	0.00263	1	10/29/2018 14:59	WG1188021	
p-Isopropyltoluene	U		0.00245	0.00527	1	10/29/2018 14:59	WG1188021	
2-Butanone (MEK)	0.0250	U B J	0.0132	0.0263	1	10/29/2018 14:59	WG1188021	
Methylene Chloride	U	UJ	0.00699	0.0263	1	10/29/2018 14:59	WG1188021	
4-Methyl-2-pentanone (MIBK)	U	UJ	0.0105	0.0263	1	10/29/2018 14:59	WG1188021	JC 11/16/18

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch	
Methyl tert-butyl ether	U UJ		0.000311	0.00105	1	10/29/2018 14:59	WG1188021	
Naphthalene	U		0.00329	0.0132	1	10/29/2018 14:59	WG1188021	
n-Propylbenzene	U		0.00124	0.00527	1	10/29/2018 14:59	WG1188021	
Styrene	U		0.00288	0.0132	1	10/29/2018 14:59	WG1188021	
1,1,1,2-Tetrachloroethane	U		0.000527	0.00263	1	10/30/2018 10:28	WG1188332	
1,1,2,2-Tetrachloroethane	U UJ		0.000411	0.00263	1	10/29/2018 14:59	WG1188021	
1,1,2-Trichlorotrifluoroethane	U		0.000711	0.00263	1	10/30/2018 10:28	WG1188332	OK
Tetrachloroethene	0.0584 J		0.000737	0.00263	1	10/29/2018 14:59	WG1188021	
Toluene	U UJ		0.00132	0.00527	1	10/29/2018 14:59	WG1188021	
1,2,3-Trichlorobenzene	U		0.000658	0.00263	1	10/29/2018 14:59	WG1188021	
1,2,4-Trichlorobenzene	U		0.00508	0.0132	1	10/29/2018 14:59	WG1188021	
1,1,1-Trichloroethane	U		0.000290	0.00263	1	10/29/2018 14:59	WG1188021	
1,1,2-Trichloroethane	U UJ		0.000930	0.00263	1	10/29/2018 14:59	WG1188021	
Trichloroethene	0.000679 J	J	0.000421	0.00105	1	10/30/2018 10:28	WG1188332	OK
Trichlorofluoromethane	U UJ		0.000527	0.00263	1	10/29/2018 14:59	WG1188021	
1,2,3-Trichloropropane	U UJ		0.00537	0.0132	1	10/29/2018 14:59	WG1188021	
1,2,4-Trimethylbenzene	0.00195 J	J	0.00122	0.00527	1	10/29/2018 14:59	WG1188021	
1,2,3-Trimethylbenzene	0.00126 J	J	0.00121	0.00527	1	10/29/2018 14:59	WG1188021	
1,3,5-Trimethylbenzene	U UJ		0.00114	0.00527	1	10/29/2018 14:59	WG1188021	
Vinyl acetate	U UJ		0.00371	0.0132	1	10/29/2018 14:59	WG1188021	
Vinyl chloride	0.0326 J		0.000719	0.00263	1	10/29/2018 14:59	WG1188021	
Xylenes, Total	U UJ		0.00504	0.00685	1	10/29/2018 14:59	WG1188021	
(S) Toluene-d8	*55.8*	J2		*75.0-131*		*10/29/2018 14:59*	WG1188021	LOW
(S) Toluene-d8	*114*			*75.0-131*		*10/30/2018 08:48*	WG1188097	
(S) Toluene-d8	*98.7*			*75.0-131*		*10/30/2018 10:28*	WG1188332	
(S) Dibromofluoromethane	*98.7*			*65.0-129*		*10/29/2018 14:59*	WG1188021	
(S) Dibromofluoromethane	*90.2*			*65.0-129*		*10/30/2018 08:48*	WG1188097	
(S) Dibromofluoromethane	*118*			*65.0-129*		*10/30/2018 10:28*	WG1188332	
(S) 4-Bromofluorobenzene	*103*			*67.0-138*		*10/29/2018 14:59*	WG1188021	
(S) 4-Bromofluorobenzene	*107*			*67.0-138*		*10/30/2018 08:48*	WG1188097	
(S) 4-Bromofluorobenzene	*103*			*67.0-138*		*10/30/2018 10:28*	WG1188332	

JC 11/16/18

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

October 23, 2018

PES Environmental, Inc.- WA

Sample Delivery Group:	L1034970
Samples Received:	10/16/2018
Project Number:	1413.001.05
Description:	American Linen
Report To:	Brian O'Neal/Bill Haldeman
	1215 Fourth Ave., Suite 1350
	Seattle, WA 98161

Entire Report Reviewed By:

Brian Ford

Project Manager

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 Pace National is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

Cp: Cover Page 1
Tc: Table of Contents 2
Ss: Sample Summary 3
Cn: Case Narrative 8
Sr: Sample Results 9
B-249-5 L1034970-01 9
B-249-8 L1034970-02 11
B-249-15 L1034970-03 13
B-249-17 L1034970-04 15
B-249-20 L1034970-05 17
B-250-2.5 L1034970-06 19
B-250-8 L1034970-07 21
B-250-10 L1034970-08 23
B-250-13 L1034970-09 25
B-250-20 L1034970-10 27
B-250-24 L1034970-11 29
B-251-5 L1034970-12 31
B-251-8 L1034970-13 33
B-251-10 L1034970-14 35
B-251-15 L1034970-15 37
B-251-20 L1034970-16 39
B-251-25 L1034970-17 41
B-252-2.5 L1034970-18 43
B-252-10 L1034970-19 45
B-252-8 L1034970-20 47
B-252-15 L1034970-21 49
B-252-19 L1034970-22 51
B-252-25 L1034970-23 53
B-252-29 L1034970-24 55
TRIP BLANK L1034970-25 57
Qc: Quality Control Summary 59
Total Solids by Method 2540 G-2011 59
Volatile Organic Compounds (GC/MS) by Method 8260C 63
Gl: Glossary of Terms 89
Al: Accreditations & Locations 90
Sc: Sample Chain of Custody 91

B-249-5 L1034970-01 Solid

Collected by: KS/RM | Collected date/time: 10/15/18 09:20 | Received date/time: 10/16/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1183341	1	10/19/18 15:05	10/19/18 15:14	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1182742	1	10/15/18 09:20	10/18/18 15:48	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1184188	1	10/15/18 09:20	10/21/18 13:56	ACG

B-249-8 L1034970-02 Solid

Collected by: KS/RM | Collected date/time: 10/15/18 09:20 | Received date/time: 10/16/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1183341	1	10/19/18 15:05	10/19/18 15:14	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1182742	1	10/15/18 09:20	10/18/18 16:08	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1184188	1	10/15/18 09:20	10/21/18 14:16	ACG

B-249-15 L1034970-03 Solid

Collected by: KS/RM | Collected date/time: 10/15/18 09:35 | Received date/time: 10/16/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1183341	1	10/19/18 15:05	10/19/18 15:14	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1182742	1	10/15/18 09:35	10/18/18 16:28	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1184188	8	10/15/18 09:35	10/21/18 16:15	ACG

B-249-17 L1034970-04 Solid

Collected by: KS/RM | Collected date/time: 10/15/18 09:48 | Received date/time: 10/16/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1183341	1	10/19/18 15:05	10/19/18 15:14	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1182742	1	10/15/18 09:48	10/18/18 16:48	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1184188	40	10/15/18 09:48	10/21/18 16:35	ACG

B-249-20 L1034970-05 Solid

Collected by: KS/RM | Collected date/time: 10/15/18 09:45 | Received date/time: 10/16/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1181703	1	10/16/18 14:18	10/16/18 14:25	KS
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1181654	1	10/15/18 09:45	10/16/18 19:01	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1182096	700	10/15/18 09:45	10/17/18 13:12	DWR

B-250-2.5 L1034970-06 Solid

Collected by: KS/RM | Collected date/time: 10/15/18 10:00 | Received date/time: 10/16/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1183341	1	10/19/18 15:05	10/19/18 15:14	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1182742	1	10/15/18 10:00	10/18/18 17:07	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1184188	1	10/15/18 10:00	10/21/18 14:36	ACG

B-250-8 L1034970-07 Solid

Collected by: KS/RM | Collected date/time: 10/15/18 10:12 | Received date/time: 10/16/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1183343	1	10/19/18 13:37	10/19/18 13:51	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1182742	1	10/15/18 10:12	10/18/18 17:27	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1184188	8	10/15/18 10:12	10/21/18 16:55	ACG

B-250-10 L1034970-08 Solid

Collected by: KS/RM | Collected date/time: 10/15/18 10:10 | Received date/time: 10/16/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1183343	1	10/19/18 13:37	10/19/18 13:51	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1182742	1	10/15/18 10:10	10/18/18 17:47	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1184188	80	10/15/18 10:10	10/21/18 17:15	ACG

B-250-13 L1034970-09 Solid

Collected by: KS/RM | Collected date/time: 10/15/18 10:30 | Received date/time: 10/16/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1183343	1	10/19/18 13:37	10/19/18 13:51	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1182742	1	10/15/18 10:30	10/18/18 18:07	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1184188	80	10/15/18 10:30	10/21/18 17:35	ACG

B-250-20 L1034970-10 Solid

Collected by: KS/RM | Collected date/time: 10/15/18 10:40 | Received date/time: 10/16/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1183343	1	10/19/18 13:37	10/19/18 13:51	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1182742	1	10/15/18 10:40	10/18/18 18:27	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1184188	40	10/15/18 10:40	10/21/18 17:55	ACG

B-250-24 L1034970-11 Solid

Collected by: KS/RM | Collected date/time: 10/15/18 11:20 | Received date/time: 10/16/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1181703	1	10/16/18 14:18	10/16/18 14:25	KS
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1181654	1	10/15/18 11:20	10/16/18 19:21	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1182096	670	10/15/18 11:20	10/17/18 13:32	DWR

B-251-5 L1034970-12 Solid

Collected by: KS/RM | Collected date/time: 10/15/18 12:35 | Received date/time: 10/16/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1183343	1	10/19/18 13:37	10/19/18 13:51	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1182742	1	10/15/18 12:35	10/18/18 18:47	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1184188	1	10/15/18 12:35	10/21/18 14:55	ACG
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1184438	1	10/15/18 12:35	10/22/18 11:39	JAH

B-251-8 L1034970-13 Solid

Collected by: KS/RM | Collected date/time: 10/15/18 12:45 | Received date/time: 10/16/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1183343	1	10/19/18 13:37	10/19/18 13:51	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1183157	1	10/15/18 12:45	10/19/18 21:50	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1184604	1	10/15/18 12:45	10/22/18 16:23	BMB

B-251-10 L1034970-14 Solid

Collected by: KS/RM | Collected date/time: 10/15/18 12:42 | Received date/time: 10/16/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1183343	1	10/19/18 13:37	10/19/18 13:51	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1183157	1	10/15/18 12:42	10/19/18 22:11	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1184604	40	10/15/18 12:42	10/22/18 20:23	BMB

B-251-15 L1034970-15 Solid

Collected by: KS/RM | Collected date/time: 10/15/18 12:55 | Received date/time: 10/16/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1183343	1	10/19/18 13:37	10/19/18 13:51	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1183157	1	10/15/18 12:55	10/19/18 22:31	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1184604	40	10/15/18 12:55	10/22/18 20:44	BMB

B-251-20 L1034970-16 Solid

Collected by: KS/RM | Collected date/time: 10/15/18 12:57 | Received date/time: 10/16/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1183343	1	10/19/18 13:37	10/19/18 13:51	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1183157	1	10/15/18 12:57	10/19/18 22:52	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1184604	40	10/15/18 12:57	10/22/18 21:03	BMB

B-251-25 L1034970-17 Solid

Collected by: KS/RM | Collected date/time: 10/15/18 13:20 | Received date/time: 10/16/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1181703	1	10/16/18 14:18	10/16/18 14:25	KS
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1181654	1	10/15/18 13:20	10/16/18 19:40	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1182096	830	10/15/18 13:20	10/17/18 13:52	DWR

B-252-2.5 L1034970-18 Solid

Collected by: KS/RM | Collected date/time: 10/15/18 14:15 | Received date/time: 10/16/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1183343	1	10/19/18 13:37	10/19/18 13:51	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1183157	1	10/15/18 14:15	10/19/18 23:12	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1184604	1	10/15/18 14:15	10/22/18 16:44	BMB

B-252-10 L1034970-19 Solid

Collected by: KS/RM | Collected date/time: 10/15/18 14:27 | Received date/time: 10/16/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1183344	1	10/22/18 09:38	10/22/18 09:45	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1183157	1	10/15/18 14:27	10/19/18 23:33	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1184604	1	10/15/18 14:27	10/22/18 17:04	BMB

B-252-8 L1034970-20 Solid

Collected by: KS/RM | Collected date/time: 10/15/18 14:25 | Received date/time: 10/16/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1183344	1	10/22/18 09:38	10/22/18 09:45	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1183157	1	10/15/18 14:25	10/19/18 23:54	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1184604	1	10/15/18 14:25	10/22/18 17:24	BMB

B-252-15 L1034970-21 Solid

Collected by: KS/RM | Collected date/time: 10/15/18 14:35 | Received date/time: 10/16/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1183344	1	10/22/18 09:38	10/22/18 09:45	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1183157	1	10/15/18 14:35	10/20/18 00:14	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1184604	20	10/15/18 14:35	10/22/18 21:23	BMB

B-252-19 L1034970-22 Solid

Collected by: KS/RM | Collected date/time: 10/15/18 14:43 | Received date/time: 10/16/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1183344	1	10/22/18 09:38	10/22/18 09:45	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1183157	1	10/15/18 14:43	10/20/18 00:35	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1184604	10	10/15/18 14:43	10/22/18 21:43	BMB

B-252-25 L1034970-23 Solid

Collected by: KS/RM | Collected date/time: 10/15/18 14:50 | Received date/time: 10/16/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1183344	1	10/22/18 09:38	10/22/18 09:45	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1183157	1	10/15/18 14:50	10/20/18 00:55	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1184604	4	10/15/18 14:50	10/22/18 22:03	BMB

B-252-29 L1034970-24 Solid

Collected by: KS/RM | Collected date/time: 10/15/18 15:24 | Received date/time: 10/16/18 08:45

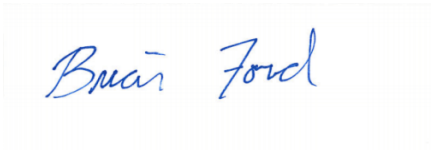
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1181703	1	10/16/18 14:18	10/16/18 14:25	KS
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1181654	1	10/15/18 15:24	10/16/18 20:00	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1182096	175	10/15/18 15:24	10/17/18 12:52	DWR

TRIP BLANK L1034970-25 GW

			Collected by	Collected date/time	Received date/time
			KS/RM	10/15/18 00:00	10/16/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1181551	1	10/16/18 13:36	10/16/18 13:36	TJJ

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, 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.



Brian Ford
Project Manager

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	95.7		1	10/19/2018 15:14	WG1183341

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0143	0.0261	1	10/21/2018 13:56	WG1184188
Acrylonitrile	U		0.00199	0.0131	1	10/18/2018 15:48	WG1182742
Benzene	U		0.000418	0.00105	1	10/18/2018 15:48	WG1182742
Bromobenzene	U		0.00110	0.0131	1	10/18/2018 15:48	WG1182742
Bromodichloromethane	U		0.000823	0.00261	1	10/18/2018 15:48	WG1182742
Bromochloromethane	U		0.00118	0.00523	1	10/18/2018 15:48	WG1182742
Bromoform	U		0.00625	0.0261	1	10/18/2018 15:48	WG1182742
Bromomethane	U		0.00387	0.0131	1	10/18/2018 15:48	WG1182742
n-Butylbenzene	U		0.00401	0.0131	1	10/18/2018 15:48	WG1182742
sec-Butylbenzene	U		0.00264	0.0131	1	10/18/2018 15:48	WG1182742
tert-Butylbenzene	U		0.00162	0.00523	1	10/18/2018 15:48	WG1182742
Carbon disulfide	U		0.00424	0.0131	1	10/18/2018 15:48	WG1182742
Carbon tetrachloride	U		0.00113	0.00523	1	10/18/2018 15:48	WG1182742
Chlorobenzene	U		0.000599	0.00261	1	10/18/2018 15:48	WG1182742
Chlorodibromomethane	U		0.000470	0.00261	1	10/18/2018 15:48	WG1182742
Chloroethane	U		0.00113	0.00523	1	10/18/2018 15:48	WG1182742
Chloroform	0.000568	J	0.000434	0.00261	1	10/18/2018 15:48	WG1182742
Chloromethane	U		0.00145	0.0131	1	10/18/2018 15:48	WG1182742
2-Chlorotoluene	U		0.000961	0.00261	1	10/18/2018 15:48	WG1182742
4-Chlorotoluene	U		0.00118	0.00523	1	10/18/2018 15:48	WG1182742
1,2-Dibromo-3-Chloropropane	U		0.00533	0.0261	1	10/18/2018 15:48	WG1182742
1,2-Dibromoethane	U		0.000549	0.00261	1	10/18/2018 15:48	WG1182742
Dibromomethane	U	J4	0.00105	0.00523	1	10/18/2018 15:48	WG1182742
1,2-Dichlorobenzene	U		0.00152	0.00523	1	10/18/2018 15:48	WG1182742
1,3-Dichlorobenzene	U		0.00178	0.00523	1	10/18/2018 15:48	WG1182742
1,4-Dichlorobenzene	U		0.00206	0.00523	1	10/18/2018 15:48	WG1182742
Dichlorodifluoromethane	U		0.000855	0.00261	1	10/18/2018 15:48	WG1182742
1,1-Dichloroethane	U		0.000601	0.00261	1	10/18/2018 15:48	WG1182742
1,2-Dichloroethane	U		0.000496	0.00261	1	10/18/2018 15:48	WG1182742
1,1-Dichloroethene	U		0.000523	0.00261	1	10/18/2018 15:48	WG1182742
cis-1,2-Dichloroethene	0.0102		0.000721	0.00261	1	10/18/2018 15:48	WG1182742
trans-1,2-Dichloroethene	U		0.00149	0.00523	1	10/18/2018 15:48	WG1182742
1,2-Dichloropropane	U		0.00133	0.00523	1	10/18/2018 15:48	WG1182742
1,1-Dichloropropene	U		0.000732	0.00261	1	10/18/2018 15:48	WG1182742
1,3-Dichloropropane	U		0.00183	0.00523	1	10/18/2018 15:48	WG1182742
cis-1,3-Dichloropropene	U		0.000709	0.00261	1	10/18/2018 15:48	WG1182742
trans-1,3-Dichloropropene	U		0.00160	0.00523	1	10/18/2018 15:48	WG1182742
trans-1,4-Dichloro-2-butene	U		0.00146	0.00523	1	10/18/2018 15:48	WG1182742
2,2-Dichloropropane	U		0.000829	0.00261	1	10/18/2018 15:48	WG1182742
Di-isopropyl ether	U		0.000366	0.00105	1	10/18/2018 15:48	WG1182742
Ethylbenzene	U		0.000554	0.00261	1	10/18/2018 15:48	WG1182742
Hexachloro-1,3-butadiene	U		0.0133	0.0261	1	10/18/2018 15:48	WG1182742
2-Hexanone	U		0.0105	0.0261	1	10/18/2018 15:48	WG1182742
n-Hexane	0.00139	J	0.00111	0.00523	1	10/18/2018 15:48	WG1182742
Iodomethane	U		0.00632	0.0131	1	10/18/2018 15:48	WG1182742
Isopropylbenzene	U		0.000902	0.00261	1	10/18/2018 15:48	WG1182742
p-Isopropyltoluene	U		0.00243	0.00523	1	10/18/2018 15:48	WG1182742
2-Butanone (MEK)	U		0.0131	0.0261	1	10/18/2018 15:48	WG1182742
Methylene Chloride	U		0.00694	0.0261	1	10/18/2018 15:48	WG1182742
4-Methyl-2-pentanone (MIBK)	U		0.0105	0.0261	1	10/18/2018 15:48	WG1182742

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000308	0.00105	1	10/18/2018 15:48	WG1182742
Naphthalene	U		0.00326	0.0131	1	10/18/2018 15:48	WG1182742
n-Propylbenzene	U		0.00123	0.00523	1	10/18/2018 15:48	WG1182742
Styrene	U		0.00285	0.0131	1	10/18/2018 15:48	WG1182742
1,1,1,2-Tetrachloroethane	U		0.000523	0.00261	1	10/18/2018 15:48	WG1182742
1,1,2,2-Tetrachloroethane	U		0.000408	0.00261	1	10/18/2018 15:48	WG1182742
1,1,2-Trichlorotrifluoroethane	U		0.000705	0.00261	1	10/18/2018 15:48	WG1182742
Tetrachloroethene	0.122	J4	0.000732	0.00261	1	10/18/2018 15:48	WG1182742
Toluene	U		0.00131	0.00523	1	10/18/2018 15:48	WG1182742
1,2,3-Trichlorobenzene	U		0.000653	0.00261	1	10/18/2018 15:48	WG1182742
1,2,4-Trichlorobenzene	U		0.00504	0.0131	1	10/18/2018 15:48	WG1182742
1,1,1-Trichloroethane	U		0.000287	0.00261	1	10/18/2018 15:48	WG1182742
1,1,2-Trichloroethane	U	J4	0.000923	0.00261	1	10/18/2018 15:48	WG1182742
Trichloroethene	0.0109		0.000418	0.00105	1	10/18/2018 15:48	WG1182742
Trichlorofluoromethane	U		0.000523	0.00261	1	10/18/2018 15:48	WG1182742
1,2,3-Trichloropropane	U		0.00533	0.0131	1	10/18/2018 15:48	WG1182742
1,2,4-Trimethylbenzene	U	J4	0.00121	0.00523	1	10/18/2018 15:48	WG1182742
1,2,3-Trimethylbenzene	U		0.00120	0.00523	1	10/18/2018 15:48	WG1182742
1,3,5-Trimethylbenzene	U		0.00113	0.00523	1	10/18/2018 15:48	WG1182742
Vinyl acetate	U		0.00368	0.0131	1	10/18/2018 15:48	WG1182742
Vinyl chloride	U		0.000714	0.00261	1	10/18/2018 15:48	WG1182742
Xylenes, Total	U		0.00500	0.00679	1	10/18/2018 15:48	WG1182742
(S) Toluene-d8	*117*			*75.0-131*		*10/18/2018 15:48*	WG1182742
(S) Toluene-d8	*100*			*75.0-131*		*10/21/2018 13:56*	WG1184188
(S) Dibromofluoromethane	*79.3*			*65.0-129*		*10/18/2018 15:48*	WG1182742
(S) Dibromofluoromethane	*112*			*65.0-129*		*10/21/2018 13:56*	WG1184188
(S) 4-Bromofluorobenzene	*88.7*			*67.0-138*		*10/18/2018 15:48*	WG1182742
(S) 4-Bromofluorobenzene	*117*			*67.0-138*		*10/21/2018 13:56*	WG1184188

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	88.6		1	10/19/2018 15:14	WG1183341

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0155	0.0282	1	10/21/2018 14:16	WG1184188
Acrylonitrile	U		0.00214	0.0141	1	10/18/2018 16:08	WG1182742
Benzene	U		0.000451	0.00113	1	10/18/2018 16:08	WG1182742
Bromobenzene	U		0.00118	0.0141	1	10/18/2018 16:08	WG1182742
Bromodichloromethane	U		0.000889	0.00282	1	10/18/2018 16:08	WG1182742
Bromochloromethane	U		0.00128	0.00564	1	10/18/2018 16:08	WG1182742
Bromoform	U		0.00675	0.0282	1	10/18/2018 16:08	WG1182742
Bromomethane	U		0.00418	0.0141	1	10/18/2018 16:08	WG1182742
n-Butylbenzene	U		0.00433	0.0141	1	10/18/2018 16:08	WG1182742
sec-Butylbenzene	U		0.00285	0.0141	1	10/18/2018 16:08	WG1182742
tert-Butylbenzene	U		0.00175	0.00564	1	10/18/2018 16:08	WG1182742
Carbon disulfide	U		0.00458	0.0141	1	10/18/2018 16:08	WG1182742
Carbon tetrachloride	U		0.00122	0.00564	1	10/18/2018 16:08	WG1182742
Chlorobenzene	U		0.000647	0.00282	1	10/18/2018 16:08	WG1182742
Chlorodibromomethane	U		0.000508	0.00282	1	10/18/2018 16:08	WG1182742
Chloroethane	U		0.00122	0.00564	1	10/18/2018 16:08	WG1182742
Chloroform	0.000675	J	0.000468	0.00282	1	10/18/2018 16:08	WG1182742
Chloromethane	U		0.00157	0.0141	1	10/18/2018 16:08	WG1182742
2-Chlorotoluene	U		0.00104	0.00282	1	10/18/2018 16:08	WG1182742
4-Chlorotoluene	U		0.00128	0.00564	1	10/18/2018 16:08	WG1182742
1,2-Dibromo-3-Chloropropane	U		0.00576	0.0282	1	10/18/2018 16:08	WG1182742
1,2-Dibromoethane	U		0.000592	0.00282	1	10/18/2018 16:08	WG1182742
Dibromomethane	U	J4	0.00113	0.00564	1	10/18/2018 16:08	WG1182742
1,2-Dichlorobenzene	U		0.00164	0.00564	1	10/18/2018 16:08	WG1182742
1,3-Dichlorobenzene	U		0.00192	0.00564	1	10/18/2018 16:08	WG1182742
1,4-Dichlorobenzene	U		0.00222	0.00564	1	10/18/2018 16:08	WG1182742
Dichlorodifluoromethane	U		0.000923	0.00282	1	10/18/2018 16:08	WG1182742
1,1-Dichloroethane	U		0.000649	0.00282	1	10/18/2018 16:08	WG1182742
1,2-Dichloroethane	U		0.000536	0.00282	1	10/18/2018 16:08	WG1182742
1,1-Dichloroethene	U		0.000564	0.00282	1	10/18/2018 16:08	WG1182742
cis-1,2-Dichloroethene	0.0287		0.000779	0.00282	1	10/18/2018 16:08	WG1182742
trans-1,2-Dichloroethene	U		0.00161	0.00564	1	10/18/2018 16:08	WG1182742
1,2-Dichloropropane	U		0.00143	0.00564	1	10/18/2018 16:08	WG1182742
1,1-Dichloropropene	U		0.000790	0.00282	1	10/18/2018 16:08	WG1182742
1,3-Dichloropropane	U		0.00197	0.00564	1	10/18/2018 16:08	WG1182742
cis-1,3-Dichloropropene	U		0.000765	0.00282	1	10/18/2018 16:08	WG1182742
trans-1,3-Dichloropropene	U		0.00173	0.00564	1	10/18/2018 16:08	WG1182742
trans-1,4-Dichloro-2-butene	U		0.00158	0.00564	1	10/18/2018 16:08	WG1182742
2,2-Dichloropropane	U		0.000895	0.00282	1	10/18/2018 16:08	WG1182742
Di-isopropyl ether	U		0.000395	0.00113	1	10/18/2018 16:08	WG1182742
Ethylbenzene	U		0.000598	0.00282	1	10/18/2018 16:08	WG1182742
Hexachloro-1,3-butadiene	U		0.0143	0.0282	1	10/18/2018 16:08	WG1182742
2-Hexanone	U		0.0113	0.0282	1	10/18/2018 16:08	WG1182742
n-Hexane	U		0.00120	0.00564	1	10/18/2018 16:08	WG1182742
Iodomethane	U		0.00683	0.0141	1	10/18/2018 16:08	WG1182742
Isopropylbenzene	U		0.000974	0.00282	1	10/18/2018 16:08	WG1182742
p-Isopropyltoluene	U		0.00263	0.00564	1	10/18/2018 16:08	WG1182742
2-Butanone (MEK)	U		0.0141	0.0282	1	10/18/2018 16:08	WG1182742
Methylene Chloride	U		0.00749	0.0282	1	10/18/2018 16:08	WG1182742
4-Methyl-2-pentanone (MIBK)	U		0.0113	0.0282	1	10/18/2018 16:08	WG1182742

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000333	0.00113	1	10/18/2018 16:08	WG1182742
Naphthalene	U		0.00352	0.0141	1	10/18/2018 16:08	WG1182742
n-Propylbenzene	U		0.00133	0.00564	1	10/18/2018 16:08	WG1182742
Styrene	U		0.00308	0.0141	1	10/18/2018 16:08	WG1182742
1,1,1,2-Tetrachloroethane	U		0.000564	0.00282	1	10/18/2018 16:08	WG1182742
1,1,2,2-Tetrachloroethane	U		0.000440	0.00282	1	10/18/2018 16:08	WG1182742
1,1,2-Trichlorotrifluoroethane	U		0.000762	0.00282	1	10/18/2018 16:08	WG1182742
Tetrachloroethene	0.949	J4	0.000790	0.00282	1	10/18/2018 16:08	WG1182742
Toluene	U		0.00141	0.00564	1	10/18/2018 16:08	WG1182742
1,2,3-Trichlorobenzene	U		0.000705	0.00282	1	10/18/2018 16:08	WG1182742
1,2,4-Trichlorobenzene	U		0.00544	0.0141	1	10/18/2018 16:08	WG1182742
1,1,1-Trichloroethane	U		0.000310	0.00282	1	10/18/2018 16:08	WG1182742
1,1,2-Trichloroethane	U	J4	0.000996	0.00282	1	10/18/2018 16:08	WG1182742
Trichloroethene	0.0828		0.000451	0.00113	1	10/18/2018 16:08	WG1182742
Trichlorofluoromethane	U		0.000564	0.00282	1	10/18/2018 16:08	WG1182742
1,2,3-Trichloropropane	U		0.00576	0.0141	1	10/18/2018 16:08	WG1182742
1,2,4-Trimethylbenzene	U	J4	0.00131	0.00564	1	10/18/2018 16:08	WG1182742
1,2,3-Trimethylbenzene	U		0.00130	0.00564	1	10/18/2018 16:08	WG1182742
1,3,5-Trimethylbenzene	U		0.00122	0.00564	1	10/18/2018 16:08	WG1182742
Vinyl acetate	U		0.00397	0.0141	1	10/18/2018 16:08	WG1182742
Vinyl chloride	U		0.000771	0.00282	1	10/18/2018 16:08	WG1182742
Xylenes, Total	U		0.00539	0.00733	1	10/18/2018 16:08	WG1182742
(S) Toluene-d8	*117*			*75.0-131*		*10/18/2018 16:08*	WG1182742
(S) Toluene-d8	*99.7*			*75.0-131*		*10/21/2018 14:16*	WG1184188
(S) Dibromofluoromethane	*79.2*			*65.0-129*		*10/18/2018 16:08*	WG1182742
(S) Dibromofluoromethane	*113*			*65.0-129*		*10/21/2018 14:16*	WG1184188
(S) 4-Bromofluorobenzene	*88.7*			*67.0-138*		*10/18/2018 16:08*	WG1182742
(S) 4-Bromofluorobenzene	*118*			*67.0-138*		*10/21/2018 14:16*	WG1184188

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	86.3		1	10/19/2018 15:14	WG1183341

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.127	0.232	8	10/21/2018 16:15	WG1184188
Acrylonitrile	U		0.00220	0.0145	1	10/18/2018 16:28	WG1182742
Benzene	U		0.000463	0.00116	1	10/18/2018 16:28	WG1182742
Bromobenzene	U		0.00122	0.0145	1	10/18/2018 16:28	WG1182742
Bromodichloromethane	U		0.000913	0.00290	1	10/18/2018 16:28	WG1182742
Bromochloromethane	U		0.00131	0.00579	1	10/18/2018 16:28	WG1182742
Bromoform	U		0.00693	0.0290	1	10/18/2018 16:28	WG1182742
Bromomethane	U		0.00429	0.0145	1	10/18/2018 16:28	WG1182742
n-Butylbenzene	0.0247		0.00445	0.0145	1	10/18/2018 16:28	WG1182742
sec-Butylbenzene	U		0.00293	0.0145	1	10/18/2018 16:28	WG1182742
tert-Butylbenzene	U		0.00180	0.00579	1	10/18/2018 16:28	WG1182742
Carbon disulfide	U		0.00470	0.0145	1	10/18/2018 16:28	WG1182742
Carbon tetrachloride	U		0.00125	0.00579	1	10/18/2018 16:28	WG1182742
Chlorobenzene	U		0.000664	0.00290	1	10/18/2018 16:28	WG1182742
Chlorodibromomethane	U		0.000521	0.00290	1	10/18/2018 16:28	WG1182742
Chloroethane	U		0.00125	0.00579	1	10/18/2018 16:28	WG1182742
Chloroform	0.000777	J	0.000481	0.00290	1	10/18/2018 16:28	WG1182742
Chloromethane	U		0.00161	0.0145	1	10/18/2018 16:28	WG1182742
2-Chlorotoluene	U		0.00107	0.00290	1	10/18/2018 16:28	WG1182742
4-Chlorotoluene	U		0.00131	0.00579	1	10/18/2018 16:28	WG1182742
1,2-Dibromo-3-Chloropropane	U		0.00591	0.0290	1	10/18/2018 16:28	WG1182742
1,2-Dibromoethane	U		0.000608	0.00290	1	10/18/2018 16:28	WG1182742
Dibromomethane	U	J4	0.00116	0.00579	1	10/18/2018 16:28	WG1182742
1,2-Dichlorobenzene	U		0.00168	0.00579	1	10/18/2018 16:28	WG1182742
1,3-Dichlorobenzene	U		0.00197	0.00579	1	10/18/2018 16:28	WG1182742
1,4-Dichlorobenzene	U		0.00228	0.00579	1	10/18/2018 16:28	WG1182742
Dichlorodifluoromethane	U		0.000947	0.00290	1	10/18/2018 16:28	WG1182742
1,1-Dichloroethane	U		0.000666	0.00290	1	10/18/2018 16:28	WG1182742
1,2-Dichloroethane	U		0.000550	0.00290	1	10/18/2018 16:28	WG1182742
1,1-Dichloroethene	U		0.000579	0.00290	1	10/18/2018 16:28	WG1182742
cis-1,2-Dichloroethene	0.0692		0.000799	0.00290	1	10/18/2018 16:28	WG1182742
trans-1,2-Dichloroethene	U		0.00166	0.00579	1	10/18/2018 16:28	WG1182742
1,2-Dichloropropane	U		0.00147	0.00579	1	10/18/2018 16:28	WG1182742
1,1-Dichloropropene	U		0.000811	0.00290	1	10/18/2018 16:28	WG1182742
1,3-Dichloropropane	U		0.00203	0.00579	1	10/18/2018 16:28	WG1182742
cis-1,3-Dichloropropene	U		0.000785	0.00290	1	10/18/2018 16:28	WG1182742
trans-1,3-Dichloropropene	U		0.00177	0.00579	1	10/18/2018 16:28	WG1182742
trans-1,4-Dichloro-2-butene	U		0.00162	0.00579	1	10/18/2018 16:28	WG1182742
2,2-Dichloropropane	U		0.000918	0.00290	1	10/18/2018 16:28	WG1182742
Di-isopropyl ether	U		0.000405	0.00116	1	10/18/2018 16:28	WG1182742
Ethylbenzene	0.00143	J	0.000614	0.00290	1	10/18/2018 16:28	WG1182742
Hexachloro-1,3-butadiene	U		0.0147	0.0290	1	10/18/2018 16:28	WG1182742
2-Hexanone	U		0.0116	0.0290	1	10/18/2018 16:28	WG1182742
n-Hexane	0.00123	J	0.00123	0.00579	1	10/18/2018 16:28	WG1182742
Iodomethane	U		0.00701	0.0145	1	10/18/2018 16:28	WG1182742
Isopropylbenzene	U		0.000999	0.00290	1	10/18/2018 16:28	WG1182742
p-Isopropyltoluene	U		0.00270	0.00579	1	10/18/2018 16:28	WG1182742
2-Butanone (MEK)	U		0.0145	0.0290	1	10/18/2018 16:28	WG1182742
Methylene Chloride	U		0.00769	0.0290	1	10/18/2018 16:28	WG1182742
4-Methyl-2-pentanone (MIBK)	U		0.0116	0.0290	1	10/18/2018 16:28	WG1182742

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000342	0.00116	1	10/18/2018 16:28	WG1182742
Naphthalene	0.191		0.00361	0.0145	1	10/18/2018 16:28	WG1182742
n-Propylbenzene	0.00402	J	0.00137	0.00579	1	10/18/2018 16:28	WG1182742
Styrene	U		0.00316	0.0145	1	10/18/2018 16:28	WG1182742
1,1,1,2-Tetrachloroethane	U		0.000579	0.00290	1	10/18/2018 16:28	WG1182742
1,1,2,2-Tetrachloroethane	U		0.000452	0.00290	1	10/18/2018 16:28	WG1182742
1,1,2-Trichlorotrifluoroethane	U		0.000782	0.00290	1	10/18/2018 16:28	WG1182742
Tetrachloroethene	1.97	J0	0.00649	0.0232	8	10/21/2018 16:15	WG1184188
Toluene	0.00236	J	0.00145	0.00579	1	10/18/2018 16:28	WG1182742
1,2,3-Trichlorobenzene	U		0.000724	0.00290	1	10/18/2018 16:28	WG1182742
1,2,4-Trichlorobenzene	U		0.00558	0.0145	1	10/18/2018 16:28	WG1182742
1,1,1-Trichloroethane	U		0.000318	0.00290	1	10/18/2018 16:28	WG1182742
1,1,2-Trichloroethane	U	J4	0.00102	0.00290	1	10/18/2018 16:28	WG1182742
Trichloroethene	0.214		0.000463	0.00116	1	10/18/2018 16:28	WG1182742
Trichlorofluoromethane	U		0.000579	0.00290	1	10/18/2018 16:28	WG1182742
1,2,3-Trichloropropane	U		0.00591	0.0145	1	10/18/2018 16:28	WG1182742
1,2,4-Trimethylbenzene	0.0425	J4	0.00134	0.00579	1	10/18/2018 16:28	WG1182742
1,2,3-Trimethylbenzene	0.0203		0.00133	0.00579	1	10/18/2018 16:28	WG1182742
1,3,5-Trimethylbenzene	0.0118		0.00125	0.00579	1	10/18/2018 16:28	WG1182742
Vinyl acetate	U		0.00408	0.0145	1	10/18/2018 16:28	WG1182742
Vinyl chloride	U		0.000791	0.00290	1	10/18/2018 16:28	WG1182742
Xylenes, Total	0.00973		0.00554	0.00753	1	10/18/2018 16:28	WG1182742
(S) Toluene-d8	*119*			*75.0-131*		*10/18/2018 16:28*	WG1182742
(S) Toluene-d8	*100*			*75.0-131*		*10/21/2018 16:15*	WG1184188
(S) Dibromofluoromethane	*78.2*			*65.0-129*		*10/18/2018 16:28*	WG1182742
(S) Dibromofluoromethane	*117*			*65.0-129*		*10/21/2018 16:15*	WG1184188
(S) 4-Bromofluorobenzene	*93.9*			*67.0-138*		*10/18/2018 16:28*	WG1182742
(S) 4-Bromofluorobenzene	*120*			*67.0-138*		*10/21/2018 16:15*	WG1184188

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	88.3		1	10/19/2018 15:14	WG1183341

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.621	1.13	40	10/21/2018 16:35	WG1184188
Acrylonitrile	U		0.00215	0.0142	1	10/18/2018 16:48	WG1182742
Benzene	U		0.000453	0.00113	1	10/18/2018 16:48	WG1182742
Bromobenzene	U		0.00119	0.0142	1	10/18/2018 16:48	WG1182742
Bromodichloromethane	U		0.000892	0.00283	1	10/18/2018 16:48	WG1182742
Bromochloromethane	U		0.00128	0.00566	1	10/18/2018 16:48	WG1182742
Bromoform	U		0.00677	0.0283	1	10/18/2018 16:48	WG1182742
Bromomethane	U		0.00419	0.0142	1	10/18/2018 16:48	WG1182742
n-Butylbenzene	U		0.00435	0.0142	1	10/18/2018 16:48	WG1182742
sec-Butylbenzene	U		0.00286	0.0142	1	10/18/2018 16:48	WG1182742
tert-Butylbenzene	U		0.00176	0.00566	1	10/18/2018 16:48	WG1182742
Carbon disulfide	U		0.00460	0.0142	1	10/18/2018 16:48	WG1182742
Carbon tetrachloride	U		0.00122	0.00566	1	10/18/2018 16:48	WG1182742
Chlorobenzene	U		0.000649	0.00283	1	10/18/2018 16:48	WG1182742
Chlorodibromomethane	U		0.000510	0.00283	1	10/18/2018 16:48	WG1182742
Chloroethane	U		0.00122	0.00566	1	10/18/2018 16:48	WG1182742
Chloroform	0.000636	J	0.000470	0.00283	1	10/18/2018 16:48	WG1182742
Chloromethane	U		0.00157	0.0142	1	10/18/2018 16:48	WG1182742
2-Chlorotoluene	U		0.00104	0.00283	1	10/18/2018 16:48	WG1182742
4-Chlorotoluene	U		0.00128	0.00566	1	10/18/2018 16:48	WG1182742
1,2-Dibromo-3-Chloropropane	U		0.00577	0.0283	1	10/18/2018 16:48	WG1182742
1,2-Dibromoethane	U		0.000594	0.00283	1	10/18/2018 16:48	WG1182742
Dibromomethane	U	J4	0.00113	0.00566	1	10/18/2018 16:48	WG1182742
1,2-Dichlorobenzene	U		0.00164	0.00566	1	10/18/2018 16:48	WG1182742
1,3-Dichlorobenzene	U		0.00192	0.00566	1	10/18/2018 16:48	WG1182742
1,4-Dichlorobenzene	U		0.00223	0.00566	1	10/18/2018 16:48	WG1182742
Dichlorodifluoromethane	U		0.000926	0.00283	1	10/18/2018 16:48	WG1182742
1,1-Dichloroethane	U		0.000651	0.00283	1	10/18/2018 16:48	WG1182742
1,2-Dichloroethane	U		0.000538	0.00283	1	10/18/2018 16:48	WG1182742
1,1-Dichloroethene	U		0.000566	0.00283	1	10/18/2018 16:48	WG1182742
cis-1,2-Dichloroethene	0.0459		0.000781	0.00283	1	10/18/2018 16:48	WG1182742
trans-1,2-Dichloroethene	U		0.00162	0.00566	1	10/18/2018 16:48	WG1182742
1,2-Dichloropropane	U		0.00144	0.00566	1	10/18/2018 16:48	WG1182742
1,1-Dichloropropene	U		0.000793	0.00283	1	10/18/2018 16:48	WG1182742
1,3-Dichloropropane	U		0.00198	0.00566	1	10/18/2018 16:48	WG1182742
cis-1,3-Dichloropropene	U		0.000768	0.00283	1	10/18/2018 16:48	WG1182742
trans-1,3-Dichloropropene	U		0.00173	0.00566	1	10/18/2018 16:48	WG1182742
trans-1,4-Dichloro-2-butene	U		0.00159	0.00566	1	10/18/2018 16:48	WG1182742
2,2-Dichloropropane	U		0.000898	0.00283	1	10/18/2018 16:48	WG1182742
Di-isopropyl ether	U		0.000396	0.00113	1	10/18/2018 16:48	WG1182742
Ethylbenzene	U		0.000600	0.00283	1	10/18/2018 16:48	WG1182742
Hexachloro-1,3-butadiene	U		0.0144	0.0283	1	10/18/2018 16:48	WG1182742
2-Hexanone	U		0.0113	0.0283	1	10/18/2018 16:48	WG1182742
n-Hexane	U		0.00120	0.00566	1	10/18/2018 16:48	WG1182742
Iodomethane	U		0.00685	0.0142	1	10/18/2018 16:48	WG1182742
Isopropylbenzene	U		0.000977	0.00283	1	10/18/2018 16:48	WG1182742
p-Isopropyltoluene	U		0.00264	0.00566	1	10/18/2018 16:48	WG1182742
2-Butanone (MEK)	U		0.0142	0.0283	1	10/18/2018 16:48	WG1182742
Methylene Chloride	U		0.00752	0.0283	1	10/18/2018 16:48	WG1182742
4-Methyl-2-pentanone (MIBK)	U		0.0113	0.0283	1	10/18/2018 16:48	WG1182742

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000334	0.00113	1	10/18/2018 16:48	WG1182742
Naphthalene	U		0.00353	0.0142	1	10/18/2018 16:48	WG1182742
n-Propylbenzene	U		0.00134	0.00566	1	10/18/2018 16:48	WG1182742
Styrene	U		0.00309	0.0142	1	10/18/2018 16:48	WG1182742
1,1,1,2-Tetrachloroethane	U		0.000566	0.00283	1	10/18/2018 16:48	WG1182742
1,1,2,2-Tetrachloroethane	U		0.000442	0.00283	1	10/18/2018 16:48	WG1182742
1,1,2-Trichlorotrifluoroethane	U		0.000764	0.00283	1	10/18/2018 16:48	WG1182742
Tetrachloroethene	8.35	J0	0.0317	0.113	40	10/21/2018 16:35	WG1184188
Toluene	U		0.00142	0.00566	1	10/18/2018 16:48	WG1182742
1,2,3-Trichlorobenzene	U		0.000708	0.00283	1	10/18/2018 16:48	WG1182742
1,2,4-Trichlorobenzene	U		0.00546	0.0142	1	10/18/2018 16:48	WG1182742
1,1,1-Trichloroethane	U		0.000311	0.00283	1	10/18/2018 16:48	WG1182742
1,1,2-Trichloroethane	U	J4	0.00100	0.00283	1	10/18/2018 16:48	WG1182742
Trichloroethene	0.150		0.000453	0.00113	1	10/18/2018 16:48	WG1182742
Trichlorofluoromethane	U		0.000566	0.00283	1	10/18/2018 16:48	WG1182742
1,2,3-Trichloropropane	U		0.00577	0.0142	1	10/18/2018 16:48	WG1182742
1,2,4-Trimethylbenzene	U	J4	0.00131	0.00566	1	10/18/2018 16:48	WG1182742
1,2,3-Trimethylbenzene	U		0.00130	0.00566	1	10/18/2018 16:48	WG1182742
1,3,5-Trimethylbenzene	U		0.00122	0.00566	1	10/18/2018 16:48	WG1182742
Vinyl acetate	U		0.00399	0.0142	1	10/18/2018 16:48	WG1182742
Vinyl chloride	U		0.000773	0.00283	1	10/18/2018 16:48	WG1182742
Xylenes, Total	U		0.00541	0.00736	1	10/18/2018 16:48	WG1182742
(S) Toluene-d8	*117*			*75.0-131*		*10/18/2018 16:48*	WG1182742
(S) Toluene-d8	*98.2*			*75.0-131*		*10/21/2018 16:35*	WG1184188
(S) Dibromofluoromethane	*79.4*			*65.0-129*		*10/18/2018 16:48*	WG1182742
(S) Dibromofluoromethane	*117*			*65.0-129*		*10/21/2018 16:35*	WG1184188
(S) 4-Bromofluorobenzene	*105*			*67.0-138*		*10/18/2018 16:48*	WG1182742
(S) 4-Bromofluorobenzene	*126*			*67.0-138*		*10/21/2018 16:35*	WG1184188

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	84.6		1	10/16/2018 14:25	WG1181703

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		11.3	20.7	700	10/17/2018 13:12	WG1182096
Acrylonitrile	U		0.00224	0.0148	1	10/16/2018 19:01	WG1181654
Benzene	U		0.000473	0.00118	1	10/16/2018 19:01	WG1181654
Bromobenzene	U		0.00124	0.0148	1	10/16/2018 19:01	WG1181654
Bromodichloromethane	U		0.000931	0.00295	1	10/16/2018 19:01	WG1181654
Bromochloromethane	U		0.00134	0.00591	1	10/16/2018 19:01	WG1181654
Bromoform	U		0.00707	0.0295	1	10/16/2018 19:01	WG1181654
Bromomethane	U		0.00437	0.0148	1	10/16/2018 19:01	WG1181654
n-Butylbenzene	U		0.00454	0.0148	1	10/16/2018 19:01	WG1181654
sec-Butylbenzene	U		0.00299	0.0148	1	10/16/2018 19:01	WG1181654
tert-Butylbenzene	U		0.00183	0.00591	1	10/16/2018 19:01	WG1181654
Carbon disulfide	U		0.00480	0.0148	1	10/16/2018 19:01	WG1181654
Carbon tetrachloride	U		0.00128	0.00591	1	10/16/2018 19:01	WG1181654
Chlorobenzene	U		0.000677	0.00295	1	10/16/2018 19:01	WG1181654
Chlorodibromomethane	U		0.000532	0.00295	1	10/16/2018 19:01	WG1181654
Chloroethane	U		0.00128	0.00591	1	10/16/2018 19:01	WG1181654
Chloroform	U		0.000490	0.00295	1	10/16/2018 19:01	WG1181654
Chloromethane	U		0.00164	0.0148	1	10/16/2018 19:01	WG1181654
2-Chlorotoluene	U		0.00109	0.00295	1	10/16/2018 19:01	WG1181654
4-Chlorotoluene	U		0.00134	0.00591	1	10/16/2018 19:01	WG1181654
1,2-Dibromo-3-Chloropropane	U		0.00603	0.0295	1	10/16/2018 19:01	WG1181654
1,2-Dibromoethane	U		0.000620	0.00295	1	10/16/2018 19:01	WG1181654
Dibromomethane	U	J4	0.00118	0.00591	1	10/16/2018 19:01	WG1181654
1,2-Dichlorobenzene	U		0.00171	0.00591	1	10/16/2018 19:01	WG1181654
1,3-Dichlorobenzene	U		0.00201	0.00591	1	10/16/2018 19:01	WG1181654
1,4-Dichlorobenzene	U		0.00233	0.00591	1	10/16/2018 19:01	WG1181654
Dichlorodifluoromethane	U		0.000966	0.00295	1	10/16/2018 19:01	WG1181654
1,1-Dichloroethane	U		0.000679	0.00295	1	10/16/2018 19:01	WG1181654
1,2-Dichloroethane	U		0.000561	0.00295	1	10/16/2018 19:01	WG1181654
1,1-Dichloroethene	U		0.000591	0.00295	1	10/16/2018 19:01	WG1181654
cis-1,2-Dichloroethene	0.558		0.000815	0.00295	1	10/16/2018 19:01	WG1181654
trans-1,2-Dichloroethene	0.00420	J	0.00169	0.00591	1	10/16/2018 19:01	WG1181654
1,2-Dichloropropane	U		0.00150	0.00591	1	10/16/2018 19:01	WG1181654
1,1-Dichloropropene	U		0.000827	0.00295	1	10/16/2018 19:01	WG1181654
1,3-Dichloropropane	U		0.00207	0.00591	1	10/16/2018 19:01	WG1181654
cis-1,3-Dichloropropene	U		0.000801	0.00295	1	10/16/2018 19:01	WG1181654
trans-1,3-Dichloropropene	U		0.00181	0.00591	1	10/16/2018 19:01	WG1181654
trans-1,4-Dichloro-2-butene	U		0.00165	0.00591	1	10/16/2018 19:01	WG1181654
2,2-Dichloropropane	U		0.000937	0.00295	1	10/16/2018 19:01	WG1181654
Di-isopropyl ether	U		0.000414	0.00118	1	10/16/2018 19:01	WG1181654
Ethylbenzene	U		0.000626	0.00295	1	10/16/2018 19:01	WG1181654
Hexachloro-1,3-butadiene	U		0.0150	0.0295	1	10/16/2018 19:01	WG1181654
2-Hexanone	U		0.0118	0.0295	1	10/16/2018 19:01	WG1181654
n-Hexane	U		0.00125	0.00591	1	10/16/2018 19:01	WG1181654
Iodomethane	U		0.00715	0.0148	1	10/16/2018 19:01	WG1181654
Isopropylbenzene	U		0.00102	0.00295	1	10/16/2018 19:01	WG1181654
p-Isopropyltoluene	U		0.00275	0.00591	1	10/16/2018 19:01	WG1181654
2-Butanone (MEK)	U		0.0148	0.0295	1	10/16/2018 19:01	WG1181654
Methylene Chloride	U		0.00785	0.0295	1	10/16/2018 19:01	WG1181654
4-Methyl-2-pentanone (MIBK)	U		0.0118	0.0295	1	10/16/2018 19:01	WG1181654

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U	J0	0.000349	0.00118	1	10/16/2018 19:01	WG1181654
Naphthalene	U		0.00369	0.0148	1	10/16/2018 19:01	WG1181654
n-Propylbenzene	U		0.00139	0.00591	1	10/16/2018 19:01	WG1181654
Styrene	U		0.00323	0.0148	1	10/16/2018 19:01	WG1181654
1,1,1,2-Tetrachloroethane	U		0.000591	0.00295	1	10/16/2018 19:01	WG1181654
1,1,2,2-Tetrachloroethane	U	J4	0.000461	0.00295	1	10/16/2018 19:01	WG1181654
1,1,2-Trichlorotrifluoroethane	U		0.000798	0.00295	1	10/16/2018 19:01	WG1181654
Tetrachloroethene	10.3		0.579	2.07	700	10/17/2018 13:12	WG1182096
Toluene	U		0.00148	0.00591	1	10/16/2018 19:01	WG1181654
1,2,3-Trichlorobenzene	U		0.000738	0.00295	1	10/16/2018 19:01	WG1181654
1,2,4-Trichlorobenzene	U		0.00569	0.0148	1	10/16/2018 19:01	WG1181654
1,1,1-Trichloroethane	U		0.000325	0.00295	1	10/16/2018 19:01	WG1181654
1,1,2-Trichloroethane	U	J4	0.00104	0.00295	1	10/16/2018 19:01	WG1181654
Trichloroethene	0.661		0.000473	0.00118	1	10/16/2018 19:01	WG1181654
Trichlorofluoromethane	U		0.000591	0.00295	1	10/16/2018 19:01	WG1181654
1,2,3-Trichloropropane	U		0.00603	0.0148	1	10/16/2018 19:01	WG1181654
1,2,4-Trimethylbenzene	U		0.00137	0.00591	1	10/16/2018 19:01	WG1181654
1,2,3-Trimethylbenzene	U		0.00136	0.00591	1	10/16/2018 19:01	WG1181654
1,3,5-Trimethylbenzene	U		0.00128	0.00591	1	10/16/2018 19:01	WG1181654
Vinyl acetate	U		0.00416	0.0148	1	10/16/2018 19:01	WG1181654
Vinyl chloride	U		0.000807	0.00295	1	10/16/2018 19:01	WG1181654
Xylenes, Total	U		0.00565	0.00768	1	10/16/2018 19:01	WG1181654
(S) Toluene-d8	*118*			*75.0-131*		*10/16/2018 19:01*	WG1181654
(S) Toluene-d8	*99.4*			*75.0-131*		*10/17/2018 13:12*	WG1182096
(S) Dibromofluoromethane	*74.9*			*65.0-129*		*10/16/2018 19:01*	WG1181654
(S) Dibromofluoromethane	*119*			*65.0-129*		*10/17/2018 13:12*	WG1182096
(S) 4-Bromofluorobenzene	*88.6*			*67.0-138*		*10/16/2018 19:01*	WG1181654
(S) 4-Bromofluorobenzene	*119*			*67.0-138*		*10/17/2018 13:12*	WG1182096

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	90.6		1	10/19/2018 15:14	WG1183341

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0151	0.0276	1	10/21/2018 14:36	WG1184188
Acrylonitrile	U		0.00210	0.0138	1	10/18/2018 17:07	WG1182742
Benzene	U		0.000442	0.00110	1	10/18/2018 17:07	WG1182742
Bromobenzene	U		0.00116	0.0138	1	10/18/2018 17:07	WG1182742
Bromodichloromethane	U		0.000870	0.00276	1	10/18/2018 17:07	WG1182742
Bromochloromethane	U		0.00125	0.00552	1	10/18/2018 17:07	WG1182742
Bromoform	U		0.00660	0.0276	1	10/18/2018 17:07	WG1182742
Bromomethane	U		0.00409	0.0138	1	10/18/2018 17:07	WG1182742
n-Butylbenzene	U		0.00424	0.0138	1	10/18/2018 17:07	WG1182742
sec-Butylbenzene	U		0.00279	0.0138	1	10/18/2018 17:07	WG1182742
tert-Butylbenzene	U		0.00171	0.00552	1	10/18/2018 17:07	WG1182742
Carbon disulfide	U		0.00448	0.0138	1	10/18/2018 17:07	WG1182742
Carbon tetrachloride	U		0.00119	0.00552	1	10/18/2018 17:07	WG1182742
Chlorobenzene	U		0.000633	0.00276	1	10/18/2018 17:07	WG1182742
Chlorodibromomethane	U		0.000497	0.00276	1	10/18/2018 17:07	WG1182742
Chloroethane	U		0.00119	0.00552	1	10/18/2018 17:07	WG1182742
Chloroform	0.000710	J	0.000458	0.00276	1	10/18/2018 17:07	WG1182742
Chloromethane	U		0.00153	0.0138	1	10/18/2018 17:07	WG1182742
2-Chlorotoluene	U		0.00102	0.00276	1	10/18/2018 17:07	WG1182742
4-Chlorotoluene	U		0.00125	0.00552	1	10/18/2018 17:07	WG1182742
1,2-Dibromo-3-Chloropropane	U		0.00563	0.0276	1	10/18/2018 17:07	WG1182742
1,2-Dibromoethane	U		0.000580	0.00276	1	10/18/2018 17:07	WG1182742
Dibromomethane	U	J4	0.00110	0.00552	1	10/18/2018 17:07	WG1182742
1,2-Dichlorobenzene	U		0.00160	0.00552	1	10/18/2018 17:07	WG1182742
1,3-Dichlorobenzene	U		0.00188	0.00552	1	10/18/2018 17:07	WG1182742
1,4-Dichlorobenzene	U		0.00218	0.00552	1	10/18/2018 17:07	WG1182742
Dichlorodifluoromethane	U		0.000903	0.00276	1	10/18/2018 17:07	WG1182742
1,1-Dichloroethane	U		0.000635	0.00276	1	10/18/2018 17:07	WG1182742
1,2-Dichloroethane	U		0.000524	0.00276	1	10/18/2018 17:07	WG1182742
1,1-Dichloroethene	U		0.000552	0.00276	1	10/18/2018 17:07	WG1182742
cis-1,2-Dichloroethene	0.00164	J	0.000762	0.00276	1	10/18/2018 17:07	WG1182742
trans-1,2-Dichloroethene	U		0.00158	0.00552	1	10/18/2018 17:07	WG1182742
1,2-Dichloropropane	U		0.00140	0.00552	1	10/18/2018 17:07	WG1182742
1,1-Dichloropropene	U		0.000773	0.00276	1	10/18/2018 17:07	WG1182742
1,3-Dichloropropane	U		0.00193	0.00552	1	10/18/2018 17:07	WG1182742
cis-1,3-Dichloropropene	U		0.000749	0.00276	1	10/18/2018 17:07	WG1182742
trans-1,3-Dichloropropene	U		0.00169	0.00552	1	10/18/2018 17:07	WG1182742
trans-1,4-Dichloro-2-butene	U		0.00155	0.00552	1	10/18/2018 17:07	WG1182742
2,2-Dichloropropane	U		0.000876	0.00276	1	10/18/2018 17:07	WG1182742
Di-isopropyl ether	U		0.000386	0.00110	1	10/18/2018 17:07	WG1182742
Ethylbenzene	U		0.000585	0.00276	1	10/18/2018 17:07	WG1182742
Hexachloro-1,3-butadiene	U		0.0140	0.0276	1	10/18/2018 17:07	WG1182742
2-Hexanone	U		0.0110	0.0276	1	10/18/2018 17:07	WG1182742
n-Hexane	0.00136	J	0.00117	0.00552	1	10/18/2018 17:07	WG1182742
Iodomethane	U		0.00668	0.0138	1	10/18/2018 17:07	WG1182742
Isopropylbenzene	U		0.000953	0.00276	1	10/18/2018 17:07	WG1182742
p-Isopropyltoluene	U		0.00257	0.00552	1	10/18/2018 17:07	WG1182742
2-Butanone (MEK)	U		0.0138	0.0276	1	10/18/2018 17:07	WG1182742
Methylene Chloride	U		0.00733	0.0276	1	10/18/2018 17:07	WG1182742
4-Methyl-2-pentanone (MIBK)	U		0.0110	0.0276	1	10/18/2018 17:07	WG1182742

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000326	0.00110	1	10/18/2018 17:07	WG1182742
Naphthalene	U		0.00345	0.0138	1	10/18/2018 17:07	WG1182742
n-Propylbenzene	U		0.00130	0.00552	1	10/18/2018 17:07	WG1182742
Styrene	U		0.00301	0.0138	1	10/18/2018 17:07	WG1182742
1,1,1,2-Tetrachloroethane	U		0.000552	0.00276	1	10/18/2018 17:07	WG1182742
1,1,2,2-Tetrachloroethane	U		0.000431	0.00276	1	10/18/2018 17:07	WG1182742
1,1,2-Trichlorotrifluoroethane	U		0.000745	0.00276	1	10/18/2018 17:07	WG1182742
Tetrachloroethene	0.701	J4	0.000773	0.00276	1	10/18/2018 17:07	WG1182742
Toluene	U		0.00138	0.00552	1	10/18/2018 17:07	WG1182742
1,2,3-Trichlorobenzene	U		0.000690	0.00276	1	10/18/2018 17:07	WG1182742
1,2,4-Trichlorobenzene	U		0.00532	0.0138	1	10/18/2018 17:07	WG1182742
1,1,1-Trichloroethane	U		0.000304	0.00276	1	10/18/2018 17:07	WG1182742
1,1,2-Trichloroethane	U	J4	0.000975	0.00276	1	10/18/2018 17:07	WG1182742
Trichloroethene	0.00576		0.000442	0.00110	1	10/18/2018 17:07	WG1182742
Trichlorofluoromethane	U		0.000552	0.00276	1	10/18/2018 17:07	WG1182742
1,2,3-Trichloropropane	U		0.00563	0.0138	1	10/18/2018 17:07	WG1182742
1,2,4-Trimethylbenzene	U	J4	0.00128	0.00552	1	10/18/2018 17:07	WG1182742
1,2,3-Trimethylbenzene	U		0.00127	0.00552	1	10/18/2018 17:07	WG1182742
1,3,5-Trimethylbenzene	U		0.00119	0.00552	1	10/18/2018 17:07	WG1182742
Vinyl acetate	U		0.00389	0.0138	1	10/18/2018 17:07	WG1182742
Vinyl chloride	U		0.000754	0.00276	1	10/18/2018 17:07	WG1182742
Xylenes, Total	U		0.00528	0.00718	1	10/18/2018 17:07	WG1182742
(S) Toluene-d8	*118*			*75.0-131*		*10/18/2018 17:07*	WG1182742
(S) Toluene-d8	*100*			*75.0-131*		*10/21/2018 14:36*	WG1184188
(S) Dibromofluoromethane	*78.3*			*65.0-129*		*10/18/2018 17:07*	WG1182742
(S) Dibromofluoromethane	*113*			*65.0-129*		*10/21/2018 14:36*	WG1184188
(S) 4-Bromofluorobenzene	*87.0*			*67.0-138*		*10/18/2018 17:07*	WG1182742
(S) 4-Bromofluorobenzene	*120*			*67.0-138*		*10/21/2018 14:36*	WG1184188

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	89.8		1	10/19/2018 13:51	WG1183343

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.122	0.223	8	10/21/2018 16:55	WG1184188
Acrylonitrile	U		0.00212	0.0139	1	10/18/2018 17:27	WG1182742
Benzene	U		0.000445	0.00111	1	10/18/2018 17:27	WG1182742
Bromobenzene	U		0.00117	0.0139	1	10/18/2018 17:27	WG1182742
Bromodichloromethane	U		0.000877	0.00278	1	10/18/2018 17:27	WG1182742
Bromochloromethane	U		0.00126	0.00557	1	10/18/2018 17:27	WG1182742
Bromoform	U		0.00666	0.0278	1	10/18/2018 17:27	WG1182742
Bromomethane	U		0.00412	0.0139	1	10/18/2018 17:27	WG1182742
n-Butylbenzene	U		0.00428	0.0139	1	10/18/2018 17:27	WG1182742
sec-Butylbenzene	U		0.00282	0.0139	1	10/18/2018 17:27	WG1182742
tert-Butylbenzene	U		0.00173	0.00557	1	10/18/2018 17:27	WG1182742
Carbon disulfide	U		0.00452	0.0139	1	10/18/2018 17:27	WG1182742
Carbon tetrachloride	U		0.00120	0.00557	1	10/18/2018 17:27	WG1182742
Chlorobenzene	U		0.000638	0.00278	1	10/18/2018 17:27	WG1182742
Chlorodibromomethane	U		0.000501	0.00278	1	10/18/2018 17:27	WG1182742
Chloroethane	U		0.00120	0.00557	1	10/18/2018 17:27	WG1182742
Chloroform	U		0.000462	0.00278	1	10/18/2018 17:27	WG1182742
Chloromethane	U		0.00155	0.0139	1	10/18/2018 17:27	WG1182742
2-Chlorotoluene	U		0.00102	0.00278	1	10/18/2018 17:27	WG1182742
4-Chlorotoluene	U		0.00126	0.00557	1	10/18/2018 17:27	WG1182742
1,2-Dibromo-3-Chloropropane	U		0.00568	0.0278	1	10/18/2018 17:27	WG1182742
1,2-Dibromoethane	U		0.000585	0.00278	1	10/18/2018 17:27	WG1182742
Dibromomethane	U	J4	0.00111	0.00557	1	10/18/2018 17:27	WG1182742
1,2-Dichlorobenzene	U		0.00161	0.00557	1	10/18/2018 17:27	WG1182742
1,3-Dichlorobenzene	U		0.00189	0.00557	1	10/18/2018 17:27	WG1182742
1,4-Dichlorobenzene	U		0.00219	0.00557	1	10/18/2018 17:27	WG1182742
Dichlorodifluoromethane	U		0.000911	0.00278	1	10/18/2018 17:27	WG1182742
1,1-Dichloroethane	U		0.000640	0.00278	1	10/18/2018 17:27	WG1182742
1,2-Dichloroethane	U		0.000529	0.00278	1	10/18/2018 17:27	WG1182742
1,1-Dichloroethene	U		0.000557	0.00278	1	10/18/2018 17:27	WG1182742
cis-1,2-Dichloroethene	0.00387		0.000768	0.00278	1	10/18/2018 17:27	WG1182742
trans-1,2-Dichloroethene	U		0.00159	0.00557	1	10/18/2018 17:27	WG1182742
1,2-Dichloropropane	U		0.00141	0.00557	1	10/18/2018 17:27	WG1182742
1,1-Dichloropropene	U		0.000779	0.00278	1	10/18/2018 17:27	WG1182742
1,3-Dichloropropane	U		0.00195	0.00557	1	10/18/2018 17:27	WG1182742
cis-1,3-Dichloropropene	U		0.000755	0.00278	1	10/18/2018 17:27	WG1182742
trans-1,3-Dichloropropene	U		0.00170	0.00557	1	10/18/2018 17:27	WG1182742
trans-1,4-Dichloro-2-butene	U		0.00156	0.00557	1	10/18/2018 17:27	WG1182742
2,2-Dichloropropane	U		0.000883	0.00278	1	10/18/2018 17:27	WG1182742
Di-isopropyl ether	U		0.000390	0.00111	1	10/18/2018 17:27	WG1182742
Ethylbenzene	U		0.000590	0.00278	1	10/18/2018 17:27	WG1182742
Hexachloro-1,3-butadiene	U		0.0141	0.0278	1	10/18/2018 17:27	WG1182742
2-Hexanone	U		0.0111	0.0278	1	10/18/2018 17:27	WG1182742
n-Hexane	U		0.00118	0.00557	1	10/18/2018 17:27	WG1182742
Iodomethane	U		0.00674	0.0139	1	10/18/2018 17:27	WG1182742
Isopropylbenzene	U		0.000961	0.00278	1	10/18/2018 17:27	WG1182742
p-Isopropyltoluene	U		0.00259	0.00557	1	10/18/2018 17:27	WG1182742
2-Butanone (MEK)	U		0.0139	0.0278	1	10/18/2018 17:27	WG1182742
Methylene Chloride	U		0.00739	0.0278	1	10/18/2018 17:27	WG1182742
4-Methyl-2-pentanone (MIBK)	U		0.0111	0.0278	1	10/18/2018 17:27	WG1182742

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000328	0.00111	1	10/18/2018 17:27	WG1182742
Naphthalene	U		0.00347	0.0139	1	10/18/2018 17:27	WG1182742
n-Propylbenzene	U		0.00131	0.00557	1	10/18/2018 17:27	WG1182742
Styrene	U		0.00304	0.0139	1	10/18/2018 17:27	WG1182742
1,1,1,2-Tetrachloroethane	U		0.000557	0.00278	1	10/18/2018 17:27	WG1182742
1,1,2,2-Tetrachloroethane	U		0.000434	0.00278	1	10/18/2018 17:27	WG1182742
1,1,2-Trichlorotrifluoroethane	U		0.000752	0.00278	1	10/18/2018 17:27	WG1182742
Tetrachloroethene	1.81	J0	0.00624	0.0223	8	10/21/2018 16:55	WG1184188
Toluene	U		0.00139	0.00557	1	10/18/2018 17:27	WG1182742
1,2,3-Trichlorobenzene	U		0.000696	0.00278	1	10/18/2018 17:27	WG1182742
1,2,4-Trichlorobenzene	U		0.00537	0.0139	1	10/18/2018 17:27	WG1182742
1,1,1-Trichloroethane	U		0.000306	0.00278	1	10/18/2018 17:27	WG1182742
1,1,2-Trichloroethane	U	J4	0.000983	0.00278	1	10/18/2018 17:27	WG1182742
Trichloroethene	0.0269		0.000445	0.00111	1	10/18/2018 17:27	WG1182742
Trichlorofluoromethane	U		0.000557	0.00278	1	10/18/2018 17:27	WG1182742
1,2,3-Trichloropropane	U		0.00568	0.0139	1	10/18/2018 17:27	WG1182742
1,2,4-Trimethylbenzene	U	J4	0.00129	0.00557	1	10/18/2018 17:27	WG1182742
1,2,3-Trimethylbenzene	U		0.00128	0.00557	1	10/18/2018 17:27	WG1182742
1,3,5-Trimethylbenzene	U		0.00120	0.00557	1	10/18/2018 17:27	WG1182742
Vinyl acetate	U		0.00392	0.0139	1	10/18/2018 17:27	WG1182742
Vinyl chloride	U		0.000760	0.00278	1	10/18/2018 17:27	WG1182742
Xylenes, Total	U		0.00532	0.00724	1	10/18/2018 17:27	WG1182742
(S) Toluene-d8	*118*			*75.0-131*		*10/18/2018 17:27*	WG1182742
(S) Toluene-d8	*101*			*75.0-131*		*10/21/2018 16:55*	WG1184188
(S) Dibromofluoromethane	*76.6*			*65.0-129*		*10/18/2018 17:27*	WG1182742
(S) Dibromofluoromethane	*117*			*65.0-129*		*10/21/2018 16:55*	WG1184188
(S) 4-Bromofluorobenzene	*105*			*67.0-138*		*10/18/2018 17:27*	WG1182742
(S) 4-Bromofluorobenzene	*124*			*67.0-138*		*10/21/2018 16:55*	WG1184188

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	89.9		1	10/19/2018 13:51	WG1183343

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		1.22	2.22	80	10/21/2018 17:15	WG1184188
Acrylonitrile	U		0.00211	0.0139	1	10/18/2018 17:47	WG1182742
Benzene	U		0.000445	0.00111	1	10/18/2018 17:47	WG1182742
Bromobenzene	U		0.00117	0.0139	1	10/18/2018 17:47	WG1182742
Bromodichloromethane	U		0.000877	0.00278	1	10/18/2018 17:47	WG1182742
Bromochloromethane	U		0.00126	0.00556	1	10/18/2018 17:47	WG1182742
Bromoform	U		0.00665	0.0278	1	10/18/2018 17:47	WG1182742
Bromomethane	U		0.00412	0.0139	1	10/18/2018 17:47	WG1182742
n-Butylbenzene	U		0.00427	0.0139	1	10/18/2018 17:47	WG1182742
sec-Butylbenzene	U		0.00281	0.0139	1	10/18/2018 17:47	WG1182742
tert-Butylbenzene	U		0.00172	0.00556	1	10/18/2018 17:47	WG1182742
Carbon disulfide	U		0.00452	0.0139	1	10/18/2018 17:47	WG1182742
Carbon tetrachloride	U		0.00120	0.00556	1	10/18/2018 17:47	WG1182742
Chlorobenzene	U		0.000637	0.00278	1	10/18/2018 17:47	WG1182742
Chlorodibromomethane	U		0.000501	0.00278	1	10/18/2018 17:47	WG1182742
Chloroethane	U		0.00120	0.00556	1	10/18/2018 17:47	WG1182742
Chloroform	0.000645	J	0.000462	0.00278	1	10/18/2018 17:47	WG1182742
Chloromethane	U		0.00155	0.0139	1	10/18/2018 17:47	WG1182742
2-Chlorotoluene	U		0.00102	0.00278	1	10/18/2018 17:47	WG1182742
4-Chlorotoluene	U		0.00126	0.00556	1	10/18/2018 17:47	WG1182742
1,2-Dibromo-3-Chloropropane	U		0.00567	0.0278	1	10/18/2018 17:47	WG1182742
1,2-Dibromoethane	U		0.000584	0.00278	1	10/18/2018 17:47	WG1182742
Dibromomethane	U	J4	0.00111	0.00556	1	10/18/2018 17:47	WG1182742
1,2-Dichlorobenzene	U		0.00161	0.00556	1	10/18/2018 17:47	WG1182742
1,3-Dichlorobenzene	U		0.00189	0.00556	1	10/18/2018 17:47	WG1182742
1,4-Dichlorobenzene	U		0.00219	0.00556	1	10/18/2018 17:47	WG1182742
Dichlorodifluoromethane	U		0.000910	0.00278	1	10/18/2018 17:47	WG1182742
1,1-Dichloroethane	U		0.000640	0.00278	1	10/18/2018 17:47	WG1182742
1,2-Dichloroethane	U		0.000528	0.00278	1	10/18/2018 17:47	WG1182742
1,1-Dichloroethene	U		0.000556	0.00278	1	10/18/2018 17:47	WG1182742
cis-1,2-Dichloroethene	0.123		0.000768	0.00278	1	10/18/2018 17:47	WG1182742
trans-1,2-Dichloroethene	0.00166	J	0.00159	0.00556	1	10/18/2018 17:47	WG1182742
1,2-Dichloropropane	U		0.00141	0.00556	1	10/18/2018 17:47	WG1182742
1,1-Dichloropropene	U		0.000779	0.00278	1	10/18/2018 17:47	WG1182742
1,3-Dichloropropane	U		0.00195	0.00556	1	10/18/2018 17:47	WG1182742
cis-1,3-Dichloropropene	U		0.000754	0.00278	1	10/18/2018 17:47	WG1182742
trans-1,3-Dichloropropene	U		0.00170	0.00556	1	10/18/2018 17:47	WG1182742
trans-1,4-Dichloro-2-butene	U		0.00156	0.00556	1	10/18/2018 17:47	WG1182742
2,2-Dichloropropane	U		0.000882	0.00278	1	10/18/2018 17:47	WG1182742
Di-isopropyl ether	U		0.000389	0.00111	1	10/18/2018 17:47	WG1182742
Ethylbenzene	U		0.000590	0.00278	1	10/18/2018 17:47	WG1182742
Hexachloro-1,3-butadiene	U		0.0141	0.0278	1	10/18/2018 17:47	WG1182742
2-Hexanone	U		0.0111	0.0278	1	10/18/2018 17:47	WG1182742
n-Hexane	0.00119	J	0.00118	0.00556	1	10/18/2018 17:47	WG1182742
Iodomethane	U		0.00673	0.0139	1	10/18/2018 17:47	WG1182742
Isopropylbenzene	U		0.000960	0.00278	1	10/18/2018 17:47	WG1182742
p-Isopropyltoluene	U		0.00259	0.00556	1	10/18/2018 17:47	WG1182742
2-Butanone (MEK)	U		0.0139	0.0278	1	10/18/2018 17:47	WG1182742
Methylene Chloride	U		0.00739	0.0278	1	10/18/2018 17:47	WG1182742
4-Methyl-2-pentanone (MIBK)	U		0.0111	0.0278	1	10/18/2018 17:47	WG1182742

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000328	0.00111	1	10/18/2018 17:47	WG1182742
Naphthalene	U		0.00347	0.0139	1	10/18/2018 17:47	WG1182742
n-Propylbenzene	U		0.00131	0.00556	1	10/18/2018 17:47	WG1182742
Styrene	U		0.00304	0.0139	1	10/18/2018 17:47	WG1182742
1,1,1,2-Tetrachloroethane	U		0.000556	0.00278	1	10/18/2018 17:47	WG1182742
1,1,2,2-Tetrachloroethane	U		0.000434	0.00278	1	10/18/2018 17:47	WG1182742
1,1,2-Trichlorotrifluoroethane	U		0.000751	0.00278	1	10/18/2018 17:47	WG1182742
Tetrachloroethene	21.7	J0	0.0623	0.222	80	10/21/2018 17:15	WG1184188
Toluene	U		0.00139	0.00556	1	10/18/2018 17:47	WG1182742
1,2,3-Trichlorobenzene	U		0.000695	0.00278	1	10/18/2018 17:47	WG1182742
1,2,4-Trichlorobenzene	U		0.00536	0.0139	1	10/18/2018 17:47	WG1182742
1,1,1-Trichloroethane	U		0.000306	0.00278	1	10/18/2018 17:47	WG1182742
1,1,2-Trichloroethane	U	J4	0.000982	0.00278	1	10/18/2018 17:47	WG1182742
Trichloroethene	0.0762		0.000445	0.00111	1	10/18/2018 17:47	WG1182742
Trichlorofluoromethane	U		0.000556	0.00278	1	10/18/2018 17:47	WG1182742
1,2,3-Trichloropropane	U		0.00567	0.0139	1	10/18/2018 17:47	WG1182742
1,2,4-Trimethylbenzene	U	J4	0.00129	0.00556	1	10/18/2018 17:47	WG1182742
1,2,3-Trimethylbenzene	U		0.00128	0.00556	1	10/18/2018 17:47	WG1182742
1,3,5-Trimethylbenzene	U		0.00120	0.00556	1	10/18/2018 17:47	WG1182742
Vinyl acetate	U		0.00392	0.0139	1	10/18/2018 17:47	WG1182742
Vinyl chloride	U		0.000760	0.00278	1	10/18/2018 17:47	WG1182742
Xylenes, Total	U		0.00532	0.00723	1	10/18/2018 17:47	WG1182742
(S) Toluene-d8	*118*			*75.0-131*		*10/18/2018 17:47*	WG1182742
(S) Toluene-d8	*98.7*			*75.0-131*		*10/21/2018 17:15*	WG1184188
(S) Dibromofluoromethane	*79.0*			*65.0-129*		*10/18/2018 17:47*	WG1182742
(S) Dibromofluoromethane	*119*			*65.0-129*		*10/21/2018 17:15*	WG1184188
(S) 4-Bromofluorobenzene	*89.3*			*67.0-138*		*10/18/2018 17:47*	WG1182742
(S) 4-Bromofluorobenzene	*125*			*67.0-138*		*10/21/2018 17:15*	WG1184188

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	89.0		1	10/19/2018 13:51	WG1183343

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		1.24	2.25	80	10/21/2018 17:35	WG1184188
Acrylonitrile	U		0.00213	0.0140	1	10/18/2018 18:07	WG1182742
Benzene	U		0.000449	0.00112	1	10/18/2018 18:07	WG1182742
Bromobenzene	U		0.00118	0.0140	1	10/18/2018 18:07	WG1182742
Bromodichloromethane	U		0.000885	0.00281	1	10/18/2018 18:07	WG1182742
Bromochloromethane	U		0.00127	0.00562	1	10/18/2018 18:07	WG1182742
Bromoform	U		0.00672	0.0281	1	10/18/2018 18:07	WG1182742
Bromomethane	U		0.00416	0.0140	1	10/18/2018 18:07	WG1182742
n-Butylbenzene	U		0.00431	0.0140	1	10/18/2018 18:07	WG1182742
sec-Butylbenzene	U		0.00284	0.0140	1	10/18/2018 18:07	WG1182742
tert-Butylbenzene	U		0.00174	0.00562	1	10/18/2018 18:07	WG1182742
Carbon disulfide	U		0.00456	0.0140	1	10/18/2018 18:07	WG1182742
Carbon tetrachloride	U		0.00121	0.00562	1	10/18/2018 18:07	WG1182742
Chlorobenzene	U		0.000644	0.00281	1	10/18/2018 18:07	WG1182742
Chlorodibromomethane	U		0.000505	0.00281	1	10/18/2018 18:07	WG1182742
Chloroethane	U		0.00121	0.00562	1	10/18/2018 18:07	WG1182742
Chloroform	0.000708	J	0.000466	0.00281	1	10/18/2018 18:07	WG1182742
Chloromethane	U		0.00156	0.0140	1	10/18/2018 18:07	WG1182742
2-Chlorotoluene	U		0.00103	0.00281	1	10/18/2018 18:07	WG1182742
4-Chlorotoluene	U		0.00127	0.00562	1	10/18/2018 18:07	WG1182742
1,2-Dibromo-3-Chloropropane	U		0.00573	0.0281	1	10/18/2018 18:07	WG1182742
1,2-Dibromoethane	U		0.000590	0.00281	1	10/18/2018 18:07	WG1182742
Dibromomethane	U	J4	0.00112	0.00562	1	10/18/2018 18:07	WG1182742
1,2-Dichlorobenzene	U		0.00163	0.00562	1	10/18/2018 18:07	WG1182742
1,3-Dichlorobenzene	U		0.00191	0.00562	1	10/18/2018 18:07	WG1182742
1,4-Dichlorobenzene	U		0.00221	0.00562	1	10/18/2018 18:07	WG1182742
Dichlorodifluoromethane	U		0.000919	0.00281	1	10/18/2018 18:07	WG1182742
1,1-Dichloroethane	U		0.000646	0.00281	1	10/18/2018 18:07	WG1182742
1,2-Dichloroethane	U		0.000534	0.00281	1	10/18/2018 18:07	WG1182742
1,1-Dichloroethene	U		0.000562	0.00281	1	10/18/2018 18:07	WG1182742
cis-1,2-Dichloroethene	0.288		0.000775	0.00281	1	10/18/2018 18:07	WG1182742
trans-1,2-Dichloroethene	0.00285	J	0.00161	0.00562	1	10/18/2018 18:07	WG1182742
1,2-Dichloropropane	U		0.00143	0.00562	1	10/18/2018 18:07	WG1182742
1,1-Dichloropropene	U		0.000786	0.00281	1	10/18/2018 18:07	WG1182742
1,3-Dichloropropane	U		0.00197	0.00562	1	10/18/2018 18:07	WG1182742
cis-1,3-Dichloropropene	U		0.000762	0.00281	1	10/18/2018 18:07	WG1182742
trans-1,3-Dichloropropene	U		0.00172	0.00562	1	10/18/2018 18:07	WG1182742
trans-1,4-Dichloro-2-butene	U		0.00157	0.00562	1	10/18/2018 18:07	WG1182742
2,2-Dichloropropane	U		0.000891	0.00281	1	10/18/2018 18:07	WG1182742
Di-isopropyl ether	U		0.000393	0.00112	1	10/18/2018 18:07	WG1182742
Ethylbenzene	U		0.000595	0.00281	1	10/18/2018 18:07	WG1182742
Hexachloro-1,3-butadiene	U		0.0143	0.0281	1	10/18/2018 18:07	WG1182742
2-Hexanone	U		0.0112	0.0281	1	10/18/2018 18:07	WG1182742
n-Hexane	U		0.00119	0.00562	1	10/18/2018 18:07	WG1182742
Iodomethane	U		0.00680	0.0140	1	10/18/2018 18:07	WG1182742
Isopropylbenzene	U		0.000969	0.00281	1	10/18/2018 18:07	WG1182742
p-Isopropyltoluene	U		0.00262	0.00562	1	10/18/2018 18:07	WG1182742
2-Butanone (MEK)	U		0.0140	0.0281	1	10/18/2018 18:07	WG1182742
Methylene Chloride	U		0.00746	0.0281	1	10/18/2018 18:07	WG1182742
4-Methyl-2-pentanone (MIBK)	U		0.0112	0.0281	1	10/18/2018 18:07	WG1182742

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000331	0.00112	1	10/18/2018 18:07	WG1182742
Naphthalene	U		0.00350	0.0140	1	10/18/2018 18:07	WG1182742
n-Propylbenzene	U		0.00133	0.00562	1	10/18/2018 18:07	WG1182742
Styrene	U		0.00307	0.0140	1	10/18/2018 18:07	WG1182742
1,1,1,2-Tetrachloroethane	U		0.000562	0.00281	1	10/18/2018 18:07	WG1182742
1,1,2,2-Tetrachloroethane	U		0.000438	0.00281	1	10/18/2018 18:07	WG1182742
1,1,2-Trichlorotrifluoroethane	U		0.000758	0.00281	1	10/18/2018 18:07	WG1182742
Tetrachloroethene	18.2	J0	0.0629	0.225	80	10/21/2018 17:35	WG1184188
Toluene	U		0.00140	0.00562	1	10/18/2018 18:07	WG1182742
1,2,3-Trichlorobenzene	U		0.000702	0.00281	1	10/18/2018 18:07	WG1182742
1,2,4-Trichlorobenzene	U		0.00541	0.0140	1	10/18/2018 18:07	WG1182742
1,1,1-Trichloroethane	U		0.000309	0.00281	1	10/18/2018 18:07	WG1182742
1,1,2-Trichloroethane	U	J4	0.000992	0.00281	1	10/18/2018 18:07	WG1182742
Trichloroethene	0.553		0.000449	0.00112	1	10/18/2018 18:07	WG1182742
Trichlorofluoromethane	U		0.000562	0.00281	1	10/18/2018 18:07	WG1182742
1,2,3-Trichloropropane	U		0.00573	0.0140	1	10/18/2018 18:07	WG1182742
1,2,4-Trimethylbenzene	U	J4	0.00130	0.00562	1	10/18/2018 18:07	WG1182742
1,2,3-Trimethylbenzene	U		0.00129	0.00562	1	10/18/2018 18:07	WG1182742
1,3,5-Trimethylbenzene	U		0.00121	0.00562	1	10/18/2018 18:07	WG1182742
Vinyl acetate	U		0.00395	0.0140	1	10/18/2018 18:07	WG1182742
Vinyl chloride	U		0.000767	0.00281	1	10/18/2018 18:07	WG1182742
Xylenes, Total	U		0.00537	0.00730	1	10/18/2018 18:07	WG1182742
(S) Toluene-d8	*118*			*75.0-131*		*10/18/2018 18:07*	WG1182742
(S) Toluene-d8	*98.4*			*75.0-131*		*10/21/2018 17:35*	WG1184188
(S) Dibromofluoromethane	*79.5*			*65.0-129*		*10/18/2018 18:07*	WG1182742
(S) Dibromofluoromethane	*116*			*65.0-129*		*10/21/2018 17:35*	WG1184188
(S) 4-Bromofluorobenzene	*98.9*			*67.0-138*		*10/18/2018 18:07*	WG1182742
(S) 4-Bromofluorobenzene	*127*			*67.0-138*		*10/21/2018 17:35*	WG1184188

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	86.3		1	10/19/2018 13:51	WG1183343

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.635	1.16	40	10/21/2018 17:55	WG1184188
Acrylonitrile	U		0.00220	0.0145	1	10/18/2018 18:27	WG1182742
Benzene	U		0.000463	0.00116	1	10/18/2018 18:27	WG1182742
Bromobenzene	U		0.00122	0.0145	1	10/18/2018 18:27	WG1182742
Bromodichloromethane	U		0.000913	0.00290	1	10/18/2018 18:27	WG1182742
Bromochloromethane	U		0.00131	0.00579	1	10/18/2018 18:27	WG1182742
Bromoform	U		0.00693	0.0290	1	10/18/2018 18:27	WG1182742
Bromomethane	U		0.00429	0.0145	1	10/18/2018 18:27	WG1182742
n-Butylbenzene	U		0.00445	0.0145	1	10/18/2018 18:27	WG1182742
sec-Butylbenzene	U		0.00293	0.0145	1	10/18/2018 18:27	WG1182742
tert-Butylbenzene	U		0.00180	0.00579	1	10/18/2018 18:27	WG1182742
Carbon disulfide	U		0.00470	0.0145	1	10/18/2018 18:27	WG1182742
Carbon tetrachloride	U		0.00125	0.00579	1	10/18/2018 18:27	WG1182742
Chlorobenzene	U		0.000664	0.00290	1	10/18/2018 18:27	WG1182742
Chlorodibromomethane	U		0.000521	0.00290	1	10/18/2018 18:27	WG1182742
Chloroethane	U		0.00125	0.00579	1	10/18/2018 18:27	WG1182742
Chloroform	0.000752	J	0.000481	0.00290	1	10/18/2018 18:27	WG1182742
Chloromethane	U		0.00161	0.0145	1	10/18/2018 18:27	WG1182742
2-Chlorotoluene	U		0.00107	0.00290	1	10/18/2018 18:27	WG1182742
4-Chlorotoluene	U		0.00131	0.00579	1	10/18/2018 18:27	WG1182742
1,2-Dibromo-3-Chloropropane	U		0.00591	0.0290	1	10/18/2018 18:27	WG1182742
1,2-Dibromoethane	U		0.000608	0.00290	1	10/18/2018 18:27	WG1182742
Dibromomethane	U	J4	0.00116	0.00579	1	10/18/2018 18:27	WG1182742
1,2-Dichlorobenzene	U		0.00168	0.00579	1	10/18/2018 18:27	WG1182742
1,3-Dichlorobenzene	U		0.00197	0.00579	1	10/18/2018 18:27	WG1182742
1,4-Dichlorobenzene	U		0.00228	0.00579	1	10/18/2018 18:27	WG1182742
Dichlorodifluoromethane	U		0.000947	0.00290	1	10/18/2018 18:27	WG1182742
1,1-Dichloroethane	U		0.000666	0.00290	1	10/18/2018 18:27	WG1182742
1,2-Dichloroethane	U		0.000550	0.00290	1	10/18/2018 18:27	WG1182742
1,1-Dichloroethene	0.00138	J	0.000579	0.00290	1	10/18/2018 18:27	WG1182742
cis-1,2-Dichloroethene	0.833		0.000799	0.00290	1	10/18/2018 18:27	WG1182742
trans-1,2-Dichloroethene	0.00435	J	0.00166	0.00579	1	10/18/2018 18:27	WG1182742
1,2-Dichloropropane	U		0.00147	0.00579	1	10/18/2018 18:27	WG1182742
1,1-Dichloropropene	U		0.000811	0.00290	1	10/18/2018 18:27	WG1182742
1,3-Dichloropropane	U		0.00203	0.00579	1	10/18/2018 18:27	WG1182742
cis-1,3-Dichloropropene	U		0.000785	0.00290	1	10/18/2018 18:27	WG1182742
trans-1,3-Dichloropropene	U		0.00177	0.00579	1	10/18/2018 18:27	WG1182742
trans-1,4-Dichloro-2-butene	U		0.00162	0.00579	1	10/18/2018 18:27	WG1182742
2,2-Dichloropropane	U		0.000919	0.00290	1	10/18/2018 18:27	WG1182742
Di-isopropyl ether	U		0.000405	0.00116	1	10/18/2018 18:27	WG1182742
Ethylbenzene	U		0.000614	0.00290	1	10/18/2018 18:27	WG1182742
Hexachloro-1,3-butadiene	U		0.0147	0.0290	1	10/18/2018 18:27	WG1182742
2-Hexanone	U		0.0116	0.0290	1	10/18/2018 18:27	WG1182742
n-Hexane	0.00134	J	0.00123	0.00579	1	10/18/2018 18:27	WG1182742
Iodomethane	U		0.00701	0.0145	1	10/18/2018 18:27	WG1182742
Isopropylbenzene	U		0.00100	0.00290	1	10/18/2018 18:27	WG1182742
p-Isopropyltoluene	U		0.00270	0.00579	1	10/18/2018 18:27	WG1182742
2-Butanone (MEK)	U		0.0145	0.0290	1	10/18/2018 18:27	WG1182742
Methylene Chloride	U		0.00769	0.0290	1	10/18/2018 18:27	WG1182742
4-Methyl-2-pentanone (MIBK)	U		0.0116	0.0290	1	10/18/2018 18:27	WG1182742

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000342	0.00116	1	10/18/2018 18:27	WG1182742
Naphthalene	U		0.00361	0.0145	1	10/18/2018 18:27	WG1182742
n-Propylbenzene	U		0.00137	0.00579	1	10/18/2018 18:27	WG1182742
Styrene	U		0.00316	0.0145	1	10/18/2018 18:27	WG1182742
1,1,1,2-Tetrachloroethane	U		0.000579	0.00290	1	10/18/2018 18:27	WG1182742
1,1,2,2-Tetrachloroethane	U		0.000452	0.00290	1	10/18/2018 18:27	WG1182742
1,1,2-Trichlorotrifluoroethane	U		0.000782	0.00290	1	10/18/2018 18:27	WG1182742
Tetrachloroethene	8.68	J0	0.0324	0.116	40	10/21/2018 17:55	WG1184188
Toluene	U		0.00145	0.00579	1	10/18/2018 18:27	WG1182742
1,2,3-Trichlorobenzene	U		0.000724	0.00290	1	10/18/2018 18:27	WG1182742
1,2,4-Trichlorobenzene	U		0.00558	0.0145	1	10/18/2018 18:27	WG1182742
1,1,1-Trichloroethane	U		0.000319	0.00290	1	10/18/2018 18:27	WG1182742
1,1,2-Trichloroethane	U	J4	0.00102	0.00290	1	10/18/2018 18:27	WG1182742
Trichloroethene	0.528		0.000463	0.00116	1	10/18/2018 18:27	WG1182742
Trichlorofluoromethane	U		0.000579	0.00290	1	10/18/2018 18:27	WG1182742
1,2,3-Trichloropropane	U		0.00591	0.0145	1	10/18/2018 18:27	WG1182742
1,2,4-Trimethylbenzene	U	J4	0.00134	0.00579	1	10/18/2018 18:27	WG1182742
1,2,3-Trimethylbenzene	U		0.00133	0.00579	1	10/18/2018 18:27	WG1182742
1,3,5-Trimethylbenzene	U		0.00125	0.00579	1	10/18/2018 18:27	WG1182742
Vinyl acetate	U		0.00408	0.0145	1	10/18/2018 18:27	WG1182742
Vinyl chloride	0.00304		0.000791	0.00290	1	10/18/2018 18:27	WG1182742
Xylenes, Total	U		0.00554	0.00753	1	10/18/2018 18:27	WG1182742
(S) Toluene-d8	*117*			*75.0-131*		*10/18/2018 18:27*	WG1182742
(S) Toluene-d8	*100*			*75.0-131*		*10/21/2018 17:55*	WG1184188
(S) Dibromofluoromethane	*77.8*			*65.0-129*		*10/18/2018 18:27*	WG1182742
(S) Dibromofluoromethane	*118*			*65.0-129*		*10/21/2018 17:55*	WG1184188
(S) 4-Bromofluorobenzene	*102*			*67.0-138*		*10/18/2018 18:27*	WG1182742
(S) 4-Bromofluorobenzene	*125*			*67.0-138*		*10/21/2018 17:55*	WG1184188

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	91.4		1	10/16/2018 14:25	WG1181703

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		10.0	18.3	670	10/17/2018 13:32	WG1182096
Acrylonitrile	U		0.00208	0.0137	1	10/16/2018 19:21	WG1181654
Benzene	U		0.000438	0.00109	1	10/16/2018 19:21	WG1181654
Bromobenzene	U		0.00115	0.0137	1	10/16/2018 19:21	WG1181654
Bromodichloromethane	U		0.000862	0.00273	1	10/16/2018 19:21	WG1181654
Bromochloromethane	U		0.00124	0.00547	1	10/16/2018 19:21	WG1181654
Bromoform	U		0.00654	0.0273	1	10/16/2018 19:21	WG1181654
Bromomethane	U		0.00405	0.0137	1	10/16/2018 19:21	WG1181654
n-Butylbenzene	U		0.00420	0.0137	1	10/16/2018 19:21	WG1181654
sec-Butylbenzene	U		0.00277	0.0137	1	10/16/2018 19:21	WG1181654
tert-Butylbenzene	U		0.00170	0.00547	1	10/16/2018 19:21	WG1181654
Carbon disulfide	U		0.00444	0.0137	1	10/16/2018 19:21	WG1181654
Carbon tetrachloride	U		0.00118	0.00547	1	10/16/2018 19:21	WG1181654
Chlorobenzene	U		0.000627	0.00273	1	10/16/2018 19:21	WG1181654
Chlorodibromomethane	U		0.000492	0.00273	1	10/16/2018 19:21	WG1181654
Chloroethane	U		0.00118	0.00547	1	10/16/2018 19:21	WG1181654
Chloroform	0.000592	B J	0.000454	0.00273	1	10/16/2018 19:21	WG1181654
Chloromethane	U		0.00152	0.0137	1	10/16/2018 19:21	WG1181654
2-Chlorotoluene	U		0.00101	0.00273	1	10/16/2018 19:21	WG1181654
4-Chlorotoluene	U		0.00124	0.00547	1	10/16/2018 19:21	WG1181654
1,2-Dibromo-3-Chloropropane	U		0.00558	0.0273	1	10/16/2018 19:21	WG1181654
1,2-Dibromoethane	U		0.000574	0.00273	1	10/16/2018 19:21	WG1181654
Dibromomethane	U	J4	0.00109	0.00547	1	10/16/2018 19:21	WG1181654
1,2-Dichlorobenzene	U		0.00159	0.00547	1	10/16/2018 19:21	WG1181654
1,3-Dichlorobenzene	U		0.00186	0.00547	1	10/16/2018 19:21	WG1181654
1,4-Dichlorobenzene	U		0.00215	0.00547	1	10/16/2018 19:21	WG1181654
Dichlorodifluoromethane	U		0.000895	0.00273	1	10/16/2018 19:21	WG1181654
1,1-Dichloroethane	U		0.000629	0.00273	1	10/16/2018 19:21	WG1181654
1,2-Dichloroethane	U		0.000520	0.00273	1	10/16/2018 19:21	WG1181654
1,1-Dichloroethene	0.00105	J	0.000547	0.00273	1	10/16/2018 19:21	WG1181654
cis-1,2-Dichloroethene	0.614		0.000755	0.00273	1	10/16/2018 19:21	WG1181654
trans-1,2-Dichloroethene	0.00344	J	0.00156	0.00547	1	10/16/2018 19:21	WG1181654
1,2-Dichloropropane	U		0.00139	0.00547	1	10/16/2018 19:21	WG1181654
1,1-Dichloropropene	U		0.000766	0.00273	1	10/16/2018 19:21	WG1181654
1,3-Dichloropropane	U		0.00191	0.00547	1	10/16/2018 19:21	WG1181654
cis-1,3-Dichloropropene	U		0.000742	0.00273	1	10/16/2018 19:21	WG1181654
trans-1,3-Dichloropropene	U		0.00167	0.00547	1	10/16/2018 19:21	WG1181654
trans-1,4-Dichloro-2-butene	U		0.00153	0.00547	1	10/16/2018 19:21	WG1181654
2,2-Dichloropropane	U		0.000867	0.00273	1	10/16/2018 19:21	WG1181654
Di-isopropyl ether	U		0.000383	0.00109	1	10/16/2018 19:21	WG1181654
Ethylbenzene	U		0.000580	0.00273	1	10/16/2018 19:21	WG1181654
Hexachloro-1,3-butadiene	U		0.0139	0.0273	1	10/16/2018 19:21	WG1181654
2-Hexanone	U		0.0109	0.0273	1	10/16/2018 19:21	WG1181654
n-Hexane	U		0.00116	0.00547	1	10/16/2018 19:21	WG1181654
Iodomethane	U		0.00662	0.0137	1	10/16/2018 19:21	WG1181654
Isopropylbenzene	U		0.000944	0.00273	1	10/16/2018 19:21	WG1181654
p-Isopropyltoluene	U		0.00255	0.00547	1	10/16/2018 19:21	WG1181654
2-Butanone (MEK)	U		0.0137	0.0273	1	10/16/2018 19:21	WG1181654
Methylene Chloride	U		0.00726	0.0273	1	10/16/2018 19:21	WG1181654
4-Methyl-2-pentanone (MIBK)	U		0.0109	0.0273	1	10/16/2018 19:21	WG1181654

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

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U	J0	0.000323	0.00109	1	10/16/2018 19:21	WG1181654
Naphthalene	U		0.00341	0.0137	1	10/16/2018 19:21	WG1181654
n-Propylbenzene	U		0.00129	0.00547	1	10/16/2018 19:21	WG1181654
Styrene	U		0.00299	0.0137	1	10/16/2018 19:21	WG1181654
1,1,1,2-Tetrachloroethane	U		0.000547	0.00273	1	10/16/2018 19:21	WG1181654
1,1,2,2-Tetrachloroethane	U	J4	0.000427	0.00273	1	10/16/2018 19:21	WG1181654
1,1,2-Trichlorotrifluoroethane	U		0.000738	0.00273	1	10/16/2018 19:21	WG1181654
Tetrachloroethene	7.69		0.513	1.83	670	10/17/2018 13:32	WG1182096
Toluene	U		0.00137	0.00547	1	10/16/2018 19:21	WG1181654
1,2,3-Trichlorobenzene	U		0.000684	0.00273	1	10/16/2018 19:21	WG1181654
1,2,4-Trichlorobenzene	U		0.00527	0.0137	1	10/16/2018 19:21	WG1181654
1,1,1-Trichloroethane	U		0.000301	0.00273	1	10/16/2018 19:21	WG1181654
1,1,2-Trichloroethane	U	J4	0.000966	0.00273	1	10/16/2018 19:21	WG1181654
Trichloroethene	0.407		0.000438	0.00109	1	10/16/2018 19:21	WG1181654
Trichlorofluoromethane	U		0.000547	0.00273	1	10/16/2018 19:21	WG1181654
1,2,3-Trichloropropane	U		0.00558	0.0137	1	10/16/2018 19:21	WG1181654
1,2,4-Trimethylbenzene	0.00130	J	0.00127	0.00547	1	10/16/2018 19:21	WG1181654
1,2,3-Trimethylbenzene	U		0.00126	0.00547	1	10/16/2018 19:21	WG1181654
1,3,5-Trimethylbenzene	U		0.00118	0.00547	1	10/16/2018 19:21	WG1181654
Vinyl acetate	U		0.00385	0.0137	1	10/16/2018 19:21	WG1181654
Vinyl chloride	0.00318		0.000747	0.00273	1	10/16/2018 19:21	WG1181654
Xylenes, Total	U		0.00523	0.00711	1	10/16/2018 19:21	WG1181654
(S) Toluene-d8	*118*			*75.0-131*		*10/16/2018 19:21*	WG1181654
(S) Toluene-d8	*101*			*75.0-131*		*10/17/2018 13:32*	WG1182096
(S) Dibromofluoromethane	*77.0*			*65.0-129*		*10/16/2018 19:21*	WG1181654
(S) Dibromofluoromethane	*120*			*65.0-129*		*10/17/2018 13:32*	WG1182096
(S) 4-Bromofluorobenzene	*102*			*67.0-138*		*10/16/2018 19:21*	WG1181654
(S) 4-Bromofluorobenzene	*117*			*67.0-138*		*10/17/2018 13:32*	WG1182096

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	95.2		1	10/19/2018 13:51	WG1183343

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0144	0.0263	1	10/21/2018 14:55	WG1184188
Acrylonitrile	U	J3	0.00200	0.0131	1	10/18/2018 18:47	WG1182742
Benzene	U		0.000420	0.00105	1	10/18/2018 18:47	WG1182742
Bromobenzene	U		0.00110	0.0131	1	10/18/2018 18:47	WG1182742
Bromodichloromethane	U		0.000828	0.00263	1	10/18/2018 18:47	WG1182742
Bromochloromethane	U		0.00119	0.00525	1	10/18/2018 18:47	WG1182742
Bromoform	U		0.00628	0.0263	1	10/18/2018 18:47	WG1182742
Bromomethane	U		0.00389	0.0131	1	10/18/2018 18:47	WG1182742
n-Butylbenzene	U		0.00403	0.0131	1	10/18/2018 18:47	WG1182742
sec-Butylbenzene	U		0.00266	0.0131	1	10/18/2018 18:47	WG1182742
tert-Butylbenzene	U		0.00163	0.00525	1	10/18/2018 18:47	WG1182742
Carbon disulfide	U		0.00427	0.0131	1	10/18/2018 18:47	WG1182742
Carbon tetrachloride	U		0.00113	0.00525	1	10/18/2018 18:47	WG1182742
Chlorobenzene	U		0.000602	0.00263	1	10/18/2018 18:47	WG1182742
Chlorodibromomethane	U		0.000473	0.00263	1	10/18/2018 18:47	WG1182742
Chloroethane	U		0.00113	0.00525	1	10/18/2018 18:47	WG1182742
Chloroform	0.000670	J	0.000436	0.00263	1	10/18/2018 18:47	WG1182742
Chloromethane	U		0.00146	0.0131	1	10/18/2018 18:47	WG1182742
2-Chlorotoluene	U		0.000967	0.00263	1	10/18/2018 18:47	WG1182742
4-Chlorotoluene	U		0.00119	0.00525	1	10/18/2018 18:47	WG1182742
1,2-Dibromo-3-Chloropropane	U		0.00536	0.0263	1	10/18/2018 18:47	WG1182742
1,2-Dibromoethane	U		0.000552	0.00263	1	10/18/2018 18:47	WG1182742
Dibromomethane	U	J4	0.00105	0.00525	1	10/18/2018 18:47	WG1182742
1,2-Dichlorobenzene	U		0.00152	0.00525	1	10/18/2018 18:47	WG1182742
1,3-Dichlorobenzene	U		0.00179	0.00525	1	10/18/2018 18:47	WG1182742
1,4-Dichlorobenzene	U		0.00207	0.00525	1	10/18/2018 18:47	WG1182742
Dichlorodifluoromethane	U		0.000859	0.00263	1	10/18/2018 18:47	WG1182742
1,1-Dichloroethane	U		0.000604	0.00263	1	10/18/2018 18:47	WG1182742
1,2-Dichloroethane	U		0.000499	0.00263	1	10/18/2018 18:47	WG1182742
1,1-Dichloroethene	U		0.000525	0.00263	1	10/18/2018 18:47	WG1182742
cis-1,2-Dichloroethene	0.0153		0.000725	0.00263	1	10/21/2018 14:55	WG1184188
trans-1,2-Dichloroethene	U		0.00150	0.00525	1	10/18/2018 18:47	WG1182742
1,2-Dichloropropane	U		0.00133	0.00525	1	10/18/2018 18:47	WG1182742
1,1-Dichloropropene	U		0.000735	0.00263	1	10/18/2018 18:47	WG1182742
1,3-Dichloropropane	U		0.00184	0.00525	1	10/18/2018 18:47	WG1182742
cis-1,3-Dichloropropene	U		0.000712	0.00263	1	10/18/2018 18:47	WG1182742
trans-1,3-Dichloropropene	U		0.00161	0.00525	1	10/18/2018 18:47	WG1182742
trans-1,4-Dichloro-2-butene	U		0.00147	0.00525	1	10/18/2018 18:47	WG1182742
2,2-Dichloropropane	U		0.000833	0.00263	1	10/18/2018 18:47	WG1182742
Di-isopropyl ether	U		0.000368	0.00105	1	10/18/2018 18:47	WG1182742
Ethylbenzene	U		0.000557	0.00263	1	10/18/2018 18:47	WG1182742
Hexachloro-1,3-butadiene	U		0.0133	0.0263	1	10/18/2018 18:47	WG1182742
2-Hexanone	U		0.0105	0.0263	1	10/18/2018 18:47	WG1182742
n-Hexane	U		0.00111	0.00525	1	10/18/2018 18:47	WG1182742
Iodomethane	U		0.00636	0.0131	1	10/18/2018 18:47	WG1182742
Isopropylbenzene	U		0.000907	0.00263	1	10/18/2018 18:47	WG1182742
p-Isopropyltoluene	U		0.00245	0.00525	1	10/18/2018 18:47	WG1182742
2-Butanone (MEK)	U		0.0131	0.0263	1	10/18/2018 18:47	WG1182742
Methylene Chloride	U		0.00698	0.0263	1	10/18/2018 18:47	WG1182742
4-Methyl-2-pentanone (MIBK)	U		0.0105	0.0263	1	10/18/2018 18:47	WG1182742

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000310	0.00105	1	10/18/2018 18:47	WG1182742
Naphthalene	U		0.00328	0.0131	1	10/18/2018 18:47	WG1182742
n-Propylbenzene	U		0.00124	0.00525	1	10/18/2018 18:47	WG1182742
Styrene	U		0.00287	0.0131	1	10/18/2018 18:47	WG1182742
1,1,1,2-Tetrachloroethane	U		0.000525	0.00263	1	10/18/2018 18:47	WG1182742
1,1,2,2-Tetrachloroethane	U		0.000410	0.00263	1	10/18/2018 18:47	WG1182742
1,1,2-Trichlorotrifluoroethane	U		0.000709	0.00263	1	10/18/2018 18:47	WG1182742
Tetrachloroethene	0.0286		0.000735	0.00263	1	10/21/2018 14:55	WG1184188
Toluene	U		0.00131	0.00525	1	10/18/2018 18:47	WG1182742
1,2,3-Trichlorobenzene	U		0.000657	0.00263	1	10/18/2018 18:47	WG1182742
1,2,4-Trichlorobenzene	U		0.00506	0.0131	1	10/18/2018 18:47	WG1182742
1,1,1-Trichloroethane	U		0.000289	0.00263	1	10/18/2018 18:47	WG1182742
1,1,2-Trichloroethane	U	J4	0.000928	0.00263	1	10/18/2018 18:47	WG1182742
Trichloroethene	0.146		0.000420	0.00105	1	10/22/2018 11:39	WG1184438
Trichlorofluoromethane	U		0.000525	0.00263	1	10/18/2018 18:47	WG1182742
1,2,3-Trichloropropane	U		0.00536	0.0131	1	10/18/2018 18:47	WG1182742
1,2,4-Trimethylbenzene	U	J4	0.00122	0.00525	1	10/18/2018 18:47	WG1182742
1,2,3-Trimethylbenzene	U		0.00121	0.00525	1	10/18/2018 18:47	WG1182742
1,3,5-Trimethylbenzene	U		0.00113	0.00525	1	10/18/2018 18:47	WG1182742
Vinyl acetate	U	J3	0.00370	0.0131	1	10/18/2018 18:47	WG1182742
Vinyl chloride	U	J6	0.000718	0.00263	1	10/18/2018 18:47	WG1182742
Xylenes, Total	U		0.00502	0.00683	1	10/18/2018 18:47	WG1182742
(S) Toluene-d8	*118*			*75.0-131*		*10/18/2018 18:47*	WG1182742
(S) Toluene-d8	*100*			*75.0-131*		*10/21/2018 14:55*	WG1184188
(S) Toluene-d8	*113*			*75.0-131*		*10/22/2018 11:39*	WG1184438
(S) Dibromofluoromethane	*76.0*			*65.0-129*		*10/18/2018 18:47*	WG1182742
(S) Dibromofluoromethane	*112*			*65.0-129*		*10/21/2018 14:55*	WG1184188
(S) Dibromofluoromethane	*87.3*			*65.0-129*		*10/22/2018 11:39*	WG1184438
(S) 4-Bromofluorobenzene	*88.8*			*67.0-138*		*10/18/2018 18:47*	WG1182742
(S) 4-Bromofluorobenzene	*118*			*67.0-138*		*10/21/2018 14:55*	WG1184188
(S) 4-Bromofluorobenzene	*88.0*			*67.0-138*		*10/22/2018 11:39*	WG1184438

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	90.2		1	10/19/2018 13:51	WG1183343

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0152	0.0277	1	10/19/2018 21:50	WG1183157
Acrylonitrile	U		0.00211	0.0139	1	10/19/2018 21:50	WG1183157
Benzene	U		0.000444	0.00111	1	10/19/2018 21:50	WG1183157
Bromobenzene	U		0.00116	0.0139	1	10/19/2018 21:50	WG1183157
Bromodichloromethane	U		0.000874	0.00277	1	10/19/2018 21:50	WG1183157
Bromochloromethane	U		0.00125	0.00555	1	10/19/2018 21:50	WG1183157
Bromoform	U	J0	0.00663	0.0277	1	10/19/2018 21:50	WG1183157
Bromomethane	U		0.00410	0.0139	1	10/19/2018 21:50	WG1183157
n-Butylbenzene	U		0.00426	0.0139	1	10/19/2018 21:50	WG1183157
sec-Butylbenzene	U		0.00281	0.0139	1	10/19/2018 21:50	WG1183157
tert-Butylbenzene	U		0.00172	0.00555	1	10/19/2018 21:50	WG1183157
Carbon disulfide	U	J0	0.00450	0.0139	1	10/19/2018 21:50	WG1183157
Carbon tetrachloride	U		0.00120	0.00555	1	10/19/2018 21:50	WG1183157
Chlorobenzene	U		0.000636	0.00277	1	10/19/2018 21:50	WG1183157
Chlorodibromomethane	U		0.000499	0.00277	1	10/19/2018 21:50	WG1183157
Chloroethane	U		0.00120	0.00555	1	10/19/2018 21:50	WG1183157
Chloroform	0.000707	B J	0.000460	0.00277	1	10/19/2018 21:50	WG1183157
Chloromethane	U		0.00154	0.0139	1	10/19/2018 21:50	WG1183157
2-Chlorotoluene	U		0.00102	0.00277	1	10/19/2018 21:50	WG1183157
4-Chlorotoluene	U		0.00125	0.00555	1	10/19/2018 21:50	WG1183157
1,2-Dibromo-3-Chloropropane	U	J0	0.00566	0.0277	1	10/19/2018 21:50	WG1183157
1,2-Dibromoethane	U		0.000582	0.00277	1	10/19/2018 21:50	WG1183157
Dibromomethane	U		0.00111	0.00555	1	10/19/2018 21:50	WG1183157
1,2-Dichlorobenzene	U		0.00161	0.00555	1	10/19/2018 21:50	WG1183157
1,3-Dichlorobenzene	U		0.00189	0.00555	1	10/19/2018 21:50	WG1183157
1,4-Dichlorobenzene	U		0.00219	0.00555	1	10/19/2018 21:50	WG1183157
Dichlorodifluoromethane	U		0.000907	0.00277	1	10/19/2018 21:50	WG1183157
1,1-Dichloroethane	U		0.000638	0.00277	1	10/19/2018 21:50	WG1183157
1,2-Dichloroethane	U		0.000527	0.00277	1	10/19/2018 21:50	WG1183157
1,1-Dichloroethene	U		0.000555	0.00277	1	10/19/2018 21:50	WG1183157
cis-1,2-Dichloroethene	0.0879		0.000765	0.00277	1	10/19/2018 21:50	WG1183157
trans-1,2-Dichloroethene	U		0.00159	0.00555	1	10/19/2018 21:50	WG1183157
1,2-Dichloropropane	U		0.00141	0.00555	1	10/22/2018 16:23	WG1184604
1,1-Dichloropropene	U		0.000776	0.00277	1	10/19/2018 21:50	WG1183157
1,3-Dichloropropane	U		0.00194	0.00555	1	10/19/2018 21:50	WG1183157
cis-1,3-Dichloropropene	U		0.000752	0.00277	1	10/19/2018 21:50	WG1183157
trans-1,3-Dichloropropene	U		0.00170	0.00555	1	10/19/2018 21:50	WG1183157
trans-1,4-Dichloro-2-butene	U		0.00155	0.00555	1	10/19/2018 21:50	WG1183157
2,2-Dichloropropane	U		0.000880	0.00277	1	10/19/2018 21:50	WG1183157
Di-isopropyl ether	U		0.000388	0.00111	1	10/19/2018 21:50	WG1183157
Ethylbenzene	U		0.000588	0.00277	1	10/19/2018 21:50	WG1183157
Hexachloro-1,3-butadiene	U	J0	0.0141	0.0277	1	10/19/2018 21:50	WG1183157
2-Hexanone	U		0.0111	0.0277	1	10/19/2018 21:50	WG1183157
n-Hexane	U		0.00118	0.00555	1	10/19/2018 21:50	WG1183157
Iodomethane	U		0.00671	0.0139	1	10/19/2018 21:50	WG1183157
Isopropylbenzene	U		0.000957	0.00277	1	10/19/2018 21:50	WG1183157
p-Isopropyltoluene	U		0.00258	0.00555	1	10/19/2018 21:50	WG1183157
2-Butanone (MEK)	0.0603	J0	0.0139	0.0277	1	10/22/2018 16:23	WG1184604
Methylene Chloride	U		0.00737	0.0277	1	10/19/2018 21:50	WG1183157
4-Methyl-2-pentanone (MIBK)	U		0.0111	0.0277	1	10/19/2018 21:50	WG1183157

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000327	0.00111	1	10/19/2018 21:50	WG1183157
Naphthalene	U		0.00346	0.0139	1	10/19/2018 21:50	WG1183157
n-Propylbenzene	U		0.00131	0.00555	1	10/19/2018 21:50	WG1183157
Styrene	U	J0	0.00303	0.0139	1	10/19/2018 21:50	WG1183157
1,1,1,2-Tetrachloroethane	U		0.000555	0.00277	1	10/19/2018 21:50	WG1183157
1,1,2,2-Tetrachloroethane	U		0.000433	0.00277	1	10/19/2018 21:50	WG1183157
1,1,2-Trichlorotrifluoroethane	U		0.000749	0.00277	1	10/19/2018 21:50	WG1183157
Tetrachloroethene	0.230		0.000776	0.00277	1	10/19/2018 21:50	WG1183157
Toluene	U		0.00139	0.00555	1	10/19/2018 21:50	WG1183157
1,2,3-Trichlorobenzene	U		0.000693	0.00277	1	10/19/2018 21:50	WG1183157
1,2,4-Trichlorobenzene	U		0.00535	0.0139	1	10/19/2018 21:50	WG1183157
1,1,1-Trichloroethane	U		0.000305	0.00277	1	10/19/2018 21:50	WG1183157
1,1,2-Trichloroethane	0.00157	J	0.000979	0.00277	1	10/22/2018 16:23	WG1184604
Trichloroethene	0.135		0.000444	0.00111	1	10/19/2018 21:50	WG1183157
Trichlorofluoromethane	U		0.000555	0.00277	1	10/19/2018 21:50	WG1183157
1,2,3-Trichloropropane	U		0.00566	0.0139	1	10/19/2018 21:50	WG1183157
1,2,4-Trimethylbenzene	U		0.00129	0.00555	1	10/19/2018 21:50	WG1183157
1,2,3-Trimethylbenzene	U		0.00128	0.00555	1	10/19/2018 21:50	WG1183157
1,3,5-Trimethylbenzene	U		0.00120	0.00555	1	10/19/2018 21:50	WG1183157
Vinyl acetate	U		0.00390	0.0139	1	10/19/2018 21:50	WG1183157
Vinyl chloride	U		0.000758	0.00277	1	10/19/2018 21:50	WG1183157
Xylenes, Total	U		0.00530	0.00721	1	10/19/2018 21:50	WG1183157
(S) Toluene-d8	*127*			*75.0-131*		*10/19/2018 21:50*	WG1183157
(S) Toluene-d8	*97.8*			*75.0-131*		*10/22/2018 16:23*	WG1184604
(S) Dibromofluoromethane	*96.3*			*65.0-129*		*10/19/2018 21:50*	WG1183157
(S) Dibromofluoromethane	*114*			*65.0-129*		*10/22/2018 16:23*	WG1184604
(S) 4-Bromofluorobenzene	*97.7*			*67.0-138*		*10/19/2018 21:50*	WG1183157
(S) 4-Bromofluorobenzene	*117*			*67.0-138*		*10/22/2018 16:23*	WG1184604

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	89.9		1	10/19/2018 13:51	WG1183343

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0152	0.0278	1	10/19/2018 22:11	WG1183157
Acrylonitrile	U		0.00211	0.0139	1	10/19/2018 22:11	WG1183157
Benzene	U		0.000445	0.00111	1	10/19/2018 22:11	WG1183157
Bromobenzene	U		0.00117	0.0139	1	10/19/2018 22:11	WG1183157
Bromodichloromethane	U		0.000877	0.00278	1	10/19/2018 22:11	WG1183157
Bromochloromethane	U		0.00126	0.00556	1	10/19/2018 22:11	WG1183157
Bromoform	U	J0	0.00665	0.0278	1	10/19/2018 22:11	WG1183157
Bromomethane	U		0.00412	0.0139	1	10/19/2018 22:11	WG1183157
n-Butylbenzene	U		0.00427	0.0139	1	10/19/2018 22:11	WG1183157
sec-Butylbenzene	U		0.00281	0.0139	1	10/19/2018 22:11	WG1183157
tert-Butylbenzene	U		0.00172	0.00556	1	10/19/2018 22:11	WG1183157
Carbon disulfide	U	J0	0.00452	0.0139	1	10/19/2018 22:11	WG1183157
Carbon tetrachloride	U		0.00120	0.00556	1	10/19/2018 22:11	WG1183157
Chlorobenzene	U		0.000637	0.00278	1	10/19/2018 22:11	WG1183157
Chlorodibromomethane	U		0.000501	0.00278	1	10/19/2018 22:11	WG1183157
Chloroethane	U		0.00120	0.00556	1	10/19/2018 22:11	WG1183157
Chloroform	0.000940	B J	0.000462	0.00278	1	10/19/2018 22:11	WG1183157
Chloromethane	U		0.00155	0.0139	1	10/19/2018 22:11	WG1183157
2-Chlorotoluene	U		0.00102	0.00278	1	10/19/2018 22:11	WG1183157
4-Chlorotoluene	U		0.00126	0.00556	1	10/19/2018 22:11	WG1183157
1,2-Dibromo-3-Chloropropane	U	J0	0.00567	0.0278	1	10/19/2018 22:11	WG1183157
1,2-Dibromoethane	U		0.000584	0.00278	1	10/19/2018 22:11	WG1183157
Dibromomethane	U		0.00111	0.00556	1	10/19/2018 22:11	WG1183157
1,2-Dichlorobenzene	U		0.00161	0.00556	1	10/19/2018 22:11	WG1183157
1,3-Dichlorobenzene	U		0.00189	0.00556	1	10/19/2018 22:11	WG1183157
1,4-Dichlorobenzene	U		0.00219	0.00556	1	10/19/2018 22:11	WG1183157
Dichlorodifluoromethane	U		0.000910	0.00278	1	10/19/2018 22:11	WG1183157
1,1-Dichloroethane	U		0.000640	0.00278	1	10/19/2018 22:11	WG1183157
1,2-Dichloroethane	U		0.000528	0.00278	1	10/19/2018 22:11	WG1183157
1,1-Dichloroethene	U		0.000556	0.00278	1	10/19/2018 22:11	WG1183157
cis-1,2-Dichloroethene	0.0191		0.000768	0.00278	1	10/19/2018 22:11	WG1183157
trans-1,2-Dichloroethene	U		0.00159	0.00556	1	10/19/2018 22:11	WG1183157
1,2-Dichloropropane	U		0.0565	0.222	40	10/22/2018 20:23	WG1184604
1,1-Dichloropropene	U		0.000779	0.00278	1	10/19/2018 22:11	WG1183157
1,3-Dichloropropane	U		0.00195	0.00556	1	10/19/2018 22:11	WG1183157
cis-1,3-Dichloropropene	U		0.000754	0.00278	1	10/19/2018 22:11	WG1183157
trans-1,3-Dichloropropene	U		0.00170	0.00556	1	10/19/2018 22:11	WG1183157
trans-1,4-Dichloro-2-butene	U		0.00156	0.00556	1	10/19/2018 22:11	WG1183157
2,2-Dichloropropane	U		0.000882	0.00278	1	10/19/2018 22:11	WG1183157
Di-isopropyl ether	U		0.000389	0.00111	1	10/19/2018 22:11	WG1183157
Ethylbenzene	U		0.000590	0.00278	1	10/19/2018 22:11	WG1183157
Hexachloro-1,3-butadiene	U	J0	0.0141	0.0278	1	10/19/2018 22:11	WG1183157
2-Hexanone	U		0.0111	0.0278	1	10/19/2018 22:11	WG1183157
n-Hexane	U		0.00118	0.00556	1	10/19/2018 22:11	WG1183157
Iodomethane	U		0.00673	0.0139	1	10/19/2018 22:11	WG1183157
Isopropylbenzene	U		0.000960	0.00278	1	10/19/2018 22:11	WG1183157
p-Isopropyltoluene	U		0.00259	0.00556	1	10/19/2018 22:11	WG1183157
2-Butanone (MEK)	U	J0	0.556	1.11	40	10/22/2018 20:23	WG1184604
Methylene Chloride	U		0.00739	0.0278	1	10/19/2018 22:11	WG1183157
4-Methyl-2-pentanone (MIBK)	U		0.0111	0.0278	1	10/19/2018 22:11	WG1183157

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000328	0.00111	1	10/19/2018 22:11	WG1183157
Naphthalene	U		0.00347	0.0139	1	10/19/2018 22:11	WG1183157
n-Propylbenzene	U		0.00131	0.00556	1	10/19/2018 22:11	WG1183157
Styrene	U	J0	0.00304	0.0139	1	10/19/2018 22:11	WG1183157
1,1,1,2-Tetrachloroethane	U		0.000556	0.00278	1	10/19/2018 22:11	WG1183157
1,1,2,2-Tetrachloroethane	U		0.000434	0.00278	1	10/19/2018 22:11	WG1183157
1,1,2-Trichlorotrifluoroethane	U		0.000751	0.00278	1	10/19/2018 22:11	WG1183157
Tetrachloroethene	10.3		0.0311	0.111	40	10/22/2018 20:23	WG1184604
Toluene	U		0.00139	0.00556	1	10/19/2018 22:11	WG1183157
1,2,3-Trichlorobenzene	U		0.000695	0.00278	1	10/19/2018 22:11	WG1183157
1,2,4-Trichlorobenzene	U		0.00536	0.0139	1	10/19/2018 22:11	WG1183157
1,1,1-Trichloroethane	U		0.000306	0.00278	1	10/19/2018 22:11	WG1183157
1,1,2-Trichloroethane	U		0.0393	0.111	40	10/22/2018 20:23	WG1184604
Trichloroethene	0.0501		0.000445	0.00111	1	10/19/2018 22:11	WG1183157
Trichlorofluoromethane	U		0.000556	0.00278	1	10/19/2018 22:11	WG1183157
1,2,3-Trichloropropane	U		0.00567	0.0139	1	10/19/2018 22:11	WG1183157
1,2,4-Trimethylbenzene	U		0.00129	0.00556	1	10/19/2018 22:11	WG1183157
1,2,3-Trimethylbenzene	U		0.00128	0.00556	1	10/19/2018 22:11	WG1183157
1,3,5-Trimethylbenzene	U		0.00120	0.00556	1	10/19/2018 22:11	WG1183157
Vinyl acetate	U		0.00392	0.0139	1	10/19/2018 22:11	WG1183157
Vinyl chloride	U		0.000760	0.00278	1	10/19/2018 22:11	WG1183157
Xylenes, Total	U		0.00532	0.00723	1	10/19/2018 22:11	WG1183157
(S) Toluene-d8	*123*			*75.0-131*		*10/19/2018 22:11*	WG1183157
(S) Toluene-d8	*98.0*			*75.0-131*		*10/22/2018 20:23*	WG1184604
(S) Dibromofluoromethane	*94.8*			*65.0-129*		*10/19/2018 22:11*	WG1183157
(S) Dibromofluoromethane	*116*			*65.0-129*		*10/22/2018 20:23*	WG1184604
(S) 4-Bromofluorobenzene	*91.5*			*67.0-138*		*10/19/2018 22:11*	WG1183157
(S) 4-Bromofluorobenzene	*123*			*67.0-138*		*10/22/2018 20:23*	WG1184604

Sample Narrative:

L1034970-14 WG1183157, WG1184604: Not all compounds reportable at lower dilution.

L1034970-14 WG1183157, WG1184604: Cannot be re-analyzed at a lower dilution due to high levels of target analytes.

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	88.4		1	10/19/2018 13:51	WG1183343

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0155	0.0283	1	10/19/2018 22:31	WG1183157
Acrylonitrile	U		0.00215	0.0141	1	10/19/2018 22:31	WG1183157
Benzene	U		0.000452	0.00113	1	10/19/2018 22:31	WG1183157
Bromobenzene	U		0.00119	0.0141	1	10/19/2018 22:31	WG1183157
Bromodichloromethane	U		0.000891	0.00283	1	10/19/2018 22:31	WG1183157
Bromochloromethane	U		0.00128	0.00565	1	10/19/2018 22:31	WG1183157
Bromoform	U	J0	0.00676	0.0283	1	10/19/2018 22:31	WG1183157
Bromomethane	U		0.00418	0.0141	1	10/19/2018 22:31	WG1183157
n-Butylbenzene	U		0.00434	0.0141	1	10/19/2018 22:31	WG1183157
sec-Butylbenzene	U		0.00286	0.0141	1	10/19/2018 22:31	WG1183157
tert-Butylbenzene	U		0.00175	0.00565	1	10/19/2018 22:31	WG1183157
Carbon disulfide	U	J0	0.00459	0.0141	1	10/19/2018 22:31	WG1183157
Carbon tetrachloride	U		0.00122	0.00565	1	10/19/2018 22:31	WG1183157
Chlorobenzene	U		0.000648	0.00283	1	10/19/2018 22:31	WG1183157
Chlorodibromomethane	U		0.000509	0.00283	1	10/19/2018 22:31	WG1183157
Chloroethane	U		0.00122	0.00565	1	10/19/2018 22:31	WG1183157
Chloroform	0.000654	B J	0.000469	0.00283	1	10/19/2018 22:31	WG1183157
Chloromethane	U		0.00157	0.0141	1	10/19/2018 22:31	WG1183157
2-Chlorotoluene	U		0.00104	0.00283	1	10/19/2018 22:31	WG1183157
4-Chlorotoluene	U		0.00128	0.00565	1	10/19/2018 22:31	WG1183157
1,2-Dibromo-3-Chloropropane	U	J0	0.00577	0.0283	1	10/19/2018 22:31	WG1183157
1,2-Dibromoethane	U		0.000594	0.00283	1	10/19/2018 22:31	WG1183157
Dibromomethane	U		0.00113	0.00565	1	10/19/2018 22:31	WG1183157
1,2-Dichlorobenzene	U		0.00164	0.00565	1	10/19/2018 22:31	WG1183157
1,3-Dichlorobenzene	U		0.00192	0.00565	1	10/19/2018 22:31	WG1183157
1,4-Dichlorobenzene	U		0.00223	0.00565	1	10/19/2018 22:31	WG1183157
Dichlorodifluoromethane	U		0.000925	0.00283	1	10/19/2018 22:31	WG1183157
1,1-Dichloroethane	U		0.000650	0.00283	1	10/19/2018 22:31	WG1183157
1,2-Dichloroethane	U		0.000537	0.00283	1	10/19/2018 22:31	WG1183157
1,1-Dichloroethene	U		0.000565	0.00283	1	10/19/2018 22:31	WG1183157
cis-1,2-Dichloroethene	0.0366		0.000780	0.00283	1	10/19/2018 22:31	WG1183157
trans-1,2-Dichloroethene	U		0.00162	0.00565	1	10/19/2018 22:31	WG1183157
1,2-Dichloropropane	U		0.0574	0.226	40	10/22/2018 20:44	WG1184604
1,1-Dichloropropene	U		0.000791	0.00283	1	10/19/2018 22:31	WG1183157
1,3-Dichloropropane	U		0.00198	0.00565	1	10/19/2018 22:31	WG1183157
cis-1,3-Dichloropropene	U		0.000767	0.00283	1	10/19/2018 22:31	WG1183157
trans-1,3-Dichloropropene	U		0.00173	0.00565	1	10/19/2018 22:31	WG1183157
trans-1,4-Dichloro-2-butene	U		0.00158	0.00565	1	10/19/2018 22:31	WG1183157
2,2-Dichloropropane	U		0.000897	0.00283	1	10/19/2018 22:31	WG1183157
Di-isopropyl ether	U		0.000396	0.00113	1	10/19/2018 22:31	WG1183157
Ethylbenzene	U		0.000599	0.00283	1	10/19/2018 22:31	WG1183157
Hexachloro-1,3-butadiene	U	J0	0.0144	0.0283	1	10/19/2018 22:31	WG1183157
2-Hexanone	U		0.0113	0.0283	1	10/19/2018 22:31	WG1183157
n-Hexane	U		0.00120	0.00565	1	10/19/2018 22:31	WG1183157
Iodomethane	U		0.00684	0.0141	1	10/19/2018 22:31	WG1183157
Isopropylbenzene	U		0.000976	0.00283	1	10/19/2018 22:31	WG1183157
p-Isopropyltoluene	U		0.00263	0.00565	1	10/19/2018 22:31	WG1183157
2-Butanone (MEK)	U	J0	0.565	1.13	40	10/22/2018 20:44	WG1184604
Methylene Chloride	U		0.00751	0.0283	1	10/19/2018 22:31	WG1183157
4-Methyl-2-pentanone (MIBK)	U		0.0113	0.0283	1	10/19/2018 22:31	WG1183157

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000334	0.00113	1	10/19/2018 22:31	WG1183157
Naphthalene	U		0.00353	0.0141	1	10/19/2018 22:31	WG1183157
n-Propylbenzene	U		0.00133	0.00565	1	10/19/2018 22:31	WG1183157
Styrene	U	J0	0.00309	0.0141	1	10/19/2018 22:31	WG1183157
1,1,1,2-Tetrachloroethane	U		0.000565	0.00283	1	10/19/2018 22:31	WG1183157
1,1,2,2-Tetrachloroethane	U		0.000441	0.00283	1	10/19/2018 22:31	WG1183157
1,1,2-Trichlorotrifluoroethane	U		0.000763	0.00283	1	10/19/2018 22:31	WG1183157
Tetrachloroethene	12.0		0.0317	0.113	40	10/22/2018 20:44	WG1184604
Toluene	U		0.00141	0.00565	1	10/19/2018 22:31	WG1183157
1,2,3-Trichlorobenzene	U		0.000707	0.00283	1	10/19/2018 22:31	WG1183157
1,2,4-Trichlorobenzene	U		0.00545	0.0141	1	10/19/2018 22:31	WG1183157
1,1,1-Trichloroethane	U		0.000311	0.00283	1	10/19/2018 22:31	WG1183157
1,1,2-Trichloroethane	U		0.0399	0.113	40	10/22/2018 20:44	WG1184604
Trichloroethene	0.102		0.000452	0.00113	1	10/19/2018 22:31	WG1183157
Trichlorofluoromethane	U		0.000565	0.00283	1	10/19/2018 22:31	WG1183157
1,2,3-Trichloropropane	U		0.00577	0.0141	1	10/19/2018 22:31	WG1183157
1,2,4-Trimethylbenzene	U		0.00131	0.00565	1	10/19/2018 22:31	WG1183157
1,2,3-Trimethylbenzene	U		0.00130	0.00565	1	10/19/2018 22:31	WG1183157
1,3,5-Trimethylbenzene	U		0.00122	0.00565	1	10/19/2018 22:31	WG1183157
Vinyl acetate	U		0.00398	0.0141	1	10/19/2018 22:31	WG1183157
Vinyl chloride	U		0.000772	0.00283	1	10/19/2018 22:31	WG1183157
Xylenes, Total	U		0.00540	0.00735	1	10/19/2018 22:31	WG1183157
(S) Toluene-d8	*123*			*75.0-131*		*10/19/2018 22:31*	WG1183157
(S) Toluene-d8	*99.0*			*75.0-131*		*10/22/2018 20:44*	WG1184604
(S) Dibromofluoromethane	*95.3*			*65.0-129*		*10/19/2018 22:31*	WG1183157
(S) Dibromofluoromethane	*116*			*65.0-129*		*10/22/2018 20:44*	WG1184604
(S) 4-Bromofluorobenzene	*94.3*			*67.0-138*		*10/19/2018 22:31*	WG1183157
(S) 4-Bromofluorobenzene	*120*			*67.0-138*		*10/22/2018 20:44*	WG1184604

Sample Narrative:

L1034970-15 WG1183157, WG1184604: Not all compounds reportable at lower dilution.

L1034970-15 WG1183157, WG1184604: Cannot be re-analyzed at a lower dilution due to high levels of target analytes.

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	85.4		1	10/19/2018 13:51	WG1183343

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	0.0178	J	0.0160	0.0293	1	10/19/2018 22:52	WG1183157
Acrylonitrile	U		0.00222	0.0146	1	10/19/2018 22:52	WG1183157
Benzene	U		0.000468	0.00117	1	10/19/2018 22:52	WG1183157
Bromobenzene	U		0.00123	0.0146	1	10/19/2018 22:52	WG1183157
Bromodichloromethane	U		0.000923	0.00293	1	10/19/2018 22:52	WG1183157
Bromochloromethane	U		0.00132	0.00586	1	10/19/2018 22:52	WG1183157
Bromoform	U	J0	0.00700	0.0293	1	10/19/2018 22:52	WG1183157
Bromomethane	U		0.00433	0.0146	1	10/19/2018 22:52	WG1183157
n-Butylbenzene	U		0.00450	0.0146	1	10/19/2018 22:52	WG1183157
sec-Butylbenzene	U		0.00296	0.0146	1	10/19/2018 22:52	WG1183157
tert-Butylbenzene	U		0.00182	0.00586	1	10/19/2018 22:52	WG1183157
Carbon disulfide	U	J0	0.00475	0.0146	1	10/19/2018 22:52	WG1183157
Carbon tetrachloride	U		0.00126	0.00586	1	10/19/2018 22:52	WG1183157
Chlorobenzene	U		0.000671	0.00293	1	10/19/2018 22:52	WG1183157
Chlorodibromomethane	U		0.000527	0.00293	1	10/19/2018 22:52	WG1183157
Chloroethane	U		0.00126	0.00586	1	10/19/2018 22:52	WG1183157
Chloroform	0.000952	B J	0.000486	0.00293	1	10/19/2018 22:52	WG1183157
Chloromethane	U		0.00163	0.0146	1	10/19/2018 22:52	WG1183157
2-Chlorotoluene	U		0.00108	0.00293	1	10/19/2018 22:52	WG1183157
4-Chlorotoluene	U		0.00132	0.00586	1	10/19/2018 22:52	WG1183157
1,2-Dibromo-3-Chloropropane	U	J0	0.00597	0.0293	1	10/19/2018 22:52	WG1183157
1,2-Dibromoethane	U		0.000615	0.00293	1	10/19/2018 22:52	WG1183157
Dibromomethane	U		0.00117	0.00586	1	10/19/2018 22:52	WG1183157
1,2-Dichlorobenzene	U		0.00170	0.00586	1	10/19/2018 22:52	WG1183157
1,3-Dichlorobenzene	U		0.00199	0.00586	1	10/19/2018 22:52	WG1183157
1,4-Dichlorobenzene	U		0.00231	0.00586	1	10/19/2018 22:52	WG1183157
Dichlorodifluoromethane	U		0.000958	0.00293	1	10/19/2018 22:52	WG1183157
1,1-Dichloroethane	U		0.000673	0.00293	1	10/19/2018 22:52	WG1183157
1,2-Dichloroethane	U		0.000556	0.00293	1	10/19/2018 22:52	WG1183157
1,1-Dichloroethene	U		0.000586	0.00293	1	10/19/2018 22:52	WG1183157
cis-1,2-Dichloroethene	0.0474		0.000808	0.00293	1	10/19/2018 22:52	WG1183157
trans-1,2-Dichloroethene	U		0.00167	0.00586	1	10/19/2018 22:52	WG1183157
1,2-Dichloropropane	U		0.0595	0.234	40	10/22/2018 21:03	WG1184604
1,1-Dichloropropene	U		0.000820	0.00293	1	10/19/2018 22:52	WG1183157
1,3-Dichloropropane	U		0.00205	0.00586	1	10/19/2018 22:52	WG1183157
cis-1,3-Dichloropropene	U		0.000794	0.00293	1	10/19/2018 22:52	WG1183157
trans-1,3-Dichloropropene	U		0.00179	0.00586	1	10/19/2018 22:52	WG1183157
trans-1,4-Dichloro-2-butene	U		0.00164	0.00586	1	10/19/2018 22:52	WG1183157
2,2-Dichloropropane	U		0.000929	0.00293	1	10/19/2018 22:52	WG1183157
Di-isopropyl ether	U		0.000410	0.00117	1	10/19/2018 22:52	WG1183157
Ethylbenzene	U		0.000621	0.00293	1	10/19/2018 22:52	WG1183157
Hexachloro-1,3-butadiene	U	J0	0.0149	0.0293	1	10/19/2018 22:52	WG1183157
2-Hexanone	U		0.0117	0.0293	1	10/19/2018 22:52	WG1183157
n-Hexane	U		0.00124	0.00586	1	10/19/2018 22:52	WG1183157
Iodomethane	U		0.00708	0.0146	1	10/19/2018 22:52	WG1183157
Isopropylbenzene	U		0.00101	0.00293	1	10/19/2018 22:52	WG1183157
p-Isopropyltoluene	U		0.00273	0.00586	1	10/19/2018 22:52	WG1183157
2-Butanone (MEK)	U	J0	0.586	1.17	40	10/22/2018 21:03	WG1184604
Methylene Chloride	U		0.00778	0.0293	1	10/19/2018 22:52	WG1183157
4-Methyl-2-pentanone (MIBK)	U		0.0117	0.0293	1	10/19/2018 22:52	WG1183157

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000345	0.00117	1	10/19/2018 22:52	WG1183157
Naphthalene	U		0.00365	0.0146	1	10/19/2018 22:52	WG1183157
n-Propylbenzene	U		0.00138	0.00586	1	10/19/2018 22:52	WG1183157
Styrene	U	J0	0.00320	0.0146	1	10/19/2018 22:52	WG1183157
1,1,1,2-Tetrachloroethane	U		0.000586	0.00293	1	10/19/2018 22:52	WG1183157
1,1,2,2-Tetrachloroethane	U		0.000457	0.00293	1	10/19/2018 22:52	WG1183157
1,1,2-Trichlorotrifluoroethane	U		0.000790	0.00293	1	10/19/2018 22:52	WG1183157
Tetrachloroethene	6.66		0.0328	0.117	40	10/22/2018 21:03	WG1184604
Toluene	U		0.00146	0.00586	1	10/19/2018 22:52	WG1183157
1,2,3-Trichlorobenzene	U		0.000732	0.00293	1	10/19/2018 22:52	WG1183157
1,2,4-Trichlorobenzene	U		0.00564	0.0146	1	10/19/2018 22:52	WG1183157
1,1,1-Trichloroethane	U		0.000322	0.00293	1	10/19/2018 22:52	WG1183157
1,1,2-Trichloroethane	U		0.0413	0.117	40	10/22/2018 21:03	WG1184604
Trichloroethene	0.154		0.000468	0.00117	1	10/19/2018 22:52	WG1183157
Trichlorofluoromethane	U		0.000586	0.00293	1	10/19/2018 22:52	WG1183157
1,2,3-Trichloropropane	U		0.00597	0.0146	1	10/19/2018 22:52	WG1183157
1,2,4-Trimethylbenzene	U		0.00136	0.00586	1	10/19/2018 22:52	WG1183157
1,2,3-Trimethylbenzene	U		0.00135	0.00586	1	10/19/2018 22:52	WG1183157
1,3,5-Trimethylbenzene	U		0.00126	0.00586	1	10/19/2018 22:52	WG1183157
Vinyl acetate	U		0.00412	0.0146	1	10/19/2018 22:52	WG1183157
Vinyl chloride	U		0.000800	0.00293	1	10/19/2018 22:52	WG1183157
Xylenes, Total	U		0.00560	0.00761	1	10/19/2018 22:52	WG1183157
(S) Toluene-d8	*122*			*75.0-131*		*10/19/2018 22:52*	WG1183157
(S) Toluene-d8	*97.4*			*75.0-131*		*10/22/2018 21:03*	WG1184604
(S) Dibromofluoromethane	*94.6*			*65.0-129*		*10/19/2018 22:52*	WG1183157
(S) Dibromofluoromethane	*117*			*65.0-129*		*10/22/2018 21:03*	WG1184604
(S) 4-Bromofluorobenzene	*92.7*			*67.0-138*		*10/19/2018 22:52*	WG1183157
(S) 4-Bromofluorobenzene	*128*			*67.0-138*		*10/22/2018 21:03*	WG1184604

Sample Narrative:

L1034970-16 WG1183157, WG1184604: Not all compounds reportable at lower dilution.

L1034970-16 WG1183157, WG1184604: Cannot be re-analyzed at a lower dilution due to high levels of target analytes.

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	87.1		1	10/16/2018 14:25	WG1181703

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		13.1	23.8	830	10/17/2018 13:52	WG1182096
Acrylonitrile	U		0.00218	0.0144	1	10/16/2018 19:40	WG1181654
Benzene	U		0.000459	0.00115	1	10/16/2018 19:40	WG1181654
Bromobenzene	U		0.00121	0.0144	1	10/16/2018 19:40	WG1181654
Bromodichloromethane	U		0.000905	0.00287	1	10/16/2018 19:40	WG1181654
Bromochloromethane	U		0.00130	0.00574	1	10/16/2018 19:40	WG1181654
Bromoform	U		0.00687	0.0287	1	10/16/2018 19:40	WG1181654
Bromomethane	U		0.00425	0.0144	1	10/16/2018 19:40	WG1181654
n-Butylbenzene	U		0.00441	0.0144	1	10/16/2018 19:40	WG1181654
sec-Butylbenzene	U		0.00291	0.0144	1	10/16/2018 19:40	WG1181654
tert-Butylbenzene	U		0.00178	0.00574	1	10/16/2018 19:40	WG1181654
Carbon disulfide	U		0.00466	0.0144	1	10/16/2018 19:40	WG1181654
Carbon tetrachloride	U		0.00124	0.00574	1	10/16/2018 19:40	WG1181654
Chlorobenzene	U		0.000658	0.00287	1	10/16/2018 19:40	WG1181654
Chlorodibromomethane	U		0.000517	0.00287	1	10/16/2018 19:40	WG1181654
Chloroethane	U		0.00124	0.00574	1	10/16/2018 19:40	WG1181654
Chloroform	0.000767	B J	0.000477	0.00287	1	10/16/2018 19:40	WG1181654
Chloromethane	U		0.00160	0.0144	1	10/16/2018 19:40	WG1181654
2-Chlorotoluene	U		0.00106	0.00287	1	10/16/2018 19:40	WG1181654
4-Chlorotoluene	U		0.00130	0.00574	1	10/16/2018 19:40	WG1181654
1,2-Dibromo-3-Chloropropane	U		0.00586	0.0287	1	10/16/2018 19:40	WG1181654
1,2-Dibromoethane	U		0.000603	0.00287	1	10/16/2018 19:40	WG1181654
Dibromomethane	U	J4	0.00115	0.00574	1	10/16/2018 19:40	WG1181654
1,2-Dichlorobenzene	U		0.00167	0.00574	1	10/16/2018 19:40	WG1181654
1,3-Dichlorobenzene	U		0.00195	0.00574	1	10/16/2018 19:40	WG1181654
1,4-Dichlorobenzene	U		0.00226	0.00574	1	10/16/2018 19:40	WG1181654
Dichlorodifluoromethane	U		0.000940	0.00287	1	10/16/2018 19:40	WG1181654
1,1-Dichloroethane	U		0.000660	0.00287	1	10/16/2018 19:40	WG1181654
1,2-Dichloroethane	U		0.000546	0.00287	1	10/16/2018 19:40	WG1181654
1,1-Dichloroethene	U		0.000574	0.00287	1	10/16/2018 19:40	WG1181654
cis-1,2-Dichloroethene	0.191		0.000793	0.00287	1	10/16/2018 19:40	WG1181654
trans-1,2-Dichloroethene	U		0.00164	0.00574	1	10/16/2018 19:40	WG1181654
1,2-Dichloropropane	U		0.00146	0.00574	1	10/16/2018 19:40	WG1181654
1,1-Dichloropropene	U		0.000804	0.00287	1	10/16/2018 19:40	WG1181654
1,3-Dichloropropane	U		0.00201	0.00574	1	10/16/2018 19:40	WG1181654
cis-1,3-Dichloropropene	U		0.000779	0.00287	1	10/16/2018 19:40	WG1181654
trans-1,3-Dichloropropene	U		0.00176	0.00574	1	10/16/2018 19:40	WG1181654
trans-1,4-Dichloro-2-butene	U		0.00161	0.00574	1	10/16/2018 19:40	WG1181654
2,2-Dichloropropane	U		0.000911	0.00287	1	10/16/2018 19:40	WG1181654
Di-isopropyl ether	U		0.000402	0.00115	1	10/16/2018 19:40	WG1181654
Ethylbenzene	U		0.000609	0.00287	1	10/16/2018 19:40	WG1181654
Hexachloro-1,3-butadiene	U		0.0146	0.0287	1	10/16/2018 19:40	WG1181654
2-Hexanone	U		0.0115	0.0287	1	10/16/2018 19:40	WG1181654
n-Hexane	0.00180	J	0.00122	0.00574	1	10/16/2018 19:40	WG1181654
Iodomethane	U		0.00695	0.0144	1	10/16/2018 19:40	WG1181654
Isopropylbenzene	U		0.000991	0.00287	1	10/16/2018 19:40	WG1181654
p-Isopropyltoluene	U		0.00268	0.00574	1	10/16/2018 19:40	WG1181654
2-Butanone (MEK)	U		0.0144	0.0287	1	10/16/2018 19:40	WG1181654
Methylene Chloride	U		0.00763	0.0287	1	10/16/2018 19:40	WG1181654
4-Methyl-2-pentanone (MIBK)	U		0.0115	0.0287	1	10/16/2018 19:40	WG1181654

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U	J0	0.000339	0.00115	1	10/16/2018 19:40	WG1181654
Naphthalene	U		0.00358	0.0144	1	10/16/2018 19:40	WG1181654
n-Propylbenzene	U		0.00136	0.00574	1	10/16/2018 19:40	WG1181654
Styrene	U		0.00314	0.0144	1	10/16/2018 19:40	WG1181654
1,1,1,2-Tetrachloroethane	U		0.000574	0.00287	1	10/16/2018 19:40	WG1181654
1,1,2,2-Tetrachloroethane	U	J4	0.000448	0.00287	1	10/16/2018 19:40	WG1181654
1,1,2-Trichlorotrifluoroethane	U		0.000775	0.00287	1	10/16/2018 19:40	WG1181654
Tetrachloroethene	6.09		0.667	2.38	830	10/17/2018 13:52	WG1182096
Toluene	U		0.00144	0.00574	1	10/16/2018 19:40	WG1181654
1,2,3-Trichlorobenzene	U		0.000718	0.00287	1	10/16/2018 19:40	WG1181654
1,2,4-Trichlorobenzene	U		0.00554	0.0144	1	10/16/2018 19:40	WG1181654
1,1,1-Trichloroethane	U		0.000316	0.00287	1	10/16/2018 19:40	WG1181654
1,1,2-Trichloroethane	U	J4	0.00101	0.00287	1	10/16/2018 19:40	WG1181654
Trichloroethene	0.512		0.000459	0.00115	1	10/16/2018 19:40	WG1181654
Trichlorofluoromethane	U		0.000574	0.00287	1	10/16/2018 19:40	WG1181654
1,2,3-Trichloropropane	U		0.00586	0.0144	1	10/16/2018 19:40	WG1181654
1,2,4-Trimethylbenzene	U		0.00133	0.00574	1	10/16/2018 19:40	WG1181654
1,2,3-Trimethylbenzene	U		0.00132	0.00574	1	10/16/2018 19:40	WG1181654
1,3,5-Trimethylbenzene	U		0.00124	0.00574	1	10/16/2018 19:40	WG1181654
Vinyl acetate	U		0.00404	0.0144	1	10/16/2018 19:40	WG1181654
Vinyl chloride	U		0.000785	0.00287	1	10/16/2018 19:40	WG1181654
Xylenes, Total	U		0.00549	0.00747	1	10/16/2018 19:40	WG1181654
(S) Toluene-d8	*119*			*75.0-131*		*10/16/2018 19:40*	WG1181654
(S) Toluene-d8	*99.1*			*75.0-131*		*10/17/2018 13:52*	WG1182096
(S) Dibromofluoromethane	*74.6*			*65.0-129*		*10/16/2018 19:40*	WG1181654
(S) Dibromofluoromethane	*120*			*65.0-129*		*10/17/2018 13:52*	WG1182096
(S) 4-Bromofluorobenzene	*98.7*			*67.0-138*		*10/16/2018 19:40*	WG1181654
(S) 4-Bromofluorobenzene	*118*			*67.0-138*		*10/17/2018 13:52*	WG1182096

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	95.7		1	10/19/2018 13:51	WG1183343

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0143	0.0261	1	10/19/2018 23:12	WG1183157
Acrylonitrile	U		0.00199	0.0131	1	10/19/2018 23:12	WG1183157
Benzene	U		0.000418	0.00104	1	10/19/2018 23:12	WG1183157
Bromobenzene	U		0.00110	0.0131	1	10/19/2018 23:12	WG1183157
Bromodichloromethane	U		0.000823	0.00261	1	10/19/2018 23:12	WG1183157
Bromochloromethane	U		0.00118	0.00522	1	10/19/2018 23:12	WG1183157
Bromoform	U	J0	0.00625	0.0261	1	10/19/2018 23:12	WG1183157
Bromomethane	U		0.00387	0.0131	1	10/19/2018 23:12	WG1183157
n-Butylbenzene	U		0.00401	0.0131	1	10/19/2018 23:12	WG1183157
sec-Butylbenzene	U		0.00264	0.0131	1	10/19/2018 23:12	WG1183157
tert-Butylbenzene	U		0.00162	0.00522	1	10/19/2018 23:12	WG1183157
Carbon disulfide	U	J0	0.00424	0.0131	1	10/19/2018 23:12	WG1183157
Carbon tetrachloride	U		0.00113	0.00522	1	10/19/2018 23:12	WG1183157
Chlorobenzene	U		0.000599	0.00261	1	10/19/2018 23:12	WG1183157
Chlorodibromomethane	U		0.000470	0.00261	1	10/19/2018 23:12	WG1183157
Chloroethane	U		0.00113	0.00522	1	10/19/2018 23:12	WG1183157
Chloroform	0.000887	B J	0.000434	0.00261	1	10/19/2018 23:12	WG1183157
Chloromethane	U		0.00145	0.0131	1	10/19/2018 23:12	WG1183157
2-Chlorotoluene	U		0.000961	0.00261	1	10/19/2018 23:12	WG1183157
4-Chlorotoluene	U		0.00118	0.00522	1	10/19/2018 23:12	WG1183157
1,2-Dibromo-3-Chloropropane	U	J0	0.00533	0.0261	1	10/19/2018 23:12	WG1183157
1,2-Dibromoethane	U		0.000549	0.00261	1	10/19/2018 23:12	WG1183157
Dibromomethane	U		0.00104	0.00522	1	10/19/2018 23:12	WG1183157
1,2-Dichlorobenzene	U		0.00151	0.00522	1	10/19/2018 23:12	WG1183157
1,3-Dichlorobenzene	U		0.00178	0.00522	1	10/19/2018 23:12	WG1183157
1,4-Dichlorobenzene	U		0.00206	0.00522	1	10/19/2018 23:12	WG1183157
Dichlorodifluoromethane	U		0.000855	0.00261	1	10/19/2018 23:12	WG1183157
1,1-Dichloroethane	U		0.000601	0.00261	1	10/19/2018 23:12	WG1183157
1,2-Dichloroethane	U		0.000496	0.00261	1	10/19/2018 23:12	WG1183157
1,1-Dichloroethene	U		0.000522	0.00261	1	10/19/2018 23:12	WG1183157
cis-1,2-Dichloroethene	0.0146		0.000721	0.00261	1	10/19/2018 23:12	WG1183157
trans-1,2-Dichloroethene	U		0.00149	0.00522	1	10/19/2018 23:12	WG1183157
1,2-Dichloropropane	U		0.00133	0.00522	1	10/22/2018 16:44	WG1184604
1,1-Dichloropropene	U		0.000731	0.00261	1	10/19/2018 23:12	WG1183157
1,3-Dichloropropane	U		0.00183	0.00522	1	10/19/2018 23:12	WG1183157
cis-1,3-Dichloropropene	U		0.000708	0.00261	1	10/19/2018 23:12	WG1183157
trans-1,3-Dichloropropene	U		0.00160	0.00522	1	10/19/2018 23:12	WG1183157
trans-1,4-Dichloro-2-butene	U		0.00146	0.00522	1	10/19/2018 23:12	WG1183157
2,2-Dichloropropane	U		0.000829	0.00261	1	10/19/2018 23:12	WG1183157
Di-isopropyl ether	U		0.000366	0.00104	1	10/19/2018 23:12	WG1183157
Ethylbenzene	U		0.000554	0.00261	1	10/19/2018 23:12	WG1183157
Hexachloro-1,3-butadiene	U	J0	0.0133	0.0261	1	10/19/2018 23:12	WG1183157
2-Hexanone	U		0.0104	0.0261	1	10/19/2018 23:12	WG1183157
n-Hexane	0.00228	J	0.00111	0.00522	1	10/19/2018 23:12	WG1183157
Iodomethane	U		0.00632	0.0131	1	10/19/2018 23:12	WG1183157
Isopropylbenzene	U		0.000902	0.00261	1	10/19/2018 23:12	WG1183157
p-Isopropyltoluene	U		0.00243	0.00522	1	10/19/2018 23:12	WG1183157
2-Butanone (MEK)	0.0516	J0	0.0131	0.0261	1	10/22/2018 16:44	WG1184604
Methylene Chloride	0.00853	B J	0.00694	0.0261	1	10/19/2018 23:12	WG1183157
4-Methyl-2-pentanone (MIBK)	U		0.0104	0.0261	1	10/19/2018 23:12	WG1183157

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000308	0.00104	1	10/19/2018 23:12	WG1183157
Naphthalene	U		0.00326	0.0131	1	10/19/2018 23:12	WG1183157
n-Propylbenzene	U		0.00123	0.00522	1	10/19/2018 23:12	WG1183157
Styrene	U	J0	0.00285	0.0131	1	10/19/2018 23:12	WG1183157
1,1,1,2-Tetrachloroethane	U		0.000522	0.00261	1	10/19/2018 23:12	WG1183157
1,1,2,2-Tetrachloroethane	U		0.000407	0.00261	1	10/19/2018 23:12	WG1183157
1,1,2-Trichlorotrifluoroethane	U		0.000705	0.00261	1	10/19/2018 23:12	WG1183157
Tetrachloroethene	0.306		0.000731	0.00261	1	10/19/2018 23:12	WG1183157
Toluene	U		0.00131	0.00522	1	10/19/2018 23:12	WG1183157
1,2,3-Trichlorobenzene	U		0.000653	0.00261	1	10/19/2018 23:12	WG1183157
1,2,4-Trichlorobenzene	U		0.00504	0.0131	1	10/19/2018 23:12	WG1183157
1,1,1-Trichloroethane	U		0.000287	0.00261	1	10/19/2018 23:12	WG1183157
1,1,2-Trichloroethane	U		0.000923	0.00261	1	10/22/2018 16:44	WG1184604
Trichloroethene	0.0201		0.000418	0.00104	1	10/19/2018 23:12	WG1183157
Trichlorofluoromethane	U		0.000522	0.00261	1	10/19/2018 23:12	WG1183157
1,2,3-Trichloropropane	U		0.00533	0.0131	1	10/19/2018 23:12	WG1183157
1,2,4-Trimethylbenzene	U		0.00121	0.00522	1	10/19/2018 23:12	WG1183157
1,2,3-Trimethylbenzene	U		0.00120	0.00522	1	10/19/2018 23:12	WG1183157
1,3,5-Trimethylbenzene	U		0.00113	0.00522	1	10/19/2018 23:12	WG1183157
Vinyl acetate	U		0.00368	0.0131	1	10/19/2018 23:12	WG1183157
Vinyl chloride	U		0.000714	0.00261	1	10/19/2018 23:12	WG1183157
Xylenes, Total	U		0.00499	0.00679	1	10/19/2018 23:12	WG1183157
(S) Toluene-d8	*126*			*75.0-131*		*10/19/2018 23:12*	WG1183157
(S) Toluene-d8	*99.9*			*75.0-131*		*10/22/2018 16:44*	WG1184604
(S) Dibromofluoromethane	*93.5*			*65.0-129*		*10/19/2018 23:12*	WG1183157
(S) Dibromofluoromethane	*113*			*65.0-129*		*10/22/2018 16:44*	WG1184604
(S) 4-Bromofluorobenzene	*91.7*			*67.0-138*		*10/19/2018 23:12*	WG1183157
(S) 4-Bromofluorobenzene	*119*			*67.0-138*		*10/22/2018 16:44*	WG1184604

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	90.2		1	10/22/2018 09:45	WG1183344

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0152	0.0277	1	10/19/2018 23:33	WG1183157
Acrylonitrile	U		0.00211	0.0139	1	10/19/2018 23:33	WG1183157
Benzene	U		0.000443	0.00111	1	10/19/2018 23:33	WG1183157
Bromobenzene	U		0.00116	0.0139	1	10/19/2018 23:33	WG1183157
Bromodichloromethane	U		0.000874	0.00277	1	10/19/2018 23:33	WG1183157
Bromochloromethane	U		0.00125	0.00554	1	10/19/2018 23:33	WG1183157
Bromoform	U	J0	0.00663	0.0277	1	10/19/2018 23:33	WG1183157
Bromomethane	U		0.00410	0.0139	1	10/19/2018 23:33	WG1183157
n-Butylbenzene	U		0.00426	0.0139	1	10/19/2018 23:33	WG1183157
sec-Butylbenzene	U		0.00281	0.0139	1	10/19/2018 23:33	WG1183157
tert-Butylbenzene	U		0.00172	0.00554	1	10/19/2018 23:33	WG1183157
Carbon disulfide	U	J0	0.00450	0.0139	1	10/19/2018 23:33	WG1183157
Carbon tetrachloride	U		0.00120	0.00554	1	10/19/2018 23:33	WG1183157
Chlorobenzene	U		0.000635	0.00277	1	10/19/2018 23:33	WG1183157
Chlorodibromomethane	U		0.000499	0.00277	1	10/19/2018 23:33	WG1183157
Chloroethane	U		0.00120	0.00554	1	10/19/2018 23:33	WG1183157
Chloroform	0.000808	B J	0.000460	0.00277	1	10/19/2018 23:33	WG1183157
Chloromethane	U		0.00154	0.0139	1	10/19/2018 23:33	WG1183157
2-Chlorotoluene	U		0.00102	0.00277	1	10/19/2018 23:33	WG1183157
4-Chlorotoluene	U		0.00125	0.00554	1	10/19/2018 23:33	WG1183157
1,2-Dibromo-3-Chloropropane	U	J0	0.00565	0.0277	1	10/19/2018 23:33	WG1183157
1,2-Dibromoethane	U		0.000582	0.00277	1	10/19/2018 23:33	WG1183157
Dibromomethane	U		0.00111	0.00554	1	10/19/2018 23:33	WG1183157
1,2-Dichlorobenzene	U		0.00161	0.00554	1	10/19/2018 23:33	WG1183157
1,3-Dichlorobenzene	U		0.00188	0.00554	1	10/19/2018 23:33	WG1183157
1,4-Dichlorobenzene	U		0.00218	0.00554	1	10/19/2018 23:33	WG1183157
Dichlorodifluoromethane	U		0.000907	0.00277	1	10/19/2018 23:33	WG1183157
1,1-Dichloroethane	U		0.000638	0.00277	1	10/19/2018 23:33	WG1183157
1,2-Dichloroethane	U		0.000527	0.00277	1	10/19/2018 23:33	WG1183157
1,1-Dichloroethene	U		0.000554	0.00277	1	10/19/2018 23:33	WG1183157
cis-1,2-Dichloroethene	0.0600		0.000765	0.00277	1	10/19/2018 23:33	WG1183157
trans-1,2-Dichloroethene	U		0.00159	0.00554	1	10/19/2018 23:33	WG1183157
1,2-Dichloropropane	U		0.00141	0.00554	1	10/22/2018 17:04	WG1184604
1,1-Dichloropropene	U		0.000776	0.00277	1	10/19/2018 23:33	WG1183157
1,3-Dichloropropane	U		0.00194	0.00554	1	10/19/2018 23:33	WG1183157
cis-1,3-Dichloropropene	U		0.000752	0.00277	1	10/19/2018 23:33	WG1183157
trans-1,3-Dichloropropene	U		0.00170	0.00554	1	10/19/2018 23:33	WG1183157
trans-1,4-Dichloro-2-butene	U		0.00155	0.00554	1	10/19/2018 23:33	WG1183157
2,2-Dichloropropane	U		0.000879	0.00277	1	10/19/2018 23:33	WG1183157
Di-isopropyl ether	U		0.000388	0.00111	1	10/19/2018 23:33	WG1183157
Ethylbenzene	U		0.000588	0.00277	1	10/19/2018 23:33	WG1183157
Hexachloro-1,3-butadiene	U	J0	0.0141	0.0277	1	10/19/2018 23:33	WG1183157
2-Hexanone	U		0.0111	0.0277	1	10/19/2018 23:33	WG1183157
n-Hexane	0.00177	J	0.00118	0.00554	1	10/19/2018 23:33	WG1183157
Iodomethane	U		0.00671	0.0139	1	10/19/2018 23:33	WG1183157
Isopropylbenzene	U		0.000957	0.00277	1	10/19/2018 23:33	WG1183157
p-Isopropyltoluene	U		0.00258	0.00554	1	10/19/2018 23:33	WG1183157
2-Butanone (MEK)	0.0333	J0	0.0139	0.0277	1	10/22/2018 17:04	WG1184604
Methylene Chloride	U		0.00736	0.0277	1	10/19/2018 23:33	WG1183157
4-Methyl-2-pentanone (MIBK)	U		0.0111	0.0277	1	10/19/2018 23:33	WG1183157

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000327	0.00111	1	10/19/2018 23:33	WG1183157
Naphthalene	U		0.00346	0.0139	1	10/19/2018 23:33	WG1183157
n-Propylbenzene	U		0.00131	0.00554	1	10/19/2018 23:33	WG1183157
Styrene	U	J0	0.00303	0.0139	1	10/19/2018 23:33	WG1183157
1,1,1,2-Tetrachloroethane	U		0.000554	0.00277	1	10/19/2018 23:33	WG1183157
1,1,2,2-Tetrachloroethane	U		0.000432	0.00277	1	10/19/2018 23:33	WG1183157
1,1,2-Trichlorotrifluoroethane	U		0.000748	0.00277	1	10/19/2018 23:33	WG1183157
Tetrachloroethene	0.356		0.000776	0.00277	1	10/19/2018 23:33	WG1183157
Toluene	U		0.00139	0.00554	1	10/19/2018 23:33	WG1183157
1,2,3-Trichlorobenzene	U		0.000693	0.00277	1	10/19/2018 23:33	WG1183157
1,2,4-Trichlorobenzene	U		0.00534	0.0139	1	10/19/2018 23:33	WG1183157
1,1,1-Trichloroethane	U		0.000305	0.00277	1	10/19/2018 23:33	WG1183157
1,1,2-Trichloroethane	U		0.000979	0.00277	1	10/22/2018 17:04	WG1184604
Trichloroethene	0.0503		0.000443	0.00111	1	10/19/2018 23:33	WG1183157
Trichlorofluoromethane	U		0.000554	0.00277	1	10/19/2018 23:33	WG1183157
1,2,3-Trichloropropane	U		0.00565	0.0139	1	10/19/2018 23:33	WG1183157
1,2,4-Trimethylbenzene	U		0.00129	0.00554	1	10/19/2018 23:33	WG1183157
1,2,3-Trimethylbenzene	U		0.00128	0.00554	1	10/19/2018 23:33	WG1183157
1,3,5-Trimethylbenzene	U		0.00120	0.00554	1	10/19/2018 23:33	WG1183157
Vinyl acetate	U		0.00390	0.0139	1	10/19/2018 23:33	WG1183157
Vinyl chloride	U		0.000757	0.00277	1	10/19/2018 23:33	WG1183157
Xylenes, Total	U		0.00530	0.00721	1	10/19/2018 23:33	WG1183157
(S) Toluene-d8	*125*			*75.0-131*		*10/19/2018 23:33*	WG1183157
(S) Toluene-d8	*99.4*			*75.0-131*		*10/22/2018 17:04*	WG1184604
(S) Dibromofluoromethane	*91.7*			*65.0-129*		*10/19/2018 23:33*	WG1183157
(S) Dibromofluoromethane	*113*			*65.0-129*		*10/22/2018 17:04*	WG1184604
(S) 4-Bromofluorobenzene	*96.8*			*67.0-138*		*10/19/2018 23:33*	WG1183157
(S) 4-Bromofluorobenzene	*120*			*67.0-138*		*10/22/2018 17:04*	WG1184604

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	93.5		1	10/22/2018 09:45	WG1183344

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0147	0.0267	1	10/19/2018 23:54	WG1183157
Acrylonitrile	U		0.00203	0.0134	1	10/19/2018 23:54	WG1183157
Benzene	U		0.000428	0.00107	1	10/19/2018 23:54	WG1183157
Bromobenzene	U		0.00112	0.0134	1	10/19/2018 23:54	WG1183157
Bromodichloromethane	U		0.000843	0.00267	1	10/19/2018 23:54	WG1183157
Bromochloromethane	U		0.00121	0.00535	1	10/19/2018 23:54	WG1183157
Bromoform	U	J0	0.00640	0.0267	1	10/19/2018 23:54	WG1183157
Bromomethane	U		0.00396	0.0134	1	10/19/2018 23:54	WG1183157
n-Butylbenzene	U		0.00411	0.0134	1	10/19/2018 23:54	WG1183157
sec-Butylbenzene	U		0.00271	0.0134	1	10/19/2018 23:54	WG1183157
tert-Butylbenzene	U		0.00166	0.00535	1	10/19/2018 23:54	WG1183157
Carbon disulfide	U	J0	0.00434	0.0134	1	10/19/2018 23:54	WG1183157
Carbon tetrachloride	U		0.00116	0.00535	1	10/19/2018 23:54	WG1183157
Chlorobenzene	U		0.000613	0.00267	1	10/19/2018 23:54	WG1183157
Chlorodibromomethane	U		0.000481	0.00267	1	10/19/2018 23:54	WG1183157
Chloroethane	U		0.00116	0.00535	1	10/19/2018 23:54	WG1183157
Chloroform	U		0.000444	0.00267	1	10/19/2018 23:54	WG1183157
Chloromethane	U		0.00149	0.0134	1	10/19/2018 23:54	WG1183157
2-Chlorotoluene	U		0.000984	0.00267	1	10/19/2018 23:54	WG1183157
4-Chlorotoluene	U		0.00121	0.00535	1	10/19/2018 23:54	WG1183157
1,2-Dibromo-3-Chloropropane	U	J0	0.00546	0.0267	1	10/19/2018 23:54	WG1183157
1,2-Dibromoethane	U		0.000562	0.00267	1	10/19/2018 23:54	WG1183157
Dibromomethane	U		0.00107	0.00535	1	10/19/2018 23:54	WG1183157
1,2-Dichlorobenzene	U		0.00155	0.00535	1	10/19/2018 23:54	WG1183157
1,3-Dichlorobenzene	U		0.00182	0.00535	1	10/19/2018 23:54	WG1183157
1,4-Dichlorobenzene	U		0.00211	0.00535	1	10/19/2018 23:54	WG1183157
Dichlorodifluoromethane	U		0.000875	0.00267	1	10/19/2018 23:54	WG1183157
1,1-Dichloroethane	U		0.000615	0.00267	1	10/19/2018 23:54	WG1183157
1,2-Dichloroethane	U		0.000508	0.00267	1	10/19/2018 23:54	WG1183157
1,1-Dichloroethene	U		0.000535	0.00267	1	10/19/2018 23:54	WG1183157
cis-1,2-Dichloroethene	0.0312		0.000738	0.00267	1	10/19/2018 23:54	WG1183157
trans-1,2-Dichloroethene	U		0.00153	0.00535	1	10/19/2018 23:54	WG1183157
1,2-Dichloropropane	U		0.00136	0.00535	1	10/22/2018 17:24	WG1184604
1,1-Dichloropropene	U		0.000749	0.00267	1	10/19/2018 23:54	WG1183157
1,3-Dichloropropane	U		0.00187	0.00535	1	10/19/2018 23:54	WG1183157
cis-1,3-Dichloropropene	U		0.000725	0.00267	1	10/19/2018 23:54	WG1183157
trans-1,3-Dichloropropene	U		0.00164	0.00535	1	10/19/2018 23:54	WG1183157
trans-1,4-Dichloro-2-butene	U		0.00150	0.00535	1	10/19/2018 23:54	WG1183157
2,2-Dichloropropane	U		0.000848	0.00267	1	10/19/2018 23:54	WG1183157
Di-isopropyl ether	U		0.000374	0.00107	1	10/19/2018 23:54	WG1183157
Ethylbenzene	U		0.000567	0.00267	1	10/19/2018 23:54	WG1183157
Hexachloro-1,3-butadiene	U	J0	0.0136	0.0267	1	10/19/2018 23:54	WG1183157
2-Hexanone	U		0.0107	0.0267	1	10/19/2018 23:54	WG1183157
n-Hexane	U		0.00113	0.00535	1	10/19/2018 23:54	WG1183157
Iodomethane	U		0.00647	0.0134	1	10/19/2018 23:54	WG1183157
Isopropylbenzene	U		0.000923	0.00267	1	10/19/2018 23:54	WG1183157
p-Isopropyltoluene	U		0.00249	0.00535	1	10/19/2018 23:54	WG1183157
2-Butanone (MEK)	0.0507	J0	0.0134	0.0267	1	10/22/2018 17:24	WG1184604
Methylene Chloride	U		0.00710	0.0267	1	10/19/2018 23:54	WG1183157
4-Methyl-2-pentanone (MIBK)	U		0.0107	0.0267	1	10/19/2018 23:54	WG1183157

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000316	0.00107	1	10/19/2018 23:54	WG1183157
Naphthalene	U		0.00334	0.0134	1	10/19/2018 23:54	WG1183157
n-Propylbenzene	U		0.00126	0.00535	1	10/19/2018 23:54	WG1183157
Styrene	U	J0	0.00292	0.0134	1	10/19/2018 23:54	WG1183157
1,1,1,2-Tetrachloroethane	U		0.000535	0.00267	1	10/19/2018 23:54	WG1183157
1,1,2,2-Tetrachloroethane	U		0.000417	0.00267	1	10/19/2018 23:54	WG1183157
1,1,2-Trichlorotrifluoroethane	U		0.000722	0.00267	1	10/19/2018 23:54	WG1183157
Tetrachloroethene	0.0783		0.000749	0.00267	1	10/19/2018 23:54	WG1183157
Toluene	U		0.00134	0.00535	1	10/19/2018 23:54	WG1183157
1,2,3-Trichlorobenzene	U		0.000669	0.00267	1	10/19/2018 23:54	WG1183157
1,2,4-Trichlorobenzene	U		0.00516	0.0134	1	10/19/2018 23:54	WG1183157
1,1,1-Trichloroethane	U		0.000294	0.00267	1	10/19/2018 23:54	WG1183157
1,1,2-Trichloroethane	U		0.000945	0.00267	1	10/22/2018 17:24	WG1184604
Trichloroethene	0.0156		0.000428	0.00107	1	10/19/2018 23:54	WG1183157
Trichlorofluoromethane	U		0.000535	0.00267	1	10/19/2018 23:54	WG1183157
1,2,3-Trichloropropane	U		0.00546	0.0134	1	10/19/2018 23:54	WG1183157
1,2,4-Trimethylbenzene	U		0.00124	0.00535	1	10/19/2018 23:54	WG1183157
1,2,3-Trimethylbenzene	U		0.00123	0.00535	1	10/19/2018 23:54	WG1183157
1,3,5-Trimethylbenzene	U		0.00116	0.00535	1	10/19/2018 23:54	WG1183157
Vinyl acetate	U		0.00377	0.0134	1	10/19/2018 23:54	WG1183157
Vinyl chloride	U		0.000731	0.00267	1	10/19/2018 23:54	WG1183157
Xylenes, Total	U		0.00511	0.00695	1	10/19/2018 23:54	WG1183157
(S) Toluene-d8	*124*			*75.0-131*		*10/19/2018 23:54*	WG1183157
(S) Toluene-d8	*100*			*75.0-131*		*10/22/2018 17:24*	WG1184604
(S) Dibromofluoromethane	*91.8*			*65.0-129*		*10/19/2018 23:54*	WG1183157
(S) Dibromofluoromethane	*112*			*65.0-129*		*10/22/2018 17:24*	WG1184604
(S) 4-Bromofluorobenzene	*93.1*			*67.0-138*		*10/19/2018 23:54*	WG1183157
(S) 4-Bromofluorobenzene	*119*			*67.0-138*		*10/22/2018 17:24*	WG1184604

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	84.9		1	10/22/2018 09:45	WG1183344

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0161	0.0295	1	10/20/2018 00:14	WG1183157
Acrylonitrile	U		0.00224	0.0147	1	10/20/2018 00:14	WG1183157
Benzene	U		0.000471	0.00118	1	10/20/2018 00:14	WG1183157
Bromobenzene	U		0.00124	0.0147	1	10/20/2018 00:14	WG1183157
Bromodichloromethane	U		0.000928	0.00295	1	10/20/2018 00:14	WG1183157
Bromochloromethane	U		0.00133	0.00589	1	10/20/2018 00:14	WG1183157
Bromoform	U	J0	0.00705	0.0295	1	10/20/2018 00:14	WG1183157
Bromomethane	U		0.00436	0.0147	1	10/20/2018 00:14	WG1183157
n-Butylbenzene	U		0.00452	0.0147	1	10/20/2018 00:14	WG1183157
sec-Butylbenzene	U		0.00298	0.0147	1	10/20/2018 00:14	WG1183157
tert-Butylbenzene	U		0.00183	0.00589	1	10/20/2018 00:14	WG1183157
Carbon disulfide	U	J0	0.00478	0.0147	1	10/20/2018 00:14	WG1183157
Carbon tetrachloride	U		0.00127	0.00589	1	10/20/2018 00:14	WG1183157
Chlorobenzene	U		0.000675	0.00295	1	10/20/2018 00:14	WG1183157
Chlorodibromomethane	U		0.000530	0.00295	1	10/20/2018 00:14	WG1183157
Chloroethane	U		0.00127	0.00589	1	10/20/2018 00:14	WG1183157
Chloroform	0.00130	B J	0.000489	0.00295	1	10/20/2018 00:14	WG1183157
Chloromethane	U		0.00164	0.0147	1	10/20/2018 00:14	WG1183157
2-Chlorotoluene	U		0.00108	0.00295	1	10/20/2018 00:14	WG1183157
4-Chlorotoluene	U		0.00133	0.00589	1	10/20/2018 00:14	WG1183157
1,2-Dibromo-3-Chloropropane	U	J0	0.00601	0.0295	1	10/20/2018 00:14	WG1183157
1,2-Dibromoethane	U		0.000619	0.00295	1	10/20/2018 00:14	WG1183157
Dibromomethane	U		0.00118	0.00589	1	10/20/2018 00:14	WG1183157
1,2-Dichlorobenzene	U		0.00171	0.00589	1	10/20/2018 00:14	WG1183157
1,3-Dichlorobenzene	U		0.00200	0.00589	1	10/20/2018 00:14	WG1183157
1,4-Dichlorobenzene	U		0.00232	0.00589	1	10/20/2018 00:14	WG1183157
Dichlorodifluoromethane	U		0.000964	0.00295	1	10/20/2018 00:14	WG1183157
1,1-Dichloroethane	U		0.000677	0.00295	1	10/20/2018 00:14	WG1183157
1,2-Dichloroethane	U		0.000560	0.00295	1	10/20/2018 00:14	WG1183157
1,1-Dichloroethene	U		0.000589	0.00295	1	10/20/2018 00:14	WG1183157
cis-1,2-Dichloroethene	0.340		0.000813	0.00295	1	10/20/2018 00:14	WG1183157
trans-1,2-Dichloroethene	U		0.00168	0.00589	1	10/20/2018 00:14	WG1183157
1,2-Dichloropropane	U		0.0299	0.118	20	10/22/2018 21:23	WG1184604
1,1-Dichloropropene	U		0.000825	0.00295	1	10/20/2018 00:14	WG1183157
1,3-Dichloropropane	U		0.00206	0.00589	1	10/20/2018 00:14	WG1183157
cis-1,3-Dichloropropene	U		0.000799	0.00295	1	10/20/2018 00:14	WG1183157
trans-1,3-Dichloropropene	U		0.00180	0.00589	1	10/20/2018 00:14	WG1183157
trans-1,4-Dichloro-2-butene	U		0.00165	0.00589	1	10/20/2018 00:14	WG1183157
2,2-Dichloropropane	U		0.000934	0.00295	1	10/20/2018 00:14	WG1183157
Di-isopropyl ether	U		0.000412	0.00118	1	10/20/2018 00:14	WG1183157
Ethylbenzene	U		0.000624	0.00295	1	10/20/2018 00:14	WG1183157
Hexachloro-1,3-butadiene	U	J0	0.0150	0.0295	1	10/20/2018 00:14	WG1183157
2-Hexanone	U		0.0118	0.0295	1	10/20/2018 00:14	WG1183157
n-Hexane	U		0.00125	0.00589	1	10/20/2018 00:14	WG1183157
Iodomethane	U		0.00713	0.0147	1	10/20/2018 00:14	WG1183157
Isopropylbenzene	U		0.00102	0.00295	1	10/20/2018 00:14	WG1183157
p-Isopropyltoluene	U		0.00275	0.00589	1	10/20/2018 00:14	WG1183157
2-Butanone (MEK)	U	J0	0.295	0.589	20	10/22/2018 21:23	WG1184604
Methylene Chloride	U		0.00782	0.0295	1	10/20/2018 00:14	WG1183157
4-Methyl-2-pentanone (MIBK)	U		0.0118	0.0295	1	10/20/2018 00:14	WG1183157

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000348	0.00118	1	10/20/2018 00:14	WG1183157
Naphthalene	U		0.00368	0.0147	1	10/20/2018 00:14	WG1183157
n-Propylbenzene	U		0.00139	0.00589	1	10/20/2018 00:14	WG1183157
Styrene	U	J0	0.00322	0.0147	1	10/20/2018 00:14	WG1183157
1,1,1,2-Tetrachloroethane	U		0.000589	0.00295	1	10/20/2018 00:14	WG1183157
1,1,2,2-Tetrachloroethane	U		0.000460	0.00295	1	10/20/2018 00:14	WG1183157
1,1,2-Trichlorotrifluoroethane	U		0.000795	0.00295	1	10/20/2018 00:14	WG1183157
Tetrachloroethene	3.43		0.0165	0.0589	20	10/22/2018 21:23	WG1184604
Toluene	U		0.00147	0.00589	1	10/20/2018 00:14	WG1183157
1,2,3-Trichlorobenzene	U		0.000736	0.00295	1	10/20/2018 00:14	WG1183157
1,2,4-Trichlorobenzene	U		0.00568	0.0147	1	10/20/2018 00:14	WG1183157
1,1,1-Trichloroethane	U		0.000324	0.00295	1	10/20/2018 00:14	WG1183157
1,1,2-Trichloroethane	U		0.0209	0.0589	20	10/22/2018 21:23	WG1184604
Trichloroethene	0.682		0.000471	0.00118	1	10/20/2018 00:14	WG1183157
Trichlorofluoromethane	U		0.000589	0.00295	1	10/20/2018 00:14	WG1183157
1,2,3-Trichloropropane	U		0.00601	0.0147	1	10/20/2018 00:14	WG1183157
1,2,4-Trimethylbenzene	U		0.00137	0.00589	1	10/20/2018 00:14	WG1183157
1,2,3-Trimethylbenzene	U		0.00135	0.00589	1	10/20/2018 00:14	WG1183157
1,3,5-Trimethylbenzene	U		0.00127	0.00589	1	10/20/2018 00:14	WG1183157
Vinyl acetate	U		0.00415	0.0147	1	10/20/2018 00:14	WG1183157
Vinyl chloride	U		0.000805	0.00295	1	10/20/2018 00:14	WG1183157
Xylenes, Total	U		0.00563	0.00766	1	10/20/2018 00:14	WG1183157
(S) Toluene-d8	*126*			*75.0-131*		*10/20/2018 00:14*	WG1183157
(S) Toluene-d8	*99.6*			*75.0-131*		*10/22/2018 21:23*	WG1184604
(S) Dibromofluoromethane	*91.6*			*65.0-129*		*10/20/2018 00:14*	WG1183157
(S) Dibromofluoromethane	*117*			*65.0-129*		*10/22/2018 21:23*	WG1184604
(S) 4-Bromofluorobenzene	*98.7*			*67.0-138*		*10/20/2018 00:14*	WG1183157
(S) 4-Bromofluorobenzene	*121*			*67.0-138*		*10/22/2018 21:23*	WG1184604

Sample Narrative:

L1034970-21 WG1183157, WG1184604: Not all compounds reportable at lower dilution.

L1034970-21 WG1183157, WG1184604: Cannot be re-analyzed at a lower dilution due to high levels of target analytes.

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	82.9		1	10/22/2018 09:45	WG1183344

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0165	0.0302	1	10/20/2018 00:35	WG1183157
Acrylonitrile	U		0.00229	0.0151	1	10/20/2018 00:35	WG1183157
Benzene	U		0.000483	0.00121	1	10/20/2018 00:35	WG1183157
Bromobenzene	U		0.00127	0.0151	1	10/20/2018 00:35	WG1183157
Bromodichloromethane	U		0.000951	0.00302	1	10/20/2018 00:35	WG1183157
Bromochloromethane	U		0.00136	0.00603	1	10/20/2018 00:35	WG1183157
Bromoform	U	J0	0.00722	0.0302	1	10/20/2018 00:35	WG1183157
Bromomethane	U		0.00447	0.0151	1	10/20/2018 00:35	WG1183157
n-Butylbenzene	U		0.00463	0.0151	1	10/20/2018 00:35	WG1183157
sec-Butylbenzene	U		0.00305	0.0151	1	10/20/2018 00:35	WG1183157
tert-Butylbenzene	U		0.00187	0.00603	1	10/20/2018 00:35	WG1183157
Carbon disulfide	U	J0	0.00490	0.0151	1	10/20/2018 00:35	WG1183157
Carbon tetrachloride	U		0.00130	0.00603	1	10/20/2018 00:35	WG1183157
Chlorobenzene	U		0.000692	0.00302	1	10/20/2018 00:35	WG1183157
Chlorodibromomethane	U		0.000543	0.00302	1	10/20/2018 00:35	WG1183157
Chloroethane	U		0.00130	0.00603	1	10/20/2018 00:35	WG1183157
Chloroform	U		0.000501	0.00302	1	10/20/2018 00:35	WG1183157
Chloromethane	U		0.00168	0.0151	1	10/20/2018 00:35	WG1183157
2-Chlorotoluene	U		0.00111	0.00302	1	10/20/2018 00:35	WG1183157
4-Chlorotoluene	U		0.00136	0.00603	1	10/20/2018 00:35	WG1183157
1,2-Dibromo-3-Chloropropane	U	J0	0.00616	0.0302	1	10/20/2018 00:35	WG1183157
1,2-Dibromoethane	U		0.000634	0.00302	1	10/20/2018 00:35	WG1183157
Dibromomethane	U		0.00121	0.00603	1	10/20/2018 00:35	WG1183157
1,2-Dichlorobenzene	U		0.00175	0.00603	1	10/20/2018 00:35	WG1183157
1,3-Dichlorobenzene	U		0.00205	0.00603	1	10/20/2018 00:35	WG1183157
1,4-Dichlorobenzene	U		0.00238	0.00603	1	10/20/2018 00:35	WG1183157
Dichlorodifluoromethane	U		0.000987	0.00302	1	10/20/2018 00:35	WG1183157
1,1-Dichloroethane	U		0.000694	0.00302	1	10/20/2018 00:35	WG1183157
1,2-Dichloroethane	U		0.000573	0.00302	1	10/20/2018 00:35	WG1183157
1,1-Dichloroethene	0.00476		0.000603	0.00302	1	10/20/2018 00:35	WG1183157
cis-1,2-Dichloroethene	1.36		0.00833	0.0302	10	10/22/2018 21:43	WG1184604
trans-1,2-Dichloroethene	0.00231	J	0.00173	0.00603	1	10/20/2018 00:35	WG1183157
1,2-Dichloropropane	U		0.0153	0.0603	10	10/22/2018 21:43	WG1184604
1,1-Dichloropropene	U		0.000845	0.00302	1	10/20/2018 00:35	WG1183157
1,3-Dichloropropane	U		0.00211	0.00603	1	10/20/2018 00:35	WG1183157
cis-1,3-Dichloropropene	U		0.000818	0.00302	1	10/20/2018 00:35	WG1183157
trans-1,3-Dichloropropene	U		0.00185	0.00603	1	10/20/2018 00:35	WG1183157
trans-1,4-Dichloro-2-butene	U		0.00169	0.00603	1	10/20/2018 00:35	WG1183157
2,2-Dichloropropane	U		0.000957	0.00302	1	10/20/2018 00:35	WG1183157
Di-isopropyl ether	U		0.000422	0.00121	1	10/20/2018 00:35	WG1183157
Ethylbenzene	U		0.000640	0.00302	1	10/20/2018 00:35	WG1183157
Hexachloro-1,3-butadiene	U	J0	0.0153	0.0302	1	10/20/2018 00:35	WG1183157
2-Hexanone	U		0.0121	0.0302	1	10/20/2018 00:35	WG1183157
n-Hexane	U		0.00128	0.00603	1	10/20/2018 00:35	WG1183157
Iodomethane	U		0.00730	0.0151	1	10/20/2018 00:35	WG1183157
Isopropylbenzene	U		0.00104	0.00302	1	10/20/2018 00:35	WG1183157
p-Isopropyltoluene	U		0.00281	0.00603	1	10/20/2018 00:35	WG1183157
2-Butanone (MEK)	U	J0	0.151	0.302	10	10/22/2018 21:43	WG1184604
Methylene Chloride	U		0.00801	0.0302	1	10/20/2018 00:35	WG1183157
4-Methyl-2-pentanone (MIBK)	U		0.0121	0.0302	1	10/20/2018 00:35	WG1183157

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000356	0.00121	1	10/20/2018 00:35	WG1183157
Naphthalene	U		0.00377	0.0151	1	10/20/2018 00:35	WG1183157
n-Propylbenzene	U		0.00142	0.00603	1	10/20/2018 00:35	WG1183157
Styrene	U	J0	0.00330	0.0151	1	10/20/2018 00:35	WG1183157
1,1,1,2-Tetrachloroethane	U		0.000603	0.00302	1	10/20/2018 00:35	WG1183157
1,1,2,2-Tetrachloroethane	U		0.000471	0.00302	1	10/20/2018 00:35	WG1183157
1,1,2-Trichlorotrifluoroethane	U		0.000815	0.00302	1	10/20/2018 00:35	WG1183157
Tetrachloroethene	2.88		0.00845	0.0302	10	10/22/2018 21:43	WG1184604
Toluene	U		0.00151	0.00603	1	10/20/2018 00:35	WG1183157
1,2,3-Trichlorobenzene	U		0.000754	0.00302	1	10/20/2018 00:35	WG1183157
1,2,4-Trichlorobenzene	U		0.00582	0.0151	1	10/20/2018 00:35	WG1183157
1,1,1-Trichloroethane	U		0.000332	0.00302	1	10/20/2018 00:35	WG1183157
1,1,2-Trichloroethane	U		0.0107	0.0302	10	10/22/2018 21:43	WG1184604
Trichlorofluoromethane	U		0.000603	0.00302	1	10/20/2018 00:35	WG1183157
1,2,3-Trichloropropane	U		0.00616	0.0151	1	10/20/2018 00:35	WG1183157
1,2,4-Trimethylbenzene	U		0.00140	0.00603	1	10/20/2018 00:35	WG1183157
1,2,3-Trimethylbenzene	U		0.00139	0.00603	1	10/20/2018 00:35	WG1183157
1,3,5-Trimethylbenzene	U		0.00130	0.00603	1	10/20/2018 00:35	WG1183157
Vinyl acetate	U		0.00425	0.0151	1	10/20/2018 00:35	WG1183157
Vinyl chloride	0.138		0.000824	0.00302	1	10/20/2018 00:35	WG1183157
Xylenes, Total	U		0.00577	0.00785	1	10/20/2018 00:35	WG1183157
(S) Toluene-d8	*138*	J1		*75.0-131*		*10/20/2018 00:35*	WG1183157
(S) Toluene-d8	*99.2*			*75.0-131*		*10/22/2018 21:43*	WG1184604
(S) Dibromofluoromethane	*86.8*			*65.0-129*		*10/20/2018 00:35*	WG1183157
(S) Dibromofluoromethane	*117*			*65.0-129*		*10/22/2018 21:43*	WG1184604
(S) 4-Bromofluorobenzene	*77.7*			*67.0-138*		*10/20/2018 00:35*	WG1183157
(S) 4-Bromofluorobenzene	*122*			*67.0-138*		*10/22/2018 21:43*	WG1184604

Sample Narrative:

L1034970-22 WG1183157, WG1184604: Not all compounds reportable at lower dilution.

L1034970-22 WG1183157, WG1184604: Cannot be re-analyzed at a lower dilution due to high levels of target analytes.

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	91.0		1	10/22/2018 09:45	WG1183344

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0150	0.0275	1	10/20/2018 00:55	WG1183157
Acrylonitrile	U		0.00209	0.0137	1	10/20/2018 00:55	WG1183157
Benzene	U		0.000439	0.00110	1	10/20/2018 00:55	WG1183157
Bromobenzene	U		0.00115	0.0137	1	10/20/2018 00:55	WG1183157
Bromodichloromethane	U		0.000866	0.00275	1	10/20/2018 00:55	WG1183157
Bromochloromethane	U		0.00124	0.00549	1	10/20/2018 00:55	WG1183157
Bromoform	U	J0	0.00657	0.0275	1	10/20/2018 00:55	WG1183157
Bromomethane	U		0.00406	0.0137	1	10/20/2018 00:55	WG1183157
n-Butylbenzene	U		0.00422	0.0137	1	10/20/2018 00:55	WG1183157
sec-Butylbenzene	U		0.00278	0.0137	1	10/20/2018 00:55	WG1183157
tert-Butylbenzene	U		0.00170	0.00549	1	10/20/2018 00:55	WG1183157
Carbon disulfide	U	J0	0.00446	0.0137	1	10/20/2018 00:55	WG1183157
Carbon tetrachloride	U		0.00119	0.00549	1	10/20/2018 00:55	WG1183157
Chlorobenzene	U		0.000629	0.00275	1	10/20/2018 00:55	WG1183157
Chlorodibromomethane	U		0.000494	0.00275	1	10/20/2018 00:55	WG1183157
Chloroethane	U		0.00119	0.00549	1	10/20/2018 00:55	WG1183157
Chloroform	U		0.000456	0.00275	1	10/20/2018 00:55	WG1183157
Chloromethane	U		0.00153	0.0137	1	10/20/2018 00:55	WG1183157
2-Chlorotoluene	U		0.00101	0.00275	1	10/20/2018 00:55	WG1183157
4-Chlorotoluene	U		0.00124	0.00549	1	10/20/2018 00:55	WG1183157
1,2-Dibromo-3-Chloropropane	U	J0	0.00560	0.0275	1	10/20/2018 00:55	WG1183157
1,2-Dibromoethane	U		0.000577	0.00275	1	10/20/2018 00:55	WG1183157
Dibromomethane	U		0.00110	0.00549	1	10/20/2018 00:55	WG1183157
1,2-Dichlorobenzene	U		0.00159	0.00549	1	10/20/2018 00:55	WG1183157
1,3-Dichlorobenzene	U		0.00187	0.00549	1	10/20/2018 00:55	WG1183157
1,4-Dichlorobenzene	U		0.00216	0.00549	1	10/20/2018 00:55	WG1183157
Dichlorodifluoromethane	U		0.000898	0.00275	1	10/20/2018 00:55	WG1183157
1,1-Dichloroethane	U		0.000632	0.00275	1	10/20/2018 00:55	WG1183157
1,2-Dichloroethane	U		0.000522	0.00275	1	10/20/2018 00:55	WG1183157
1,1-Dichloroethene	U		0.000549	0.00275	1	10/20/2018 00:55	WG1183157
cis-1,2-Dichloroethene	0.207		0.000758	0.00275	1	10/20/2018 00:55	WG1183157
trans-1,2-Dichloroethene	U		0.00157	0.00549	1	10/20/2018 00:55	WG1183157
1,2-Dichloropropane	U		0.00558	0.0220	4	10/22/2018 22:03	WG1184604
1,1-Dichloropropene	U		0.000769	0.00275	1	10/20/2018 00:55	WG1183157
1,3-Dichloropropane	U		0.00192	0.00549	1	10/20/2018 00:55	WG1183157
cis-1,3-Dichloropropene	U		0.000745	0.00275	1	10/20/2018 00:55	WG1183157
trans-1,3-Dichloropropene	U		0.00168	0.00549	1	10/20/2018 00:55	WG1183157
trans-1,4-Dichloro-2-butene	U		0.00154	0.00549	1	10/20/2018 00:55	WG1183157
2,2-Dichloropropane	U		0.000871	0.00275	1	10/20/2018 00:55	WG1183157
Di-isopropyl ether	U		0.000384	0.00110	1	10/20/2018 00:55	WG1183157
Ethylbenzene	U		0.000582	0.00275	1	10/20/2018 00:55	WG1183157
Hexachloro-1,3-butadiene	U	J0	0.0139	0.0275	1	10/20/2018 00:55	WG1183157
2-Hexanone	U		0.0110	0.0275	1	10/20/2018 00:55	WG1183157
n-Hexane	U		0.00116	0.00549	1	10/20/2018 00:55	WG1183157
Iodomethane	U		0.00665	0.0137	1	10/20/2018 00:55	WG1183157
Isopropylbenzene	U		0.000948	0.00275	1	10/20/2018 00:55	WG1183157
p-Isopropyltoluene	U		0.00256	0.00549	1	10/20/2018 00:55	WG1183157
2-Butanone (MEK)	U	J0	0.0549	0.110	4	10/22/2018 22:03	WG1184604
Methylene Chloride	U		0.00729	0.0275	1	10/20/2018 00:55	WG1183157
4-Methyl-2-pentanone (MIBK)	U		0.0110	0.0275	1	10/20/2018 00:55	WG1183157

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000324	0.00110	1	10/20/2018 00:55	WG1183157
Naphthalene	U		0.00343	0.0137	1	10/20/2018 00:55	WG1183157
n-Propylbenzene	U		0.00130	0.00549	1	10/20/2018 00:55	WG1183157
Styrene	U	J0	0.00300	0.0137	1	10/20/2018 00:55	WG1183157
1,1,1,2-Tetrachloroethane	U		0.000549	0.00275	1	10/20/2018 00:55	WG1183157
1,1,2,2-Tetrachloroethane	U		0.000428	0.00275	1	10/20/2018 00:55	WG1183157
1,1,2-Trichlorotrifluoroethane	U		0.000741	0.00275	1	10/20/2018 00:55	WG1183157
Tetrachloroethene	1.35		0.00308	0.0110	4	10/22/2018 22:03	WG1184604
Toluene	U		0.00137	0.00549	1	10/20/2018 00:55	WG1183157
1,2,3-Trichlorobenzene	U		0.000686	0.00275	1	10/20/2018 00:55	WG1183157
1,2,4-Trichlorobenzene	U		0.00529	0.0137	1	10/20/2018 00:55	WG1183157
1,1,1-Trichloroethane	U		0.000302	0.00275	1	10/20/2018 00:55	WG1183157
1,1,2-Trichloroethane	U		0.00388	0.0110	4	10/22/2018 22:03	WG1184604
Trichloroethene	0.266		0.000439	0.00110	1	10/20/2018 00:55	WG1183157
Trichlorofluoromethane	U		0.000549	0.00275	1	10/20/2018 00:55	WG1183157
1,2,3-Trichloropropane	U		0.00560	0.0137	1	10/20/2018 00:55	WG1183157
1,2,4-Trimethylbenzene	U		0.00127	0.00549	1	10/20/2018 00:55	WG1183157
1,2,3-Trimethylbenzene	U		0.00126	0.00549	1	10/20/2018 00:55	WG1183157
1,3,5-Trimethylbenzene	U		0.00119	0.00549	1	10/20/2018 00:55	WG1183157
Vinyl acetate	U		0.00387	0.0137	1	10/20/2018 00:55	WG1183157
Vinyl chloride	0.00602		0.000750	0.00275	1	10/20/2018 00:55	WG1183157
Xylenes, Total	U		0.00525	0.00714	1	10/20/2018 00:55	WG1183157
(S) Toluene-d8	*122*			*75.0-131*		*10/20/2018 00:55*	WG1183157
(S) Toluene-d8	*98.9*			*75.0-131*		*10/22/2018 22:03*	WG1184604
(S) Dibromofluoromethane	*91.6*			*65.0-129*		*10/20/2018 00:55*	WG1183157
(S) Dibromofluoromethane	*117*			*65.0-129*		*10/22/2018 22:03*	WG1184604
(S) 4-Bromofluorobenzene	*93.0*			*67.0-138*		*10/20/2018 00:55*	WG1183157
(S) 4-Bromofluorobenzene	*119*			*67.0-138*		*10/22/2018 22:03*	WG1184604

Sample Narrative:

L1034970-23 WG1183157, WG1184604: Not all compounds reportable at lower dilution.

L1034970-23 WG1183157, WG1184604: Cannot be re-analyzed at a lower dilution due to high levels of target analytes.

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	87.4		1	10/16/2018 14:25	WG1181703

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		2.75	5.01	175	10/17/2018 12:52	WG1182096
Acrylonitrile	U		0.00217	0.0143	1	10/16/2018 20:00	WG1181654
Benzene	U		0.000458	0.00114	1	10/16/2018 20:00	WG1181654
Bromobenzene	U		0.00120	0.0143	1	10/16/2018 20:00	WG1181654
Bromodichloromethane	U		0.000902	0.00286	1	10/16/2018 20:00	WG1181654
Bromochloromethane	U		0.00129	0.00572	1	10/16/2018 20:00	WG1181654
Bromoform	U		0.00684	0.0286	1	10/16/2018 20:00	WG1181654
Bromomethane	U		0.00423	0.0143	1	10/16/2018 20:00	WG1181654
n-Butylbenzene	U		0.00439	0.0143	1	10/16/2018 20:00	WG1181654
sec-Butylbenzene	U		0.00290	0.0143	1	10/16/2018 20:00	WG1181654
tert-Butylbenzene	U		0.00177	0.00572	1	10/16/2018 20:00	WG1181654
Carbon disulfide	U		0.00465	0.0143	1	10/16/2018 20:00	WG1181654
Carbon tetrachloride	U		0.00124	0.00572	1	10/16/2018 20:00	WG1181654
Chlorobenzene	U		0.000656	0.00286	1	10/16/2018 20:00	WG1181654
Chlorodibromomethane	U		0.000515	0.00286	1	10/16/2018 20:00	WG1181654
Chloroethane	U		0.00124	0.00572	1	10/16/2018 20:00	WG1181654
Chloroform	U		0.000475	0.00286	1	10/16/2018 20:00	WG1181654
Chloromethane	U		0.00159	0.0143	1	10/16/2018 20:00	WG1181654
2-Chlorotoluene	U		0.00105	0.00286	1	10/16/2018 20:00	WG1181654
4-Chlorotoluene	U		0.00129	0.00572	1	10/16/2018 20:00	WG1181654
1,2-Dibromo-3-Chloropropane	U		0.00584	0.0286	1	10/16/2018 20:00	WG1181654
1,2-Dibromoethane	U		0.000601	0.00286	1	10/16/2018 20:00	WG1181654
Dibromomethane	U	J4	0.00114	0.00572	1	10/16/2018 20:00	WG1181654
1,2-Dichlorobenzene	U		0.00166	0.00572	1	10/16/2018 20:00	WG1181654
1,3-Dichlorobenzene	U		0.00195	0.00572	1	10/16/2018 20:00	WG1181654
1,4-Dichlorobenzene	U		0.00225	0.00572	1	10/16/2018 20:00	WG1181654
Dichlorodifluoromethane	U		0.000936	0.00286	1	10/16/2018 20:00	WG1181654
1,1-Dichloroethane	U		0.000658	0.00286	1	10/16/2018 20:00	WG1181654
1,2-Dichloroethane	U		0.000544	0.00286	1	10/16/2018 20:00	WG1181654
1,1-Dichloroethene	0.00436		0.000572	0.00286	1	10/16/2018 20:00	WG1181654
cis-1,2-Dichloroethene	0.484		0.000790	0.00286	1	10/16/2018 20:00	WG1181654
trans-1,2-Dichloroethene	0.00656		0.00164	0.00572	1	10/16/2018 20:00	WG1181654
1,2-Dichloropropane	U		0.00145	0.00572	1	10/16/2018 20:00	WG1181654
1,1-Dichloropropene	U		0.000801	0.00286	1	10/16/2018 20:00	WG1181654
1,3-Dichloropropane	U		0.00200	0.00572	1	10/16/2018 20:00	WG1181654
cis-1,3-Dichloropropene	U		0.000776	0.00286	1	10/16/2018 20:00	WG1181654
trans-1,3-Dichloropropene	U		0.00175	0.00572	1	10/16/2018 20:00	WG1181654
trans-1,4-Dichloro-2-butene	U		0.00160	0.00572	1	10/16/2018 20:00	WG1181654
2,2-Dichloropropane	U		0.000907	0.00286	1	10/16/2018 20:00	WG1181654
Di-isopropyl ether	U		0.000400	0.00114	1	10/16/2018 20:00	WG1181654
Ethylbenzene	U		0.000606	0.00286	1	10/16/2018 20:00	WG1181654
Hexachloro-1,3-butadiene	U		0.0145	0.0286	1	10/16/2018 20:00	WG1181654
2-Hexanone	U		0.0114	0.0286	1	10/16/2018 20:00	WG1181654
n-Hexane	U		0.00121	0.00572	1	10/16/2018 20:00	WG1181654
Iodomethane	U		0.00692	0.0143	1	10/16/2018 20:00	WG1181654
Isopropylbenzene	U		0.000988	0.00286	1	10/16/2018 20:00	WG1181654
p-Isopropyltoluene	U		0.00267	0.00572	1	10/16/2018 20:00	WG1181654
2-Butanone (MEK)	U		0.0143	0.0286	1	10/16/2018 20:00	WG1181654
Methylene Chloride	U		0.00760	0.0286	1	10/16/2018 20:00	WG1181654
4-Methyl-2-pentanone (MIBK)	U		0.0114	0.0286	1	10/16/2018 20:00	WG1181654

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U	J0	0.000338	0.00114	1	10/16/2018 20:00	WG1181654
Naphthalene	U		0.00357	0.0143	1	10/16/2018 20:00	WG1181654
n-Propylbenzene	U		0.00135	0.00572	1	10/16/2018 20:00	WG1181654
Styrene	U		0.00312	0.0143	1	10/16/2018 20:00	WG1181654
1,1,1,2-Tetrachloroethane	U		0.000572	0.00286	1	10/16/2018 20:00	WG1181654
1,1,2,2-Tetrachloroethane	U	J4	0.000446	0.00286	1	10/16/2018 20:00	WG1181654
1,1,2-Trichlorotrifluoroethane	U		0.000772	0.00286	1	10/16/2018 20:00	WG1181654
Tetrachloroethene	1.99		0.140	0.501	175	10/17/2018 12:52	WG1182096
Toluene	U		0.00143	0.00572	1	10/16/2018 20:00	WG1181654
1,2,3-Trichlorobenzene	U		0.000715	0.00286	1	10/16/2018 20:00	WG1181654
1,2,4-Trichlorobenzene	U		0.00552	0.0143	1	10/16/2018 20:00	WG1181654
1,1,1-Trichloroethane	U		0.000315	0.00286	1	10/16/2018 20:00	WG1181654
1,1,2-Trichloroethane	U	J4	0.00101	0.00286	1	10/16/2018 20:00	WG1181654
Trichloroethene	0.483		0.000458	0.00114	1	10/16/2018 20:00	WG1181654
Trichlorofluoromethane	U		0.000572	0.00286	1	10/16/2018 20:00	WG1181654
1,2,3-Trichloropropane	U		0.00584	0.0143	1	10/16/2018 20:00	WG1181654
1,2,4-Trimethylbenzene	U		0.00133	0.00572	1	10/16/2018 20:00	WG1181654
1,2,3-Trimethylbenzene	U		0.00132	0.00572	1	10/16/2018 20:00	WG1181654
1,3,5-Trimethylbenzene	U		0.00124	0.00572	1	10/16/2018 20:00	WG1181654
Vinyl acetate	U		0.00403	0.0143	1	10/16/2018 20:00	WG1181654
Vinyl chloride	0.00634		0.000782	0.00286	1	10/16/2018 20:00	WG1181654
Xylenes, Total	U		0.00547	0.00744	1	10/16/2018 20:00	WG1181654
(S) Toluene-d8	*119*			*75.0-131*		*10/16/2018 20:00*	WG1181654
(S) Toluene-d8	*98.6*			*75.0-131*		*10/17/2018 12:52*	WG1182096
(S) Dibromofluoromethane	*78.1*			*65.0-129*		*10/16/2018 20:00*	WG1181654
(S) Dibromofluoromethane	*118*			*65.0-129*		*10/17/2018 12:52*	WG1182096
(S) 4-Bromofluorobenzene	*95.2*			*67.0-138*		*10/16/2018 20:00*	WG1181654
(S) 4-Bromofluorobenzene	*118*			*67.0-138*		*10/17/2018 12:52*	WG1182096

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	1.59	J	1.05	25.0	1	10/16/2018 13:36	WG1181551
Acrylonitrile	U		0.873	5.00	1	10/16/2018 13:36	WG1181551
Benzene	U		0.0896	0.500	1	10/16/2018 13:36	WG1181551
Bromobenzene	U		0.133	0.500	1	10/16/2018 13:36	WG1181551
Bromodichloromethane	U		0.0800	0.500	1	10/16/2018 13:36	WG1181551
Bromochloromethane	U		0.145	0.500	1	10/16/2018 13:36	WG1181551
Bromoform	U		0.186	0.500	1	10/16/2018 13:36	WG1181551
Bromomethane	U		0.157	2.50	1	10/16/2018 13:36	WG1181551
n-Butylbenzene	U		0.143	0.500	1	10/16/2018 13:36	WG1181551
sec-Butylbenzene	U		0.134	0.500	1	10/16/2018 13:36	WG1181551
tert-Butylbenzene	U		0.183	0.500	1	10/16/2018 13:36	WG1181551
Carbon disulfide	U		0.101	0.500	1	10/16/2018 13:36	WG1181551
Carbon tetrachloride	U		0.159	0.500	1	10/16/2018 13:36	WG1181551
Chlorobenzene	U		0.140	0.500	1	10/16/2018 13:36	WG1181551
Chlorodibromomethane	U		0.128	0.500	1	10/16/2018 13:36	WG1181551
Chloroethane	U		0.141	2.50	1	10/16/2018 13:36	WG1181551
Chloroform	U		0.0860	0.500	1	10/16/2018 13:36	WG1181551
Chloromethane	U		0.153	1.25	1	10/16/2018 13:36	WG1181551
2-Chlorotoluene	U		0.111	0.500	1	10/16/2018 13:36	WG1181551
4-Chlorotoluene	U		0.0972	0.500	1	10/16/2018 13:36	WG1181551
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	10/16/2018 13:36	WG1181551
1,2-Dibromoethane	U		0.193	0.500	1	10/16/2018 13:36	WG1181551
Dibromomethane	U		0.117	0.500	1	10/16/2018 13:36	WG1181551
1,2-Dichlorobenzene	U		0.101	0.500	1	10/16/2018 13:36	WG1181551
1,3-Dichlorobenzene	U		0.130	0.500	1	10/16/2018 13:36	WG1181551
1,4-Dichlorobenzene	U		0.121	0.500	1	10/16/2018 13:36	WG1181551
Dichlorodifluoromethane	U		0.127	2.50	1	10/16/2018 13:36	WG1181551
1,1-Dichloroethane	U		0.114	0.500	1	10/16/2018 13:36	WG1181551
1,2-Dichloroethane	U		0.108	0.500	1	10/16/2018 13:36	WG1181551
1,1-Dichloroethene	U		0.188	0.500	1	10/16/2018 13:36	WG1181551
cis-1,2-Dichloroethene	U		0.0933	0.500	1	10/16/2018 13:36	WG1181551
trans-1,2-Dichloroethene	U		0.152	0.500	1	10/16/2018 13:36	WG1181551
1,2-Dichloropropane	U		0.190	0.500	1	10/16/2018 13:36	WG1181551
1,1-Dichloropropene	U		0.128	0.500	1	10/16/2018 13:36	WG1181551
1,3-Dichloropropane	U		0.147	1.00	1	10/16/2018 13:36	WG1181551
cis-1,3-Dichloropropene	U		0.0976	0.500	1	10/16/2018 13:36	WG1181551
trans-1,3-Dichloropropene	U		0.222	0.500	1	10/16/2018 13:36	WG1181551
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	10/16/2018 13:36	WG1181551
2,2-Dichloropropane	U		0.0929	0.500	1	10/16/2018 13:36	WG1181551
Di-isopropyl ether	U		0.0924	0.500	1	10/16/2018 13:36	WG1181551
Ethylbenzene	U		0.158	0.500	1	10/16/2018 13:36	WG1181551
Hexachloro-1,3-butadiene	U		0.157	1.00	1	10/16/2018 13:36	WG1181551
2-Hexanone	U		0.757	5.00	1	10/16/2018 13:36	WG1181551
n-Hexane	U		0.305	5.00	1	10/16/2018 13:36	WG1181551
Iodomethane	U		0.377	10.0	1	10/16/2018 13:36	WG1181551
Isopropylbenzene	U		0.126	0.500	1	10/16/2018 13:36	WG1181551
p-Isopropyltoluene	U		0.138	0.500	1	10/16/2018 13:36	WG1181551
2-Butanone (MEK)	U		1.28	5.00	1	10/16/2018 13:36	WG1181551
Methylene Chloride	U		1.07	2.50	1	10/16/2018 13:36	WG1181551
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	10/16/2018 13:36	WG1181551
Methyl tert-butyl ether	U		0.102	0.500	1	10/16/2018 13:36	WG1181551
Naphthalene	U		0.174	2.50	1	10/16/2018 13:36	WG1181551
n-Propylbenzene	U		0.162	0.500	1	10/16/2018 13:36	WG1181551
Styrene	U		0.117	0.500	1	10/16/2018 13:36	WG1181551
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	10/16/2018 13:36	WG1181551
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	10/16/2018 13:36	WG1181551

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	10/16/2018 13:36	WG1181551
Tetrachloroethene	U		0.199	0.500	1	10/16/2018 13:36	WG1181551
Toluene	U		0.412	0.500	1	10/16/2018 13:36	WG1181551
1,2,3-Trichlorobenzene	U		0.164	0.500	1	10/16/2018 13:36	WG1181551
1,2,4-Trichlorobenzene	U		0.355	0.500	1	10/16/2018 13:36	WG1181551
1,1,1-Trichloroethane	U		0.0940	0.500	1	10/16/2018 13:36	WG1181551
1,1,2-Trichloroethane	U		0.186	0.500	1	10/16/2018 13:36	WG1181551
Trichloroethene	U		0.153	0.500	1	10/16/2018 13:36	WG1181551
Trichlorofluoromethane	U		0.130	2.50	1	10/16/2018 13:36	WG1181551
1,2,3-Trichloropropane	U		0.247	2.50	1	10/16/2018 13:36	WG1181551
1,2,4-Trimethylbenzene	U		0.123	0.500	1	10/16/2018 13:36	WG1181551
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	10/16/2018 13:36	WG1181551
1,3,5-Trimethylbenzene	U		0.124	0.500	1	10/16/2018 13:36	WG1181551
Vinyl acetate	U		0.645	5.00	1	10/16/2018 13:36	WG1181551
Vinyl chloride	U		0.118	0.500	1	10/16/2018 13:36	WG1181551
Xylenes, Total	U		0.316	1.50	1	10/16/2018 13:36	WG1181551
(S) Toluene-d8	*97.5*			*80.0-120*		*10/16/2018 13:36*	WG1181551
(S) Dibromofluoromethane	*107*			*75.0-120*		*10/16/2018 13:36*	WG1181551
(S) 4-Bromofluorobenzene	*99.6*			*77.0-126*		*10/16/2018 13:36*	WG1181551

Method Blank (MB)

(MB) R3351371-1 10/16/18 14:25

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.00100			

L1034961-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1034961-01 10/16/18 14:25 • (DUP) R3351371-3 10/16/18 14:25

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	75.9	76.6	1	0.808		10

Laboratory Control Sample (LCS)

(LCS) R3351371-2 10/16/18 14:25

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85.0-115	

Method Blank (MB)

(MB) R3352425-1 10/19/18 15:14

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.000			

L1034938-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1034938-01 10/19/18 15:14 • (DUP) R3352425-3 10/19/18 15:14

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	95.5	95.5	1	0.0747		10

Laboratory Control Sample (LCS)

(LCS) R3352425-2 10/19/18 15:14

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85.0-115	

Method Blank (MB)

(MB) R3352422-1 10/19/18 13:51

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.00100			

L1034970-15 Original Sample (OS) • Duplicate (DUP)

(OS) L1034970-15 10/19/18 13:51 • (DUP) R3352422-3 10/19/18 13:51

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	88.4	87.1	1	1.51		10

Laboratory Control Sample (LCS)

(LCS) R3352422-2 10/19/18 13:51

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85.0-115	

Method Blank (MB)

(MB) R3352965-1 10/22/18 09:45

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.000			

L1034992-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1034992-03 10/22/18 09:45 • (DUP) R3352965-3 10/22/18 09:45

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	83.3	83.0	1	0.330		10

Laboratory Control Sample (LCS)

(LCS) R3352965-2 10/22/18 09:45

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85.0-115	

Method Blank (MB)

(MB) R3351080-3 10/16/18 10:10

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Acetone	U		1.05	25.0
Acrylonitrile	U		0.873	5.00
Benzene	U		0.0896	0.500
Bromobenzene	U		0.133	0.500
Bromodichloromethane	U		0.0800	0.500
Bromochloromethane	U		0.145	0.500
Bromoform	U		0.186	0.500
Bromomethane	U		0.157	2.50
n-Butylbenzene	U		0.143	0.500
sec-Butylbenzene	U		0.134	0.500
tert-Butylbenzene	U		0.183	0.500
Carbon disulfide	U		0.101	0.500
Carbon tetrachloride	U		0.159	0.500
Chlorobenzene	U		0.140	0.500
Chlorodibromomethane	U		0.128	0.500
Chloroethane	U		0.141	2.50
Chloroform	U		0.0860	0.500
Chloromethane	U		0.153	1.25
2-Chlorotoluene	U		0.111	0.500
4-Chlorotoluene	U		0.0972	0.500
1,2-Dibromo-3-Chloropropane	U		0.325	2.50
1,2-Dibromoethane	U		0.193	0.500
Dibromomethane	U		0.117	0.500
1,2-Dichlorobenzene	U		0.101	0.500
1,3-Dichlorobenzene	U		0.130	0.500
1,4-Dichlorobenzene	U		0.121	0.500
Dichlorodifluoromethane	U		0.127	2.50
1,1-Dichloroethane	U		0.114	0.500
1,2-Dichloroethane	U		0.108	0.500
1,1-Dichloroethene	U		0.188	0.500
cis-1,2-Dichloroethene	U		0.0933	0.500
trans-1,2-Dichloroethene	U		0.152	0.500
1,2-Dichloropropane	U		0.190	0.500
1,1-Dichloropropene	U		0.128	0.500
1,3-Dichloropropane	U		0.147	1.00
cis-1,3-Dichloropropene	U		0.0976	0.500
trans-1,3-Dichloropropene	U		0.222	0.500
trans-1,4-Dichloro-2-butene	U		0.257	5.00
2,2-Dichloropropane	U		0.0929	0.500
Di-isopropyl ether	U		0.0924	0.500

Method Blank (MB)

(MB) R3351080-3 10/16/18 10:10

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Ethylbenzene	U		0.158	0.500
Hexachloro-1,3-butadiene	0.452	J	0.157	1.00
2-Hexanone	U		0.757	5.00
n-Hexane	U		0.305	5.00
Iodomethane	U		0.377	10.0
Isopropylbenzene	U		0.126	0.500
p-Isopropyltoluene	U		0.138	0.500
2-Butanone (MEK)	U		1.28	5.00
Methylene Chloride	U		1.07	2.50
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00
Methyl tert-butyl ether	U		0.102	0.500
Naphthalene	0.228	J	0.174	2.50
n-Propylbenzene	U		0.162	0.500
Styrene	U		0.117	0.500
1,1,1,2-Tetrachloroethane	U		0.120	0.500
1,1,2,2-Tetrachloroethane	U		0.130	0.500
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500
Tetrachloroethene	U		0.199	0.500
Toluene	U		0.412	0.500
1,2,3-Trichlorobenzene	0.312	J	0.164	0.500
1,2,4-Trichlorobenzene	U		0.355	0.500
1,1,1-Trichloroethane	U		0.0940	0.500
1,1,2-Trichloroethane	U		0.186	0.500
Trichloroethene	U		0.153	0.500
Trichlorofluoromethane	U		0.130	2.50
1,2,3-Trichloropropane	U		0.247	2.50
1,2,4-Trimethylbenzene	U		0.123	0.500
1,2,3-Trimethylbenzene	U		0.0739	0.500
1,3,5-Trimethylbenzene	U		0.124	0.500
Vinyl acetate	U		0.645	5.00
Vinyl chloride	U		0.118	0.500
Xylenes, Total	U		0.316	1.50
(S) Toluene-d8	*98.5*			*80.0-120*
(S) Dibromofluoromethane	*104*			*75.0-120*
(S) 4-Bromofluorobenzene	*100*			*77.0-126*

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

(LCS) R3351080-1 10/16/18 09:05 • (LCSD) R3351080-2 10/16/18 09:27

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	184	180	147	144	19.0-160			2.27	27
Acrylonitrile	125	143	138	115	110	55.0-149			3.60	20
Benzene	25.0	25.0	24.3	100	97.3	70.0-123			2.81	20
Bromobenzene	25.0	24.5	24.1	98.1	96.4	73.0-121			1.78	20
Bromodichloromethane	25.0	27.1	26.0	109	104	75.0-120			4.36	20
Bromochloromethane	25.0	25.6	25.1	102	100	76.0-122			1.82	20
Bromoform	25.0	25.3	25.2	101	101	68.0-132			0.539	20
Bromomethane	25.0	22.3	21.9	89.3	87.6	10.0-160			1.97	25
n-Butylbenzene	25.0	25.4	25.1	102	101	73.0-125			1.10	20
sec-Butylbenzene	25.0	25.0	24.8	100	99.1	75.0-125			0.844	20
tert-Butylbenzene	25.0	24.5	24.3	98.1	97.3	76.0-124			0.858	20
Carbon disulfide	25.0	21.9	21.8	87.5	87.3	61.0-128			0.173	20
Carbon tetrachloride	25.0	26.9	25.6	108	102	68.0-126			5.06	20
Chlorobenzene	25.0	24.3	23.9	97.3	95.8	80.0-121			1.53	20
Chlorodibromomethane	25.0	25.5	25.1	102	100	77.0-125			1.96	20
Chloroethane	25.0	25.7	25.0	103	100	47.0-150			2.51	20
Chloroform	25.0	26.2	25.6	105	102	73.0-120			2.34	20
Chloromethane	25.0	24.7	23.4	98.7	93.7	41.0-142			5.13	20
2-Chlorotoluene	25.0	24.7	24.2	98.9	96.8	76.0-123			2.20	20
4-Chlorotoluene	25.0	24.7	24.4	98.6	97.6	75.0-122			0.999	20
1,2-Dibromo-3-Chloropropane	25.0	24.0	23.8	96.0	95.1	58.0-134			0.915	20
1,2-Dibromoethane	25.0	24.7	24.0	98.9	95.9	80.0-122			3.05	20
Dibromomethane	25.0	26.7	25.4	107	102	80.0-120			4.89	20
1,2-Dichlorobenzene	25.0	25.1	25.1	100	100	79.0-121			0.119	20
1,3-Dichlorobenzene	25.0	24.6	24.2	98.3	97.0	79.0-120			1.38	20
1,4-Dichlorobenzene	25.0	24.1	24.0	96.4	96.2	79.0-120			0.203	20
Dichlorodifluoromethane	25.0	22.7	21.8	90.8	87.2	51.0-149			4.04	20
1,1-Dichloroethane	25.0	26.8	25.7	107	103	70.0-126			4.20	20
1,2-Dichloroethane	25.0	27.9	26.8	112	107	70.0-128			4.12	20
1,1-Dichloroethene	25.0	24.8	24.3	99.3	97.3	71.0-124			1.99	20
cis-1,2-Dichloroethene	25.0	25.3	24.4	101	97.6	73.0-120			3.50	20
trans-1,2-Dichloroethene	25.0	25.9	25.2	103	101	73.0-120			2.43	20
1,2-Dichloropropane	25.0	25.6	25.0	103	99.8	77.0-125			2.68	20
1,1-Dichloropropene	25.0	26.5	25.8	106	103	74.0-126			2.72	20
1,3-Dichloropropane	25.0	24.1	24.1	96.2	96.4	80.0-120			0.142	20
cis-1,3-Dichloropropene	25.0	23.8	23.6	95.1	94.3	80.0-123			0.866	20
trans-1,3-Dichloropropene	25.0	24.1	23.9	96.2	95.6	78.0-124			0.686	20
trans-1,4-Dichloro-2-butene	25.0	23.5	22.7	94.0	90.9	33.0-144			3.37	20
2,2-Dichloropropane	25.0	24.6	22.8	98.4	91.1	58.0-130			7.61	20
Di-isopropyl ether	25.0	27.3	26.7	109	107	58.0-138			2.40	20

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

(LCS) R3351080-1 10/16/18 09:05 • (LCSD) R3351080-2 10/16/18 09:27

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 %
Ethylbenzene	25.0	24.3	23.9	97.0	95.4	79.0-123			1.67	20
Hexachloro-1,3-butadiene	25.0	22.8	24.1	91.3	96.5	54.0-138			5.47	20
2-Hexanone	125	132	131	106	105	67.0-149			0.505	20
n-Hexane	25.0	24.4	23.2	97.6	92.8	57.0-133			5.07	20
Iodomethane	125	126	122	101	97.8	33.0-147			3.03	26
Isopropylbenzene	25.0	25.1	24.9	100	99.6	76.0-127			0.668	20
p-Isopropyltoluene	25.0	25.3	24.9	101	99.7	76.0-125			1.67	20
2-Butanone (MEK)	125	148	145	118	116	44.0-160			1.65	20
Methylene Chloride	25.0	24.6	23.5	98.4	93.9	67.0-120			4.74	20
4-Methyl-2-pentanone (MIBK)	125	137	135	109	108	68.0-142			0.911	20
Methyl tert-butyl ether	25.0	26.9	25.9	108	104	68.0-125			3.63	20
Naphthalene	25.0	22.2	23.4	89.0	93.7	54.0-135			5.23	20
n-Propylbenzene	25.0	24.6	24.4	98.6	97.7	77.0-124			0.937	20
Styrene	25.0	25.2	25.1	101	100	73.0-130			0.257	20
1,1,1,2-Tetrachloroethane	25.0	25.5	24.8	102	99.1	75.0-125			3.03	20
1,1,2,2-Tetrachloroethane	25.0	23.9	23.1	95.7	92.5	65.0-130			3.38	20
1,1,2-Trichlorotrifluoroethane	25.0	25.1	24.3	101	97.2	69.0-132			3.39	20
Tetrachloroethene	25.0	22.2	21.9	89.0	87.5	72.0-132			1.70	20
Toluene	25.0	23.6	23.0	94.2	92.1	79.0-120			2.28	20
1,2,3-Trichlorobenzene	25.0	22.0	23.4	87.8	93.6	50.0-138			6.32	20
1,2,4-Trichlorobenzene	25.0	24.5	25.6	98.0	103	57.0-137			4.57	20
1,1,1-Trichloroethane	25.0	28.1	27.4	112	109	73.0-124			2.63	20
1,1,2-Trichloroethane	25.0	23.9	24.0	95.7	96.1	80.0-120			0.317	20
Trichloroethene	25.0	26.1	25.6	104	102	78.0-124			1.81	20
Trichlorofluoromethane	25.0	28.1	26.6	112	106	59.0-147			5.64	20
1,2,3-Trichloropropane	25.0	26.6	25.8	106	103	73.0-130			2.76	20
1,2,4-Trimethylbenzene	25.0	25.1	24.5	100	97.9	76.0-121			2.51	20
1,2,3-Trimethylbenzene	25.0	25.3	25.0	101	100	77.0-120			1.10	20
1,3,5-Trimethylbenzene	25.0	25.6	25.1	103	100	76.0-122			2.09	20
Vinyl acetate	125	92.1	77.5	73.6	62.0	11.0-160			17.2	20
Vinyl chloride	25.0	26.0	24.8	104	99.1	67.0-131			4.97	20
Xylenes, Total	75.0	72.9	71.1	97.2	94.8	79.0-123			2.50	20
(S) Toluene-d8				*95.5*	*96.9*	*80.0-120*				
(S) Dibromofluoromethane				*105*	*105*	*75.0-120*				
(S) 4-Bromofluorobenzene				*97.8*	*99.4*	*77.0-126*				

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

Method Blank (MB)

(MB) R3351306-2 10/16/18 12:24

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acrylonitrile	U		0.00190	0.0125
Benzene	U		0.000400	0.00100
Bromobenzene	U		0.00105	0.0125
Bromodichloromethane	U		0.000788	0.00250
Bromochloromethane	U		0.00113	0.00500
Bromoform	U		0.00598	0.0250
Bromomethane	U		0.00370	0.0125
n-Butylbenzene	U		0.00384	0.0125
sec-Butylbenzene	U		0.00253	0.0125
tert-Butylbenzene	U		0.00155	0.00500
Carbon disulfide	U		0.00406	0.0125
Carbon tetrachloride	U		0.00108	0.00500
Chlorobenzene	U		0.000573	0.00250
Chlorodibromomethane	U		0.000450	0.00250
Chloroethane	U		0.00108	0.00500
Chloroform	0.000576	J	0.000415	0.00250
Chloromethane	U		0.00139	0.0125
2-Chlorotoluene	U		0.000920	0.00250
4-Chlorotoluene	U		0.00113	0.00500
1,2-Dibromo-3-Chloropropane	U		0.00510	0.0250
1,2-Dibromoethane	U		0.000525	0.00250
Dibromomethane	U		0.00100	0.00500
1,2-Dichlorobenzene	U		0.00145	0.00500
1,3-Dichlorobenzene	U		0.00170	0.00500
1,4-Dichlorobenzene	U		0.00197	0.00500
trans-1,4-Dichloro-2-butene	U		0.00140	0.00500
Dichlorodifluoromethane	U		0.000818	0.00250
1,1-Dichloroethane	U		0.000575	0.00250
1,2-Dichloroethane	U		0.000475	0.00250
1,1-Dichloroethene	U		0.000500	0.00250
cis-1,2-Dichloroethene	U		0.000690	0.00250
trans-1,2-Dichloroethene	U		0.00143	0.00500
1,2-Dichloropropane	U		0.00127	0.00500
1,1-Dichloropropene	U		0.000700	0.00250
1,3-Dichloropropane	U		0.00175	0.00500
cis-1,3-Dichloropropene	U		0.000678	0.00250
trans-1,3-Dichloropropene	U		0.00153	0.00500
2,2-Dichloropropane	U		0.000793	0.00250
Di-isopropyl ether	U		0.000350	0.00100
Ethylbenzene	U		0.000530	0.00250

Method Blank (MB)

(MB) R3351306-2 10/16/18 12:24

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Hexachloro-1,3-butadiene	U		0.0127	0.0250
n-Hexane	U		0.00106	0.00500
2-Hexanone	U		0.0100	0.0250
Iodomethane	U		0.00605	0.0125
Isopropylbenzene	U		0.000863	0.00250
p-Isopropyltoluene	U		0.00233	0.00500
2-Butanone (MEK)	U		0.0125	0.0250
Methylene Chloride	U		0.00664	0.0250
4-Methyl-2-pentanone (MIBK)	U		0.0100	0.0250
Methyl tert-butyl ether	U		0.000295	0.00100
Naphthalene	U		0.00312	0.0125
n-Propylbenzene	U		0.00118	0.00500
Styrene	U		0.00273	0.0125
1,1,1,2-Tetrachloroethane	U		0.000500	0.00250
1,1,2,2-Tetrachloroethane	U		0.000390	0.00250
Toluene	U		0.00125	0.00500
1,1,2-Trichlorotrifluoroethane	U		0.000675	0.00250
1,2,3-Trichlorobenzene	U		0.000625	0.00250
1,2,4-Trichlorobenzene	U		0.00482	0.0125
1,1,1-Trichloroethane	U		0.000275	0.00250
1,1,2-Trichloroethane	U		0.000883	0.00250
Trichloroethene	U		0.000400	0.00100
Trichlorofluoromethane	U		0.000500	0.00250
1,2,3-Trichloropropane	U		0.00510	0.0125
1,2,3-Trimethylbenzene	U		0.00115	0.00500
1,2,4-Trimethylbenzene	U		0.00116	0.00500
1,3,5-Trimethylbenzene	U		0.00108	0.00500
Vinyl acetate	U		0.00352	0.0125
Vinyl chloride	U		0.000683	0.00250
Xylenes, Total	U		0.00478	0.00650
(S) Toluene-d8	*117*			*75.0-131*
(S) Dibromofluoromethane	*77.5*			*65.0-129*
(S) 4-Bromofluorobenzene	*91.3*			*67.0-138*

Laboratory Control Sample (LCS)

(LCS) R3351306-1 10/16/18 11:18

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acrylonitrile	0.625	0.662	106	45.0-153	
Benzene	0.125	0.124	99.0	70.0-123	
Bromobenzene	0.125	0.145	116	73.0-121	
Bromodichloromethane	0.125	0.148	118	73.0-121	
Bromochloromethane	0.125	0.100	80.4	77.0-128	
Bromoform	0.125	0.113	90.2	64.0-132	
Bromomethane	0.125	0.112	89.9	56.0-147	
n-Butylbenzene	0.125	0.141	113	68.0-135	
sec-Butylbenzene	0.125	0.142	113	74.0-130	
tert-Butylbenzene	0.125	0.137	110	75.0-127	
Carbon disulfide	0.125	0.0952	76.2	56.0-133	
Carbon tetrachloride	0.125	0.143	115	66.0-128	
Chlorobenzene	0.125	0.130	104	76.0-128	
Chlorodibromomethane	0.125	0.0970	77.6	74.0-127	
Chloroethane	0.125	0.127	102	61.0-134	
Chloroform	0.125	0.0942	75.4	72.0-123	
Chloromethane	0.125	0.127	101	51.0-138	
2-Chlorotoluene	0.125	0.116	92.9	75.0-124	
4-Chlorotoluene	0.125	0.142	114	75.0-124	
1,2-Dibromo-3-Chloropropane	0.125	0.105	84.4	59.0-130	
1,2-Dibromoethane	0.125	0.119	95.3	74.0-128	
Dibromomethane	0.125	0.161	129	75.0-122	J4
1,2-Dichlorobenzene	0.125	0.139	111	76.0-124	
1,3-Dichlorobenzene	0.125	0.132	106	76.0-125	
1,4-Dichlorobenzene	0.125	0.123	98.5	77.0-121	
trans-1,4-Dichloro-2-butene	0.125	0.131	105	45.0-143	
Dichlorodifluoromethane	0.125	0.135	108	43.0-156	
1,1-Dichloroethane	0.125	0.125	100	70.0-127	
1,2-Dichloroethane	0.125	0.106	84.8	65.0-131	
1,1-Dichloroethene	0.125	0.105	83.9	65.0-131	
cis-1,2-Dichloroethene	0.125	0.135	108	73.0-125	
trans-1,2-Dichloroethene	0.125	0.130	104	71.0-125	
1,2-Dichloropropane	0.125	0.0978	78.2	74.0-125	
1,1-Dichloropropene	0.125	0.110	88.3	73.0-125	
1,3-Dichloropropane	0.125	0.146	117	80.0-125	
cis-1,3-Dichloropropene	0.125	0.143	114	76.0-127	
trans-1,3-Dichloropropene	0.125	0.142	113	73.0-127	
2,2-Dichloropropane	0.125	0.115	92.2	59.0-135	
Di-isopropyl ether	0.125	0.118	94.7	60.0-136	
Ethylbenzene	0.125	0.101	81.1	74.0-126	

Laboratory Control Sample (LCS)

(LCS) R3351306-1 10/16/18 11:18

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Hexachloro-1,3-butadiene	0.125	0.129	103	57.0-150	
2-Hexanone	0.625	0.771	123	54.0-147	
n-Hexane	0.125	0.150	120	55.0-137	
Iodomethane	0.625	0.599	95.9	74.0-134	
Isopropylbenzene	0.125	0.113	90.7	72.0-127	
p-Isopropyltoluene	0.125	0.135	108	72.0-133	
2-Butanone (MEK)	0.625	0.549	87.8	30.0-160	
Methylene Chloride	0.125	0.130	104	68.0-123	
4-Methyl-2-pentanone (MIBK)	0.625	0.734	117	56.0-143	
Methyl tert-butyl ether	0.125	0.0939	75.2	66.0-132	
Naphthalene	0.125	0.118	94.5	59.0-130	
n-Propylbenzene	0.125	0.129	103	74.0-126	
Styrene	0.125	0.120	96.3	72.0-127	
1,1,1,2-Tetrachloroethane	0.125	0.113	90.3	74.0-129	
1,1,2,2-Tetrachloroethane	0.125	0.167	134	68.0-128	J4
Toluene	0.125	0.115	91.8	75.0-121	
1,1,2-Trichlorotrifluoroethane	0.125	0.138	110	61.0-139	
1,2,3-Trichlorobenzene	0.125	0.104	83.6	59.0-139	
1,2,4-Trichlorobenzene	0.125	0.105	84.3	62.0-137	
1,1,1-Trichloroethane	0.125	0.125	99.9	69.0-126	
1,1,2-Trichloroethane	0.125	0.177	142	78.0-123	J4
Trichloroethene	0.125	0.110	87.8	76.0-126	
Trichlorofluoromethane	0.125	0.137	109	61.0-142	
1,2,3-Trichloropropane	0.125	0.106	84.8	67.0-129	
1,2,3-Trimethylbenzene	0.125	0.137	110	74.0-124	
1,2,4-Trimethylbenzene	0.125	0.101	80.6	70.0-126	
1,3,5-Trimethylbenzene	0.125	0.126	101	73.0-127	
Vinyl acetate	0.625	0.900	144	43.0-159	
Vinyl chloride	0.125	0.110	87.9	63.0-134	
Xylenes, Total	0.375	0.308	82.1	72.0-127	
(S) Toluene-d8			*106*	*75.0-131*	
(S) Dibromofluoromethane			*93.3*	*65.0-129*	
(S) 4-Bromofluorobenzene			*101*	*67.0-138*	

L1033617-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1033617-01 10/16/18 13:03 • (MS) R3351306-3 10/16/18 20:20 • (MSD) R3351306-4 10/16/18 20:40

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acrylonitrile	0.748	ND	0.350	0.408	46.8	54.5	1	10.0-160			15.3	40
Benzene	0.150	ND	0.113	0.0911	75.5	60.9	1	10.0-149			21.3	37
Bromobenzene	0.150	ND	0.148	0.111	99.2	74.2	1	10.0-156			28.9	38
Bromodichloromethane	0.150	ND	0.131	0.128	87.7	85.3	1	10.0-143			2.76	37
Bromochloromethane	0.150	ND	0.0852	0.0834	57.0	55.7	1	10.0-155			2.18	33
Bromoform	0.150	ND	0.107	0.0913	71.3	61.0	1	10.0-146			15.5	36
Bromomethane	0.150	ND	0.0276	0.0234	18.4	15.7	1	10.0-149			16.2	38
n-Butylbenzene	0.150	ND	0.136	0.0843	91.1	56.3	1	10.0-160		J3	47.2	40
sec-Butylbenzene	0.150	ND	0.137	0.0814	91.8	54.4	1	10.0-159		J3	51.1	39
tert-Butylbenzene	0.150	ND	0.132	0.0802	88.0	53.6	1	10.0-156		J3	48.5	39
Carbon disulfide	0.150	ND	0.0651	0.0473	43.5	31.6	1	10.0-145			31.7	39
Carbon tetrachloride	0.150	ND	0.110	0.0768	73.9	51.3	1	10.0-145			36.0	37
Chlorobenzene	0.150	ND	0.132	0.120	88.4	80.0	1	10.0-152			9.90	39
Chlorodibromomethane	0.150	ND	0.0920	0.0979	61.5	65.4	1	10.0-146			6.20	37
Chloroethane	0.150	ND	0.0194	0.0151	9.78	6.90	1	10.0-146	J6	J6	25.0	40
Chloroform	0.150	ND	0.0830	0.0726	55.0	48.1	1	10.0-146			13.4	37
Chloromethane	0.150	ND	0.0941	0.0752	60.7	48.1	1	10.0-159			22.4	37
2-Chlorotoluene	0.150	ND	0.114	0.0767	76.2	51.3	1	10.0-159		J3	39.1	38
4-Chlorotoluene	0.150	ND	0.142	0.0958	94.9	64.1	1	10.0-155			38.8	39
1,2-Dibromo-3-Chloropropane	0.150	ND	0.0986	0.0917	65.9	61.3	1	10.0-151			7.32	39
1,2-Dibromoethane	0.150	ND	0.121	0.133	81.0	89.0	1	10.0-148			9.41	34
Dibromomethane	0.150	ND	0.158	0.144	105	96.5	1	10.0-147			8.73	35
1,2-Dichlorobenzene	0.150	ND	0.143	0.112	95.4	75.1	1	10.0-155			23.8	37
1,3-Dichlorobenzene	0.150	ND	0.134	0.0964	89.5	64.4	1	10.0-153			32.6	38
1,4-Dichlorobenzene	0.150	ND	0.124	0.0926	83.1	61.9	1	10.0-151			29.2	38
trans-1,4-Dichloro-2-butene	0.150	ND	0.127	0.114	85.2	76.3	1	10.0-152			11.0	36
Dichlorodifluoromethane	0.150	ND	0.0854	0.0517	57.1	34.6	1	10.0-160		J3	49.1	35
1,1-Dichloroethane	0.150	ND	0.109	0.0894	72.9	59.8	1	10.0-147			19.8	37
1,2-Dichloroethane	0.150	ND	0.0942	0.0960	61.8	63.0	1	10.0-148			1.88	35
1,1-Dichloroethene	0.150	ND	0.0825	0.0573	55.2	38.3	1	10.0-155			36.1	37
cis-1,2-Dichloroethene	0.150	ND	0.118	0.103	79.2	69.0	1	10.0-149			13.8	37
trans-1,2-Dichloroethene	0.150	ND	0.108	0.0829	72.0	55.4	1	10.0-150			26.1	37
1,2-Dichloropropane	0.150	ND	0.0917	0.0836	61.3	55.9	1	10.0-148			9.18	37
1,1-Dichloropropene	0.150	ND	0.0928	0.0657	62.0	43.9	1	10.0-153			34.1	35
1,3-Dichloropropane	0.150	ND	0.159	0.169	105	111	1	10.0-154			5.92	35
cis-1,3-Dichloropropene	0.150	ND	0.132	0.130	88.2	86.9	1	10.0-151			1.54	37
trans-1,3-Dichloropropene	0.150	ND	0.133	0.139	89.1	93.1	1	10.0-148			4.40	37
2,2-Dichloropropane	0.150	ND	0.0691	0.0544	46.2	36.3	1	10.0-138			23.8	36
Di-isopropyl ether	0.150	ND	0.105	0.102	70.1	67.9	1	10.0-147			3.20	36

L1033617-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1033617-01 10/16/18 13:03 • (MS) R3351306-3 10/16/18 20:20 • (MSD) R3351306-4 10/16/18 20:40

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Ethylbenzene	0.150	ND	0.0998	0.0815	66.7	54.5	1	10.0-160			20.2	38
Hexachloro-1,3-butadiene	0.150	ND	0.126	0.0814	84.0	54.4	1	10.0-160		J3	42.8	40
2-Hexanone	0.748	ND	0.765	0.961	102	128	1	10.0-160			22.7	36
n-Hexane	0.150	ND	0.105	0.0601	70.5	40.1	1	10.0-157		J3	54.8	37
Iodomethane	0.748	ND	0.470	0.395	62.8	52.8	1	10.0-160			17.3	38
Isopropylbenzene	0.150	ND	0.109	0.0659	72.8	44.1	1	10.0-155		J3	49.1	38
p-Isopropyltoluene	0.150	ND	0.128	0.0797	85.8	53.3	1	10.0-160		J3	46.8	40
2-Butanone (MEK)	0.748	ND	0.322	0.331	43.0	44.3	1	10.0-160			2.88	40
Methylene Chloride	0.150	ND	0.110	0.103	73.8	68.6	1	10.0-141			7.31	37
4-Methyl-2-pentanone (MIBK)	0.748	ND	0.730	0.921	97.6	123	1	10.0-160			23.1	35
Methyl tert-butyl ether	0.150	ND	0.0618	0.0678	41.3	45.3	1	11.0-147			9.24	35
Naphthalene	0.150	ND	0.130	0.117	87.1	78.3	1	10.0-160			10.6	36
n-Propylbenzene	0.150	ND	0.127	0.0766	85.0	51.2	1	10.0-158		J3	49.6	38
Styrene	0.150	ND	0.124	0.0882	82.8	59.0	1	10.0-160			33.6	40
1,1,1,2-Tetrachloroethane	0.150	ND	0.105	0.101	69.9	67.4	1	10.0-149			3.79	39
1,1,2,2-Tetrachloroethane	0.150	ND	0.173	0.154	116	103	1	10.0-160			11.9	35
Toluene	0.150	ND	0.113	0.0938	75.3	62.7	1	10.0-156			18.3	38
1,1,2-Trichlorotrifluoroethane	0.150	ND	0.103	0.0635	69.0	42.5	1	10.0-160		J3	47.6	36
1,2,3-Trichlorobenzene	0.150	ND	0.113	0.0942	75.8	63.0	1	10.0-160			18.5	40
1,2,4-Trichlorobenzene	0.150	ND	0.109	0.0879	73.2	58.8	1	10.0-160			21.8	40
1,1,1-Trichloroethane	0.150	ND	0.0962	0.0715	64.3	47.8	1	10.0-144			29.5	35
1,1,2-Trichloroethane	0.150	0.0746	0.187	0.202	75.4	85.3	1	10.0-160			7.56	35
Trichloroethene	0.150	ND	0.0981	0.0788	65.6	52.7	1	10.0-156			21.9	38
Trichlorofluoromethane	0.150	ND	0.0986	0.0624	65.9	41.7	1	10.0-160		J3	45.0	40
1,2,3-Trichloropropane	0.150	ND	0.114	0.101	75.9	67.3	1	10.0-156			12.0	35
1,2,3-Trimethylbenzene	0.150	ND	0.138	0.0988	92.1	66.0	1	10.0-160			33.0	36
1,2,4-Trimethylbenzene	0.150	ND	0.0978	0.0661	65.4	44.2	1	10.0-160		J3	38.7	36
1,3,5-Trimethylbenzene	0.150	ND	0.121	0.0779	81.0	52.1	1	10.0-160		J3	43.4	38
Vinyl acetate	0.748	ND	0.483	0.503	64.6	67.3	1	10.0-128			4.11	40
Vinyl chloride	0.150	ND	0.00568	0.00461	3.80	3.08	1	10.0-160	J6	J6	20.8	37
Xylenes, Total	0.449	ND	0.298	0.251	66.5	55.8	1	10.0-160			17.4	38
(S) Toluene-d8					*113*	*114*		*75.0-131*				
(S) Dibromofluoromethane					*81.4*	*80.1*		*65.0-129*				
(S) 4-Bromofluorobenzene					*104*	*88.1*		*67.0-138*				

Method Blank (MB)

(MB) R3351518-3 10/17/18 11:40

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acetone	U		0.0137	0.0250
Tetrachloroethene	U		0.000700	0.00250
(S) Toluene-d8	*99.9*			*75.0-131*
(S) Dibromofluoromethane	*119*			*65.0-129*
(S) 4-Bromofluorobenzene	*123*			*67.0-138*

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

(LCS) R3351518-1 10/17/18 10:40 • (LCSD) R3351518-2 10/17/18 11:00

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	0.625	0.824	0.737	132	118	10.0-160			11.2	31
Tetrachloroethene	0.125	0.103	0.105	82.4	84.0	70.0-136			1.90	20
(S) Toluene-d8				*99.2*	*99.1*	*75.0-131*				
(S) Dibromofluoromethane				*121*	*119*	*65.0-129*				
(S) 4-Bromofluorobenzene				*114*	*121*	*67.0-138*				

Method Blank (MB)

(MB) R3351794-2 10/18/18 10:57

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acrylonitrile	U		0.00190	0.0125
Benzene	U		0.000400	0.00100
Bromobenzene	U		0.00105	0.0125
Bromodichloromethane	U		0.000788	0.00250
Bromochloromethane	U		0.00113	0.00500
Bromoform	U		0.00598	0.0250
Bromomethane	U		0.00370	0.0125
n-Butylbenzene	U		0.00384	0.0125
sec-Butylbenzene	U		0.00253	0.0125
tert-Butylbenzene	U		0.00155	0.00500
Carbon disulfide	U		0.00406	0.0125
Carbon tetrachloride	U		0.00108	0.00500
Chlorobenzene	U		0.000573	0.00250
Chlorodibromomethane	U		0.000450	0.00250
Chloroethane	U		0.00108	0.00500
Chloroform	U		0.000415	0.00250
Chloromethane	U		0.00139	0.0125
2-Chlorotoluene	U		0.000920	0.00250
4-Chlorotoluene	U		0.00113	0.00500
1,2-Dibromo-3-Chloropropane	U		0.00510	0.0250
1,2-Dibromoethane	U		0.000525	0.00250
Dibromomethane	U		0.00100	0.00500
1,2-Dichlorobenzene	U		0.00145	0.00500
1,3-Dichlorobenzene	U		0.00170	0.00500
1,4-Dichlorobenzene	U		0.00197	0.00500
trans-1,4-Dichloro-2-butene	U		0.00140	0.00500
Dichlorodifluoromethane	U		0.000818	0.00250
1,1-Dichloroethane	U		0.000575	0.00250
1,2-Dichloroethane	U		0.000475	0.00250
1,1-Dichloroethene	U		0.000500	0.00250
cis-1,2-Dichloroethene	U		0.000690	0.00250
trans-1,2-Dichloroethene	U		0.00143	0.00500
1,2-Dichloropropane	U		0.00127	0.00500
1,1-Dichloropropene	U		0.000700	0.00250
1,3-Dichloropropane	U		0.00175	0.00500
cis-1,3-Dichloropropene	U		0.000678	0.00250
trans-1,3-Dichloropropene	U		0.00153	0.00500
2,2-Dichloropropane	U		0.000793	0.00250
Di-isopropyl ether	U		0.000350	0.00100
Ethylbenzene	U		0.000530	0.00250

Method Blank (MB)

(MB) R3351794-2 10/18/18 10:57

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Hexachloro-1,3-butadiene	U		0.0127	0.0250
n-Hexane	U		0.00106	0.00500
2-Hexanone	U		0.0100	0.0250
Iodomethane	U		0.00605	0.0125
Isopropylbenzene	U		0.000863	0.00250
p-Isopropyltoluene	U		0.00233	0.00500
2-Butanone (MEK)	U		0.0125	0.0250
Methylene Chloride	U		0.00664	0.0250
4-Methyl-2-pentanone (MIBK)	U		0.0100	0.0250
Methyl tert-butyl ether	U		0.000295	0.00100
Naphthalene	U		0.00312	0.0125
n-Propylbenzene	U		0.00118	0.00500
Styrene	U		0.00273	0.0125
1,1,1,2-Tetrachloroethane	U		0.000500	0.00250
1,1,2,2-Tetrachloroethane	U		0.000390	0.00250
Tetrachloroethene	U		0.000700	0.00250
Toluene	U		0.00125	0.00500
1,1,2-Trichlorotrifluoroethane	U		0.000675	0.00250
1,2,3-Trichlorobenzene	U		0.000625	0.00250
1,2,4-Trichlorobenzene	U		0.00482	0.0125
1,1,1-Trichloroethane	U		0.000275	0.00250
1,1,2-Trichloroethane	U		0.000883	0.00250
Trichloroethene	U		0.000400	0.00100
Trichlorofluoromethane	U		0.000500	0.00250
1,2,3-Trichloropropane	U		0.00510	0.0125
1,2,3-Trimethylbenzene	U		0.00115	0.00500
1,2,4-Trimethylbenzene	U		0.00116	0.00500
1,3,5-Trimethylbenzene	U		0.00108	0.00500
Vinyl acetate	U		0.00352	0.0125
Vinyl chloride	U		0.000683	0.00250
Xylenes, Total	U		0.00478	0.00650
(S) Toluene-d8	*117*			*75.0-131*
(S) Dibromofluoromethane	*77.7*			*65.0-129*
(S) 4-Bromofluorobenzene	*92.4*			*67.0-138*

Laboratory Control Sample (LCS)

(LCS) R3351794-1 10/18/18 08:59

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acrylonitrile	0.625	0.626	100	45.0-153	
Benzene	0.125	0.132	106	70.0-123	
Bromobenzene	0.125	0.127	102	73.0-121	
Bromodichloromethane	0.125	0.145	116	73.0-121	
Bromochloromethane	0.125	0.103	82.2	77.0-128	
Bromoform	0.125	0.0934	74.7	64.0-132	
Bromomethane	0.125	0.112	89.7	56.0-147	
n-Butylbenzene	0.125	0.122	97.3	68.0-135	
sec-Butylbenzene	0.125	0.123	98.3	74.0-130	
tert-Butylbenzene	0.125	0.118	94.0	75.0-127	
Carbon disulfide	0.125	0.104	83.1	56.0-133	
Carbon tetrachloride	0.125	0.149	120	66.0-128	
Chlorobenzene	0.125	0.132	105	76.0-128	
Chlorodibromomethane	0.125	0.0947	75.7	74.0-127	
Chloroethane	0.125	0.131	105	61.0-134	
Chloroform	0.125	0.0989	79.1	72.0-123	
Chloromethane	0.125	0.134	107	51.0-138	
2-Chlorotoluene	0.125	0.101	81.1	75.0-124	
4-Chlorotoluene	0.125	0.126	101	75.0-124	
1,2-Dibromo-3-Chloropropane	0.125	0.0802	64.2	59.0-130	
1,2-Dibromoethane	0.125	0.118	94.5	74.0-128	
Dibromomethane	0.125	0.160	128	75.0-122	J4
1,2-Dichlorobenzene	0.125	0.120	95.8	76.0-124	
1,3-Dichlorobenzene	0.125	0.116	92.8	76.0-125	
1,4-Dichlorobenzene	0.125	0.107	85.6	77.0-121	
trans-1,4-Dichloro-2-butene	0.125	0.108	86.7	45.0-143	
Dichlorodifluoromethane	0.125	0.135	108	43.0-156	
1,1-Dichloroethane	0.125	0.133	106	70.0-127	
1,2-Dichloroethane	0.125	0.109	87.4	65.0-131	
1,1-Dichloroethene	0.125	0.113	90.1	65.0-131	
cis-1,2-Dichloroethene	0.125	0.141	113	73.0-125	
trans-1,2-Dichloroethene	0.125	0.136	109	71.0-125	
1,2-Dichloropropane	0.125	0.0998	79.8	74.0-125	
1,1-Dichloropropene	0.125	0.119	95.6	73.0-125	
1,3-Dichloropropane	0.125	0.151	121	80.0-125	
cis-1,3-Dichloropropene	0.125	0.142	114	76.0-127	
trans-1,3-Dichloropropene	0.125	0.140	112	73.0-127	
2,2-Dichloropropane	0.125	0.126	101	59.0-135	
Di-isopropyl ether	0.125	0.123	98.3	60.0-136	
Ethylbenzene	0.125	0.101	80.4	74.0-126	

Laboratory Control Sample (LCS)

(LCS) R3351794-1 10/18/18 08:59

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Hexachloro-1,3-butadiene	0.125	0.114	91.0	57.0-150	
2-Hexanone	0.625	0.673	108	54.0-147	
n-Hexane	0.125	0.163	130	55.0-137	
Iodomethane	0.625	0.626	100	74.0-134	
Isopropylbenzene	0.125	0.0984	78.7	72.0-127	
p-Isopropyltoluene	0.125	0.114	91.5	72.0-133	
2-Butanone (MEK)	0.625	0.536	85.8	30.0-160	
Methylene Chloride	0.125	0.135	108	68.0-123	
4-Methyl-2-pentanone (MIBK)	0.625	0.677	108	56.0-143	
Methyl tert-butyl ether	0.125	0.0922	73.8	66.0-132	
Naphthalene	0.125	0.0899	71.9	59.0-130	
n-Propylbenzene	0.125	0.113	90.0	74.0-126	
Styrene	0.125	0.100	80.2	72.0-127	
1,1,1,2-Tetrachloroethane	0.125	0.111	89.0	74.0-129	
1,1,2,2-Tetrachloroethane	0.125	0.139	111	68.0-128	
Tetrachloroethene	0.125	0.172	138	70.0-136	J4
Toluene	0.125	0.120	96.0	75.0-121	
1,1,2-Trichlorotrifluoroethane	0.125	0.148	118	61.0-139	
1,2,3-Trichlorobenzene	0.125	0.0856	68.5	59.0-139	
1,2,4-Trichlorobenzene	0.125	0.0864	69.1	62.0-137	
1,1,1-Trichloroethane	0.125	0.131	104	69.0-126	
1,1,2-Trichloroethane	0.125	0.178	142	78.0-123	J4
Trichloroethene	0.125	0.113	90.6	76.0-126	
Trichlorofluoromethane	0.125	0.141	112	61.0-142	
1,2,3-Trichloropropane	0.125	0.0900	72.0	67.0-129	
1,2,3-Trimethylbenzene	0.125	0.118	94.7	74.0-124	
1,2,4-Trimethylbenzene	0.125	0.0847	67.7	70.0-126	J4
1,3,5-Trimethylbenzene	0.125	0.108	86.5	73.0-127	
Vinyl acetate	0.625	0.794	127	43.0-159	
Vinyl chloride	0.125	0.114	91.3	63.0-134	
Xylenes, Total	0.375	0.306	81.6	72.0-127	
(S) Toluene-d8			*107*	*75.0-131*	
(S) Dibromofluoromethane			*92.9*	*65.0-129*	
(S) 4-Bromofluorobenzene			*93.9*	*67.0-138*	

L1034970-12 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1034970-12 10/18/18 18:47 • (MS) R3351794-3 10/18/18 19:06 • (MSD) R3351794-4 10/18/18 19:26

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acrylonitrile	0.657	U	0.160	0.259	24.3	39.4	1	10.0-160		J3	47.3	40
Benzene	0.131	U	0.0799	0.0812	60.8	61.9	1	10.0-149			1.66	37
Bromobenzene	0.131	U	0.112	0.0930	85.5	70.8	1	10.0-156			18.8	38
Bromodichloromethane	0.131	U	0.106	0.104	80.8	79.0	1	10.0-143			2.16	37
Bromochloromethane	0.131	U	0.0609	0.0615	46.4	46.8	1	10.0-155			0.935	33
Bromoform	0.131	U	0.0818	0.0704	62.3	53.6	1	10.0-146			15.0	36
Bromomethane	0.131	U	0.0173	0.0160	13.2	12.2	1	10.0-149			8.16	38
n-Butylbenzene	0.131	U	0.100	0.0809	76.2	61.6	1	10.0-160			21.2	40
sec-Butylbenzene	0.131	U	0.0983	0.0799	74.9	60.8	1	10.0-159			20.7	39
tert-Butylbenzene	0.131	U	0.0927	0.0770	70.6	58.6	1	10.0-156			18.5	39
Carbon disulfide	0.131	U	0.0396	0.0376	30.1	28.6	1	10.0-145			5.09	39
Carbon tetrachloride	0.131	U	0.0816	0.0771	62.1	58.7	1	10.0-145			5.63	37
Chlorobenzene	0.131	U	0.100	0.0957	76.4	72.9	1	10.0-152			4.72	39
Chlorodibromomethane	0.131	U	0.0744	0.0725	56.7	55.2	1	10.0-146			2.66	37
Chloroethane	0.131	U	0.0148	0.0159	11.3	12.1	1	10.0-146			7.01	40
Chloroform	0.131	0.000670	0.0620	0.0612	46.7	46.1	1	10.0-146			1.37	37
Chloromethane	0.131	U	0.0693	0.0653	52.8	49.7	1	10.0-159			5.94	37
2-Chlorotoluene	0.131	U	0.0824	0.0676	62.7	51.5	1	10.0-159			19.6	38
4-Chlorotoluene	0.131	U	0.104	0.0855	79.2	65.1	1	10.0-155			19.6	39
1,2-Dibromo-3-Chloropropane	0.131	U	0.0778	0.0657	59.2	50.0	1	10.0-151			16.8	39
1,2-Dibromoethane	0.131	U	0.0946	0.0927	72.0	70.6	1	10.0-148			2.06	34
Dibromomethane	0.131	U	0.101	0.124	76.8	94.3	1	10.0-147			20.4	35
1,2-Dichlorobenzene	0.131	U	0.112	0.0930	85.1	70.8	1	10.0-155			18.3	37
1,3-Dichlorobenzene	0.131	U	0.102	0.0837	77.4	63.7	1	10.0-153			19.5	38
1,4-Dichlorobenzene	0.131	U	0.0942	0.0783	71.7	59.6	1	10.0-151			18.5	38
trans-1,4-Dichloro-2-butene	0.131	U	0.101	0.0868	77.1	66.1	1	10.0-152			15.3	36
Dichlorodifluoromethane	0.131	U	0.0661	0.0607	50.3	46.2	1	10.0-160			8.56	35
1,1-Dichloroethane	0.131	U	0.0811	0.0791	61.8	60.2	1	10.0-147			2.55	37
1,2-Dichloroethane	0.131	U	0.0699	0.0721	53.3	54.9	1	10.0-148			3.02	35
1,1-Dichloroethene	0.131	U	0.0594	0.0567	45.2	43.2	1	10.0-155			4.64	37
cis-1,2-Dichloroethene	0.131	0.0268	0.127	0.130	76.1	78.3	1	10.0-149			2.29	37
trans-1,2-Dichloroethene	0.131	U	0.0763	0.0730	58.1	55.6	1	10.0-150			4.39	37
1,2-Dichloropropane	0.131	U	0.0531	0.0524	40.5	39.9	1	10.0-148			1.39	37
1,1-Dichloropropene	0.131	U	0.0661	0.0634	50.3	48.3	1	10.0-153			4.24	35
1,3-Dichloropropane	0.131	U	0.128	0.125	97.4	95.1	1	10.0-154			2.42	35
cis-1,3-Dichloropropene	0.131	U	0.107	0.104	81.8	78.9	1	10.0-151			3.55	37
trans-1,3-Dichloropropene	0.131	U	0.107	0.103	81.4	78.6	1	10.0-148			3.46	37
2,2-Dichloropropane	0.131	U	0.0496	0.0483	37.7	36.8	1	10.0-138			2.61	36
Di-isopropyl ether	0.131	U	0.0829	0.0817	63.1	62.2	1	10.0-147			1.53	36

L1034970-12 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1034970-12 10/18/18 18:47 • (MS) R3351794-3 10/18/18 19:06 • (MSD) R3351794-4 10/18/18 19:26

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Ethylbenzene	0.131	U	0.0724	0.0687	55.2	52.3	1	10.0-160			5.34	38
Hexachloro-1,3-butadiene	0.131	U	0.0993	0.0817	75.6	62.2	1	10.0-160			19.5	40
2-Hexanone	0.657	U	0.628	0.633	95.7	96.5	1	10.0-160			0.785	36
n-Hexane	0.131	U	0.0640	0.0621	48.7	47.3	1	10.0-157			3.06	37
Iodomethane	0.657	U	0.333	0.319	50.7	48.5	1	10.0-160			4.31	38
Isopropylbenzene	0.131	U	0.0761	0.0629	57.9	47.9	1	10.0-155			19.0	38
p-Isopropyltoluene	0.131	U	0.0926	0.0753	70.5	57.3	1	10.0-160			20.7	40
2-Butanone (MEK)	0.657	U	0.266	0.241	40.6	36.7	1	10.0-160			9.98	40
Methylene Chloride	0.131	U	0.0824	0.0800	62.7	60.9	1	10.0-141			2.97	37
4-Methyl-2-pentanone (MIBK)	0.657	U	0.631	0.635	96.2	96.7	1	10.0-160			0.512	35
Methyl tert-butyl ether	0.131	U	0.0516	0.0507	39.3	38.6	1	11.0-147			1.78	35
Naphthalene	0.131	U	0.103	0.0871	78.5	66.3	1	10.0-160			16.8	36
n-Propylbenzene	0.131	U	0.0889	0.0728	67.7	55.4	1	10.0-158			19.9	38
Styrene	0.131	U	0.0873	0.0725	66.5	55.2	1	10.0-160			18.6	40
1,1,1,2-Tetrachloroethane	0.131	U	0.0828	0.0799	63.1	60.9	1	10.0-149			3.57	39
1,1,2,2-Tetrachloroethane	0.131	U	0.136	0.116	103	88.0	1	10.0-160			15.8	35
Tetrachloroethene	0.131	0.558	0.962	0.897	308	258	1	10.0-156	V	V	6.99	39
Toluene	0.131	U	0.0838	0.0797	63.8	60.7	1	10.0-156			4.99	38
1,1,2-Trichlorotrifluoroethane	0.131	U	0.0783	0.0735	59.6	56.0	1	10.0-160			6.30	36
1,2,3-Trichlorobenzene	0.131	U	0.0910	0.0768	69.3	58.5	1	10.0-160			16.9	40
1,2,4-Trichlorobenzene	0.131	U	0.0872	0.0722	66.4	55.0	1	10.0-160			18.8	40
1,1,1-Trichloroethane	0.131	U	0.0721	0.0691	54.9	52.6	1	10.0-144			4.24	35
1,1,2-Trichloroethane	0.131	U	0.151	0.147	115	112	1	10.0-160			2.59	35
Trichloroethene	0.131	0.0656	0.194	0.185	97.7	90.7	1	10.0-156			4.88	38
Trichlorofluoromethane	0.131	U	0.0716	0.0675	54.6	51.4	1	10.0-160			5.89	40
1,2,3-Trichloropropane	0.131	U	0.0885	0.0752	67.4	57.3	1	10.0-156			16.2	35
1,2,3-Trimethylbenzene	0.131	U	0.101	0.0826	77.0	62.9	1	10.0-160			20.1	36
1,2,4-Trimethylbenzene	0.131	U	0.0701	0.0575	53.3	43.8	1	10.0-160			19.7	36
1,3,5-Trimethylbenzene	0.131	U	0.0865	0.0709	65.9	54.0	1	10.0-160			19.8	38
Vinyl acetate	0.657	U	0.375	0.0659	57.1	10.0	1	10.0-128		J3	140	40
Vinyl chloride	0.131	U	0.00375	0.00375	2.85	2.86	1	10.0-160	J6	J6	0.112	37
Xylenes, Total	0.394	U	0.220	0.209	55.8	53.0	1	10.0-160			5.10	38
(S) Toluene-d8					*113*	*113*		*75.0-131*				
(S) Dibromofluoromethane					*77.2*	*79.2*		*65.0-129*				
(S) 4-Bromofluorobenzene					*99.5*	*91.3*		*67.0-138*				

Method Blank (MB)

(MB) R3352706-2 10/19/18 19:37

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acetone	U		0.0137	0.0250
Acrylonitrile	U		0.00190	0.0125
Benzene	U		0.000400	0.00100
Bromobenzene	U		0.00105	0.0125
Bromodichloromethane	U		0.000788	0.00250
Bromochloromethane	U		0.00113	0.00500
Bromoform	U		0.00598	0.0250
Bromomethane	U		0.00370	0.0125
n-Butylbenzene	U		0.00384	0.0125
sec-Butylbenzene	U		0.00253	0.0125
tert-Butylbenzene	U		0.00155	0.00500
Carbon disulfide	U		0.00406	0.0125
Carbon tetrachloride	U		0.00108	0.00500
Chlorobenzene	U		0.000573	0.00250
Chlorodibromomethane	U		0.000450	0.00250
Chloroethane	U		0.00108	0.00500
Chloroform	0.00129	J	0.000415	0.00250
Chloromethane	U		0.00139	0.0125
2-Chlorotoluene	U		0.000920	0.00250
4-Chlorotoluene	U		0.00113	0.00500
1,2-Dibromo-3-Chloropropane	U		0.00510	0.0250
1,2-Dibromoethane	U		0.000525	0.00250
Dibromomethane	U		0.00100	0.00500
1,2-Dichlorobenzene	U		0.00145	0.00500
1,3-Dichlorobenzene	U		0.00170	0.00500
1,4-Dichlorobenzene	U		0.00197	0.00500
trans-1,4-Dichloro-2-butene	U		0.00140	0.00500
Dichlorodifluoromethane	U		0.000818	0.00250
1,1-Dichloroethane	U		0.000575	0.00250
1,2-Dichloroethane	U		0.000475	0.00250
1,1-Dichloroethene	U		0.000500	0.00250
cis-1,2-Dichloroethene	U		0.000690	0.00250
trans-1,2-Dichloroethene	U		0.00143	0.00500
1,1-Dichloropropene	U		0.000700	0.00250
1,3-Dichloropropane	U		0.00175	0.00500
cis-1,3-Dichloropropene	U		0.000678	0.00250
trans-1,3-Dichloropropene	U		0.00153	0.00500
2,2-Dichloropropane	U		0.000793	0.00250
Di-isopropyl ether	U		0.000350	0.00100
Ethylbenzene	U		0.000530	0.00250

Method Blank (MB)

(MB) R3352706-2 10/19/18 19:37

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Hexachloro-1,3-butadiene	U		0.0127	0.0250
n-Hexane	U		0.00106	0.00500
2-Hexanone	U		0.0100	0.0250
Iodomethane	U		0.00605	0.0125
Isopropylbenzene	U		0.000863	0.00250
p-Isopropyltoluene	U		0.00233	0.00500
Methylene Chloride	0.0187	J	0.00664	0.0250
4-Methyl-2-pentanone (MIBK)	U		0.0100	0.0250
Methyl tert-butyl ether	U		0.000295	0.00100
Naphthalene	U		0.00312	0.0125
n-Propylbenzene	U		0.00118	0.00500
Styrene	U		0.00273	0.0125
1,1,1,2-Tetrachloroethane	U		0.000500	0.00250
1,1,2,2-Tetrachloroethane	U		0.000390	0.00250
Tetrachloroethene	U		0.000700	0.00250
Toluene	U		0.00125	0.00500
1,1,2-Trichlorotrifluoroethane	U		0.000675	0.00250
1,2,3-Trichlorobenzene	U		0.000625	0.00250
1,2,4-Trichlorobenzene	U		0.00482	0.0125
1,1,1-Trichloroethane	U		0.000275	0.00250
Trichloroethene	U		0.000400	0.00100
Trichlorofluoromethane	U		0.000500	0.00250
1,2,3-Trichloropropane	U		0.00510	0.0125
1,2,3-Trimethylbenzene	U		0.00115	0.00500
1,2,4-Trimethylbenzene	U		0.00116	0.00500
1,3,5-Trimethylbenzene	U		0.00108	0.00500
Vinyl acetate	U		0.00352	0.0125
Vinyl chloride	U		0.000683	0.00250
Xylenes, Total	U		0.00478	0.00650
(S) Toluene-d8	*131*			*75.0-131*
(S) Dibromofluoromethane	*91.7*			*65.0-129*
(S) 4-Bromofluorobenzene	*99.0*			*67.0-138*

Laboratory Control Sample (LCS)

(LCS) R3352706-1 10/19/18 18:05

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acetone	0.625	0.752	120	10.0-160	
Acrylonitrile	0.625	0.684	109	45.0-153	
Benzene	0.125	0.119	95.4	70.0-123	
Bromobenzene	0.125	0.113	90.3	73.0-121	
Bromodichloromethane	0.125	0.127	102	73.0-121	
Bromochloromethane	0.125	0.121	96.9	77.0-128	
Bromoform	0.125	0.0874	69.9	64.0-132	
Bromomethane	0.125	0.111	88.6	56.0-147	
n-Butylbenzene	0.125	0.117	93.6	68.0-135	
sec-Butylbenzene	0.125	0.119	95.0	74.0-130	
tert-Butylbenzene	0.125	0.119	94.9	75.0-127	
Carbon disulfide	0.125	0.0921	73.7	56.0-133	
Carbon tetrachloride	0.125	0.113	90.2	66.0-128	
Chlorobenzene	0.125	0.110	88.3	76.0-128	
Chlorodibromomethane	0.125	0.102	81.3	74.0-127	
Chloroethane	0.125	0.110	88.2	61.0-134	
Chloroform	0.125	0.127	102	72.0-123	
Chloromethane	0.125	0.144	115	51.0-138	
2-Chlorotoluene	0.125	0.109	87.4	75.0-124	
4-Chlorotoluene	0.125	0.125	99.7	75.0-124	
1,2-Dibromo-3-Chloropropane	0.125	0.0955	76.4	59.0-130	
1,2-Dibromoethane	0.125	0.115	92.4	74.0-128	
Dibromomethane	0.125	0.115	92.1	75.0-122	
1,2-Dichlorobenzene	0.125	0.124	99.3	76.0-124	
1,3-Dichlorobenzene	0.125	0.114	91.3	76.0-125	
1,4-Dichlorobenzene	0.125	0.113	90.4	77.0-121	
trans-1,4-Dichloro-2-butene	0.125	0.118	94.7	45.0-143	
Dichlorodifluoromethane	0.125	0.176	141	43.0-156	
1,1-Dichloroethane	0.125	0.129	103	70.0-127	
1,2-Dichloroethane	0.125	0.133	106	65.0-131	
1,1-Dichloroethene	0.125	0.124	99.5	65.0-131	
cis-1,2-Dichloroethene	0.125	0.124	99.0	73.0-125	
trans-1,2-Dichloroethene	0.125	0.118	94.1	71.0-125	
1,1-Dichloropropene	0.125	0.125	99.7	73.0-125	
1,3-Dichloropropane	0.125	0.125	100	80.0-125	
cis-1,3-Dichloropropene	0.125	0.115	91.8	76.0-127	
trans-1,3-Dichloropropene	0.125	0.102	81.7	73.0-127	
2,2-Dichloropropane	0.125	0.136	109	59.0-135	
Di-isopropyl ether	0.125	0.140	112	60.0-136	
Ethylbenzene	0.125	0.124	99.0	74.0-126	

Laboratory Control Sample (LCS)

(LCS) R3352706-1 10/19/18 18:05

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Hexachloro-1,3-butadiene	0.125	0.0992	79.4	57.0-150	
2-Hexanone	0.625	0.676	108	54.0-147	
n-Hexane	0.125	0.142	114	55.0-137	
Iodomethane	0.625	0.587	93.9	74.0-134	
Isopropylbenzene	0.125	0.113	90.1	72.0-127	
p-Isopropyltoluene	0.125	0.120	96.0	72.0-133	
Methylene Chloride	0.125	0.116	92.5	68.0-123	
4-Methyl-2-pentanone (MIBK)	0.625	0.768	123	56.0-143	
Methyl tert-butyl ether	0.125	0.131	105	66.0-132	
Naphthalene	0.125	0.114	90.9	59.0-130	
n-Propylbenzene	0.125	0.115	92.1	74.0-126	
Styrene	0.125	0.0973	77.9	72.0-127	
1,1,1,2-Tetrachloroethane	0.125	0.114	91.5	74.0-129	
1,1,2,2-Tetrachloroethane	0.125	0.122	97.2	68.0-128	
Tetrachloroethene	0.125	0.130	104	70.0-136	
Toluene	0.125	0.129	103	75.0-121	
1,1,2-Trichlorotrifluoroethane	0.125	0.119	95.0	61.0-139	
1,2,3-Trichlorobenzene	0.125	0.118	94.7	59.0-139	
1,2,4-Trichlorobenzene	0.125	0.106	84.5	62.0-137	
1,1,1-Trichloroethane	0.125	0.107	85.6	69.0-126	
Trichloroethene	0.125	0.0970	77.6	76.0-126	
Trichlorofluoromethane	0.125	0.135	108	61.0-142	
1,2,3-Trichloropropane	0.125	0.125	100	67.0-129	
1,2,3-Trimethylbenzene	0.125	0.120	96.2	74.0-124	
1,2,4-Trimethylbenzene	0.125	0.114	91.0	70.0-126	
1,3,5-Trimethylbenzene	0.125	0.115	92.3	73.0-127	
Vinyl acetate	0.625	0.949	152	43.0-159	
Vinyl chloride	0.125	0.114	91.4	63.0-134	
Xylenes, Total	0.375	0.336	89.6	72.0-127	
(S) Toluene-d8			*108*	*75.0-131*	
(S) Dibromofluoromethane			*107*	*65.0-129*	
(S) 4-Bromofluorobenzene			*95.6*	*67.0-138*	

L1034970-23 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1034970-23 10/20/18 00:55 • (MS) R3352706-3 10/19/18 19:57 • (MSD) R3352706-4 10/19/18 20:28

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acetone	0.686	U	0.726	0.616	106	89.7	1	10.0-160			16.4	40
Acrylonitrile	0.686	U	0.487	0.471	71.0	68.7	1	10.0-160			3.33	40
Benzene	0.137	U	0.121	0.118	88.2	86.1	1	10.0-149			2.43	37
Bromobenzene	0.137	U	0.110	0.111	79.8	81.1	1	10.0-156			1.60	38
Bromodichloromethane	0.137	U	0.126	0.124	91.4	90.6	1	10.0-143			0.864	37
Bromochloromethane	0.137	U	0.112	0.120	81.9	87.5	1	10.0-155			6.64	33
Bromoform	0.137	U	0.0746	0.0759	54.4	55.3	1	10.0-146			1.61	36
Bromomethane	0.137	U	0.0687	0.0881	50.0	64.1	1	10.0-149			24.7	38
n-Butylbenzene	0.137	U	0.114	0.116	83.1	84.6	1	10.0-160			1.87	40
sec-Butylbenzene	0.137	U	0.117	0.121	85.2	88.1	1	10.0-159			3.32	39
tert-Butylbenzene	0.137	U	0.115	0.119	84.0	86.5	1	10.0-156			2.90	39
Carbon disulfide	0.137	U	0.0956	0.0960	69.6	69.9	1	10.0-145			0.398	39
Carbon tetrachloride	0.137	U	0.112	0.108	81.7	78.8	1	10.0-145			3.66	37
Chlorobenzene	0.137	U	0.109	0.109	79.6	79.5	1	10.0-152			0.188	39
Chlorodibromomethane	0.137	U	0.0903	0.0932	65.8	67.9	1	10.0-146			3.11	37
Chloroethane	0.137	U	0.0688	0.0890	50.1	64.8	1	10.0-146			25.5	40
Chloroform	0.137	U	0.124	0.121	90.7	88.1	1	10.0-146			2.81	37
Chloromethane	0.137	U	0.162	0.159	118	116	1	10.0-159			1.90	37
2-Chlorotoluene	0.137	U	0.104	0.108	75.5	78.9	1	10.0-159			4.41	38
4-Chlorotoluene	0.137	U	0.116	0.120	84.5	87.1	1	10.0-155			2.97	39
1,2-Dibromo-3-Chloropropane	0.137	U	0.0786	0.0839	57.2	61.1	1	10.0-151			6.54	39
1,2-Dibromoethane	0.137	U	0.103	0.106	75.2	77.4	1	10.0-148			2.89	34
Dibromomethane	0.137	U	0.107	0.106	77.8	77.0	1	10.0-147			1.12	35
1,2-Dichlorobenzene	0.137	U	0.110	0.114	80.4	83.0	1	10.0-155			3.14	37
1,3-Dichlorobenzene	0.137	U	0.109	0.116	79.7	84.3	1	10.0-153			5.64	38
1,4-Dichlorobenzene	0.137	U	0.104	0.107	76.0	77.9	1	10.0-151			2.42	38
trans-1,4-Dichloro-2-butene	0.137	U	0.106	0.105	77.0	76.8	1	10.0-152			0.275	36
Dichlorodifluoromethane	0.137	U	0.217	0.208	158	151	1	10.0-160			4.45	35
1,1-Dichloroethane	0.137	U	0.123	0.125	89.7	91.1	1	10.0-147			1.53	37
1,2-Dichloroethane	0.137	U	0.124	0.121	90.5	88.3	1	10.0-148			2.45	35
1,1-Dichloroethene	0.137	U	0.128	0.120	93.2	87.2	1	10.0-155			6.64	37
cis-1,2-Dichloroethene	0.137	0.207	0.351	0.336	105	94.0	1	10.0-149			4.35	37
trans-1,2-Dichloroethene	0.137	U	0.113	0.111	82.5	80.5	1	10.0-150			2.38	37
1,1-Dichloropropene	0.137	U	0.122	0.118	88.9	86.1	1	10.0-153			3.21	35
1,3-Dichloropropane	0.137	U	0.120	0.122	87.5	88.7	1	10.0-154			1.40	35
cis-1,3-Dichloropropene	0.137	U	0.107	0.107	77.6	78.0	1	10.0-151			0.502	37
trans-1,3-Dichloropropene	0.137	U	0.101	0.0965	73.2	70.3	1	10.0-148			4.02	37
2,2-Dichloropropane	0.137	U	0.118	0.121	85.7	87.8	1	10.0-138			2.39	36
Di-isopropyl ether	0.137	U	0.127	0.128	92.3	93.2	1	10.0-147			0.982	36

L1034970-23 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1034970-23 10/20/18 00:55 • (MS) R3352706-3 10/19/18 19:57 • (MSD) R3352706-4 10/19/18 20:28

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Ethylbenzene	0.137	U	0.124	0.123	90.2	89.8	1	10.0-160			0.437	38
Hexachloro-1,3-butadiene	0.137	U	0.105	0.104	76.2	75.9	1	10.0-160			0.409	40
2-Hexanone	0.686	U	0.482	0.470	70.3	68.4	1	10.0-160			2.65	36
n-Hexane	0.137	U	0.149	0.152	109	111	1	10.0-157			1.74	37
Iodomethane	0.686	U	0.550	0.544	80.0	79.3	1	10.0-160			0.949	38
Isopropylbenzene	0.137	U	0.110	0.114	80.3	83.1	1	10.0-155			3.41	38
p-Isopropyltoluene	0.137	U	0.117	0.121	84.9	88.0	1	10.0-160			3.56	40
Methylene Chloride	0.137	U	0.113	0.115	82.6	83.7	1	10.0-141			1.34	37
4-Methyl-2-pentanone (MIBK)	0.686	U	0.618	0.609	90.0	88.7	1	10.0-160			1.45	35
Methyl tert-butyl ether	0.137	U	0.115	0.113	83.8	82.2	1	11.0-147			1.98	35
Naphthalene	0.137	U	0.100	0.101	72.9	73.9	1	10.0-160			1.30	36
n-Propylbenzene	0.137	U	0.112	0.113	81.3	82.3	1	10.0-158			1.21	38
Styrene	0.137	U	0.0942	0.0966	68.6	70.4	1	10.0-160			2.53	40
1,1,1,2-Tetrachloroethane	0.137	U	0.110	0.110	79.8	80.0	1	10.0-149			0.243	39
1,1,2,2-Tetrachloroethane	0.137	U	0.102	0.101	74.4	73.4	1	10.0-160			1.31	35
Tetrachloroethene	0.137	1.72	1.97	1.94	187	159	1	10.0-156	E V	E V	1.91	39
Toluene	0.137	U	0.132	0.131	96.0	95.7	1	10.0-156			0.312	38
1,1,2-Trichlorotrifluoroethane	0.137	U	0.109	0.107	79.5	78.2	1	10.0-160			1.58	36
1,2,3-Trichlorobenzene	0.137	U	0.113	0.120	82.3	87.6	1	10.0-160			6.27	40
1,2,4-Trichlorobenzene	0.137	U	0.101	0.104	73.8	75.4	1	10.0-160			2.10	40
1,1,1-Trichloroethane	0.137	U	0.109	0.105	79.6	76.7	1	10.0-144			3.72	35
Trichloroethene	0.137	0.266	0.408	0.383	103	85.4	1	10.0-156			6.17	38
Trichlorofluoromethane	0.137	U	0.114	0.138	82.7	101	1	10.0-160			19.8	40
1,2,3-Trichloropropane	0.137	U	0.105	0.114	76.5	83.1	1	10.0-156			8.21	35
1,2,3-Trimethylbenzene	0.137	U	0.107	0.111	77.7	80.8	1	10.0-160			3.96	36
1,2,4-Trimethylbenzene	0.137	U	0.108	0.109	79.0	79.3	1	10.0-160			0.454	36
1,3,5-Trimethylbenzene	0.137	U	0.110	0.113	79.8	82.0	1	10.0-160			2.80	38
Vinyl acetate	0.686	U	0.368	0.353	53.6	51.4	1	10.0-128			4.19	40
Vinyl chloride	0.137	0.00602	0.0972	0.100	66.4	68.5	1	10.0-160			2.95	37
Xylenes, Total	0.412	U	0.335	0.339	81.3	82.4	1	10.0-160			1.30	38
(S) Toluene-d8					*111*	*112*		*75.0-131*				
(S) Dibromofluoromethane					*100*	*99.2*		*65.0-129*				
(S) 4-Bromofluorobenzene					*92.6*	*96.8*		*67.0-138*				

Sample Narrative:

OS: Not all compounds reportable at lower dilution.

Method Blank (MB)

(MB) R3352594-3 10/21/18 10:31

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acetone	U		0.0137	0.0250
cis-1,2-Dichloroethene	U		0.000690	0.00250
Tetrachloroethene	U		0.000700	0.00250
(S) Toluene-d8	*103*			*75.0-131*
(S) Dibromofluoromethane	*114*			*65.0-129*
(S) 4-Bromofluorobenzene	*118*			*67.0-138*

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

(LCS) R3352594-1 10/21/18 09:13 • (LCSD) R3352594-2 10/21/18 09:32

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	0.625	0.750	0.737	120	118	10.0-160			1.79	31
cis-1,2-Dichloroethene	0.125	0.138	0.133	110	106	73.0-125			3.38	20
Tetrachloroethene	0.125	0.0938	0.0918	75.1	73.4	70.0-136			2.19	20
(S) Toluene-d8				*96.7*	*98.9*	*75.0-131*				
(S) Dibromofluoromethane				*117*	*117*	*65.0-129*				
(S) 4-Bromofluorobenzene				*119*	*118*	*67.0-138*				

Method Blank (MB)

(MB) R3352734-2 10/22/18 09:53

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Trichloroethene	U		0.000400	0.00100
(S) Toluene-d8	*113*			*75.0-131*
(S) Dibromofluoromethane	*79.5*			*65.0-129*
(S) 4-Bromofluorobenzene	*94.4*			*67.0-138*

Laboratory Control Sample (LCS)

(LCS) R3352734-1 10/22/18 08:54

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Trichloroethene	0.125	0.118	94.1	76.0-126	
(S) Toluene-d8			*105*	*75.0-131*	
(S) Dibromofluoromethane			*94.5*	*65.0-129*	
(S) 4-Bromofluorobenzene			*90.6*	*67.0-138*	

Method Blank (MB)

(MB) R3352913-2 10/22/18 15:36

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
cis-1,2-Dichloroethene	U		0.000690	0.00250
1,2-Dichloropropane	U		0.00127	0.00500
2-Butanone (MEK)	U		0.0125	0.0250
Tetrachloroethene	U		0.000700	0.00250
1,1,2-Trichloroethane	U		0.000883	0.00250
(S) Toluene-d8	*99.7*			*75.0-131*
(S) Dibromofluoromethane	*114*			*65.0-129*
(S) 4-Bromofluorobenzene	*118*			*67.0-138*

Laboratory Control Sample (LCS)

(LCS) R3352913-1 10/22/18 14:07

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
cis-1,2-Dichloroethene	0.125	0.139	111	73.0-125	
1,2-Dichloropropane	0.125	0.124	99.5	74.0-125	
2-Butanone (MEK)	0.625	0.772	124	30.0-160	
Tetrachloroethene	0.125	0.101	80.9	70.0-136	
1,1,2-Trichloroethane	0.125	0.116	93.0	78.0-123	
(S) Toluene-d8			*99.2*	*75.0-131*	
(S) Dibromofluoromethane			*115*	*65.0-129*	
(S) 4-Bromofluorobenzene			*120*	*67.0-138*	

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Abbreviations and Definitions

(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
MDL	Method Detection Limit.
MDL (dry)	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
RDL (dry)	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(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.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
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.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

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.
J0	J0: Calibration verification outside of acceptance limits. Result is estimated.
J1	Surrogate recovery limits have been exceeded; values are outside upper control limits.
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.

Pace National 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.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T 104704245-17-14
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

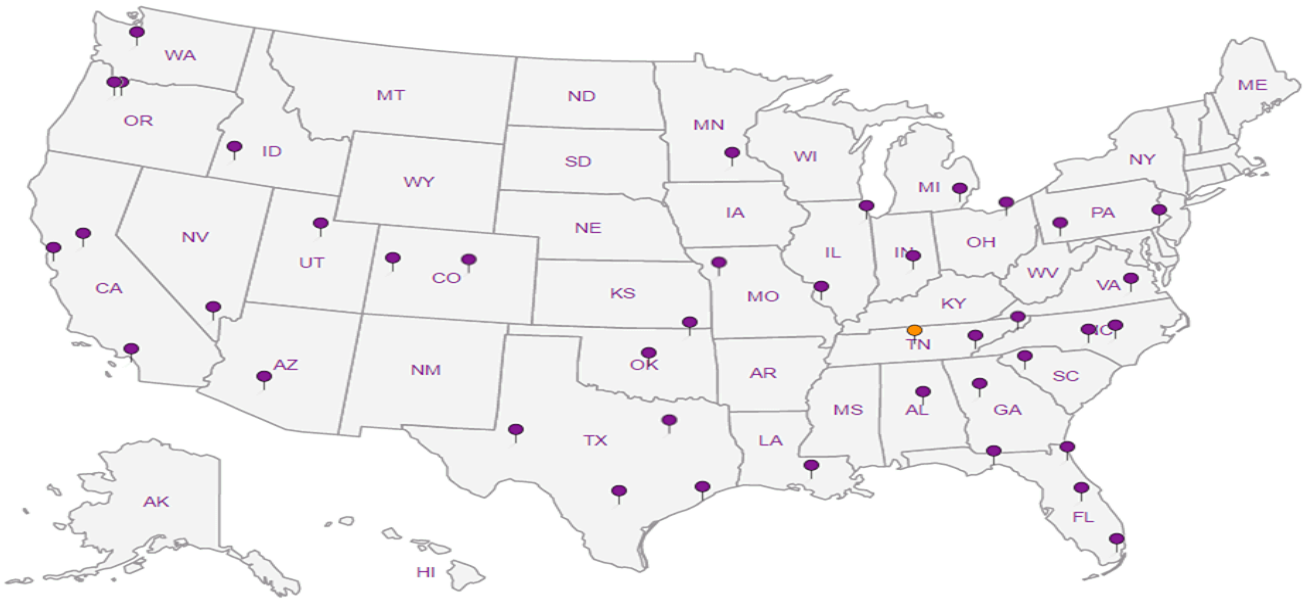
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

Our Locations

Pace National 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. Pace National performs all testing at our central laboratory.



PES Environmental, Inc.- WA

1215 Fourth Ave., Suite 1350
Seattle, WA 98161

Billing Information:
Attn: Accounts Payable
1215 Fourth Ave., Ste. 1350
Seattle, WA 98161

Pres Chk

Report to: Brian O'Neal/Bill Haldeman

Email To: boneal@pesenv.com; bhaldeman@pesenv.com

Project Description: American Linen

City/State Collected:

Phone: 206-529-3980
Fax: 206-529-3985

Client Project # 1413.001.05

Lab Project # PESENVSWA-ALP

Collected by (print): Karsten Springstead / Rachel McLaughlin

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day X Five Day
X Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

No. of Cntrs

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	VOCs V8260C 40mlAmb/MeOH5ml/Syr	dry weight 2ozClr-NoPres	trip VOCs V8260LLC 40mlAmb-HCl-Blk	Remarks	Sample # (lab only)
B-249-4	Grab	SS	4	10-15-18	915	2 X	X		NOT SENT	RM
B-249-5		SS	5	10/15/18	920	X	X			-01
B-249-8		SS	8		920	X	X			02
B-249-10		SS	10		925				HOLD	
B-249-15		SS	15		935	X	X			03
B-249-17		SS	17		948	X	X			04
B-249-20		SS	20		945	X	X		-05 RUSH-Next day TAT	
B-250-2.5		SS	2.5		1000	X	X			-06
B-250-5		SS	5		1002				HOLD	
B-250-8		SS	8		1012	X	X			07

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

RAD SCREEN: 0.5 mR/hr

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS X FedEx __ Courier _____

Tracking # 4196 3258 9731

Relinquished by : (Signature) — Date: 10/15/18 — Time: 1645 — Received by: (Signature)

Relinquished by : (Signature) — Date: — Time: — Received by: (Signature)

Relinquished by : (Signature) — Date: — Time: — Received for lab by: (Signature)

Trip Blank Received: Yes X No
HCl / MeoH (1) TBR

Temp: 0.9-0.4-0.3 °C Bottles Received: 64

Date: 10/16/18 Time: 845

If preservation required by Login: Date/Time

Condition: NCF / OK

Sample Receipt Checklist
COC Seal Present/Intact: __NP X Y __N
COC Signed/Accurate: X Y __N
Bottles arrive intact: X Y __N
Correct bottles used: X Y __N
Sufficient volume sent: X Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N

Chain of Custody Page 1 of 4

Pace Analytical
National Center for Testing & Innovation

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

L# L1034970

F242

Acctnum: PESENVSWA
Template: T141621
Prelogin: P676248
TSR: 110 - Brian Ford
PB:
Shipped Via:

10-114

PES Environmental, Inc.- WA

1215 Fourth Ave., Suite 1350
Seattle, WA 98161

Billing Information:
Attn: Accounts Payable
1215 Fourth Ave., Ste. 1350
Seattle, WA 98161

Pres Chk

Report to: Brian O'Neal/Bill Haldeman

Email To: boneal@pesenv.com; bhaldeman@pesenv.com

Project Description: American Linen

City/State Collected: Seattle, WA

Phone: 206-529-3980
Fax: 206-529-3985

Client Project # 1413.001.05

Lab Project # PESENVSWA-ALP

Collected by (print): Karsten Springstead/R. McLaughlin

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day X Five Day
X Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Date Results Needed

Quote #

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOCs V8260C 40mlAmb/MeOH5ml/Syr	dry weight 2ozClr-NoPres	trip VOCs V8260LLC 40mlAmb-HCl-Blk	Remarks	Sample # (lab only)
B-250-10	Grab	SS	10	10-15-18	1010	2	X	X			-08
B-250-13		SS	13		1030		X	X			09
B-250-15		SS	15		1032					HOLD	
B-250-18.5		SS	18.5		1045					HOLD	
B-250-20		SS	20		1040		X	X			10
B-250-24		SS	24		1120		X	X			-11
B-250-25		SS	25		1105					RUSH-Next day TAT HOLD	
B-251-3	Grab	SS	3	10/15/18	1232					HOLD	
B-251-5		SS	5		1235		X	X			12
B-251-8		SS	8		1245		X	X			13

Analysis / Container / Preservative

Chain of Custody Page 2 of 4

Pace Analytical
National Center for Testing & Innovation

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

L# L1034976

Table #

Acctnum: PESENVSWA

Template: T141621

Prelogin: P676248

TSR: 110 - Brian Ford

PB:

Shipped Via:

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

RAD CONTROL 0.0 mR/hr

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP Y __N
COC Signed/Accurate: Y __N
Bottles arrive intact: Y __N
Correct bottles used: Y __N
Sufficient volume sent: Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)
R. T McLaughlin	10/15/18	1645	
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)

Trip Blank Received: Yes / No
HCl / MeOH
TBR

Temp: 0.1-.4-0.5 °C in 7

Bottles Received: 64

Date: 10/16/18 Time: 845

If preservation required by Login: Date/Time

Hold:

Conditions NCF / OK

PES Environmental, Inc.- WA

1215 Fourth Ave., Suite 1350
Seattle, WA 98161

Billing Information:
Attn: Accounts Payable
1215 Fourth Ave., Ste. 1350
Seattle, WA 98161

Pres Chk

Report to: Brian O'Neal/Bill Haldeman

Email To: boneal@pesenv.com; bhaldeman@pesenv.com

Project Description: American Linen

City/State Collected: Seattle, WA

Phone: 206-529-3980
Fax: 206-529-3985

Client Project # 1413.001.05

Lab Project # PESENVSWA-ALP

Collected by (print): Karsten Springstead / Rachel McLaughlin

Site/Facility ID #

P.O. #

Collected by (signature): R. McLaughlin

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day X Five Day
X Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOCs V8260C 40mlAmb/MeOH5ml/Syr	dry weight 2ozClr-NoPres	trip VOCs V8260LLC 40mlAmb-HCl-Blk								Remarks	Sample # (lab only)
B-251-10	Grab	SS	10	10/15/18	1242	2	X	X										14
B-251-15		SS	15		1255		X	X										15
B-251-20		SS	20		1257		X	X										16
B-251-25		SS	25		1320		X	X										17
B-252-2.5		SS	2.5		1415		X	X									RUSH-Next Day TAT	
B-252-5		SS	5		1420													18
B-252-10		SS	10		1427		X	X									HOLD	
B-252-8		SS	8		1425		X	X										19
B-252-15		SS	15		1435		X	X										20
B-252-20		SS	20		1440												HOLD	21

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

PAD SCREEN: <0.5 mR/hr

pH _____ Temp _____

Flow _____ Other _____

Samples returned via: __ UPS __ FedEx __ Courier _____

Tracking #

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
R. McLaughlin	10/15/18	1645	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)

Trip Blank Received: Yes / (No) HCL / MeoH TBR

Temp: °C Bottles Received: 0.7-.4=0.3 64

Date: 10/16/18 Time: 845

If preservation required by Login: Date/Time

Hold: Condition: NCF / (Ok)

Sample Receipt Checklist
COC Seal Present/Intact: __NP Y __N
COC Signed/Accurate: Y __N
Bottles arrive intact: Y __N
Correct bottles used: Y __N
Sufficient volume sent: Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N

Chain of Custody Page 3 of 4

Pace Analytical
National Center for Testing & Innovation

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

L# L1034476

Table #

Acctnum: PESENVSWA
Template: T141621
Prelogin: P676248
TSR: 110 - Brian Ford
PB:

Shipped Via:

PES Environmental, Inc.- WA

1215 Fourth Ave., Suite 1350
Seattle, WA 98161

Billing Information:
Attn: Accounts Payable
1215 Fourth Ave., Ste. 1350
Seattle, WA 98161

Pres Chk

Report to: Brian O'Neal/Bill Haldeman

Email To: boneal@pesenv.com; bhaldeman@pesenv.com

Project Description: American Linen

City/State Collected: Seattle WA

Phone: 206-529-3980
Fax: 206-529-3985

Client Project # 1413.001.05

Lab Project # PESENVSWA-ALP

Collected by (print): Karsten Springstead/R. McLaughlin

Site/Facility ID #

P.O. #

Collected by (signature): R.T McLaughl

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day X Five Day
X Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Date Results Needed

Quote #

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOCs V8260C 40mlAmb/MeOH5ml/Syr	dry weight 2ozClr-NoPres	trip VOCs V8260LLC 40mlAmb-HCl-Blk								Remarks	Sample # (lab only)
B-252-19	Grab	SS	19	10/15/18	1443	2	X	X										-22
B-252-25		SS	25		1450													23
B-252-29		SS	29		1524											24	RUSH-Next day TAT	
TRIP BLANK	—	~~SS~~	—	—	—				X									25
		SS																
		SS																
		SS																
		SS																
		SS																
		SS																

Analysis / Container / Preservative

Chain of Custody Page 4 of 4

Pace Analytical
National Center for Testing & Innovation

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

L# L1034976

Table #

Acctnum: PESENVSWA
Template: T141621
Prelogin: P676248
TSR: 110 - Brian Ford
PB:

Shipped Via:

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

AD SCREEN: <2 mR/hr

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP X Y __N
COC Signed/Accurate: X __Y __N
Bottles arrive intact: X __Y __N
Correct bottles used: X __Y __N
Sufficient volume sent: X __Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
R.T McLaughl	10/15/18	1645	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)

Trip Blank Received: Yes / No
HCL / MeoH
TBR

Temp: °C Bottles Received:
0.7, 4-0.3°C 64

Date: 10/16/18 Time: 845

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

October 25, 2018

PES Environmental, Inc.- WA

Sample Delivery Group:	L1035515
Samples Received:	10/17/2018
Project Number:	1413.001.05
Description:	American Linen
Report To:	Brian O'Neal/Bill Haldeman
	1215 Fourth Ave., Suite 1350
	Seattle, WA 98161

Entire Report Reviewed By:

Brian Ford

Project Manager

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 Pace National is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

Cp: Cover Page 1

Tc: Table of Contents 2

Ss: Sample Summary 3

Cn: Case Narrative 6

Sr: Sample Results 7

B-250-30 L1035515-01 7

B-254-5 L1035515-02 9

B-254-10 L1035515-03 11

B-254-13.5 L1035515-04 13

B-254-20 L1035515-05 15

B-254-25 L1035515-06 17

B-255-3.5 L1035515-07 19

B-255-8 L1035515-08 21

B-255-15 L1035515-09 23

B-255A-21 L1035515-10 25

B-256-2.5 L1035515-11 27

B-256-5 L1035515-12 29

B-256-10 L1035515-13 31

B-256-15 L1035515-14 33

B-256-18 L1035515-15 35

Qc: Quality Control Summary 37

Total Solids by Method 2540 G-2011 37

Volatile Organic Compounds (GC/MS) by Method 8260C 40

Gl: Glossary of Terms 46

Al: Accreditations & Locations 47

Sc: Sample Chain of Custody 48

B-250-30 L1035515-01 Solid

Collected by: SM/RM | Collected date/time: 10/16/18 08:25 | Received date/time: 10/17/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1184402	1	10/22/18 11:34	10/22/18 11:48	KDW
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1183540	1	10/17/18 19:48	10/19/18 14:52	JAH
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1184696	1	10/17/18 19:48	10/23/18 01:18	DWR

B-254-5 L1035515-02 Solid

Collected by: SM/RM | Collected date/time: 10/16/18 09:32 | Received date/time: 10/17/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1184402	1	10/22/18 11:34	10/22/18 11:48	KDW
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1183540	1	10/17/18 19:48	10/19/18 15:10	JAH
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1184696	80	10/17/18 19:48	10/23/18 05:38	DWR

B-254-10 L1035515-03 Solid

Collected by: SM/RM | Collected date/time: 10/16/18 09:50 | Received date/time: 10/17/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1184403	1	10/22/18 10:57	10/22/18 11:24	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1183540	1	10/17/18 19:48	10/19/18 15:29	JAH
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1184696	8	10/17/18 19:48	10/23/18 05:58	DWR

B-254-13.5 L1035515-04 Solid

Collected by: SM/RM | Collected date/time: 10/16/18 09:50 | Received date/time: 10/17/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1184403	1	10/22/18 10:57	10/22/18 11:24	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1183540	1	10/17/18 19:48	10/19/18 15:48	JAH
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1184696	400	10/17/18 19:48	10/23/18 06:18	DWR

B-254-20 L1035515-05 Solid

Collected by: SM/RM | Collected date/time: 10/16/18 10:00 | Received date/time: 10/17/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1184403	1	10/22/18 10:57	10/22/18 11:24	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1183540	1	10/17/18 19:48	10/19/18 16:06	JAH
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1184696	200	10/17/18 19:48	10/23/18 06:38	DWR

B-254-25 L1035515-06 Solid

Collected by: SM/RM | Collected date/time: 10/16/18 10:09 | Received date/time: 10/17/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1184403	1	10/22/18 10:57	10/22/18 11:24	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1183540	1	10/17/18 19:48	10/19/18 16:25	JAH
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1184696	400	10/17/18 19:48	10/23/18 06:58	DWR

B-255-3.5 L1035515-07 Solid

Collected by: SM/RM | Collected date/time: 10/16/18 11:18 | Received date/time: 10/17/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1184403	1	10/22/18 10:57	10/22/18 11:24	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1183540	1	10/17/18 19:48	10/19/18 16:43	JAH
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1184696	1	10/17/18 19:48	10/23/18 01:38	DWR

B-255-8 L1035515-08 Solid

Collected by: SM/RM | Collected date/time: 10/16/18 11:23 | Received date/time: 10/17/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1184403	1	10/22/18 10:57	10/22/18 11:24	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1183540	1	10/17/18 19:48	10/19/18 17:02	JAH
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1184696	1	10/17/18 19:48	10/23/18 01:58	DWR

B-255-15 L1035515-09 Solid

Collected by: SM/RM | Collected date/time: 10/16/18 11:30 | Received date/time: 10/17/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1184403	1	10/22/18 10:57	10/22/18 11:24	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1183540	1	10/17/18 19:48	10/19/18 17:20	JAH
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1184696	1	10/17/18 19:48	10/23/18 02:18	DWR

B-255A-21 L1035515-10 Solid

Collected by: SM/RM | Collected date/time: 10/16/18 13:55 | Received date/time: 10/17/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1184403	1	10/22/18 10:57	10/22/18 11:24	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1183540	1	10/17/18 19:48	10/19/18 18:07	JAH
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1184696	40	10/17/18 19:48	10/23/18 07:18	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1185916	40	10/17/18 19:48	10/24/18 17:24	BMB

B-256-2.5 L1035515-11 Solid

Collected by: SM/RM | Collected date/time: 10/16/18 14:06 | Received date/time: 10/17/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1184403	1	10/22/18 10:57	10/22/18 11:24	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1183540	1	10/17/18 19:48	10/19/18 18:25	JAH
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1184696	1	10/17/18 19:48	10/23/18 02:38	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1185916	1	10/17/18 19:48	10/24/18 16:42	BMB

B-256-5 L1035515-12 Solid

Collected by: SM/RM | Collected date/time: 10/16/18 14:05 | Received date/time: 10/17/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1184403	1	10/22/18 10:57	10/22/18 11:24	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1183540	1	10/17/18 19:48	10/19/18 18:44	JAH
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1184696	1	10/17/18 19:48	10/23/18 02:58	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1185916	1	10/17/18 19:48	10/24/18 17:03	BMB

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

B-256-10 L1035515-13 Solid

Collected by	Collected date/time	Received date/time
SM/RM	10/16/18 14:18	10/17/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1184404	1	10/22/18 10:40	10/22/18 10:53	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1183540	1	10/17/18 19:48	10/19/18 19:02	JAH
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1184696	1	10/17/18 19:48	10/23/18 03:18	DWR

B-256-15 L1035515-14 Solid

Collected by	Collected date/time	Received date/time
SM/RM	10/16/18 14:32	10/17/18 08:45

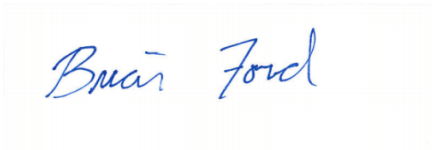
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1184404	1	10/22/18 10:40	10/22/18 10:53	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1183540	1	10/17/18 19:48	10/19/18 19:21	JAH
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1184696	1	10/17/18 19:48	10/23/18 03:38	DWR

B-256-18 L1035515-15 Solid

Collected by	Collected date/time	Received date/time
SM/RM	10/16/18 14:40	10/17/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1184404	1	10/22/18 10:40	10/22/18 10:53	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1183540	1	10/17/18 19:48	10/19/18 19:39	JAH
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1184696	1	10/17/18 19:48	10/23/18 03:58	DWR

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, 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.



Brian Ford
Project Manager

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	91.7		1	10/22/2018 11:48	WG1184402

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0149	0.0273	1	10/23/2018 01:18	WG1184696
Acrylonitrile	U		0.00207	0.0136	1	10/19/2018 14:52	WG1183540
Benzene	U		0.000436	0.00109	1	10/19/2018 14:52	WG1183540
Bromobenzene	U		0.00115	0.0136	1	10/19/2018 14:52	WG1183540
Bromodichloromethane	U		0.000859	0.00273	1	10/19/2018 14:52	WG1183540
Bromochloromethane	U		0.00123	0.00545	1	10/19/2018 14:52	WG1183540
Bromoform	U		0.00652	0.0273	1	10/19/2018 14:52	WG1183540
Bromomethane	U		0.00403	0.0136	1	10/19/2018 14:52	WG1183540
n-Butylbenzene	U		0.00419	0.0136	1	10/19/2018 14:52	WG1183540
sec-Butylbenzene	U		0.00276	0.0136	1	10/19/2018 14:52	WG1183540
tert-Butylbenzene	U		0.00169	0.00545	1	10/19/2018 14:52	WG1183540
Carbon disulfide	U	J0	0.00443	0.0136	1	10/19/2018 14:52	WG1183540
Carbon tetrachloride	U		0.00118	0.00545	1	10/19/2018 14:52	WG1183540
Chlorobenzene	U		0.000625	0.00273	1	10/19/2018 14:52	WG1183540
Chlorodibromomethane	U		0.000491	0.00273	1	10/19/2018 14:52	WG1183540
Chloroethane	U		0.00118	0.00545	1	10/19/2018 14:52	WG1183540
Chloroform	U		0.000453	0.00273	1	10/19/2018 14:52	WG1183540
Chloromethane	U		0.00152	0.0136	1	10/19/2018 14:52	WG1183540
2-Chlorotoluene	U		0.00100	0.00273	1	10/19/2018 14:52	WG1183540
4-Chlorotoluene	U		0.00123	0.00545	1	10/19/2018 14:52	WG1183540
1,2-Dibromo-3-Chloropropane	U		0.00556	0.0273	1	10/19/2018 14:52	WG1183540
1,2-Dibromoethane	U		0.000573	0.00273	1	10/19/2018 14:52	WG1183540
Dibromomethane	U		0.00109	0.00545	1	10/19/2018 14:52	WG1183540
1,2-Dichlorobenzene	U		0.00158	0.00545	1	10/19/2018 14:52	WG1183540
1,3-Dichlorobenzene	U		0.00185	0.00545	1	10/19/2018 14:52	WG1183540
1,4-Dichlorobenzene	U		0.00215	0.00545	1	10/19/2018 14:52	WG1183540
Dichlorodifluoromethane	U	J4	0.000892	0.00273	1	10/23/2018 01:18	WG1184696
1,1-Dichloroethane	U		0.000627	0.00273	1	10/19/2018 14:52	WG1183540
1,2-Dichloroethane	U		0.000518	0.00273	1	10/19/2018 14:52	WG1183540
1,1-Dichloroethene	U		0.000545	0.00273	1	10/19/2018 14:52	WG1183540
cis-1,2-Dichloroethene	0.533		0.000752	0.00273	1	10/19/2018 14:52	WG1183540
trans-1,2-Dichloroethene	0.0138		0.00156	0.00545	1	10/19/2018 14:52	WG1183540
1,2-Dichloropropane	U		0.00138	0.00545	1	10/19/2018 14:52	WG1183540
1,1-Dichloropropene	U		0.000763	0.00273	1	10/19/2018 14:52	WG1183540
1,3-Dichloropropane	U		0.00191	0.00545	1	10/19/2018 14:52	WG1183540
cis-1,3-Dichloropropene	U		0.000739	0.00273	1	10/19/2018 14:52	WG1183540
trans-1,3-Dichloropropene	U	J4	0.00167	0.00545	1	10/19/2018 14:52	WG1183540
trans-1,4-Dichloro-2-butene	U		0.00153	0.00545	1	10/19/2018 14:52	WG1183540
2,2-Dichloropropane	U		0.000865	0.00273	1	10/19/2018 14:52	WG1183540
Di-isopropyl ether	U		0.000382	0.00109	1	10/19/2018 14:52	WG1183540
Ethylbenzene	0.000590	J J0	0.000578	0.00273	1	10/19/2018 14:52	WG1183540
Hexachloro-1,3-butadiene	U		0.0138	0.0273	1	10/19/2018 14:52	WG1183540
2-Hexanone	U		0.0109	0.0273	1	10/19/2018 14:52	WG1183540
n-Hexane	0.00621	J0 J4	0.00116	0.00545	1	10/19/2018 14:52	WG1183540
Iodomethane	U		0.00660	0.0136	1	10/19/2018 14:52	WG1183540
Isopropylbenzene	U		0.000941	0.00273	1	10/19/2018 14:52	WG1183540
p-Isopropyltoluene	U		0.00254	0.00545	1	10/19/2018 14:52	WG1183540
2-Butanone (MEK)	0.0327	B J4	0.0136	0.0273	1	10/19/2018 14:52	WG1183540
Methylene Chloride	U		0.00724	0.0273	1	10/19/2018 14:52	WG1183540
4-Methyl-2-pentanone (MIBK)	U		0.0109	0.0273	1	10/19/2018 14:52	WG1183540

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000322	0.00109	1	10/19/2018 14:52	WG1183540
Naphthalene	U		0.00340	0.0136	1	10/19/2018 14:52	WG1183540
n-Propylbenzene	U		0.00129	0.00545	1	10/19/2018 14:52	WG1183540
Styrene	U		0.00298	0.0136	1	10/19/2018 14:52	WG1183540
1,1,1,2-Tetrachloroethane	U		0.000545	0.00273	1	10/19/2018 14:52	WG1183540
1,1,2,2-Tetrachloroethane	U		0.000425	0.00273	1	10/23/2018 01:18	WG1184696
1,1,2-Trichlorotrifluoroethane	U		0.000736	0.00273	1	10/23/2018 01:18	WG1184696
Tetrachloroethene	0.288		0.000763	0.00273	1	10/19/2018 14:52	WG1183540
Toluene	0.00259	J	0.00136	0.00545	1	10/19/2018 14:52	WG1183540
1,2,3-Trichlorobenzene	U		0.000682	0.00273	1	10/23/2018 01:18	WG1184696
1,2,4-Trichlorobenzene	U		0.00526	0.0136	1	10/19/2018 14:52	WG1183540
1,1,1-Trichloroethane	U		0.000300	0.00273	1	10/19/2018 14:52	WG1183540
1,1,2-Trichloroethane	U		0.000963	0.00273	1	10/19/2018 14:52	WG1183540
Trichloroethene	0.0519		0.000436	0.00109	1	10/19/2018 14:52	WG1183540
Trichlorofluoromethane	U		0.000545	0.00273	1	10/19/2018 14:52	WG1183540
1,2,3-Trichloropropane	U		0.00556	0.0136	1	10/19/2018 14:52	WG1183540
1,2,4-Trimethylbenzene	0.00182	J	0.00126	0.00545	1	10/19/2018 14:52	WG1183540
1,2,3-Trimethylbenzene	U		0.00125	0.00545	1	10/19/2018 14:52	WG1183540
1,3,5-Trimethylbenzene	U		0.00118	0.00545	1	10/19/2018 14:52	WG1183540
Vinyl acetate	U		0.00384	0.0136	1	10/19/2018 14:52	WG1183540
Vinyl chloride	0.358		0.000745	0.00273	1	10/23/2018 01:18	WG1184696
Xylenes, Total	U		0.00521	0.00709	1	10/19/2018 14:52	WG1183540
(S) Toluene-d8	*93.2*			*75.0-131*		*10/19/2018 14:52*	WG1183540
(S) Toluene-d8	*88.5*			*75.0-131*		*10/23/2018 01:18*	WG1184696
(S) Dibromofluoromethane	*95.4*			*65.0-129*		*10/19/2018 14:52*	WG1183540
(S) Dibromofluoromethane	*116*			*65.0-129*		*10/23/2018 01:18*	WG1184696
(S) 4-Bromofluorobenzene	*88.7*			*67.0-138*		*10/19/2018 14:52*	WG1183540
(S) 4-Bromofluorobenzene	*120*			*67.0-138*		*10/23/2018 01:18*	WG1184696

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	83.5		1	10/22/2018 11:48	WG1184402

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		1.32	2.40	80	10/23/2018 05:38	WG1184696
Acrylonitrile	U		0.00228	0.0150	1	10/19/2018 15:10	WG1183540
Benzene	U		0.000479	0.00120	1	10/19/2018 15:10	WG1183540
Bromobenzene	U		0.00126	0.0150	1	10/19/2018 15:10	WG1183540
Bromodichloromethane	U		0.000944	0.00299	1	10/19/2018 15:10	WG1183540
Bromochloromethane	U		0.00135	0.00599	1	10/19/2018 15:10	WG1183540
Bromoform	U		0.00716	0.0299	1	10/19/2018 15:10	WG1183540
Bromomethane	U		0.00443	0.0150	1	10/19/2018 15:10	WG1183540
n-Butylbenzene	U		0.00460	0.0150	1	10/19/2018 15:10	WG1183540
sec-Butylbenzene	U		0.00303	0.0150	1	10/19/2018 15:10	WG1183540
tert-Butylbenzene	U		0.00186	0.00599	1	10/19/2018 15:10	WG1183540
Carbon disulfide	U	J0	0.00486	0.0150	1	10/19/2018 15:10	WG1183540
Carbon tetrachloride	U		0.00129	0.00599	1	10/19/2018 15:10	WG1183540
Chlorobenzene	U		0.000686	0.00299	1	10/19/2018 15:10	WG1183540
Chlorodibromomethane	U		0.000539	0.00299	1	10/19/2018 15:10	WG1183540
Chloroethane	U		0.00129	0.00599	1	10/19/2018 15:10	WG1183540
Chloroform	U		0.000497	0.00299	1	10/19/2018 15:10	WG1183540
Chloromethane	U		0.00166	0.0150	1	10/19/2018 15:10	WG1183540
2-Chlorotoluene	U		0.00110	0.00299	1	10/19/2018 15:10	WG1183540
4-Chlorotoluene	U		0.00135	0.00599	1	10/19/2018 15:10	WG1183540
1,2-Dibromo-3-Chloropropane	U		0.00611	0.0299	1	10/19/2018 15:10	WG1183540
1,2-Dibromoethane	U		0.000629	0.00299	1	10/19/2018 15:10	WG1183540
Dibromomethane	U		0.00120	0.00599	1	10/19/2018 15:10	WG1183540
1,2-Dichlorobenzene	U		0.00174	0.00599	1	10/19/2018 15:10	WG1183540
1,3-Dichlorobenzene	U		0.00204	0.00599	1	10/19/2018 15:10	WG1183540
1,4-Dichlorobenzene	U		0.00236	0.00599	1	10/19/2018 15:10	WG1183540
Dichlorodifluoromethane	U	J4	0.0783	0.240	80	10/23/2018 05:38	WG1184696
1,1-Dichloroethane	U		0.000689	0.00299	1	10/19/2018 15:10	WG1183540
1,2-Dichloroethane	U		0.000569	0.00299	1	10/19/2018 15:10	WG1183540
1,1-Dichloroethene	U		0.000599	0.00299	1	10/19/2018 15:10	WG1183540
cis-1,2-Dichloroethene	0.0425		0.000826	0.00299	1	10/19/2018 15:10	WG1183540
trans-1,2-Dichloroethene	U		0.00171	0.00599	1	10/19/2018 15:10	WG1183540
1,2-Dichloropropane	U		0.00152	0.00599	1	10/19/2018 15:10	WG1183540
1,1-Dichloropropene	U		0.000838	0.00299	1	10/19/2018 15:10	WG1183540
1,3-Dichloropropane	U		0.00210	0.00599	1	10/19/2018 15:10	WG1183540
cis-1,3-Dichloropropene	U		0.000812	0.00299	1	10/19/2018 15:10	WG1183540
trans-1,3-Dichloropropene	U	J4	0.00183	0.00599	1	10/19/2018 15:10	WG1183540
trans-1,4-Dichloro-2-butene	U		0.00168	0.00599	1	10/19/2018 15:10	WG1183540
2,2-Dichloropropane	U		0.000950	0.00299	1	10/19/2018 15:10	WG1183540
Di-isopropyl ether	U		0.000419	0.00120	1	10/19/2018 15:10	WG1183540
Ethylbenzene	U	J0	0.000635	0.00299	1	10/19/2018 15:10	WG1183540
Hexachloro-1,3-butadiene	U		0.0152	0.0299	1	10/19/2018 15:10	WG1183540
2-Hexanone	U		0.0120	0.0299	1	10/19/2018 15:10	WG1183540
n-Hexane	U	J0 J4	0.00127	0.00599	1	10/19/2018 15:10	WG1183540
Iodomethane	U		0.00724	0.0150	1	10/19/2018 15:10	WG1183540
Isopropylbenzene	U		0.00103	0.00299	1	10/19/2018 15:10	WG1183540
p-Isopropyltoluene	U		0.00279	0.00599	1	10/19/2018 15:10	WG1183540
2-Butanone (MEK)	0.0513	B J4	0.0150	0.0299	1	10/19/2018 15:10	WG1183540
Methylene Chloride	U		0.00795	0.0299	1	10/19/2018 15:10	WG1183540
4-Methyl-2-pentanone (MIBK)	U		0.0120	0.0299	1	10/19/2018 15:10	WG1183540

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000353	0.00120	1	10/19/2018 15:10	WG1183540
Naphthalene	U		0.00374	0.0150	1	10/19/2018 15:10	WG1183540
n-Propylbenzene	U		0.00141	0.00599	1	10/19/2018 15:10	WG1183540
Styrene	U		0.00327	0.0150	1	10/19/2018 15:10	WG1183540
1,1,1,2-Tetrachloroethane	U		0.000599	0.00299	1	10/19/2018 15:10	WG1183540
1,1,2,2-Tetrachloroethane	U		0.0374	0.240	80	10/23/2018 05:38	WG1184696
1,1,2-Trichlorotrifluoroethane	U		0.0647	0.240	80	10/23/2018 05:38	WG1184696
Tetrachloroethene	9.35		0.0671	0.240	80	10/23/2018 05:38	WG1184696
Toluene	U		0.00150	0.00599	1	10/19/2018 15:10	WG1183540
1,2,3-Trichlorobenzene	U		0.0599	0.240	80	10/23/2018 05:38	WG1184696
1,2,4-Trichlorobenzene	U		0.00577	0.0150	1	10/19/2018 15:10	WG1183540
1,1,1-Trichloroethane	U		0.000329	0.00299	1	10/19/2018 15:10	WG1183540
1,1,2-Trichloroethane	U		0.00106	0.00299	1	10/19/2018 15:10	WG1183540
Trichloroethene	0.0662		0.000479	0.00120	1	10/19/2018 15:10	WG1183540
Trichlorofluoromethane	U		0.000599	0.00299	1	10/19/2018 15:10	WG1183540
1,2,3-Trichloropropane	U		0.00611	0.0150	1	10/19/2018 15:10	WG1183540
1,2,4-Trimethylbenzene	U		0.00139	0.00599	1	10/19/2018 15:10	WG1183540
1,2,3-Trimethylbenzene	U		0.00138	0.00599	1	10/19/2018 15:10	WG1183540
1,3,5-Trimethylbenzene	U		0.00129	0.00599	1	10/19/2018 15:10	WG1183540
Vinyl acetate	U		0.00422	0.0150	1	10/19/2018 15:10	WG1183540
Vinyl chloride	U		0.0654	0.240	80	10/23/2018 05:38	WG1184696
Xylenes, Total	U		0.00572	0.00778	1	10/19/2018 15:10	WG1183540
(S) Toluene-d8	*110*			*75.0-131*		*10/19/2018 15:10*	WG1183540
(S) Toluene-d8	*98.3*			*75.0-131*		*10/23/2018 05:38*	WG1184696
(S) Dibromofluoromethane	*93.6*			*65.0-129*		*10/19/2018 15:10*	WG1183540
(S) Dibromofluoromethane	*116*			*65.0-129*		*10/23/2018 05:38*	WG1184696
(S) 4-Bromofluorobenzene	*88.9*			*67.0-138*		*10/19/2018 15:10*	WG1183540
(S) 4-Bromofluorobenzene	*121*			*67.0-138*		*10/23/2018 05:38*	WG1184696

Sample Narrative:

L1035515-02 WG1184696, WG1183540: Cannot be reanalyzed at a lower dilution due to high levels of target analytes.

L1035515-02 WG1184696, WG1183540: Not all compounds reportable from lower dilution.

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	88.1		1	10/22/2018 11:24	WG1184403

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.125	0.227	8	10/23/2018 05:58	WG1184696
Acrylonitrile	U		0.00216	0.0142	1	10/19/2018 15:29	WG1183540
Benzene	U		0.000454	0.00114	1	10/19/2018 15:29	WG1183540
Bromobenzene	U		0.00119	0.0142	1	10/19/2018 15:29	WG1183540
Bromodichloromethane	U		0.000895	0.00284	1	10/19/2018 15:29	WG1183540
Bromochloromethane	U		0.00128	0.00568	1	10/19/2018 15:29	WG1183540
Bromoform	U		0.00679	0.0284	1	10/19/2018 15:29	WG1183540
Bromomethane	U		0.00420	0.0142	1	10/19/2018 15:29	WG1183540
n-Butylbenzene	U		0.00436	0.0142	1	10/19/2018 15:29	WG1183540
sec-Butylbenzene	U		0.00287	0.0142	1	10/19/2018 15:29	WG1183540
tert-Butylbenzene	U		0.00176	0.00568	1	10/19/2018 15:29	WG1183540
Carbon disulfide	U	J0	0.00461	0.0142	1	10/19/2018 15:29	WG1183540
Carbon tetrachloride	U		0.00123	0.00568	1	10/19/2018 15:29	WG1183540
Chlorobenzene	U		0.000651	0.00284	1	10/19/2018 15:29	WG1183540
Chlorodibromomethane	U		0.000511	0.00284	1	10/19/2018 15:29	WG1183540
Chloroethane	U		0.00123	0.00568	1	10/19/2018 15:29	WG1183540
Chloroform	U		0.000471	0.00284	1	10/19/2018 15:29	WG1183540
Chloromethane	U		0.00158	0.0142	1	10/19/2018 15:29	WG1183540
2-Chlorotoluene	U		0.00104	0.00284	1	10/19/2018 15:29	WG1183540
4-Chlorotoluene	U		0.00128	0.00568	1	10/19/2018 15:29	WG1183540
1,2-Dibromo-3-Chloropropane	U		0.00579	0.0284	1	10/19/2018 15:29	WG1183540
1,2-Dibromoethane	U		0.000596	0.00284	1	10/19/2018 15:29	WG1183540
Dibromomethane	U		0.00114	0.00568	1	10/19/2018 15:29	WG1183540
1,2-Dichlorobenzene	U		0.00165	0.00568	1	10/19/2018 15:29	WG1183540
1,3-Dichlorobenzene	U		0.00193	0.00568	1	10/19/2018 15:29	WG1183540
1,4-Dichlorobenzene	U		0.00224	0.00568	1	10/19/2018 15:29	WG1183540
Dichlorodifluoromethane	U	J4	0.00743	0.0227	8	10/23/2018 05:58	WG1184696
1,1-Dichloroethane	U		0.000653	0.00284	1	10/19/2018 15:29	WG1183540
1,2-Dichloroethane	U		0.000539	0.00284	1	10/19/2018 15:29	WG1183540
1,1-Dichloroethene	U		0.000568	0.00284	1	10/19/2018 15:29	WG1183540
cis-1,2-Dichloroethene	0.0251		0.000784	0.00284	1	10/19/2018 15:29	WG1183540
trans-1,2-Dichloroethene	U		0.00162	0.00568	1	10/19/2018 15:29	WG1183540
1,2-Dichloropropane	U		0.00144	0.00568	1	10/19/2018 15:29	WG1183540
1,1-Dichloropropene	U		0.000795	0.00284	1	10/19/2018 15:29	WG1183540
1,3-Dichloropropane	U		0.00199	0.00568	1	10/19/2018 15:29	WG1183540
cis-1,3-Dichloropropene	U		0.000770	0.00284	1	10/19/2018 15:29	WG1183540
trans-1,3-Dichloropropene	U	J4	0.00174	0.00568	1	10/19/2018 15:29	WG1183540
trans-1,4-Dichloro-2-butene	U		0.00159	0.00568	1	10/19/2018 15:29	WG1183540
2,2-Dichloropropane	U		0.000900	0.00284	1	10/19/2018 15:29	WG1183540
Di-isopropyl ether	U		0.000397	0.00114	1	10/19/2018 15:29	WG1183540
Ethylbenzene	U	J0	0.000602	0.00284	1	10/19/2018 15:29	WG1183540
Hexachloro-1,3-butadiene	U		0.0144	0.0284	1	10/19/2018 15:29	WG1183540
2-Hexanone	U		0.0114	0.0284	1	10/19/2018 15:29	WG1183540
n-Hexane	U	J0 J4	0.00120	0.00568	1	10/19/2018 15:29	WG1183540
Iodomethane	U		0.00687	0.0142	1	10/19/2018 15:29	WG1183540
Isopropylbenzene	U		0.000980	0.00284	1	10/19/2018 15:29	WG1183540
p-Isopropyltoluene	U		0.00265	0.00568	1	10/19/2018 15:29	WG1183540
2-Butanone (MEK)	0.0249	B J J4	0.0142	0.0284	1	10/19/2018 15:29	WG1183540
Methylene Chloride	U		0.00754	0.0284	1	10/19/2018 15:29	WG1183540
4-Methyl-2-pentanone (MIBK)	U		0.0114	0.0284	1	10/19/2018 15:29	WG1183540

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000335	0.00114	1	10/19/2018 15:29	WG1183540
Naphthalene	U		0.00354	0.0142	1	10/19/2018 15:29	WG1183540
n-Propylbenzene	U		0.00134	0.00568	1	10/19/2018 15:29	WG1183540
Styrene	U		0.00310	0.0142	1	10/19/2018 15:29	WG1183540
1,1,1,2-Tetrachloroethane	U		0.000568	0.00284	1	10/19/2018 15:29	WG1183540
1,1,2,2-Tetrachloroethane	U		0.00354	0.0227	8	10/23/2018 05:58	WG1184696
1,1,2-Trichlorotrifluoroethane	U		0.00613	0.0227	8	10/23/2018 05:58	WG1184696
Tetrachloroethene	3.09		0.00636	0.0227	8	10/23/2018 05:58	WG1184696
Toluene	U		0.00142	0.00568	1	10/19/2018 15:29	WG1183540
1,2,3-Trichlorobenzene	U		0.00568	0.0227	8	10/23/2018 05:58	WG1184696
1,2,4-Trichlorobenzene	U		0.00547	0.0142	1	10/19/2018 15:29	WG1183540
1,1,1-Trichloroethane	U		0.000312	0.00284	1	10/19/2018 15:29	WG1183540
1,1,2-Trichloroethane	U		0.00100	0.00284	1	10/19/2018 15:29	WG1183540
Trichloroethene	0.0173		0.000454	0.00114	1	10/19/2018 15:29	WG1183540
Trichlorofluoromethane	U		0.000568	0.00284	1	10/19/2018 15:29	WG1183540
1,2,3-Trichloropropane	U		0.00579	0.0142	1	10/19/2018 15:29	WG1183540
1,2,4-Trimethylbenzene	U		0.00132	0.00568	1	10/19/2018 15:29	WG1183540
1,2,3-Trimethylbenzene	U		0.00131	0.00568	1	10/19/2018 15:29	WG1183540
1,3,5-Trimethylbenzene	U		0.00123	0.00568	1	10/19/2018 15:29	WG1183540
Vinyl acetate	U		0.00400	0.0142	1	10/19/2018 15:29	WG1183540
Vinyl chloride	0.0111	J	0.00620	0.0227	8	10/23/2018 05:58	WG1184696
Xylenes, Total	U		0.00543	0.00738	1	10/19/2018 15:29	WG1183540
(S) Toluene-d8	*104*			*75.0-131*		*10/19/2018 15:29*	WG1183540
(S) Toluene-d8	*98.8*			*75.0-131*		*10/23/2018 05:58*	WG1184696
(S) Dibromofluoromethane	*95.0*			*65.0-129*		*10/19/2018 15:29*	WG1183540
(S) Dibromofluoromethane	*118*			*65.0-129*		*10/23/2018 05:58*	WG1184696
(S) 4-Bromofluorobenzene	*89.8*			*67.0-138*		*10/19/2018 15:29*	WG1183540
(S) 4-Bromofluorobenzene	*122*			*67.0-138*		*10/23/2018 05:58*	WG1184696

Sample Narrative:

L1035515-03 WG1184696, WG1183540: Cannot be reanalyzed at a lower dilution due to high levels of target analytes.

L1035515-03 WG1184696, WG1183540: Not all compounds reportable from lower dilution.

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	85.3		1	10/22/2018 11:24	WG1184403

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		6.43	11.7	400	10/23/2018 06:18	WG1184696
Acrylonitrile	U		0.00223	0.0147	1	10/19/2018 15:48	WG1183540
Benzene	U		0.000469	0.00117	1	10/19/2018 15:48	WG1183540
Bromobenzene	U		0.00123	0.0147	1	10/19/2018 15:48	WG1183540
Bromodichloromethane	U		0.000924	0.00293	1	10/19/2018 15:48	WG1183540
Bromochloromethane	U		0.00133	0.00586	1	10/19/2018 15:48	WG1183540
Bromoform	U		0.00701	0.0293	1	10/19/2018 15:48	WG1183540
Bromomethane	U		0.00434	0.0147	1	10/19/2018 15:48	WG1183540
n-Butylbenzene	U		0.00450	0.0147	1	10/19/2018 15:48	WG1183540
sec-Butylbenzene	U		0.00297	0.0147	1	10/19/2018 15:48	WG1183540
tert-Butylbenzene	U		0.00182	0.00586	1	10/19/2018 15:48	WG1183540
Carbon disulfide	U	J0	0.00476	0.0147	1	10/19/2018 15:48	WG1183540
Carbon tetrachloride	U		0.00127	0.00586	1	10/19/2018 15:48	WG1183540
Chlorobenzene	U		0.000672	0.00293	1	10/19/2018 15:48	WG1183540
Chlorodibromomethane	U		0.000528	0.00293	1	10/19/2018 15:48	WG1183540
Chloroethane	U		0.00127	0.00586	1	10/19/2018 15:48	WG1183540
Chloroform	U		0.000487	0.00293	1	10/19/2018 15:48	WG1183540
Chloromethane	U		0.00163	0.0147	1	10/19/2018 15:48	WG1183540
2-Chlorotoluene	U		0.00108	0.00293	1	10/19/2018 15:48	WG1183540
4-Chlorotoluene	U		0.00133	0.00586	1	10/19/2018 15:48	WG1183540
1,2-Dibromo-3-Chloropropane	U		0.00598	0.0293	1	10/19/2018 15:48	WG1183540
1,2-Dibromoethane	U		0.000616	0.00293	1	10/19/2018 15:48	WG1183540
Dibromomethane	U		0.00117	0.00586	1	10/19/2018 15:48	WG1183540
1,2-Dichlorobenzene	U		0.00170	0.00586	1	10/19/2018 15:48	WG1183540
1,3-Dichlorobenzene	U		0.00199	0.00586	1	10/19/2018 15:48	WG1183540
1,4-Dichlorobenzene	U		0.00231	0.00586	1	10/19/2018 15:48	WG1183540
Dichlorodifluoromethane	U	J4	0.383	1.17	400	10/23/2018 06:18	WG1184696
1,1-Dichloroethane	U		0.000674	0.00293	1	10/19/2018 15:48	WG1183540
1,2-Dichloroethane	U		0.000557	0.00293	1	10/19/2018 15:48	WG1183540
1,1-Dichloroethene	U		0.000586	0.00293	1	10/19/2018 15:48	WG1183540
cis-1,2-Dichloroethene	0.366		0.000809	0.00293	1	10/19/2018 15:48	WG1183540
trans-1,2-Dichloroethene	0.00740		0.00168	0.00586	1	10/19/2018 15:48	WG1183540
1,2-Dichloropropane	U		0.00149	0.00586	1	10/19/2018 15:48	WG1183540
1,1-Dichloropropene	U		0.000821	0.00293	1	10/19/2018 15:48	WG1183540
1,3-Dichloropropane	U		0.00205	0.00586	1	10/19/2018 15:48	WG1183540
cis-1,3-Dichloropropene	U		0.000795	0.00293	1	10/19/2018 15:48	WG1183540
trans-1,3-Dichloropropene	U	J4	0.00179	0.00586	1	10/19/2018 15:48	WG1183540
trans-1,4-Dichloro-2-butene	U		0.00164	0.00586	1	10/19/2018 15:48	WG1183540
2,2-Dichloropropane	U		0.000930	0.00293	1	10/19/2018 15:48	WG1183540
Di-isopropyl ether	U		0.000410	0.00117	1	10/19/2018 15:48	WG1183540
Ethylbenzene	U	J0	0.000622	0.00293	1	10/19/2018 15:48	WG1183540
Hexachloro-1,3-butadiene	U		0.0149	0.0293	1	10/19/2018 15:48	WG1183540
2-Hexanone	U		0.0117	0.0293	1	10/19/2018 15:48	WG1183540
n-Hexane	0.00289	J J0 J4	0.00124	0.00586	1	10/19/2018 15:48	WG1183540
Iodomethane	U		0.00709	0.0147	1	10/19/2018 15:48	WG1183540
Isopropylbenzene	U		0.00101	0.00293	1	10/19/2018 15:48	WG1183540
p-Isopropyltoluene	U		0.00273	0.00586	1	10/19/2018 15:48	WG1183540
2-Butanone (MEK)	0.0321	B J4	0.0147	0.0293	1	10/19/2018 15:48	WG1183540
Methylene Chloride	U		0.00779	0.0293	1	10/19/2018 15:48	WG1183540
4-Methyl-2-pentanone (MIBK)	U		0.0117	0.0293	1	10/19/2018 15:48	WG1183540

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000346	0.00117	1	10/19/2018 15:48	WG1183540
Naphthalene	U		0.00366	0.0147	1	10/19/2018 15:48	WG1183540
n-Propylbenzene	U		0.00138	0.00586	1	10/19/2018 15:48	WG1183540
Styrene	U		0.00320	0.0147	1	10/19/2018 15:48	WG1183540
1,1,1,2-Tetrachloroethane	U		0.000586	0.00293	1	10/19/2018 15:48	WG1183540
1,1,2,2-Tetrachloroethane	U		0.183	1.17	400	10/23/2018 06:18	WG1184696
1,1,2-Trichlorotrifluoroethane	U		0.317	1.17	400	10/23/2018 06:18	WG1184696
Tetrachloroethene	42.2		0.328	1.17	400	10/23/2018 06:18	WG1184696
Toluene	0.00152	J	0.00147	0.00586	1	10/19/2018 15:48	WG1183540
1,2,3-Trichlorobenzene	U		0.293	1.17	400	10/23/2018 06:18	WG1184696
1,2,4-Trichlorobenzene	U		0.00565	0.0147	1	10/19/2018 15:48	WG1183540
1,1,1-Trichloroethane	U		0.000322	0.00293	1	10/19/2018 15:48	WG1183540
1,1,2-Trichloroethane	U		0.00104	0.00293	1	10/19/2018 15:48	WG1183540
Trichloroethene	0.353		0.000469	0.00117	1	10/19/2018 15:48	WG1183540
Trichlorofluoromethane	U		0.000586	0.00293	1	10/19/2018 15:48	WG1183540
1,2,3-Trichloropropane	U		0.00598	0.0147	1	10/19/2018 15:48	WG1183540
1,2,4-Trimethylbenzene	0.00657		0.00136	0.00586	1	10/19/2018 15:48	WG1183540
1,2,3-Trimethylbenzene	0.00223	J	0.00135	0.00586	1	10/19/2018 15:48	WG1183540
1,3,5-Trimethylbenzene	0.00219	J	0.00127	0.00586	1	10/19/2018 15:48	WG1183540
Vinyl acetate	U		0.00413	0.0147	1	10/19/2018 15:48	WG1183540
Vinyl chloride	U		0.320	1.17	400	10/23/2018 06:18	WG1184696
Xylenes, Total	U		0.00561	0.00762	1	10/19/2018 15:48	WG1183540
(S) Toluene-d8	*112*			*75.0-131*		*10/19/2018 15:48*	WG1183540
(S) Toluene-d8	*98.6*			*75.0-131*		*10/23/2018 06:18*	WG1184696
(S) Dibromofluoromethane	*93.1*			*65.0-129*		*10/19/2018 15:48*	WG1183540
(S) Dibromofluoromethane	*118*			*65.0-129*		*10/23/2018 06:18*	WG1184696
(S) 4-Bromofluorobenzene	*88.0*			*67.0-138*		*10/19/2018 15:48*	WG1183540
(S) 4-Bromofluorobenzene	*125*			*67.0-138*		*10/23/2018 06:18*	WG1184696

Sample Narrative:

L1035515-04 WG1184696, WG1183540: Cannot be reanalyzed at a lower dilution due to high levels of target analytes.

L1035515-04 WG1184696, WG1183540: Not all compounds reportable from lower dilution.

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	92.9		1	10/22/2018 11:24	WG1184403

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		2.95	5.38	200	10/23/2018 06:38	WG1184696
Acrylonitrile	U		0.00204	0.0134	1	10/19/2018 16:06	WG1183540
Benzene	U		0.000430	0.00108	1	10/19/2018 16:06	WG1183540
Bromobenzene	U		0.00113	0.0134	1	10/19/2018 16:06	WG1183540
Bromodichloromethane	U		0.000848	0.00269	1	10/19/2018 16:06	WG1183540
Bromochloromethane	U		0.00122	0.00538	1	10/19/2018 16:06	WG1183540
Bromoform	U		0.00643	0.0269	1	10/19/2018 16:06	WG1183540
Bromomethane	U		0.00398	0.0134	1	10/19/2018 16:06	WG1183540
n-Butylbenzene	U		0.00413	0.0134	1	10/19/2018 16:06	WG1183540
sec-Butylbenzene	U		0.00272	0.0134	1	10/19/2018 16:06	WG1183540
tert-Butylbenzene	U		0.00167	0.00538	1	10/19/2018 16:06	WG1183540
Carbon disulfide	U	J0	0.00437	0.0134	1	10/19/2018 16:06	WG1183540
Carbon tetrachloride	U		0.00116	0.00538	1	10/19/2018 16:06	WG1183540
Chlorobenzene	U		0.000616	0.00269	1	10/19/2018 16:06	WG1183540
Chlorodibromomethane	U		0.000484	0.00269	1	10/19/2018 16:06	WG1183540
Chloroethane	U		0.00116	0.00538	1	10/19/2018 16:06	WG1183540
Chloroform	U		0.000447	0.00269	1	10/19/2018 16:06	WG1183540
Chloromethane	U		0.00150	0.0134	1	10/19/2018 16:06	WG1183540
2-Chlorotoluene	U		0.000990	0.00269	1	10/19/2018 16:06	WG1183540
4-Chlorotoluene	U		0.00122	0.00538	1	10/19/2018 16:06	WG1183540
1,2-Dibromo-3-Chloropropane	U		0.00549	0.0269	1	10/19/2018 16:06	WG1183540
1,2-Dibromoethane	U		0.000565	0.00269	1	10/19/2018 16:06	WG1183540
Dibromomethane	U		0.00108	0.00538	1	10/19/2018 16:06	WG1183540
1,2-Dichlorobenzene	U		0.00156	0.00538	1	10/19/2018 16:06	WG1183540
1,3-Dichlorobenzene	U		0.00183	0.00538	1	10/19/2018 16:06	WG1183540
1,4-Dichlorobenzene	U		0.00212	0.00538	1	10/19/2018 16:06	WG1183540
Dichlorodifluoromethane	U	J4	0.176	0.538	200	10/23/2018 06:38	WG1184696
1,1-Dichloroethane	U		0.000619	0.00269	1	10/19/2018 16:06	WG1183540
1,2-Dichloroethane	U		0.000511	0.00269	1	10/19/2018 16:06	WG1183540
1,1-Dichloroethene	U		0.000538	0.00269	1	10/19/2018 16:06	WG1183540
cis-1,2-Dichloroethene	0.182		0.000742	0.00269	1	10/19/2018 16:06	WG1183540
trans-1,2-Dichloroethene	0.00222	J	0.00154	0.00538	1	10/19/2018 16:06	WG1183540
1,2-Dichloropropane	U		0.00137	0.00538	1	10/19/2018 16:06	WG1183540
1,1-Dichloropropene	U		0.000753	0.00269	1	10/19/2018 16:06	WG1183540
1,3-Dichloropropane	U		0.00188	0.00538	1	10/19/2018 16:06	WG1183540
cis-1,3-Dichloropropene	U		0.000729	0.00269	1	10/19/2018 16:06	WG1183540
trans-1,3-Dichloropropene	U	J4	0.00165	0.00538	1	10/19/2018 16:06	WG1183540
trans-1,4-Dichloro-2-butene	U		0.00151	0.00538	1	10/19/2018 16:06	WG1183540
2,2-Dichloropropane	U		0.000853	0.00269	1	10/19/2018 16:06	WG1183540
Di-isopropyl ether	U		0.000377	0.00108	1	10/19/2018 16:06	WG1183540
Ethylbenzene	U	J0	0.000570	0.00269	1	10/19/2018 16:06	WG1183540
Hexachloro-1,3-butadiene	U		0.0137	0.0269	1	10/19/2018 16:06	WG1183540
2-Hexanone	U		0.0108	0.0269	1	10/19/2018 16:06	WG1183540
n-Hexane	0.00515	J J0 J4	0.00114	0.00538	1	10/19/2018 16:06	WG1183540
Iodomethane	U		0.00651	0.0134	1	10/19/2018 16:06	WG1183540
Isopropylbenzene	U		0.000929	0.00269	1	10/19/2018 16:06	WG1183540
p-Isopropyltoluene	U		0.00251	0.00538	1	10/19/2018 16:06	WG1183540
2-Butanone (MEK)	0.0314	B J4	0.0134	0.0269	1	10/19/2018 16:06	WG1183540
Methylene Chloride	U		0.00714	0.0269	1	10/19/2018 16:06	WG1183540
4-Methyl-2-pentanone (MIBK)	U		0.0108	0.0269	1	10/19/2018 16:06	WG1183540

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000317	0.00108	1	10/19/2018 16:06	WG1183540
Naphthalene	U		0.00336	0.0134	1	10/19/2018 16:06	WG1183540
n-Propylbenzene	U		0.00127	0.00538	1	10/19/2018 16:06	WG1183540
Styrene	U		0.00294	0.0134	1	10/19/2018 16:06	WG1183540
1,1,1,2-Tetrachloroethane	U		0.000538	0.00269	1	10/19/2018 16:06	WG1183540
1,1,2,2-Tetrachloroethane	U		0.0839	0.538	200	10/23/2018 06:38	WG1184696
1,1,2-Trichlorotrifluoroethane	U		0.145	0.538	200	10/23/2018 06:38	WG1184696
Tetrachloroethene	28.0		0.151	0.538	200	10/23/2018 06:38	WG1184696
Toluene	U		0.00134	0.00538	1	10/19/2018 16:06	WG1183540
1,2,3-Trichlorobenzene	U		0.134	0.538	200	10/23/2018 06:38	WG1184696
1,2,4-Trichlorobenzene	U		0.00519	0.0134	1	10/19/2018 16:06	WG1183540
1,1,1-Trichloroethane	U		0.000296	0.00269	1	10/19/2018 16:06	WG1183540
1,1,2-Trichloroethane	U		0.000950	0.00269	1	10/19/2018 16:06	WG1183540
Trichloroethene	0.228		0.000430	0.00108	1	10/19/2018 16:06	WG1183540
Trichlorofluoromethane	U		0.000538	0.00269	1	10/19/2018 16:06	WG1183540
1,2,3-Trichloropropane	U		0.00549	0.0134	1	10/19/2018 16:06	WG1183540
1,2,4-Trimethylbenzene	0.00341	J	0.00125	0.00538	1	10/19/2018 16:06	WG1183540
1,2,3-Trimethylbenzene	0.00134	J	0.00124	0.00538	1	10/19/2018 16:06	WG1183540
1,3,5-Trimethylbenzene	0.00120	J	0.00116	0.00538	1	10/19/2018 16:06	WG1183540
Vinyl acetate	U		0.00379	0.0134	1	10/19/2018 16:06	WG1183540
Vinyl chloride	U		0.147	0.538	200	10/23/2018 06:38	WG1184696
Xylenes, Total	U		0.00514	0.00699	1	10/19/2018 16:06	WG1183540
(S) Toluene-d8	*111*			*75.0-131*		*10/19/2018 16:06*	WG1183540
(S) Toluene-d8	*98.2*			*75.0-131*		*10/23/2018 06:38*	WG1184696
(S) Dibromofluoromethane	*93.9*			*65.0-129*		*10/19/2018 16:06*	WG1183540
(S) Dibromofluoromethane	*117*			*65.0-129*		*10/23/2018 06:38*	WG1184696
(S) 4-Bromofluorobenzene	*88.1*			*67.0-138*		*10/19/2018 16:06*	WG1183540
(S) 4-Bromofluorobenzene	*123*			*67.0-138*		*10/23/2018 06:38*	WG1184696

Sample Narrative:

L1035515-05 WG1184696, WG1183540: Cannot be reanalyzed at a lower dilution due to high levels of target analytes.

L1035515-05 WG1184696, WG1183540: Not all compounds reportable from lower dilution.

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	89.5		1	10/22/2018 11:24	WG1184403

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		6.12	11.2	400	10/23/2018 06:58	WG1184696
Acrylonitrile	U		0.00212	0.0140	1	10/19/2018 16:25	WG1183540
Benzene	U		0.000447	0.00112	1	10/19/2018 16:25	WG1183540
Bromobenzene	U		0.00117	0.0140	1	10/19/2018 16:25	WG1183540
Bromodichloromethane	U		0.000880	0.00279	1	10/19/2018 16:25	WG1183540
Bromochloromethane	U		0.00126	0.00559	1	10/19/2018 16:25	WG1183540
Bromoform	U		0.00668	0.0279	1	10/19/2018 16:25	WG1183540
Bromomethane	U		0.00413	0.0140	1	10/19/2018 16:25	WG1183540
n-Butylbenzene	U		0.00429	0.0140	1	10/19/2018 16:25	WG1183540
sec-Butylbenzene	U		0.00283	0.0140	1	10/19/2018 16:25	WG1183540
tert-Butylbenzene	U		0.00173	0.00559	1	10/19/2018 16:25	WG1183540
Carbon disulfide	U	J0	0.00454	0.0140	1	10/19/2018 16:25	WG1183540
Carbon tetrachloride	U		0.00121	0.00559	1	10/19/2018 16:25	WG1183540
Chlorobenzene	U		0.000640	0.00279	1	10/19/2018 16:25	WG1183540
Chlorodibromomethane	U		0.000503	0.00279	1	10/19/2018 16:25	WG1183540
Chloroethane	U		0.00121	0.00559	1	10/19/2018 16:25	WG1183540
Chloroform	U		0.000464	0.00279	1	10/19/2018 16:25	WG1183540
Chloromethane	U		0.00155	0.0140	1	10/19/2018 16:25	WG1183540
2-Chlorotoluene	U		0.00103	0.00279	1	10/19/2018 16:25	WG1183540
4-Chlorotoluene	U		0.00126	0.00559	1	10/19/2018 16:25	WG1183540
1,2-Dibromo-3-Chloropropane	U		0.00570	0.0279	1	10/19/2018 16:25	WG1183540
1,2-Dibromoethane	U		0.000587	0.00279	1	10/19/2018 16:25	WG1183540
Dibromomethane	U		0.00112	0.00559	1	10/19/2018 16:25	WG1183540
1,2-Dichlorobenzene	U		0.00162	0.00559	1	10/19/2018 16:25	WG1183540
1,3-Dichlorobenzene	U		0.00190	0.00559	1	10/19/2018 16:25	WG1183540
1,4-Dichlorobenzene	U		0.00220	0.00559	1	10/19/2018 16:25	WG1183540
Dichlorodifluoromethane	U	J4	0.365	1.12	400	10/23/2018 06:58	WG1184696
1,1-Dichloroethane	U		0.000642	0.00279	1	10/19/2018 16:25	WG1183540
1,2-Dichloroethane	U		0.000531	0.00279	1	10/19/2018 16:25	WG1183540
1,1-Dichloroethene	U		0.000559	0.00279	1	10/19/2018 16:25	WG1183540
cis-1,2-Dichloroethene	1.20		0.000771	0.00279	1	10/19/2018 16:25	WG1183540
trans-1,2-Dichloroethene	0.00449	J	0.00160	0.00559	1	10/19/2018 16:25	WG1183540
1,2-Dichloropropane	U		0.00142	0.00559	1	10/19/2018 16:25	WG1183540
1,1-Dichloropropene	U		0.000782	0.00279	1	10/19/2018 16:25	WG1183540
1,3-Dichloropropane	U		0.00196	0.00559	1	10/19/2018 16:25	WG1183540
cis-1,3-Dichloropropene	U		0.000757	0.00279	1	10/19/2018 16:25	WG1183540
trans-1,3-Dichloropropene	U	J4	0.00171	0.00559	1	10/19/2018 16:25	WG1183540
trans-1,4-Dichloro-2-butene	U		0.00156	0.00559	1	10/19/2018 16:25	WG1183540
2,2-Dichloropropane	U		0.000886	0.00279	1	10/19/2018 16:25	WG1183540
Di-isopropyl ether	U		0.000391	0.00112	1	10/19/2018 16:25	WG1183540
Ethylbenzene	0.000655	J J0	0.000592	0.00279	1	10/19/2018 16:25	WG1183540
Hexachloro-1,3-butadiene	U		0.0142	0.0279	1	10/19/2018 16:25	WG1183540
2-Hexanone	U		0.0112	0.0279	1	10/19/2018 16:25	WG1183540
n-Hexane	0.00486	J J0 J4	0.00118	0.00559	1	10/19/2018 16:25	WG1183540
Iodomethane	U		0.00676	0.0140	1	10/19/2018 16:25	WG1183540
Isopropylbenzene	U		0.000964	0.00279	1	10/19/2018 16:25	WG1183540
p-Isopropyltoluene	U		0.00260	0.00559	1	10/19/2018 16:25	WG1183540
2-Butanone (MEK)	0.0313	B J4	0.0140	0.0279	1	10/19/2018 16:25	WG1183540
Methylene Chloride	U		0.00742	0.0279	1	10/19/2018 16:25	WG1183540
4-Methyl-2-pentanone (MIBK)	U		0.0112	0.0279	1	10/19/2018 16:25	WG1183540

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000330	0.00112	1	10/19/2018 16:25	WG1183540
Naphthalene	U		0.00349	0.0140	1	10/19/2018 16:25	WG1183540
n-Propylbenzene	U		0.00132	0.00559	1	10/19/2018 16:25	WG1183540
Styrene	U		0.00305	0.0140	1	10/19/2018 16:25	WG1183540
1,1,1,2-Tetrachloroethane	U		0.000559	0.00279	1	10/19/2018 16:25	WG1183540
1,1,2,2-Tetrachloroethane	U		0.174	1.12	400	10/23/2018 06:58	WG1184696
1,1,2-Trichlorotrifluoroethane	U		0.302	1.12	400	10/23/2018 06:58	WG1184696
Tetrachloroethene	46.7		0.313	1.12	400	10/23/2018 06:58	WG1184696
Toluene	0.00321	J	0.00140	0.00559	1	10/19/2018 16:25	WG1183540
1,2,3-Trichlorobenzene	U		0.279	1.12	400	10/23/2018 06:58	WG1184696
1,2,4-Trichlorobenzene	U		0.00539	0.0140	1	10/19/2018 16:25	WG1183540
1,1,1-Trichloroethane	U		0.000307	0.00279	1	10/19/2018 16:25	WG1183540
1,1,2-Trichloroethane	U		0.000987	0.00279	1	10/19/2018 16:25	WG1183540
Trichloroethene	0.681		0.000447	0.00112	1	10/19/2018 16:25	WG1183540
Trichlorofluoromethane	U		0.000559	0.00279	1	10/19/2018 16:25	WG1183540
1,2,3-Trichloropropane	U		0.00570	0.0140	1	10/19/2018 16:25	WG1183540
1,2,4-Trimethylbenzene	0.00517	J	0.00130	0.00559	1	10/19/2018 16:25	WG1183540
1,2,3-Trimethylbenzene	0.00170	J	0.00128	0.00559	1	10/19/2018 16:25	WG1183540
1,3,5-Trimethylbenzene	0.00138	J	0.00121	0.00559	1	10/19/2018 16:25	WG1183540
Vinyl acetate	U		0.00393	0.0140	1	10/19/2018 16:25	WG1183540
Vinyl chloride	U		0.305	1.12	400	10/23/2018 06:58	WG1184696
Xylenes, Total	U		0.00534	0.00726	1	10/19/2018 16:25	WG1183540
(S) Toluene-d8	*112*			*75.0-131*		*10/19/2018 16:25*	WG1183540
(S) Toluene-d8	*98.1*			*75.0-131*		*10/23/2018 06:58*	WG1184696
(S) Dibromofluoromethane	*92.5*			*65.0-129*		*10/19/2018 16:25*	WG1183540
(S) Dibromofluoromethane	*118*			*65.0-129*		*10/23/2018 06:58*	WG1184696
(S) 4-Bromofluorobenzene	*90.7*			*67.0-138*		*10/19/2018 16:25*	WG1183540
(S) 4-Bromofluorobenzene	*120*			*67.0-138*		*10/23/2018 06:58*	WG1184696

Sample Narrative:

L1035515-06 WG1184696, WG1183540: Cannot be reanalyzed at a lower dilution due to high levels of target analytes.

L1035515-06 WG1184696, WG1183540: Not all compounds reportable from lower dilution.

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	87.6		1	10/22/2018 11:24	WG1184403

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0156	0.0286	1	10/23/2018 01:38	WG1184696
Acrylonitrile	U		0.00217	0.0143	1	10/19/2018 16:43	WG1183540
Benzene	U		0.000457	0.00114	1	10/19/2018 16:43	WG1183540
Bromobenzene	U		0.00120	0.0143	1	10/19/2018 16:43	WG1183540
Bromodichloromethane	U		0.000900	0.00286	1	10/19/2018 16:43	WG1183540
Bromochloromethane	U		0.00129	0.00571	1	10/19/2018 16:43	WG1183540
Bromoform	U		0.00683	0.0286	1	10/19/2018 16:43	WG1183540
Bromomethane	U		0.00423	0.0143	1	10/19/2018 16:43	WG1183540
n-Butylbenzene	U		0.00439	0.0143	1	10/19/2018 16:43	WG1183540
sec-Butylbenzene	U		0.00289	0.0143	1	10/19/2018 16:43	WG1183540
tert-Butylbenzene	U		0.00177	0.00571	1	10/19/2018 16:43	WG1183540
Carbon disulfide	U	J0	0.00464	0.0143	1	10/19/2018 16:43	WG1183540
Carbon tetrachloride	U		0.00123	0.00571	1	10/19/2018 16:43	WG1183540
Chlorobenzene	U		0.000654	0.00286	1	10/19/2018 16:43	WG1183540
Chlorodibromomethane	U		0.000514	0.00286	1	10/19/2018 16:43	WG1183540
Chloroethane	U		0.00123	0.00571	1	10/19/2018 16:43	WG1183540
Chloroform	U		0.000474	0.00286	1	10/19/2018 16:43	WG1183540
Chloromethane	U		0.00159	0.0143	1	10/19/2018 16:43	WG1183540
2-Chlorotoluene	U		0.00105	0.00286	1	10/19/2018 16:43	WG1183540
4-Chlorotoluene	U		0.00129	0.00571	1	10/19/2018 16:43	WG1183540
1,2-Dibromo-3-Chloropropane	U		0.00582	0.0286	1	10/19/2018 16:43	WG1183540
1,2-Dibromoethane	U		0.000600	0.00286	1	10/19/2018 16:43	WG1183540
Dibromomethane	U		0.00114	0.00571	1	10/19/2018 16:43	WG1183540
1,2-Dichlorobenzene	U		0.00166	0.00571	1	10/19/2018 16:43	WG1183540
1,3-Dichlorobenzene	U		0.00194	0.00571	1	10/19/2018 16:43	WG1183540
1,4-Dichlorobenzene	U		0.00225	0.00571	1	10/19/2018 16:43	WG1183540
Dichlorodifluoromethane	U	J4	0.000934	0.00286	1	10/23/2018 01:38	WG1184696
1,1-Dichloroethane	U		0.000657	0.00286	1	10/19/2018 16:43	WG1183540
1,2-Dichloroethane	U		0.000542	0.00286	1	10/19/2018 16:43	WG1183540
1,1-Dichloroethene	U		0.000571	0.00286	1	10/19/2018 16:43	WG1183540
cis-1,2-Dichloroethene	0.0101		0.000788	0.00286	1	10/19/2018 16:43	WG1183540
trans-1,2-Dichloroethene	U		0.00163	0.00571	1	10/19/2018 16:43	WG1183540
1,2-Dichloropropane	U		0.00145	0.00571	1	10/19/2018 16:43	WG1183540
1,1-Dichloropropene	U		0.000799	0.00286	1	10/19/2018 16:43	WG1183540
1,3-Dichloropropane	U		0.00200	0.00571	1	10/19/2018 16:43	WG1183540
cis-1,3-Dichloropropene	U		0.000774	0.00286	1	10/19/2018 16:43	WG1183540
trans-1,3-Dichloropropene	U	J4	0.00175	0.00571	1	10/19/2018 16:43	WG1183540
trans-1,4-Dichloro-2-butene	U		0.00160	0.00571	1	10/19/2018 16:43	WG1183540
2,2-Dichloropropane	U		0.000906	0.00286	1	10/19/2018 16:43	WG1183540
Di-isopropyl ether	U		0.000400	0.00114	1	10/19/2018 16:43	WG1183540
Ethylbenzene	U	J0	0.000605	0.00286	1	10/19/2018 16:43	WG1183540
Hexachloro-1,3-butadiene	U		0.0145	0.0286	1	10/19/2018 16:43	WG1183540
2-Hexanone	U		0.0114	0.0286	1	10/19/2018 16:43	WG1183540
n-Hexane	0.00578	J0 J4	0.00121	0.00571	1	10/19/2018 16:43	WG1183540
Iodomethane	U		0.00691	0.0143	1	10/19/2018 16:43	WG1183540
Isopropylbenzene	U		0.000986	0.00286	1	10/19/2018 16:43	WG1183540
p-Isopropyltoluene	U		0.00266	0.00571	1	10/19/2018 16:43	WG1183540
2-Butanone (MEK)	0.0274	B J J4	0.0143	0.0286	1	10/19/2018 16:43	WG1183540
Methylene Chloride	U		0.00758	0.0286	1	10/19/2018 16:43	WG1183540
4-Methyl-2-pentanone (MIBK)	U		0.0114	0.0286	1	10/19/2018 16:43	WG1183540

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000337	0.00114	1	10/19/2018 16:43	WG1183540
Naphthalene	U		0.00356	0.0143	1	10/19/2018 16:43	WG1183540
n-Propylbenzene	U		0.00135	0.00571	1	10/19/2018 16:43	WG1183540
Styrene	U		0.00312	0.0143	1	10/19/2018 16:43	WG1183540
1,1,1,2-Tetrachloroethane	U		0.000571	0.00286	1	10/19/2018 16:43	WG1183540
1,1,2,2-Tetrachloroethane	U		0.000445	0.00286	1	10/23/2018 01:38	WG1184696
1,1,2-Trichlorotrifluoroethane	U		0.000771	0.00286	1	10/23/2018 01:38	WG1184696
Tetrachloroethene	0.0927		0.000799	0.00286	1	10/23/2018 01:38	WG1184696
Toluene	U		0.00143	0.00571	1	10/19/2018 16:43	WG1183540
1,2,3-Trichlorobenzene	U		0.000714	0.00286	1	10/23/2018 01:38	WG1184696
1,2,4-Trichlorobenzene	U		0.00550	0.0143	1	10/19/2018 16:43	WG1183540
1,1,1-Trichloroethane	U		0.000314	0.00286	1	10/19/2018 16:43	WG1183540
1,1,2-Trichloroethane	U		0.00101	0.00286	1	10/19/2018 16:43	WG1183540
Trichloroethene	0.00586		0.000457	0.00114	1	10/19/2018 16:43	WG1183540
Trichlorofluoromethane	U		0.000571	0.00286	1	10/19/2018 16:43	WG1183540
1,2,3-Trichloropropane	U		0.00582	0.0143	1	10/19/2018 16:43	WG1183540
1,2,4-Trimethylbenzene	U		0.00132	0.00571	1	10/19/2018 16:43	WG1183540
1,2,3-Trimethylbenzene	U		0.00131	0.00571	1	10/19/2018 16:43	WG1183540
1,3,5-Trimethylbenzene	U		0.00123	0.00571	1	10/19/2018 16:43	WG1183540
Vinyl acetate	U		0.00402	0.0143	1	10/19/2018 16:43	WG1183540
Vinyl chloride	U	J4	0.000780	0.00286	1	10/19/2018 16:43	WG1183540
Xylenes, Total	U		0.00546	0.00742	1	10/19/2018 16:43	WG1183540
(S) Toluene-d8	*101*			*75.0-131*		*10/19/2018 16:43*	WG1183540
(S) Toluene-d8	*101*			*75.0-131*		*10/23/2018 01:38*	WG1184696
(S) Dibromofluoromethane	*94.1*			*65.0-129*		*10/19/2018 16:43*	WG1183540
(S) Dibromofluoromethane	*111*			*65.0-129*		*10/23/2018 01:38*	WG1184696
(S) 4-Bromofluorobenzene	*90.7*			*67.0-138*		*10/19/2018 16:43*	WG1183540
(S) 4-Bromofluorobenzene	*121*			*67.0-138*		*10/23/2018 01:38*	WG1184696

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	86.3		1	10/22/2018 11:24	WG1184403

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0159	0.0290	1	10/23/2018 01:58	WG1184696
Acrylonitrile	U		0.00220	0.0145	1	10/19/2018 17:02	WG1183540
Benzene	U		0.000463	0.00116	1	10/19/2018 17:02	WG1183540
Bromobenzene	U		0.00122	0.0145	1	10/19/2018 17:02	WG1183540
Bromodichloromethane	U		0.000913	0.00290	1	10/19/2018 17:02	WG1183540
Bromochloromethane	U		0.00131	0.00579	1	10/19/2018 17:02	WG1183540
Bromoform	U		0.00693	0.0290	1	10/19/2018 17:02	WG1183540
Bromomethane	U		0.00429	0.0145	1	10/19/2018 17:02	WG1183540
n-Butylbenzene	U		0.00445	0.0145	1	10/19/2018 17:02	WG1183540
sec-Butylbenzene	U		0.00293	0.0145	1	10/19/2018 17:02	WG1183540
tert-Butylbenzene	U		0.00180	0.00579	1	10/19/2018 17:02	WG1183540
Carbon disulfide	U	J0	0.00470	0.0145	1	10/19/2018 17:02	WG1183540
Carbon tetrachloride	U		0.00125	0.00579	1	10/19/2018 17:02	WG1183540
Chlorobenzene	U		0.000664	0.00290	1	10/19/2018 17:02	WG1183540
Chlorodibromomethane	U		0.000521	0.00290	1	10/19/2018 17:02	WG1183540
Chloroethane	U		0.00125	0.00579	1	10/19/2018 17:02	WG1183540
Chloroform	U		0.000481	0.00290	1	10/19/2018 17:02	WG1183540
Chloromethane	U		0.00161	0.0145	1	10/19/2018 17:02	WG1183540
2-Chlorotoluene	U		0.00107	0.00290	1	10/19/2018 17:02	WG1183540
4-Chlorotoluene	U		0.00131	0.00579	1	10/19/2018 17:02	WG1183540
1,2-Dibromo-3-Chloropropane	U		0.00591	0.0290	1	10/19/2018 17:02	WG1183540
1,2-Dibromoethane	U		0.000608	0.00290	1	10/19/2018 17:02	WG1183540
Dibromomethane	U		0.00116	0.00579	1	10/19/2018 17:02	WG1183540
1,2-Dichlorobenzene	U		0.00168	0.00579	1	10/19/2018 17:02	WG1183540
1,3-Dichlorobenzene	U		0.00197	0.00579	1	10/19/2018 17:02	WG1183540
1,4-Dichlorobenzene	U		0.00228	0.00579	1	10/19/2018 17:02	WG1183540
Dichlorodifluoromethane	U	J4	0.000948	0.00290	1	10/23/2018 01:58	WG1184696
1,1-Dichloroethane	U		0.000666	0.00290	1	10/19/2018 17:02	WG1183540
1,2-Dichloroethane	U		0.000550	0.00290	1	10/19/2018 17:02	WG1183540
1,1-Dichloroethene	U		0.000579	0.00290	1	10/19/2018 17:02	WG1183540
cis-1,2-Dichloroethene	0.0118		0.000800	0.00290	1	10/19/2018 17:02	WG1183540
trans-1,2-Dichloroethene	U		0.00166	0.00579	1	10/19/2018 17:02	WG1183540
1,2-Dichloropropane	U		0.00147	0.00579	1	10/19/2018 17:02	WG1183540
1,1-Dichloropropene	U		0.000811	0.00290	1	10/19/2018 17:02	WG1183540
1,3-Dichloropropane	U		0.00203	0.00579	1	10/19/2018 17:02	WG1183540
cis-1,3-Dichloropropene	U		0.000786	0.00290	1	10/19/2018 17:02	WG1183540
trans-1,3-Dichloropropene	U	J4	0.00177	0.00579	1	10/19/2018 17:02	WG1183540
trans-1,4-Dichloro-2-butene	U		0.00162	0.00579	1	10/19/2018 17:02	WG1183540
2,2-Dichloropropane	U		0.000919	0.00290	1	10/19/2018 17:02	WG1183540
Di-isopropyl ether	U		0.000406	0.00116	1	10/19/2018 17:02	WG1183540
Ethylbenzene	U	J0	0.000614	0.00290	1	10/19/2018 17:02	WG1183540
Hexachloro-1,3-butadiene	U		0.0147	0.0290	1	10/19/2018 17:02	WG1183540
2-Hexanone	U		0.0116	0.0290	1	10/19/2018 17:02	WG1183540
n-Hexane	0.00565	J J0 J4	0.00123	0.00579	1	10/19/2018 17:02	WG1183540
Iodomethane	U		0.00701	0.0145	1	10/19/2018 17:02	WG1183540
Isopropylbenzene	U		0.00100	0.00290	1	10/19/2018 17:02	WG1183540
p-Isopropyltoluene	U		0.00270	0.00579	1	10/19/2018 17:02	WG1183540
2-Butanone (MEK)	0.0328	B J4	0.0145	0.0290	1	10/19/2018 17:02	WG1183540
Methylene Chloride	U		0.00769	0.0290	1	10/19/2018 17:02	WG1183540
4-Methyl-2-pentanone (MIBK)	U		0.0116	0.0290	1	10/19/2018 17:02	WG1183540

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000342	0.00116	1	10/19/2018 17:02	WG1183540
Naphthalene	U		0.00362	0.0145	1	10/19/2018 17:02	WG1183540
n-Propylbenzene	U		0.00137	0.00579	1	10/19/2018 17:02	WG1183540
Styrene	U		0.00316	0.0145	1	10/19/2018 17:02	WG1183540
1,1,1,2-Tetrachloroethane	U		0.000579	0.00290	1	10/19/2018 17:02	WG1183540
1,1,2,2-Tetrachloroethane	U		0.000452	0.00290	1	10/23/2018 01:58	WG1184696
1,1,2-Trichlorotrifluoroethane	U		0.000782	0.00290	1	10/23/2018 01:58	WG1184696
Tetrachloroethene	0.0420		0.000811	0.00290	1	10/23/2018 01:58	WG1184696
Toluene	U		0.00145	0.00579	1	10/19/2018 17:02	WG1183540
1,2,3-Trichlorobenzene	U		0.000724	0.00290	1	10/23/2018 01:58	WG1184696
1,2,4-Trichlorobenzene	U		0.00558	0.0145	1	10/19/2018 17:02	WG1183540
1,1,1-Trichloroethane	U		0.000319	0.00290	1	10/19/2018 17:02	WG1183540
1,1,2-Trichloroethane	U		0.00102	0.00290	1	10/19/2018 17:02	WG1183540
Trichloroethene	0.0342		0.000463	0.00116	1	10/19/2018 17:02	WG1183540
Trichlorofluoromethane	U		0.000579	0.00290	1	10/19/2018 17:02	WG1183540
1,2,3-Trichloropropane	U		0.00591	0.0145	1	10/19/2018 17:02	WG1183540
1,2,4-Trimethylbenzene	U		0.00134	0.00579	1	10/19/2018 17:02	WG1183540
1,2,3-Trimethylbenzene	U		0.00133	0.00579	1	10/19/2018 17:02	WG1183540
1,3,5-Trimethylbenzene	U		0.00125	0.00579	1	10/19/2018 17:02	WG1183540
Vinyl acetate	U		0.00408	0.0145	1	10/19/2018 17:02	WG1183540
Vinyl chloride	U	J4	0.000791	0.00290	1	10/19/2018 17:02	WG1183540
Xylenes, Total	U		0.00554	0.00753	1	10/19/2018 17:02	WG1183540
(S) Toluene-d8	*102*			*75.0-131*		*10/19/2018 17:02*	WG1183540
(S) Toluene-d8	*99.2*			*75.0-131*		*10/23/2018 01:58*	WG1184696
(S) Dibromofluoromethane	*95.6*			*65.0-129*		*10/19/2018 17:02*	WG1183540
(S) Dibromofluoromethane	*114*			*65.0-129*		*10/23/2018 01:58*	WG1184696
(S) 4-Bromofluorobenzene	*88.3*			*67.0-138*		*10/19/2018 17:02*	WG1183540
(S) 4-Bromofluorobenzene	*121*			*67.0-138*		*10/23/2018 01:58*	WG1184696

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	91.8		1	10/22/2018 11:24	WG1184403

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0149	0.0272	1	10/23/2018 02:18	WG1184696
Acrylonitrile	U		0.00207	0.0136	1	10/19/2018 17:20	WG1183540
Benzene	U		0.000436	0.00109	1	10/19/2018 17:20	WG1183540
Bromobenzene	U		0.00114	0.0136	1	10/19/2018 17:20	WG1183540
Bromodichloromethane	U		0.000859	0.00272	1	10/19/2018 17:20	WG1183540
Bromochloromethane	U		0.00123	0.00545	1	10/19/2018 17:20	WG1183540
Bromoform	U		0.00652	0.0272	1	10/19/2018 17:20	WG1183540
Bromomethane	U		0.00403	0.0136	1	10/19/2018 17:20	WG1183540
n-Butylbenzene	U		0.00418	0.0136	1	10/19/2018 17:20	WG1183540
sec-Butylbenzene	U		0.00276	0.0136	1	10/19/2018 17:20	WG1183540
tert-Butylbenzene	U		0.00169	0.00545	1	10/19/2018 17:20	WG1183540
Carbon disulfide	U	J0	0.00442	0.0136	1	10/19/2018 17:20	WG1183540
Carbon tetrachloride	U		0.00118	0.00545	1	10/19/2018 17:20	WG1183540
Chlorobenzene	U		0.000624	0.00272	1	10/19/2018 17:20	WG1183540
Chlorodibromomethane	U		0.000490	0.00272	1	10/19/2018 17:20	WG1183540
Chloroethane	U		0.00118	0.00545	1	10/19/2018 17:20	WG1183540
Chloroform	U		0.000452	0.00272	1	10/19/2018 17:20	WG1183540
Chloromethane	U		0.00151	0.0136	1	10/19/2018 17:20	WG1183540
2-Chlorotoluene	U		0.00100	0.00272	1	10/19/2018 17:20	WG1183540
4-Chlorotoluene	U		0.00123	0.00545	1	10/19/2018 17:20	WG1183540
1,2-Dibromo-3-Chloropropane	U		0.00556	0.0272	1	10/19/2018 17:20	WG1183540
1,2-Dibromoethane	U		0.000572	0.00272	1	10/19/2018 17:20	WG1183540
Dibromomethane	U		0.00109	0.00545	1	10/19/2018 17:20	WG1183540
1,2-Dichlorobenzene	U		0.00158	0.00545	1	10/19/2018 17:20	WG1183540
1,3-Dichlorobenzene	U		0.00185	0.00545	1	10/19/2018 17:20	WG1183540
1,4-Dichlorobenzene	U		0.00215	0.00545	1	10/19/2018 17:20	WG1183540
Dichlorodifluoromethane	U	J4	0.000891	0.00272	1	10/23/2018 02:18	WG1184696
1,1-Dichloroethane	U		0.000627	0.00272	1	10/19/2018 17:20	WG1183540
1,2-Dichloroethane	U		0.000518	0.00272	1	10/19/2018 17:20	WG1183540
1,1-Dichloroethene	U		0.000545	0.00272	1	10/19/2018 17:20	WG1183540
cis-1,2-Dichloroethene	0.0294		0.000752	0.00272	1	10/19/2018 17:20	WG1183540
trans-1,2-Dichloroethene	U		0.00156	0.00545	1	10/19/2018 17:20	WG1183540
1,2-Dichloropropane	U		0.00138	0.00545	1	10/19/2018 17:20	WG1183540
1,1-Dichloropropene	U		0.000763	0.00272	1	10/19/2018 17:20	WG1183540
1,3-Dichloropropane	U		0.00191	0.00545	1	10/19/2018 17:20	WG1183540
cis-1,3-Dichloropropene	U		0.000739	0.00272	1	10/19/2018 17:20	WG1183540
trans-1,3-Dichloropropene	U	J4	0.00167	0.00545	1	10/19/2018 17:20	WG1183540
trans-1,4-Dichloro-2-butene	U		0.00153	0.00545	1	10/19/2018 17:20	WG1183540
2,2-Dichloropropane	U		0.000864	0.00272	1	10/19/2018 17:20	WG1183540
Di-isopropyl ether	U		0.000381	0.00109	1	10/19/2018 17:20	WG1183540
Ethylbenzene	U	J0	0.000577	0.00272	1	10/19/2018 17:20	WG1183540
Hexachloro-1,3-butadiene	U		0.0138	0.0272	1	10/19/2018 17:20	WG1183540
2-Hexanone	U		0.0109	0.0272	1	10/19/2018 17:20	WG1183540
n-Hexane	0.00689	J0 J4	0.00115	0.00545	1	10/19/2018 17:20	WG1183540
Iodomethane	U		0.00659	0.0136	1	10/19/2018 17:20	WG1183540
Isopropylbenzene	U		0.000940	0.00272	1	10/19/2018 17:20	WG1183540
p-Isopropyltoluene	U		0.00254	0.00545	1	10/19/2018 17:20	WG1183540
2-Butanone (MEK)	0.0295	B J4	0.0136	0.0272	1	10/19/2018 17:20	WG1183540
Methylene Chloride	U		0.00723	0.0272	1	10/19/2018 17:20	WG1183540
4-Methyl-2-pentanone (MIBK)	U		0.0109	0.0272	1	10/19/2018 17:20	WG1183540

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000321	0.00109	1	10/19/2018 17:20	WG1183540
Naphthalene	U		0.00340	0.0136	1	10/19/2018 17:20	WG1183540
n-Propylbenzene	U		0.00129	0.00545	1	10/19/2018 17:20	WG1183540
Styrene	U		0.00297	0.0136	1	10/19/2018 17:20	WG1183540
1,1,1,2-Tetrachloroethane	U		0.000545	0.00272	1	10/19/2018 17:20	WG1183540
1,1,2,2-Tetrachloroethane	U		0.000425	0.00272	1	10/23/2018 02:18	WG1184696
1,1,2-Trichlorotrifluoroethane	U		0.000735	0.00272	1	10/23/2018 02:18	WG1184696
Tetrachloroethene	1.23		0.000763	0.00272	1	10/19/2018 17:20	WG1183540
Toluene	U		0.00136	0.00545	1	10/19/2018 17:20	WG1183540
1,2,3-Trichlorobenzene	U		0.000681	0.00272	1	10/23/2018 02:18	WG1184696
1,2,4-Trichlorobenzene	U		0.00525	0.0136	1	10/19/2018 17:20	WG1183540
1,1,1-Trichloroethane	U		0.000300	0.00272	1	10/19/2018 17:20	WG1183540
1,1,2-Trichloroethane	U		0.000962	0.00272	1	10/19/2018 17:20	WG1183540
Trichloroethene	0.0362		0.000436	0.00109	1	10/19/2018 17:20	WG1183540
Trichlorofluoromethane	U		0.000545	0.00272	1	10/19/2018 17:20	WG1183540
1,2,3-Trichloropropane	U		0.00556	0.0136	1	10/19/2018 17:20	WG1183540
1,2,4-Trimethylbenzene	U		0.00126	0.00545	1	10/19/2018 17:20	WG1183540
1,2,3-Trimethylbenzene	U		0.00125	0.00545	1	10/19/2018 17:20	WG1183540
1,3,5-Trimethylbenzene	U		0.00118	0.00545	1	10/19/2018 17:20	WG1183540
Vinyl acetate	U		0.00384	0.0136	1	10/19/2018 17:20	WG1183540
Vinyl chloride	0.00247	J	0.000744	0.00272	1	10/23/2018 02:18	WG1184696
Xylenes, Total	U		0.00521	0.00708	1	10/19/2018 17:20	WG1183540
(S) Toluene-d8	*102*			*75.0-131*		*10/19/2018 17:20*	WG1183540
(S) Toluene-d8	*98.9*			*75.0-131*		*10/23/2018 02:18*	WG1184696
(S) Dibromofluoromethane	*94.4*			*65.0-129*		*10/19/2018 17:20*	WG1183540
(S) Dibromofluoromethane	*112*			*65.0-129*		*10/23/2018 02:18*	WG1184696
(S) 4-Bromofluorobenzene	*91.1*			*67.0-138*		*10/19/2018 17:20*	WG1183540
(S) 4-Bromofluorobenzene	*120*			*67.0-138*		*10/23/2018 02:18*	WG1184696

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	94.5		1	10/22/2018 11:24	WG1184403

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.580	1.06	40	10/23/2018 07:18	WG1184696
Acrylonitrile	U		0.00201	0.0132	1	10/19/2018 18:07	WG1183540
Benzene	U		0.000423	0.00106	1	10/19/2018 18:07	WG1183540
Bromobenzene	U		0.00111	0.0132	1	10/19/2018 18:07	WG1183540
Bromodichloromethane	U		0.000834	0.00265	1	10/19/2018 18:07	WG1183540
Bromochloromethane	U		0.00120	0.00529	1	10/19/2018 18:07	WG1183540
Bromoform	U		0.00633	0.0265	1	10/19/2018 18:07	WG1183540
Bromomethane	U		0.00392	0.0132	1	10/19/2018 18:07	WG1183540
n-Butylbenzene	U		0.00406	0.0132	1	10/19/2018 18:07	WG1183540
sec-Butylbenzene	U		0.00268	0.0132	1	10/19/2018 18:07	WG1183540
tert-Butylbenzene	U		0.00164	0.00529	1	10/19/2018 18:07	WG1183540
Carbon disulfide	U	J0	0.00430	0.0132	1	10/19/2018 18:07	WG1183540
Carbon tetrachloride	U		0.00114	0.00529	1	10/19/2018 18:07	WG1183540
Chlorobenzene	U		0.000607	0.00265	1	10/19/2018 18:07	WG1183540
Chlorodibromomethane	U		0.000476	0.00265	1	10/19/2018 18:07	WG1183540
Chloroethane	U		0.00114	0.00529	1	10/19/2018 18:07	WG1183540
Chloroform	U		0.000439	0.00265	1	10/19/2018 18:07	WG1183540
Chloromethane	U		0.00147	0.0132	1	10/19/2018 18:07	WG1183540
2-Chlorotoluene	U		0.000974	0.00265	1	10/19/2018 18:07	WG1183540
4-Chlorotoluene	U		0.00120	0.00529	1	10/19/2018 18:07	WG1183540
1,2-Dibromo-3-Chloropropane	U		0.00540	0.0265	1	10/19/2018 18:07	WG1183540
1,2-Dibromoethane	U		0.000556	0.00265	1	10/19/2018 18:07	WG1183540
Dibromomethane	U		0.00106	0.00529	1	10/19/2018 18:07	WG1183540
1,2-Dichlorobenzene	U		0.00153	0.00529	1	10/19/2018 18:07	WG1183540
1,3-Dichlorobenzene	U		0.00180	0.00529	1	10/19/2018 18:07	WG1183540
1,4-Dichlorobenzene	U		0.00209	0.00529	1	10/19/2018 18:07	WG1183540
Dichlorodifluoromethane	U	J4	0.0346	0.106	40	10/23/2018 07:18	WG1184696
1,1-Dichloroethane	U		0.000609	0.00265	1	10/19/2018 18:07	WG1183540
1,2-Dichloroethane	U		0.000503	0.00265	1	10/19/2018 18:07	WG1183540
1,1-Dichloroethene	0.00498		0.000529	0.00265	1	10/19/2018 18:07	WG1183540
cis-1,2-Dichloroethene	2.74		0.0292	0.106	40	10/23/2018 07:18	WG1184696
trans-1,2-Dichloroethene	0.00577		0.00151	0.00529	1	10/19/2018 18:07	WG1183540
1,2-Dichloropropane	U		0.00134	0.00529	1	10/19/2018 18:07	WG1183540
1,1-Dichloropropene	U		0.000741	0.00265	1	10/19/2018 18:07	WG1183540
1,3-Dichloropropane	U		0.00185	0.00529	1	10/19/2018 18:07	WG1183540
cis-1,3-Dichloropropene	U		0.000718	0.00265	1	10/19/2018 18:07	WG1183540
trans-1,3-Dichloropropene	U	J4	0.00162	0.00529	1	10/19/2018 18:07	WG1183540
trans-1,4-Dichloro-2-butene	U		0.00148	0.00529	1	10/19/2018 18:07	WG1183540
2,2-Dichloropropane	U		0.000839	0.00265	1	10/19/2018 18:07	WG1183540
Di-isopropyl ether	U		0.000370	0.00106	1	10/19/2018 18:07	WG1183540
Ethylbenzene	0.000720	J J0	0.000561	0.00265	1	10/19/2018 18:07	WG1183540
Hexachloro-1,3-butadiene	U		0.0134	0.0265	1	10/19/2018 18:07	WG1183540
2-Hexanone	U		0.0106	0.0265	1	10/19/2018 18:07	WG1183540
n-Hexane	0.00438	J J0 J4	0.00112	0.00529	1	10/19/2018 18:07	WG1183540
Iodomethane	U		0.00640	0.0132	1	10/19/2018 18:07	WG1183540
Isopropylbenzene	U		0.000914	0.00265	1	10/19/2018 18:07	WG1183540
p-Isopropyltoluene	U		0.00247	0.00529	1	10/19/2018 18:07	WG1183540
2-Butanone (MEK)	0.0330	B J4	0.0132	0.0265	1	10/19/2018 18:07	WG1183540
Methylene Chloride	U		0.00703	0.0265	1	10/19/2018 18:07	WG1183540
4-Methyl-2-pentanone (MIBK)	U		0.0106	0.0265	1	10/19/2018 18:07	WG1183540

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000312	0.00106	1	10/19/2018 18:07	WG1183540
Naphthalene	U		0.00330	0.0132	1	10/19/2018 18:07	WG1183540
n-Propylbenzene	U		0.00125	0.00529	1	10/19/2018 18:07	WG1183540
Styrene	U		0.00289	0.0132	1	10/19/2018 18:07	WG1183540
1,1,1,2-Tetrachloroethane	U		0.000529	0.00265	1	10/19/2018 18:07	WG1183540
1,1,2,2-Tetrachloroethane	U		0.0165	0.106	40	10/23/2018 07:18	WG1184696
1,1,2-Trichlorotrifluoroethane	U		0.0286	0.106	40	10/23/2018 07:18	WG1184696
Tetrachloroethene	18.9		0.0296	0.106	40	10/23/2018 07:18	WG1184696
Toluene	U		0.00132	0.00529	1	10/19/2018 18:07	WG1183540
1,2,3-Trichlorobenzene	U		0.0265	0.106	40	10/23/2018 07:18	WG1184696
1,2,4-Trichlorobenzene	U		0.00510	0.0132	1	10/19/2018 18:07	WG1183540
1,1,1-Trichloroethane	U		0.000291	0.00265	1	10/19/2018 18:07	WG1183540
1,1,2-Trichloroethane	U		0.000935	0.00265	1	10/19/2018 18:07	WG1183540
Trichloroethene	3.11		0.0169	0.0423	40	10/24/2018 17:24	WG1185916
Trichlorofluoromethane	U		0.000529	0.00265	1	10/19/2018 18:07	WG1183540
1,2,3-Trichloropropane	U		0.00540	0.0132	1	10/19/2018 18:07	WG1183540
1,2,4-Trimethylbenzene	0.00387	J	0.00123	0.00529	1	10/19/2018 18:07	WG1183540
1,2,3-Trimethylbenzene	0.00196	J	0.00122	0.00529	1	10/19/2018 18:07	WG1183540
1,3,5-Trimethylbenzene	0.00130	J	0.00114	0.00529	1	10/19/2018 18:07	WG1183540
Vinyl acetate	U		0.00373	0.0132	1	10/19/2018 18:07	WG1183540
Vinyl chloride	0.0532	J	0.0289	0.106	40	10/23/2018 07:18	WG1184696
Xylenes, Total	U		0.00506	0.00688	1	10/19/2018 18:07	WG1183540
(S) Toluene-d8	*105*			*75.0-131*		*10/19/2018 18:07*	WG1183540
(S) Toluene-d8	*97.7*			*75.0-131*		*10/23/2018 07:18*	WG1184696
(S) Toluene-d8	*119*			*75.0-131*		*10/24/2018 17:24*	WG1185916
(S) Dibromofluoromethane	*95.2*			*65.0-129*		*10/19/2018 18:07*	WG1183540
(S) Dibromofluoromethane	*117*			*65.0-129*		*10/23/2018 07:18*	WG1184696
(S) Dibromofluoromethane	*96.8*			*65.0-129*		*10/24/2018 17:24*	WG1185916
(S) 4-Bromofluorobenzene	*89.2*			*67.0-138*		*10/19/2018 18:07*	WG1183540
(S) 4-Bromofluorobenzene	*123*			*67.0-138*		*10/23/2018 07:18*	WG1184696
(S) 4-Bromofluorobenzene	*94.8*			*67.0-138*		*10/24/2018 17:24*	WG1185916

Sample Narrative:

L1035515-10 WG1184696, WG1183540: Cannot be reanalyzed at a lower dilution due to high levels of target analytes.

L1035515-10 WG1184696, WG1183540: Not all compounds reportable from lower dilution.

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	85.5		1	10/22/2018 11:24	WG1184403

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0160	0.0292	1	10/23/2018 02:38	WG1184696
Acrylonitrile	U		0.00222	0.0146	1	10/19/2018 18:25	WG1183540
Benzene	U		0.000468	0.00117	1	10/19/2018 18:25	WG1183540
Bromobenzene	U		0.00123	0.0146	1	10/19/2018 18:25	WG1183540
Bromodichloromethane	U		0.000921	0.00292	1	10/19/2018 18:25	WG1183540
Bromochloromethane	U		0.00132	0.00585	1	10/19/2018 18:25	WG1183540
Bromoform	U		0.00699	0.0292	1	10/19/2018 18:25	WG1183540
Bromomethane	U		0.00433	0.0146	1	10/19/2018 18:25	WG1183540
n-Butylbenzene	U		0.00449	0.0146	1	10/19/2018 18:25	WG1183540
sec-Butylbenzene	U		0.00296	0.0146	1	10/19/2018 18:25	WG1183540
tert-Butylbenzene	U		0.00181	0.00585	1	10/19/2018 18:25	WG1183540
Carbon disulfide	U	J0	0.00475	0.0146	1	10/19/2018 18:25	WG1183540
Carbon tetrachloride	U		0.00126	0.00585	1	10/19/2018 18:25	WG1183540
Chlorobenzene	U		0.000670	0.00292	1	10/19/2018 18:25	WG1183540
Chlorodibromomethane	U		0.000526	0.00292	1	10/19/2018 18:25	WG1183540
Chloroethane	U		0.00126	0.00585	1	10/19/2018 18:25	WG1183540
Chloroform	U		0.000485	0.00292	1	10/19/2018 18:25	WG1183540
Chloromethane	U		0.00163	0.0146	1	10/19/2018 18:25	WG1183540
2-Chlorotoluene	U		0.00108	0.00292	1	10/19/2018 18:25	WG1183540
4-Chlorotoluene	U		0.00132	0.00585	1	10/19/2018 18:25	WG1183540
1,2-Dibromo-3-Chloropropane	U		0.00596	0.0292	1	10/19/2018 18:25	WG1183540
1,2-Dibromoethane	U		0.000614	0.00292	1	10/19/2018 18:25	WG1183540
Dibromomethane	U		0.00117	0.00585	1	10/19/2018 18:25	WG1183540
1,2-Dichlorobenzene	U		0.00170	0.00585	1	10/19/2018 18:25	WG1183540
1,3-Dichlorobenzene	U		0.00199	0.00585	1	10/19/2018 18:25	WG1183540
1,4-Dichlorobenzene	U		0.00230	0.00585	1	10/19/2018 18:25	WG1183540
Dichlorodifluoromethane	U	J4	0.000957	0.00292	1	10/23/2018 02:38	WG1184696
1,1-Dichloroethane	U		0.000672	0.00292	1	10/19/2018 18:25	WG1183540
1,2-Dichloroethane	U		0.000555	0.00292	1	10/19/2018 18:25	WG1183540
1,1-Dichloroethene	U		0.000585	0.00292	1	10/19/2018 18:25	WG1183540
cis-1,2-Dichloroethene	0.0273		0.000807	0.00292	1	10/23/2018 02:38	WG1184696
trans-1,2-Dichloroethene	U		0.00167	0.00585	1	10/19/2018 18:25	WG1183540
1,2-Dichloropropane	U		0.00149	0.00585	1	10/19/2018 18:25	WG1183540
1,1-Dichloropropene	U		0.000819	0.00292	1	10/19/2018 18:25	WG1183540
1,3-Dichloropropane	U		0.00205	0.00585	1	10/19/2018 18:25	WG1183540
cis-1,3-Dichloropropene	U		0.000793	0.00292	1	10/19/2018 18:25	WG1183540
trans-1,3-Dichloropropene	U	J4	0.00179	0.00585	1	10/19/2018 18:25	WG1183540
trans-1,4-Dichloro-2-butene	U		0.00164	0.00585	1	10/19/2018 18:25	WG1183540
2,2-Dichloropropane	U		0.000927	0.00292	1	10/19/2018 18:25	WG1183540
Di-isopropyl ether	U		0.000409	0.00117	1	10/19/2018 18:25	WG1183540
Ethylbenzene	U	J0	0.000620	0.00292	1	10/19/2018 18:25	WG1183540
Hexachloro-1,3-butadiene	U		0.0149	0.0292	1	10/19/2018 18:25	WG1183540
2-Hexanone	U		0.0117	0.0292	1	10/19/2018 18:25	WG1183540
n-Hexane	U	J0 J4	0.00124	0.00585	1	10/19/2018 18:25	WG1183540
Iodomethane	U		0.00707	0.0146	1	10/19/2018 18:25	WG1183540
Isopropylbenzene	U		0.00101	0.00292	1	10/19/2018 18:25	WG1183540
p-Isopropyltoluene	U		0.00272	0.00585	1	10/19/2018 18:25	WG1183540
2-Butanone (MEK)	0.0576	B J4	0.0146	0.0292	1	10/19/2018 18:25	WG1183540
Methylene Chloride	U		0.00776	0.0292	1	10/19/2018 18:25	WG1183540
4-Methyl-2-pentanone (MIBK)	U		0.0117	0.0292	1	10/19/2018 18:25	WG1183540

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

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000345	0.00117	1	10/19/2018 18:25	WG1183540
Naphthalene	U		0.00365	0.0146	1	10/19/2018 18:25	WG1183540
n-Propylbenzene	U		0.00138	0.00585	1	10/19/2018 18:25	WG1183540
Styrene	U		0.00319	0.0146	1	10/19/2018 18:25	WG1183540
1,1,1,2-Tetrachloroethane	U		0.000585	0.00292	1	10/19/2018 18:25	WG1183540
1,1,2,2-Tetrachloroethane	U		0.000456	0.00292	1	10/23/2018 02:38	WG1184696
1,1,2-Trichlorotrifluoroethane	U		0.000789	0.00292	1	10/23/2018 02:38	WG1184696
Tetrachloroethene	0.0550		0.000819	0.00292	1	10/23/2018 02:38	WG1184696
Toluene	U		0.00146	0.00585	1	10/19/2018 18:25	WG1183540
1,2,3-Trichlorobenzene	U		0.000731	0.00292	1	10/23/2018 02:38	WG1184696
1,2,4-Trichlorobenzene	U		0.00564	0.0146	1	10/19/2018 18:25	WG1183540
1,1,1-Trichloroethane	U		0.000322	0.00292	1	10/19/2018 18:25	WG1183540
1,1,2-Trichloroethane	U		0.00103	0.00292	1	10/19/2018 18:25	WG1183540
Trichloroethene	0.0532		0.000468	0.00117	1	10/24/2018 16:42	WG1185916
Trichlorofluoromethane	U		0.000585	0.00292	1	10/19/2018 18:25	WG1183540
1,2,3-Trichloropropane	U		0.00596	0.0146	1	10/19/2018 18:25	WG1183540
1,2,4-Trimethylbenzene	U		0.00136	0.00585	1	10/19/2018 18:25	WG1183540
1,2,3-Trimethylbenzene	U		0.00134	0.00585	1	10/19/2018 18:25	WG1183540
1,3,5-Trimethylbenzene	U		0.00126	0.00585	1	10/19/2018 18:25	WG1183540
Vinyl acetate	U		0.00412	0.0146	1	10/19/2018 18:25	WG1183540
Vinyl chloride	0.0123		0.000799	0.00292	1	10/23/2018 02:38	WG1184696
Xylenes, Total	U		0.00559	0.00760	1	10/19/2018 18:25	WG1183540
(S) Toluene-d8	*100*			*75.0-131*		*10/19/2018 18:25*	WG1183540
(S) Toluene-d8	*99.7*			*75.0-131*		*10/23/2018 02:38*	WG1184696
(S) Toluene-d8	*126*			*75.0-131*		*10/24/2018 16:42*	WG1185916
(S) Dibromofluoromethane	*93.3*			*65.0-129*		*10/19/2018 18:25*	WG1183540
(S) Dibromofluoromethane	*113*			*65.0-129*		*10/23/2018 02:38*	WG1184696
(S) Dibromofluoromethane	*94.6*			*65.0-129*		*10/24/2018 16:42*	WG1185916
(S) 4-Bromofluorobenzene	*90.4*			*67.0-138*		*10/19/2018 18:25*	WG1183540
(S) 4-Bromofluorobenzene	*121*			*67.0-138*		*10/23/2018 02:38*	WG1184696
(S) 4-Bromofluorobenzene	*90.3*			*67.0-138*		*10/24/2018 16:42*	WG1185916

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	90.5		1	10/22/2018 11:24	WG1184403

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0151	0.0276	1	10/23/2018 02:58	WG1184696
Acrylonitrile	U		0.00210	0.0138	1	10/19/2018 18:44	WG1183540
Benzene	U		0.000442	0.00110	1	10/19/2018 18:44	WG1183540
Bromobenzene	U		0.00116	0.0138	1	10/19/2018 18:44	WG1183540
Bromodichloromethane	U		0.000871	0.00276	1	10/19/2018 18:44	WG1183540
Bromochloromethane	U		0.00125	0.00552	1	10/19/2018 18:44	WG1183540
Bromoform	U		0.00661	0.0276	1	10/19/2018 18:44	WG1183540
Bromomethane	U		0.00409	0.0138	1	10/19/2018 18:44	WG1183540
n-Butylbenzene	U		0.00424	0.0138	1	10/19/2018 18:44	WG1183540
sec-Butylbenzene	U		0.00279	0.0138	1	10/19/2018 18:44	WG1183540
tert-Butylbenzene	U		0.00171	0.00552	1	10/19/2018 18:44	WG1183540
Carbon disulfide	U	J0	0.00449	0.0138	1	10/19/2018 18:44	WG1183540
Carbon tetrachloride	U		0.00119	0.00552	1	10/19/2018 18:44	WG1183540
Chlorobenzene	U		0.000633	0.00276	1	10/19/2018 18:44	WG1183540
Chlorodibromomethane	U		0.000497	0.00276	1	10/19/2018 18:44	WG1183540
Chloroethane	U		0.00119	0.00552	1	10/19/2018 18:44	WG1183540
Chloroform	U		0.000458	0.00276	1	10/19/2018 18:44	WG1183540
Chloromethane	U		0.00154	0.0138	1	10/19/2018 18:44	WG1183540
2-Chlorotoluene	U		0.00102	0.00276	1	10/19/2018 18:44	WG1183540
4-Chlorotoluene	U		0.00125	0.00552	1	10/19/2018 18:44	WG1183540
1,2-Dibromo-3-Chloropropane	U		0.00563	0.0276	1	10/19/2018 18:44	WG1183540
1,2-Dibromoethane	U		0.000580	0.00276	1	10/19/2018 18:44	WG1183540
Dibromomethane	U		0.00110	0.00552	1	10/19/2018 18:44	WG1183540
1,2-Dichlorobenzene	U		0.00160	0.00552	1	10/19/2018 18:44	WG1183540
1,3-Dichlorobenzene	U		0.00188	0.00552	1	10/19/2018 18:44	WG1183540
1,4-Dichlorobenzene	U		0.00218	0.00552	1	10/19/2018 18:44	WG1183540
Dichlorodifluoromethane	U	J4	0.000904	0.00276	1	10/23/2018 02:58	WG1184696
1,1-Dichloroethane	U		0.000635	0.00276	1	10/19/2018 18:44	WG1183540
1,2-Dichloroethane	U		0.000525	0.00276	1	10/19/2018 18:44	WG1183540
1,1-Dichloroethene	U		0.000552	0.00276	1	10/19/2018 18:44	WG1183540
cis-1,2-Dichloroethene	0.0190		0.000762	0.00276	1	10/23/2018 02:58	WG1184696
trans-1,2-Dichloroethene	U		0.00158	0.00552	1	10/19/2018 18:44	WG1183540
1,2-Dichloropropane	U		0.00140	0.00552	1	10/19/2018 18:44	WG1183540
1,1-Dichloropropene	U		0.000773	0.00276	1	10/19/2018 18:44	WG1183540
1,3-Dichloropropane	U		0.00193	0.00552	1	10/19/2018 18:44	WG1183540
cis-1,3-Dichloropropene	U		0.000749	0.00276	1	10/19/2018 18:44	WG1183540
trans-1,3-Dichloropropene	U	J4	0.00169	0.00552	1	10/19/2018 18:44	WG1183540
trans-1,4-Dichloro-2-butene	U		0.00155	0.00552	1	10/19/2018 18:44	WG1183540
2,2-Dichloropropane	U		0.000876	0.00276	1	10/19/2018 18:44	WG1183540
Di-isopropyl ether	U		0.000387	0.00110	1	10/19/2018 18:44	WG1183540
Ethylbenzene	U	J0	0.000585	0.00276	1	10/19/2018 18:44	WG1183540
Hexachloro-1,3-butadiene	U		0.0140	0.0276	1	10/19/2018 18:44	WG1183540
2-Hexanone	U		0.0110	0.0276	1	10/19/2018 18:44	WG1183540
n-Hexane	0.00347	J J0 J4	0.00117	0.00552	1	10/19/2018 18:44	WG1183540
Iodomethane	U		0.00668	0.0138	1	10/19/2018 18:44	WG1183540
Isopropylbenzene	U		0.000953	0.00276	1	10/19/2018 18:44	WG1183540
p-Isopropyltoluene	U		0.00257	0.00552	1	10/19/2018 18:44	WG1183540
2-Butanone (MEK)	0.0448	B J4	0.0138	0.0276	1	10/19/2018 18:44	WG1183540
Methylene Chloride	U		0.00734	0.0276	1	10/19/2018 18:44	WG1183540
4-Methyl-2-pentanone (MIBK)	U		0.0110	0.0276	1	10/19/2018 18:44	WG1183540

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000326	0.00110	1	10/19/2018 18:44	WG1183540
Naphthalene	U		0.00345	0.0138	1	10/19/2018 18:44	WG1183540
n-Propylbenzene	U		0.00130	0.00552	1	10/19/2018 18:44	WG1183540
Styrene	U		0.00302	0.0138	1	10/19/2018 18:44	WG1183540
1,1,1,2-Tetrachloroethane	U		0.000552	0.00276	1	10/19/2018 18:44	WG1183540
1,1,2,2-Tetrachloroethane	U		0.000431	0.00276	1	10/23/2018 02:58	WG1184696
1,1,2-Trichlorotrifluoroethane	U		0.000746	0.00276	1	10/23/2018 02:58	WG1184696
Tetrachloroethene	0.0193		0.000773	0.00276	1	10/23/2018 02:58	WG1184696
Toluene	U		0.00138	0.00552	1	10/19/2018 18:44	WG1183540
1,2,3-Trichlorobenzene	U		0.000690	0.00276	1	10/23/2018 02:58	WG1184696
1,2,4-Trichlorobenzene	U		0.00532	0.0138	1	10/19/2018 18:44	WG1183540
1,1,1-Trichloroethane	U		0.000304	0.00276	1	10/19/2018 18:44	WG1183540
1,1,2-Trichloroethane	U		0.000975	0.00276	1	10/19/2018 18:44	WG1183540
Trichloroethene	0.0162		0.000442	0.00110	1	10/24/2018 17:03	WG1185916
Trichlorofluoromethane	U		0.000552	0.00276	1	10/19/2018 18:44	WG1183540
1,2,3-Trichloropropane	U		0.00563	0.0138	1	10/19/2018 18:44	WG1183540
1,2,4-Trimethylbenzene	U		0.00128	0.00552	1	10/19/2018 18:44	WG1183540
1,2,3-Trimethylbenzene	U		0.00127	0.00552	1	10/19/2018 18:44	WG1183540
1,3,5-Trimethylbenzene	U		0.00119	0.00552	1	10/19/2018 18:44	WG1183540
Vinyl acetate	U		0.00389	0.0138	1	10/19/2018 18:44	WG1183540
Vinyl chloride	0.0155		0.000755	0.00276	1	10/23/2018 02:58	WG1184696
Xylenes, Total	U		0.00528	0.00718	1	10/19/2018 18:44	WG1183540
(S) Toluene-d8	*104*			*75.0-131*		*10/19/2018 18:44*	WG1183540
(S) Toluene-d8	*101*			*75.0-131*		*10/23/2018 02:58*	WG1184696
(S) Toluene-d8	*134*	J1		*75.0-131*		*10/24/2018 17:03*	WG1185916
(S) Dibromofluoromethane	*93.1*			*65.0-129*		*10/19/2018 18:44*	WG1183540
(S) Dibromofluoromethane	*117*			*65.0-129*		*10/23/2018 02:58*	WG1184696
(S) Dibromofluoromethane	*90.7*			*65.0-129*		*10/24/2018 17:03*	WG1185916
(S) 4-Bromofluorobenzene	*85.9*			*67.0-138*		*10/19/2018 18:44*	WG1183540
(S) 4-Bromofluorobenzene	*119*			*67.0-138*		*10/23/2018 02:58*	WG1184696
(S) 4-Bromofluorobenzene	*90.8*			*67.0-138*		*10/24/2018 17:03*	WG1185916

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	93.6		1	10/22/2018 10:53	WG1184404

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0146	0.0267	1	10/23/2018 03:18	WG1184696
Acrylonitrile	U		0.00203	0.0134	1	10/19/2018 19:02	WG1183540
Benzene	U		0.000427	0.00107	1	10/19/2018 19:02	WG1183540
Bromobenzene	U		0.00112	0.0134	1	10/19/2018 19:02	WG1183540
Bromodichloromethane	U		0.000842	0.00267	1	10/19/2018 19:02	WG1183540
Bromochloromethane	U		0.00121	0.00534	1	10/19/2018 19:02	WG1183540
Bromoform	U		0.00639	0.0267	1	10/19/2018 19:02	WG1183540
Bromomethane	U		0.00395	0.0134	1	10/19/2018 19:02	WG1183540
n-Butylbenzene	U		0.00410	0.0134	1	10/19/2018 19:02	WG1183540
sec-Butylbenzene	U		0.00270	0.0134	1	10/19/2018 19:02	WG1183540
tert-Butylbenzene	U		0.00166	0.00534	1	10/19/2018 19:02	WG1183540
Carbon disulfide	U	J0	0.00434	0.0134	1	10/19/2018 19:02	WG1183540
Carbon tetrachloride	U		0.00115	0.00534	1	10/19/2018 19:02	WG1183540
Chlorobenzene	U		0.000612	0.00267	1	10/19/2018 19:02	WG1183540
Chlorodibromomethane	U		0.000481	0.00267	1	10/19/2018 19:02	WG1183540
Chloroethane	U		0.00115	0.00534	1	10/19/2018 19:02	WG1183540
Chloroform	U		0.000443	0.00267	1	10/19/2018 19:02	WG1183540
Chloromethane	U		0.00149	0.0134	1	10/19/2018 19:02	WG1183540
2-Chlorotoluene	U		0.000983	0.00267	1	10/19/2018 19:02	WG1183540
4-Chlorotoluene	U		0.00121	0.00534	1	10/19/2018 19:02	WG1183540
1,2-Dibromo-3-Chloropropane	U		0.00545	0.0267	1	10/19/2018 19:02	WG1183540
1,2-Dibromoethane	U		0.000561	0.00267	1	10/19/2018 19:02	WG1183540
Dibromomethane	U		0.00107	0.00534	1	10/19/2018 19:02	WG1183540
1,2-Dichlorobenzene	U		0.00155	0.00534	1	10/19/2018 19:02	WG1183540
1,3-Dichlorobenzene	U		0.00182	0.00534	1	10/19/2018 19:02	WG1183540
1,4-Dichlorobenzene	U		0.00211	0.00534	1	10/19/2018 19:02	WG1183540
Dichlorodifluoromethane	U	J4	0.000874	0.00267	1	10/23/2018 03:18	WG1184696
1,1-Dichloroethane	U		0.000614	0.00267	1	10/19/2018 19:02	WG1183540
1,2-Dichloroethane	U		0.000508	0.00267	1	10/19/2018 19:02	WG1183540
1,1-Dichloroethene	0.00420		0.000534	0.00267	1	10/19/2018 19:02	WG1183540
cis-1,2-Dichloroethene	0.548		0.000737	0.00267	1	10/19/2018 19:02	WG1183540
trans-1,2-Dichloroethene	0.00197	J	0.00153	0.00534	1	10/19/2018 19:02	WG1183540
1,2-Dichloropropane	U		0.00136	0.00534	1	10/19/2018 19:02	WG1183540
1,1-Dichloropropene	U		0.000748	0.00267	1	10/19/2018 19:02	WG1183540
1,3-Dichloropropane	U		0.00187	0.00534	1	10/19/2018 19:02	WG1183540
cis-1,3-Dichloropropene	U		0.000724	0.00267	1	10/19/2018 19:02	WG1183540
trans-1,3-Dichloropropene	U	J4	0.00163	0.00534	1	10/19/2018 19:02	WG1183540
trans-1,4-Dichloro-2-butene	U		0.00150	0.00534	1	10/19/2018 19:02	WG1183540
2,2-Dichloropropane	U		0.000847	0.00267	1	10/19/2018 19:02	WG1183540
Di-isopropyl ether	U		0.000374	0.00107	1	10/19/2018 19:02	WG1183540
Ethylbenzene	U	J0	0.000566	0.00267	1	10/19/2018 19:02	WG1183540
Hexachloro-1,3-butadiene	U		0.0136	0.0267	1	10/19/2018 19:02	WG1183540
2-Hexanone	U		0.0107	0.0267	1	10/19/2018 19:02	WG1183540
n-Hexane	0.00527	J J0 J4	0.00113	0.00534	1	10/19/2018 19:02	WG1183540
Iodomethane	U		0.00646	0.0134	1	10/19/2018 19:02	WG1183540
Isopropylbenzene	U		0.000922	0.00267	1	10/19/2018 19:02	WG1183540
p-Isopropyltoluene	U		0.00249	0.00534	1	10/19/2018 19:02	WG1183540
2-Butanone (MEK)	0.0312	B J4	0.0134	0.0267	1	10/19/2018 19:02	WG1183540
Methylene Chloride	U		0.00710	0.0267	1	10/19/2018 19:02	WG1183540
4-Methyl-2-pentanone (MIBK)	U		0.0107	0.0267	1	10/19/2018 19:02	WG1183540

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000315	0.00107	1	10/19/2018 19:02	WG1183540
Naphthalene	U		0.00333	0.0134	1	10/19/2018 19:02	WG1183540
n-Propylbenzene	U		0.00126	0.00534	1	10/19/2018 19:02	WG1183540
Styrene	U		0.00292	0.0134	1	10/19/2018 19:02	WG1183540
1,1,1,2-Tetrachloroethane	U		0.000534	0.00267	1	10/19/2018 19:02	WG1183540
1,1,2,2-Tetrachloroethane	U		0.000417	0.00267	1	10/23/2018 03:18	WG1184696
1,1,2-Trichlorotrifluoroethane	U		0.000721	0.00267	1	10/23/2018 03:18	WG1184696
Tetrachloroethene	0.589		0.000748	0.00267	1	10/19/2018 19:02	WG1183540
Toluene	U		0.00134	0.00534	1	10/19/2018 19:02	WG1183540
1,2,3-Trichlorobenzene	U		0.000668	0.00267	1	10/23/2018 03:18	WG1184696
1,2,4-Trichlorobenzene	U		0.00515	0.0134	1	10/19/2018 19:02	WG1183540
1,1,1-Trichloroethane	U		0.000294	0.00267	1	10/19/2018 19:02	WG1183540
1,1,2-Trichloroethane	U		0.000944	0.00267	1	10/19/2018 19:02	WG1183540
Trichloroethene	0.182		0.000427	0.00107	1	10/19/2018 19:02	WG1183540
Trichlorofluoromethane	U		0.000534	0.00267	1	10/19/2018 19:02	WG1183540
1,2,3-Trichloropropane	U		0.00545	0.0134	1	10/19/2018 19:02	WG1183540
1,2,4-Trimethylbenzene	U		0.00124	0.00534	1	10/19/2018 19:02	WG1183540
1,2,3-Trimethylbenzene	U		0.00123	0.00534	1	10/19/2018 19:02	WG1183540
1,3,5-Trimethylbenzene	U		0.00115	0.00534	1	10/19/2018 19:02	WG1183540
Vinyl acetate	U		0.00376	0.0134	1	10/19/2018 19:02	WG1183540
Vinyl chloride	0.0359		0.000730	0.00267	1	10/23/2018 03:18	WG1184696
Xylenes, Total	U		0.00511	0.00695	1	10/19/2018 19:02	WG1183540
(S) Toluene-d8	*102*			*75.0-131*		*10/19/2018 19:02*	WG1183540
(S) Toluene-d8	*99.2*			*75.0-131*		*10/23/2018 03:18*	WG1184696
(S) Dibromofluoromethane	*95.4*			*65.0-129*		*10/19/2018 19:02*	WG1183540
(S) Dibromofluoromethane	*112*			*65.0-129*		*10/23/2018 03:18*	WG1184696
(S) 4-Bromofluorobenzene	*90.0*			*67.0-138*		*10/19/2018 19:02*	WG1183540
(S) 4-Bromofluorobenzene	*119*			*67.0-138*		*10/23/2018 03:18*	WG1184696

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	90.4		1	10/22/2018 10:53	WG1184404

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0152	0.0277	1	10/23/2018 03:38	WG1184696
Acrylonitrile	U		0.00210	0.0138	1	10/19/2018 19:21	WG1183540
Benzene	U		0.000443	0.00111	1	10/19/2018 19:21	WG1183540
Bromobenzene	U		0.00116	0.0138	1	10/19/2018 19:21	WG1183540
Bromodichloromethane	U		0.000872	0.00277	1	10/19/2018 19:21	WG1183540
Bromochloromethane	U		0.00125	0.00553	1	10/19/2018 19:21	WG1183540
Bromoform	U		0.00662	0.0277	1	10/19/2018 19:21	WG1183540
Bromomethane	U		0.00409	0.0138	1	10/19/2018 19:21	WG1183540
n-Butylbenzene	U		0.00425	0.0138	1	10/19/2018 19:21	WG1183540
sec-Butylbenzene	U		0.00280	0.0138	1	10/19/2018 19:21	WG1183540
tert-Butylbenzene	U		0.00172	0.00553	1	10/19/2018 19:21	WG1183540
Carbon disulfide	U	J0	0.00449	0.0138	1	10/19/2018 19:21	WG1183540
Carbon tetrachloride	U		0.00120	0.00553	1	10/19/2018 19:21	WG1183540
Chlorobenzene	U		0.000634	0.00277	1	10/19/2018 19:21	WG1183540
Chlorodibromomethane	U		0.000498	0.00277	1	10/19/2018 19:21	WG1183540
Chloroethane	U		0.00120	0.00553	1	10/19/2018 19:21	WG1183540
Chloroform	U		0.000459	0.00277	1	10/19/2018 19:21	WG1183540
Chloromethane	U		0.00154	0.0138	1	10/19/2018 19:21	WG1183540
2-Chlorotoluene	U		0.00102	0.00277	1	10/19/2018 19:21	WG1183540
4-Chlorotoluene	U		0.00125	0.00553	1	10/19/2018 19:21	WG1183540
1,2-Dibromo-3-Chloropropane	U		0.00564	0.0277	1	10/19/2018 19:21	WG1183540
1,2-Dibromoethane	U		0.000581	0.00277	1	10/19/2018 19:21	WG1183540
Dibromomethane	U		0.00111	0.00553	1	10/19/2018 19:21	WG1183540
1,2-Dichlorobenzene	U		0.00160	0.00553	1	10/19/2018 19:21	WG1183540
1,3-Dichlorobenzene	U		0.00188	0.00553	1	10/19/2018 19:21	WG1183540
1,4-Dichlorobenzene	U		0.00218	0.00553	1	10/19/2018 19:21	WG1183540
Dichlorodifluoromethane	U	J4	0.000905	0.00277	1	10/23/2018 03:38	WG1184696
1,1-Dichloroethane	U		0.000636	0.00277	1	10/19/2018 19:21	WG1183540
1,2-Dichloroethane	U		0.000526	0.00277	1	10/19/2018 19:21	WG1183540
1,1-Dichloroethene	0.00114	J	0.000553	0.00277	1	10/19/2018 19:21	WG1183540
cis-1,2-Dichloroethene	0.768		0.000764	0.00277	1	10/19/2018 19:21	WG1183540
trans-1,2-Dichloroethene	0.00510	J	0.00158	0.00553	1	10/19/2018 19:21	WG1183540
1,2-Dichloropropane	U		0.00141	0.00553	1	10/19/2018 19:21	WG1183540
1,1-Dichloropropene	U		0.000775	0.00277	1	10/19/2018 19:21	WG1183540
1,3-Dichloropropane	U		0.00194	0.00553	1	10/19/2018 19:21	WG1183540
cis-1,3-Dichloropropene	U		0.000750	0.00277	1	10/19/2018 19:21	WG1183540
trans-1,3-Dichloropropene	U	J4	0.00169	0.00553	1	10/19/2018 19:21	WG1183540
trans-1,4-Dichloro-2-butene	U		0.00155	0.00553	1	10/19/2018 19:21	WG1183540
2,2-Dichloropropane	U		0.000878	0.00277	1	10/19/2018 19:21	WG1183540
Di-isopropyl ether	U		0.000387	0.00111	1	10/19/2018 19:21	WG1183540
Ethylbenzene	U	J0	0.000587	0.00277	1	10/19/2018 19:21	WG1183540
Hexachloro-1,3-butadiene	U		0.0141	0.0277	1	10/19/2018 19:21	WG1183540
2-Hexanone	U		0.0111	0.0277	1	10/19/2018 19:21	WG1183540
n-Hexane	0.00313	J J0 J4	0.00117	0.00553	1	10/19/2018 19:21	WG1183540
Iodomethane	U		0.00670	0.0138	1	10/19/2018 19:21	WG1183540
Isopropylbenzene	U		0.000955	0.00277	1	10/19/2018 19:21	WG1183540
p-Isopropyltoluene	U		0.00258	0.00553	1	10/19/2018 19:21	WG1183540
2-Butanone (MEK)	0.0292	B J4	0.0138	0.0277	1	10/19/2018 19:21	WG1183540
Methylene Chloride	U		0.00735	0.0277	1	10/19/2018 19:21	WG1183540
4-Methyl-2-pentanone (MIBK)	U		0.0111	0.0277	1	10/19/2018 19:21	WG1183540

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000326	0.00111	1	10/19/2018 19:21	WG1183540
Naphthalene	U		0.00345	0.0138	1	10/19/2018 19:21	WG1183540
n-Propylbenzene	U		0.00131	0.00553	1	10/19/2018 19:21	WG1183540
Styrene	U		0.00302	0.0138	1	10/19/2018 19:21	WG1183540
1,1,1,2-Tetrachloroethane	U		0.000553	0.00277	1	10/19/2018 19:21	WG1183540
1,1,2,2-Tetrachloroethane	U		0.000432	0.00277	1	10/23/2018 03:38	WG1184696
1,1,2-Trichlorotrifluoroethane	U		0.000747	0.00277	1	10/23/2018 03:38	WG1184696
Tetrachloroethene	0.324		0.000775	0.00277	1	10/19/2018 19:21	WG1183540
Toluene	U		0.00138	0.00553	1	10/19/2018 19:21	WG1183540
1,2,3-Trichlorobenzene	U		0.000692	0.00277	1	10/23/2018 03:38	WG1184696
1,2,4-Trichlorobenzene	U		0.00533	0.0138	1	10/19/2018 19:21	WG1183540
1,1,1-Trichloroethane	U		0.000304	0.00277	1	10/19/2018 19:21	WG1183540
1,1,2-Trichloroethane	U		0.000977	0.00277	1	10/19/2018 19:21	WG1183540
Trichloroethene	0.0863		0.000443	0.00111	1	10/19/2018 19:21	WG1183540
Trichlorofluoromethane	U		0.000553	0.00277	1	10/19/2018 19:21	WG1183540
1,2,3-Trichloropropane	U		0.00564	0.0138	1	10/19/2018 19:21	WG1183540
1,2,4-Trimethylbenzene	U		0.00128	0.00553	1	10/19/2018 19:21	WG1183540
1,2,3-Trimethylbenzene	U		0.00127	0.00553	1	10/19/2018 19:21	WG1183540
1,3,5-Trimethylbenzene	U		0.00120	0.00553	1	10/19/2018 19:21	WG1183540
Vinyl acetate	U		0.00390	0.0138	1	10/19/2018 19:21	WG1183540
Vinyl chloride	0.0715		0.000756	0.00277	1	10/23/2018 03:38	WG1184696
Xylenes, Total	U		0.00529	0.00719	1	10/19/2018 19:21	WG1183540
(S) Toluene-d8	*100*			*75.0-131*		*10/19/2018 19:21*	WG1183540
(S) Toluene-d8	*101*			*75.0-131*		*10/23/2018 03:38*	WG1184696
(S) Dibromofluoromethane	*94.4*			*65.0-129*		*10/19/2018 19:21*	WG1183540
(S) Dibromofluoromethane	*114*			*65.0-129*		*10/23/2018 03:38*	WG1184696
(S) 4-Bromofluorobenzene	*91.9*			*67.0-138*		*10/19/2018 19:21*	WG1183540
(S) 4-Bromofluorobenzene	*121*			*67.0-138*		*10/23/2018 03:38*	WG1184696

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	90.4		1	10/22/2018 10:53	WG1184404

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0152	0.0277	1	10/23/2018 03:58	WG1184696
Acrylonitrile	U		0.00210	0.0138	1	10/19/2018 19:39	WG1183540
Benzene	U		0.000443	0.00111	1	10/19/2018 19:39	WG1183540
Bromobenzene	U		0.00116	0.0138	1	10/19/2018 19:39	WG1183540
Bromodichloromethane	U		0.000872	0.00277	1	10/19/2018 19:39	WG1183540
Bromochloromethane	U		0.00125	0.00553	1	10/19/2018 19:39	WG1183540
Bromoform	U		0.00662	0.0277	1	10/19/2018 19:39	WG1183540
Bromomethane	U		0.00409	0.0138	1	10/19/2018 19:39	WG1183540
n-Butylbenzene	U		0.00425	0.0138	1	10/19/2018 19:39	WG1183540
sec-Butylbenzene	U		0.00280	0.0138	1	10/19/2018 19:39	WG1183540
tert-Butylbenzene	U		0.00172	0.00553	1	10/19/2018 19:39	WG1183540
Carbon disulfide	U	J0	0.00449	0.0138	1	10/19/2018 19:39	WG1183540
Carbon tetrachloride	U		0.00120	0.00553	1	10/19/2018 19:39	WG1183540
Chlorobenzene	U		0.000634	0.00277	1	10/19/2018 19:39	WG1183540
Chlorodibromomethane	U		0.000498	0.00277	1	10/19/2018 19:39	WG1183540
Chloroethane	U		0.00120	0.00553	1	10/19/2018 19:39	WG1183540
Chloroform	U		0.000459	0.00277	1	10/19/2018 19:39	WG1183540
Chloromethane	U		0.00154	0.0138	1	10/19/2018 19:39	WG1183540
2-Chlorotoluene	U		0.00102	0.00277	1	10/19/2018 19:39	WG1183540
4-Chlorotoluene	U		0.00125	0.00553	1	10/19/2018 19:39	WG1183540
1,2-Dibromo-3-Chloropropane	U		0.00564	0.0277	1	10/19/2018 19:39	WG1183540
1,2-Dibromoethane	U		0.000581	0.00277	1	10/19/2018 19:39	WG1183540
Dibromomethane	U		0.00111	0.00553	1	10/19/2018 19:39	WG1183540
1,2-Dichlorobenzene	U		0.00160	0.00553	1	10/19/2018 19:39	WG1183540
1,3-Dichlorobenzene	U		0.00188	0.00553	1	10/19/2018 19:39	WG1183540
1,4-Dichlorobenzene	U		0.00218	0.00553	1	10/19/2018 19:39	WG1183540
Dichlorodifluoromethane	U	J4	0.000905	0.00277	1	10/23/2018 03:58	WG1184696
1,1-Dichloroethane	U		0.000636	0.00277	1	10/19/2018 19:39	WG1183540
1,2-Dichloroethane	U		0.000526	0.00277	1	10/19/2018 19:39	WG1183540
1,1-Dichloroethene	0.000814	J	0.000553	0.00277	1	10/19/2018 19:39	WG1183540
cis-1,2-Dichloroethene	0.143		0.000764	0.00277	1	10/19/2018 19:39	WG1183540
trans-1,2-Dichloroethene	U		0.00158	0.00553	1	10/19/2018 19:39	WG1183540
1,2-Dichloropropane	U		0.00141	0.00553	1	10/19/2018 19:39	WG1183540
1,1-Dichloropropene	U		0.000775	0.00277	1	10/19/2018 19:39	WG1183540
1,3-Dichloropropane	U		0.00194	0.00553	1	10/19/2018 19:39	WG1183540
cis-1,3-Dichloropropene	U		0.000750	0.00277	1	10/19/2018 19:39	WG1183540
trans-1,3-Dichloropropene	U	J4	0.00169	0.00553	1	10/19/2018 19:39	WG1183540
trans-1,4-Dichloro-2-butene	U		0.00155	0.00553	1	10/19/2018 19:39	WG1183540
2,2-Dichloropropane	U		0.000877	0.00277	1	10/19/2018 19:39	WG1183540
Di-isopropyl ether	U		0.000387	0.00111	1	10/19/2018 19:39	WG1183540
Ethylbenzene	U	J0	0.000586	0.00277	1	10/19/2018 19:39	WG1183540
Hexachloro-1,3-butadiene	U		0.0141	0.0277	1	10/19/2018 19:39	WG1183540
2-Hexanone	U		0.0111	0.0277	1	10/19/2018 19:39	WG1183540
n-Hexane	0.00386	J J0 J4	0.00117	0.00553	1	10/19/2018 19:39	WG1183540
Iodomethane	U		0.00669	0.0138	1	10/19/2018 19:39	WG1183540
Isopropylbenzene	U		0.000955	0.00277	1	10/19/2018 19:39	WG1183540
p-Isopropyltoluene	U		0.00258	0.00553	1	10/19/2018 19:39	WG1183540
2-Butanone (MEK)	U	J4	0.0138	0.0277	1	10/19/2018 19:39	WG1183540
Methylene Chloride	U		0.00735	0.0277	1	10/19/2018 19:39	WG1183540
4-Methyl-2-pentanone (MIBK)	U		0.0111	0.0277	1	10/19/2018 19:39	WG1183540

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000326	0.00111	1	10/19/2018 19:39	WG1183540
Naphthalene	U		0.00345	0.0138	1	10/19/2018 19:39	WG1183540
n-Propylbenzene	U		0.00131	0.00553	1	10/19/2018 19:39	WG1183540
Styrene	U		0.00302	0.0138	1	10/19/2018 19:39	WG1183540
1,1,1,2-Tetrachloroethane	U		0.000553	0.00277	1	10/19/2018 19:39	WG1183540
1,1,2,2-Tetrachloroethane	U		0.000432	0.00277	1	10/23/2018 03:58	WG1184696
1,1,2-Trichlorotrifluoroethane	U		0.000747	0.00277	1	10/23/2018 03:58	WG1184696
Tetrachloroethene	0.207		0.000775	0.00277	1	10/19/2018 19:39	WG1183540
Toluene	U		0.00138	0.00553	1	10/19/2018 19:39	WG1183540
1,2,3-Trichlorobenzene	U		0.000692	0.00277	1	10/23/2018 03:58	WG1184696
1,2,4-Trichlorobenzene	U		0.00533	0.0138	1	10/19/2018 19:39	WG1183540
1,1,1-Trichloroethane	U		0.000304	0.00277	1	10/19/2018 19:39	WG1183540
1,1,2-Trichloroethane	U		0.000977	0.00277	1	10/19/2018 19:39	WG1183540
Trichloroethene	0.0126		0.000443	0.00111	1	10/19/2018 19:39	WG1183540
Trichlorofluoromethane	U		0.000553	0.00277	1	10/19/2018 19:39	WG1183540
1,2,3-Trichloropropane	U		0.00564	0.0138	1	10/19/2018 19:39	WG1183540
1,2,4-Trimethylbenzene	U		0.00128	0.00553	1	10/19/2018 19:39	WG1183540
1,2,3-Trimethylbenzene	U		0.00127	0.00553	1	10/19/2018 19:39	WG1183540
1,3,5-Trimethylbenzene	U		0.00120	0.00553	1	10/19/2018 19:39	WG1183540
Vinyl acetate	U		0.00390	0.0138	1	10/19/2018 19:39	WG1183540
Vinyl chloride	0.0170		0.000756	0.00277	1	10/23/2018 03:58	WG1184696
Xylenes, Total	U		0.00529	0.00719	1	10/19/2018 19:39	WG1183540
(S) Toluene-d8	*99.5*			*75.0-131*		*10/19/2018 19:39*	WG1183540
(S) Toluene-d8	*98.7*			*75.0-131*		*10/23/2018 03:58*	WG1184696
(S) Dibromofluoromethane	*95.7*			*65.0-129*		*10/19/2018 19:39*	WG1183540
(S) Dibromofluoromethane	*113*			*65.0-129*		*10/23/2018 03:58*	WG1184696
(S) 4-Bromofluorobenzene	*87.2*			*67.0-138*		*10/19/2018 19:39*	WG1183540
(S) 4-Bromofluorobenzene	*121*			*67.0-138*		*10/23/2018 03:58*	WG1184696

Method Blank (MB)

(MB) R3352945-1 10/22/18 11:48

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.00100			

L1035515-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1035515-01 10/22/18 11:48 • (DUP) R3352945-3 10/22/18 11:48

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	91.7	91.1	1	0.605		10

Laboratory Control Sample (LCS)

(LCS) R3352945-2 10/22/18 11:48

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85.0-115	

Method Blank (MB)

(MB) R3353066-1 10/22/18 11:24

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.00100			

L1035515-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1035515-07 10/22/18 11:24 • (DUP) R3353066-3 10/22/18 11:24

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	87.6	92.6	1	5.64		10

Laboratory Control Sample (LCS)

(LCS) R3353066-2 10/22/18 11:24

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85.0-115	

Method Blank (MB)

(MB) R3353063-1 10/22/18 10:53

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.00100			

L1035537-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1035537-06 10/22/18 10:53 • (DUP) R3353063-3 10/22/18 10:53

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	86.6	86.8	1	0.277		10

Laboratory Control Sample (LCS)

(LCS) R3353063-2 10/22/18 10:53

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85.0-115	

Method Blank (MB)

(MB) R3352821-2 10/19/18 13:07

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acrylonitrile	U		0.00190	0.0125
Benzene	U		0.000400	0.00100
Bromobenzene	U		0.00105	0.0125
Bromodichloromethane	U		0.000788	0.00250
Bromochloromethane	U		0.00113	0.00500
Bromoform	U		0.00598	0.0250
Bromomethane	U		0.00370	0.0125
n-Butylbenzene	U		0.00384	0.0125
sec-Butylbenzene	U		0.00253	0.0125
tert-Butylbenzene	U		0.00155	0.00500
Carbon disulfide	U		0.00406	0.0125
Carbon tetrachloride	U		0.00108	0.00500
Chlorobenzene	U		0.000573	0.00250
Chlorodibromomethane	U		0.000450	0.00250
Chloroethane	U		0.00108	0.00500
Chloroform	U		0.000415	0.00250
Chloromethane	U		0.00139	0.0125
2-Chlorotoluene	U		0.000920	0.00250
4-Chlorotoluene	U		0.00113	0.00500
1,2-Dibromo-3-Chloropropane	U		0.00510	0.0250
1,2-Dibromoethane	U		0.000525	0.00250
Dibromomethane	U		0.00100	0.00500
1,2-Dichlorobenzene	U		0.00145	0.00500
1,3-Dichlorobenzene	U		0.00170	0.00500
1,4-Dichlorobenzene	U		0.00197	0.00500
trans-1,4-Dichloro-2-butene	U		0.00140	0.00500
1,1-Dichloroethane	U		0.000575	0.00250
1,2-Dichloroethane	U		0.000475	0.00250
1,1-Dichloroethene	U		0.000500	0.00250
cis-1,2-Dichloroethene	U		0.000690	0.00250
trans-1,2-Dichloroethene	U		0.00143	0.00500
1,2-Dichloropropane	U		0.00127	0.00500
1,1-Dichloropropene	U		0.000700	0.00250
1,3-Dichloropropane	U		0.00175	0.00500
cis-1,3-Dichloropropene	U		0.000678	0.00250
trans-1,3-Dichloropropene	U		0.00153	0.00500
2,2-Dichloropropane	U		0.000793	0.00250
Di-isopropyl ether	U		0.000350	0.00100
Ethylbenzene	U		0.000530	0.00250
Hexachloro-1,3-butadiene	U		0.0127	0.0250

Method Blank (MB)

(MB) R3352821-2 10/19/18 13:07

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
n-Hexane	U		0.00106	0.00500
2-Hexanone	U		0.0100	0.0250
Iodomethane	U		0.00605	0.0125
Isopropylbenzene	U		0.000863	0.00250
p-Isopropyltoluene	U		0.00233	0.00500
2-Butanone (MEK)	0.0212	J	0.0125	0.0250
Methylene Chloride	0.0147	J	0.00664	0.0250
4-Methyl-2-pentanone (MIBK)	U		0.0100	0.0250
Methyl tert-butyl ether	U		0.000295	0.00100
Naphthalene	U		0.00312	0.0125
n-Propylbenzene	U		0.00118	0.00500
Styrene	U		0.00273	0.0125
1,1,1,2-Tetrachloroethane	U		0.000500	0.00250
Tetrachloroethene	U		0.000700	0.00250
Toluene	U		0.00125	0.00500
1,2,4-Trichlorobenzene	U		0.00482	0.0125
1,1,1-Trichloroethane	U		0.000275	0.00250
1,1,2-Trichloroethane	U		0.000883	0.00250
Trichloroethene	U		0.000400	0.00100
Trichlorofluoromethane	U		0.000500	0.00250
1,2,3-Trichloropropane	U		0.00510	0.0125
1,2,3-Trimethylbenzene	U		0.00115	0.00500
1,2,4-Trimethylbenzene	U		0.00116	0.00500
1,3,5-Trimethylbenzene	U		0.00108	0.00500
Vinyl acetate	U		0.00352	0.0125
Vinyl chloride	U		0.000683	0.00250
Xylenes, Total	U		0.00478	0.00650
(S) Toluene-d8	*102*			*75.0-131*
(S) Dibromofluoromethane	*95.0*			*65.0-129*
(S) 4-Bromofluorobenzene	*89.8*			*67.0-138*

Laboratory Control Sample (LCS)

(LCS) R3352821-1 10/19/18 12:03

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acrylonitrile	0.625	0.730	117	45.0-153	
Benzene	0.125	0.137	109	70.0-123	
Bromobenzene	0.125	0.108	86.7	73.0-121	

Laboratory Control Sample (LCS)

(LCS) R3352821-1 10/19/18 12:03

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Bromodichloromethane	0.125	0.117	93.3	73.0-121	
Bromochloromethane	0.125	0.0971	77.7	77.0-128	
Bromoform	0.125	0.103	82.1	64.0-132	
Bromomethane	0.125	0.149	119	56.0-147	
n-Butylbenzene	0.125	0.0993	79.5	68.0-135	
sec-Butylbenzene	0.125	0.102	82.0	74.0-130	
tert-Butylbenzene	0.125	0.107	85.9	75.0-127	
Carbon disulfide	0.125	0.102	81.8	56.0-133	
Carbon tetrachloride	0.125	0.101	80.8	66.0-128	
Chlorobenzene	0.125	0.103	82.6	76.0-128	
Chlorodibromomethane	0.125	0.123	98.8	74.0-127	
Chloroethane	0.125	0.124	99.1	61.0-134	
Chloroform	0.125	0.110	87.7	72.0-123	
Chloromethane	0.125	0.163	130	51.0-138	
2-Chlorotoluene	0.125	0.115	91.8	75.0-124	
4-Chlorotoluene	0.125	0.108	86.2	75.0-124	
1,2-Dibromo-3-Chloropropane	0.125	0.124	99.1	59.0-130	
1,2-Dibromoethane	0.125	0.111	88.9	74.0-128	
Dibromomethane	0.125	0.116	92.6	75.0-122	
1,2-Dichlorobenzene	0.125	0.123	98.7	76.0-124	
1,3-Dichlorobenzene	0.125	0.105	83.8	76.0-125	
1,4-Dichlorobenzene	0.125	0.105	84.2	77.0-121	
trans-1,4-Dichloro-2-butene	0.125	0.161	129	45.0-143	
1,1-Dichloroethane	0.125	0.128	102	70.0-127	
1,2-Dichloroethane	0.125	0.122	97.3	65.0-131	
1,1-Dichloroethene	0.125	0.119	94.9	65.0-131	
cis-1,2-Dichloroethene	0.125	0.154	123	73.0-125	
trans-1,2-Dichloroethene	0.125	0.111	88.4	71.0-125	
1,2-Dichloropropane	0.125	0.117	93.7	74.0-125	
1,1-Dichloropropene	0.125	0.136	109	73.0-125	
1,3-Dichloropropane	0.125	0.102	81.6	80.0-125	
cis-1,3-Dichloropropene	0.125	0.128	102	76.0-127	
trans-1,3-Dichloropropene	0.125	0.177	142	73.0-127	J4
2,2-Dichloropropane	0.125	0.118	94.1	59.0-135	
Di-isopropyl ether	0.125	0.121	96.8	60.0-136	
Ethylbenzene	0.125	0.106	85.1	74.0-126	
Hexachloro-1,3-butadiene	0.125	0.182	145	57.0-150	
2-Hexanone	0.625	0.702	112	54.0-147	
n-Hexane	0.125	0.174	139	55.0-137	J4
Iodomethane	0.625	0.655	105	74.0-134	

Laboratory Control Sample (LCS)

(LCS) R3352821-1 10/19/18 12:03

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Isopropylbenzene	0.125	0.110	88.3	72.0-127	
p-Isopropyltoluene	0.125	0.0983	78.6	72.0-133	
2-Butanone (MEK)	0.625	1.01	161	30.0-160	J4
Methylene Chloride	0.125	0.0978	78.2	68.0-123	
4-Methyl-2-pentanone (MIBK)	0.625	0.747	120	56.0-143	
Methyl tert-butyl ether	0.125	0.110	88.4	66.0-132	
Naphthalene	0.125	0.120	96.1	59.0-130	
n-Propylbenzene	0.125	0.126	101	74.0-126	
Styrene	0.125	0.112	89.8	72.0-127	
1,1,1,2-Tetrachloroethane	0.125	0.150	120	74.0-129	
Tetrachloroethene	0.125	0.135	108	70.0-136	
Toluene	0.125	0.115	92.0	75.0-121	
1,2,4-Trichlorobenzene	0.125	0.135	108	62.0-137	
1,1,1-Trichloroethane	0.125	0.132	106	69.0-126	
1,1,2-Trichloroethane	0.125	0.118	94.1	78.0-123	
Trichloroethene	0.125	0.124	99.0	76.0-126	
Trichlorofluoromethane	0.125	0.129	103	61.0-142	
1,2,3-Trichloropropane	0.125	0.118	94.1	67.0-129	
1,2,3-Trimethylbenzene	0.125	0.125	99.9	74.0-124	
1,2,4-Trimethylbenzene	0.125	0.108	86.5	70.0-126	
1,3,5-Trimethylbenzene	0.125	0.118	94.6	73.0-127	
Vinyl acetate	0.625	0.654	105	43.0-159	
Vinyl chloride	0.125	0.201	161	63.0-134	J4
Xylenes, Total	0.375	0.341	90.9	72.0-127	
(S) Toluene-d8			*103*	*75.0-131*	
(S) Dibromofluoromethane			*94.6*	*65.0-129*	
(S) 4-Bromofluorobenzene			*91.2*	*67.0-138*	

Method Blank (MB)

(MB) R3353076-2 10/23/18 00:58

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acetone	U		0.0137	0.0250
Dichlorodifluoromethane	U		0.000818	0.00250
cis-1,2-Dichloroethene	U		0.000690	0.00250
1,1,2,2-Tetrachloroethane	U		0.000390	0.00250
Tetrachloroethene	U		0.000700	0.00250
1,1,2-Trichlorotrifluoroethane	U		0.000675	0.00250
1,2,3-Trichlorobenzene	0.00130	J	0.000625	0.00250
Vinyl chloride	U		0.000683	0.00250
(S) Toluene-d8	*98.5*			*75.0-131*
(S) Dibromofluoromethane	*114*			*65.0-129*
(S) 4-Bromofluorobenzene	*118*			*67.0-138*

Laboratory Control Sample (LCS)

(LCS) R3353076-1 10/22/18 23:43

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acetone	0.625	0.766	123	10.0-160	
Dichlorodifluoromethane	0.125	0.206	165	43.0-156	J4
cis-1,2-Dichloroethene	0.125	0.151	121	73.0-125	
1,1,2,2-Tetrachloroethane	0.125	0.120	95.9	68.0-128	
Tetrachloroethene	0.125	0.0982	78.6	70.0-136	
1,1,2-Trichlorotrifluoroethane	0.125	0.152	122	61.0-139	
1,2,3-Trichlorobenzene	0.125	0.123	98.2	59.0-139	
Vinyl chloride	0.125	0.152	122	63.0-134	
(S) Toluene-d8			*97.0*	*75.0-131*	
(S) Dibromofluoromethane			*121*	*65.0-129*	
(S) 4-Bromofluorobenzene			*120*	*67.0-138*	

Method Blank (MB)

(MB) R3353608-2 10/24/18 10:43

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Trichloroethene	U		0.000400	0.00100
(S) Toluene-d8	*123*			*75.0-131*
(S) Dibromofluoromethane	*92.9*			*65.0-129*
(S) 4-Bromofluorobenzene	*89.9*			*67.0-138*

Laboratory Control Sample (LCS)

(LCS) R3353608-1 10/24/18 09:32

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Trichloroethene	0.125	0.113	90.7	76.0-126	
(S) Toluene-d8			*111*	*75.0-131*	
(S) Dibromofluoromethane			*106*	*65.0-129*	
(S) 4-Bromofluorobenzene			*96.7*	*67.0-138*	

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Abbreviations and Definitions

(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
MDL	Method Detection Limit.
MDL (dry)	Method Detection Limit.
RDL	Reported Detection Limit.
RDL (dry)	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(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.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
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.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.
J0	J0: Calibration verification outside of acceptance limits. Result is estimated.
J1	Surrogate recovery limits have been exceeded; values are outside upper control limits.
J4	The associated batch QC was outside the established quality control range for accuracy.

Pace National 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.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T 104704245-17-14
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

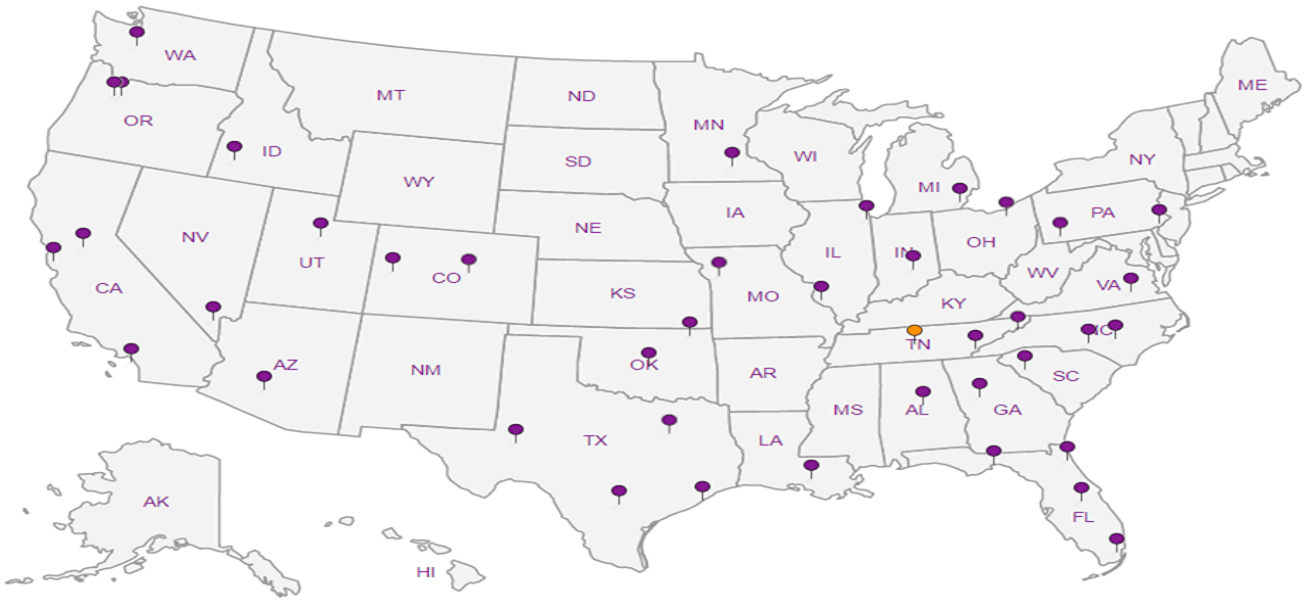
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

Our Locations

Pace National 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. Pace National performs all testing at our central laboratory.



PES Environmental, Inc.- WA

1215 Fourth Ave., Suite 1350
Seattle, WA 98161

Billing Information:
Attn: Accounts Payable
1215 Fourth Ave., Ste. 1350
Seattle, WA 98161

Pres Chk

Report to: Brian O'Neal/Bill Haldeman

Email To: boneal@pesenv.com; bhaldeman@pesenv.com

Project Description: American Linen

City/State Collected: Seattle WA

Phone: 206-529-3980
Fax: 206-529-3985

Client Project # 1413.001.05

Lab Project # PESENVSWA-ALP

Collected by (print): S McKernan / R McLaughlin

Site/Facility ID #

P.O. #

Collected by (signature): RTM SEM

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day X Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

No. of Cntrs

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOCs V8260C 40mlAmb/MeOH5ml/Syr	dry weight 2ozClr-NoPres	trip VOCs V8260LLC 40mlAmb-HCl-Blk	Remarks	Sample # (lab only)
B-250-30	Grab	SS	30	10/16/18	825	2	X	X			01
RM 825		SS									
B-254-3	Grab	SS	3	10/16/18	930					HOLD	
B-254-5		SS	5		932		X	X			02
B-254-8		SS	8		0949					HOLD	
B-254-10		SS	10		950		X	X			03
B-254-13.5		SS	13.5		950		X	X			04
B-254-15		SS	15		945					HOLD	
B-254-16		SS	16		1005					HOLD	
B-254-20	X	SS	20	X	1000	X	X	X			05

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

RAD SCREEN: <0.5 mR/hr

pH _____ Temp _____

Flow _____ Other _____

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

Tracking # 4196 3258 9720

Relinquished by : (Signature) R. McLaughlin — Date: 10/16/18 — Time: 1620 — Received by: (Signature) RM

Relinquished by : (Signature) — Date: — Time: — Received by: (Signature)

Relinquished by : (Signature) — Date: — Time: — Received for lab by: (Signature)

Trip Blank Received: Yes / No HCl / MeoH TBR

Temp: 2.3+3=2.6 °C — Bottles Received: 46

Date: 10/17/18 — Time: 0845

Sample Receipt Checklist
COC Seal Present/Intact: __NP ✓Y __N
COC Signed/Accurate: __Y __N
Bottles arrive intact: __Y __N
Correct bottles used: __Y __N
Sufficient volume sent: __Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N

If preservation required by Login: Date/Time

Condition: NCF / OK

10-122

Chain of Custody Page 1 of 3

Pace Analytical
National Center for Testing & Innovation

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

L# 1035515
B235

Acctnum: PESENVSWA
Template: T141621
Prelogin: P676248
TSR: 110 - Brian Ford
PB:
Shipped Via:

...ironmental, Inc.- WA

...Fourth Ave., Suite 1350
...ttle, WA 98161

Billing Information:
Attn: Accounts Payable
1215 Fourth Ave., Ste. 1350
Seattle, WA 98161

Pres Chk

Report to: Brian O'Neal/Bill Haldeman

Email To: boneal@pesenv.com; bhaldeman@pesenv.com

Project Description: American Linen

City/State Collected: Seattle WA

Phone: 206-529-3980
Fax: 206-529-3985

Client Project # 1413.001.05

Lab Project # PESENVSWA-ALP

Collected by (print): S McKernan/RM Laughlin

Site/Facility ID #

P.O. #

Collected by (signature): RTM SEM

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day X Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

No. of Cntrs

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOCs V8260C 40mlAmb/MeOH5ml/Syr	dry weight 2ozClr-NoPres	trip VOCs V8260LLC 40mlAmb-HCl-Blk	Remarks	Sample # (lab only)
B-254-25	Grab	SS	25	10/16/18	1009	2	X	X			-06
B-255-3.5		SS	3.5		1118		X	X			-07
B-255-5		SS	5		1120					HOLD	
B-255-8		SS	8		1123		X	X			-08
B-255-10		SS	10		1125					HOLD	
B-255-15		SS	15		1130		X	X			-09
B-255A-20		SS	20		1250					HOLD	
B-255A-21		SS	21		1355		X	X			-10
B-256-2.5		SS	2.5		1406		X	X			-11
B-256-5		SS	5		1405		X	X			-12

Chain of Custody Page 2 of 3

Pace Analytical
National Center for Testing & Innovation

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

L# 1035515

Table #

Acctnum: PESENVSWA
Template: T141621
Prelogin: P676248
TSR: 110 - Brian Ford
PB:

Shipped Via:

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

RAD SCREEN: <0.5 mR/hr

pH _____ Temp _____

Flow _____ Other _____

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

Tracking # 4196 3258 9720

Sample Receipt Checklist
COC Seal Present/Intact: __NP X Y __N
COC Signed/Accurate: X Y __N
Bottles arrive intact: X Y __N
Correct bottles used: X Y __N
Sufficient volume sent: X Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCl / MeoH TBR
R McLaughlin	10/16/18	1620 (RM)		1
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received: 2.3+.3=2.6 K 11 46
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 10/17/18 Time: 0845

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

Chain of Custody Page 3 of 3

PES Environmental, Inc.- WA

1215 Fourth Ave., Suite 1350
Seattle, WA 98161

Billing Information:
Attn: Accounts Payable
1215 Fourth Ave., Ste. 1350
Seattle, WA 98161

Pres Chk

Report to: Brian O'Neal/Bill Haldeman

Email To: boneal@pesenv.com; bhaldeman@pesenv.com

Project Description: American Linen

City/State Collected: Seattle WA

Phone: 206-529-3980
Fax: 206-529-3985

Client Project # 1413.001.05

Lab Project # PESENVSWA-ALP

Collected by (print): S. McKernan/R. McLaughlin

Site/Facility ID #

P.O. #

Collected by (signature): RTM SEM

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day X Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Pace Analytical
National Center for Testing & Innovation
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# 1035515

Table #

Acctnum: PESENVSWA
Template: T141621
Prelogin: P676248
TSR: 110 - Brian Ford
PB:

Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOCs V8260C 40mlAmb/MeOH5ml/Syr	dry weight 2ozClr-NoPres	trip VOCs V8260LLC 40mlAmb-HCl-Blk	Remarks	Sample # (lab only)
B-256-8	Grab	SS	8	10/16/18	1420	2				HOLD	
B-256-10		SS	10		1418		X	X			-13
B-256-15		SS	15		1432		X	X			-14
B-256-18	X	SS	18	X	1440	X	X	X			-15
		SS									
		SS									
		SS									
		SS									
		SS									
		SS									

Rachel McLaughlin 10/16/18

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

RAD SCREEN: <0.5 mR/hr

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS ✓ FedEx __ Courier _____

Tracking # 4196 3258 9720

Sample Receipt Checklist
COC Seal Present/Intact: __NP X Y __N
COC Signed/Accurate: X Y __N
Bottles arrive intact: X Y __N
Correct bottles used: X Y __N
Sufficient volume sent: X Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
R. McLaughlin	10/16/18	1620	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)
			Fair

Trip Blank Received: (Yes) / No
1 HCl / MeoH TBR

Temp: 2.3+.3=2.6°C Bottles Received: 46

Date: 10/17/18 Time: 0845

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

October 25, 2018

PES Environmental, Inc.- WA

Sample Delivery Group:	L1036155
Samples Received:	10/18/2018
Project Number:	1413.001.05
Description:	American Linen
Report To:	Brian O'Neal/Bill Haldeman
	1215 Fourth Ave., Suite 1350
	Seattle, WA 98161

Entire Report Reviewed By: Brian Ford

Brian Ford
Project Manager

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 Pace National is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

TABLE OF CONTENTS

Cp: Cover Page 1

Tc: Table of Contents 2

Ss: Sample Summary 4

Cn: Case Narrative 10

Sr: Sample Results 11

- B-257-5 L1036155-01 11
- B-257-10 L1036155-02 13
- B-257-15 L1036155-03 15
- B-257-20 L1036155-04 17
- B-258-3 L1036155-05 19
- B-258-8 L1036155-06 21
- B-258-10 L1036155-07 23
- B-258-15 L1036155-08 25
- B-258-20 L1036155-09 27
- B-259-2.5 L1036155-10 29
- B-259-5 L1036155-11 31
- B-259-10 L1036155-12 33
- B-259-15 L1036155-13 35
- B-259-20 L1036155-14 37
- B-260-5 L1036155-15 39
- B-260-8 L1036155-16 41
- B-260-10 L1036155-17 43
- B-260-15 L1036155-18 45
- B-260-20 L1036155-19 47
- B-261-3 L1036155-20 49
- B-261-5 L1036155-21 51
- B-261-8 L1036155-22 53
- B-261-10 L1036155-23 55
- B-261-15 L1036155-24 57
- B-261-20 L1036155-25 59
- B-262-5 L1036155-26 61
- B-262-8 L1036155-27 63
- B-262-10 L1036155-28 65
- B-262-15 L1036155-29 67
- B-262-20 L1036155-30 69
- TRIP BLANK L1036155-31 71

Qc: Quality Control Summary 73

- Total Solids by Method 2540 G-2011 73
- Volatile Organic Compounds (GC/MS) by Method 8260C 77

Gl: Glossary of Terms 98

Al: Accreditations & Locations 99

Sc: Sample Chain of Custody 100

B-257-5 L1036155-01 Solid

Collected by: RM / JM
Collected date/time: 10/17/18 07:52
Received date/time: 10/18/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1184858	1	10/24/18 12:23	10/24/18 12:36	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1183540	1	10/19/18 00:38	10/19/18 19:58	JAH
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1184696	1	10/19/18 00:38	10/23/18 04:17	DWR

B-257-10 L1036155-02 Solid

Collected by: RM / JM
Collected date/time: 10/17/18 08:00
Received date/time: 10/18/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1184859	1	10/24/18 10:02	10/24/18 10:10	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1183540	1	10/19/18 00:38	10/19/18 20:16	JAH
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1184696	1	10/19/18 00:38	10/23/18 04:37	DWR

B-257-15 L1036155-03 Solid

Collected by: RM / JM
Collected date/time: 10/17/18 08:04
Received date/time: 10/18/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1184859	1	10/24/18 10:02	10/24/18 10:10	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1183540	1	10/19/18 00:38	10/19/18 20:34	JAH
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1184696	1	10/19/18 00:38	10/23/18 04:57	DWR

B-257-20 L1036155-04 Solid

Collected by: RM / JM
Collected date/time: 10/17/18 08:10
Received date/time: 10/18/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1184859	1	10/24/18 10:02	10/24/18 10:10	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1183540	1	10/19/18 00:38	10/19/18 20:53	JAH
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1184696	8	10/19/18 00:38	10/23/18 07:38	DWR

B-258-3 L1036155-05 Solid

Collected by: RM / JM
Collected date/time: 10/17/18 08:58
Received date/time: 10/18/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1184859	1	10/24/18 10:02	10/24/18 10:10	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1183540	1	10/19/18 00:38	10/19/18 21:11	JAH
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1184696	1	10/19/18 00:38	10/23/18 05:17	DWR

B-258-8 L1036155-06 Solid

Collected by: RM / JM
Collected date/time: 10/17/18 09:04
Received date/time: 10/18/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1184859	1	10/24/18 10:02	10/24/18 10:10	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1184313	1	10/19/18 00:38	10/21/18 22:57	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1185140	1	10/19/18 00:38	10/23/18 16:51	BMB

B-258-10 L1036155-07 Solid

Collected by: RM / JM | Collected date/time: 10/17/18 09:05 | Received date/time: 10/18/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1184859	1	10/24/18 10:02	10/24/18 10:10	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1184313	1	10/19/18 00:38	10/21/18 23:17	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1185140	1	10/19/18 00:38	10/23/18 17:12	BMB

B-258-15 L1036155-08 Solid

Collected by: RM / JM | Collected date/time: 10/17/18 09:11 | Received date/time: 10/18/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1184859	1	10/24/18 10:02	10/24/18 10:10	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1184313	1	10/19/18 00:38	10/21/18 23:37	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1185140	20	10/19/18 00:38	10/23/18 20:58	BMB

B-258-20 L1036155-09 Solid

Collected by: RM / JM | Collected date/time: 10/17/18 09:15 | Received date/time: 10/18/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1184859	1	10/24/18 10:02	10/24/18 10:10	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1184313	1	10/19/18 00:38	10/21/18 23:57	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1185140	1	10/19/18 00:38	10/23/18 17:32	BMB
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1185815	4	10/19/18 00:38	10/25/18 00:22	JHH

B-259-2.5 L1036155-10 Solid

Collected by: RM / JM | Collected date/time: 10/17/18 09:45 | Received date/time: 10/18/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1184859	1	10/24/18 10:02	10/24/18 10:10	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1184313	1	10/19/18 00:38	10/22/18 00:17	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1185140	1	10/19/18 00:38	10/23/18 17:53	BMB

B-259-5 L1036155-11 Solid

Collected by: RM / JM | Collected date/time: 10/17/18 09:46 | Received date/time: 10/18/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1184859	1	10/24/18 10:02	10/24/18 10:10	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1184313	1	10/17/18 09:46	10/22/18 00:38	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1185140	1	10/17/18 09:46	10/23/18 18:14	BMB

B-259-10 L1036155-12 Solid

Collected by: RM / JM | Collected date/time: 10/17/18 09:50 | Received date/time: 10/18/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1184860	1	10/24/18 09:42	10/24/18 10:00	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1184313	1	10/17/18 09:50	10/22/18 00:58	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1185140	1	10/17/18 09:50	10/23/18 18:35	BMB

B-259-15 L1036155-13 Solid

Collected by: RM / JM
Collected date/time: 10/17/18 09:55
Received date/time: 10/18/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1184860	1	10/24/18 09:42	10/24/18 10:00	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1184313	1	10/17/18 09:55	10/22/18 01:18	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1185140	1	10/17/18 09:55	10/23/18 18:55	BMB

B-259-20 L1036155-14 Solid

Collected by: RM / JM
Collected date/time: 10/17/18 10:05
Received date/time: 10/18/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1184860	1	10/24/18 09:42	10/24/18 10:00	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1184313	1	10/17/18 10:05	10/22/18 01:38	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1185140	1	10/17/18 10:05	10/23/18 19:16	BMB

B-260-5 L1036155-15 Solid

Collected by: RM / JM
Collected date/time: 10/17/18 10:32
Received date/time: 10/18/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1184860	1	10/24/18 09:42	10/24/18 10:00	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1184313	1	10/17/18 10:32	10/22/18 01:58	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1185140	1	10/17/18 10:32	10/23/18 19:36	BMB

B-260-8 L1036155-16 Solid

Collected by: RM / JM
Collected date/time: 10/17/18 10:37
Received date/time: 10/18/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1184860	1	10/24/18 09:42	10/24/18 10:00	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1184313	1	10/17/18 10:37	10/22/18 02:18	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1185140	1	10/17/18 10:37	10/23/18 19:57	BMB

B-260-10 L1036155-17 Solid

Collected by: RM / JM
Collected date/time: 10/17/18 10:38
Received date/time: 10/18/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1184860	1	10/24/18 09:42	10/24/18 10:00	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1184313	1	10/17/18 10:38	10/22/18 02:38	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1185140	1	10/17/18 10:38	10/23/18 20:17	BMB

B-260-15 L1036155-18 Solid

Collected by: RM / JM
Collected date/time: 10/17/18 10:45
Received date/time: 10/18/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1184860	1	10/24/18 09:42	10/24/18 10:00	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1184313	1	10/17/18 10:45	10/22/18 02:58	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1185140	10	10/17/18 10:45	10/23/18 21:18	BMB
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1185815	80	10/17/18 10:45	10/25/18 00:40	JHH

B-260-20 L1036155-19 Solid

Collected by: RM / JM | Collected date/time: 10/17/18 10:50 | Received date/time: 10/18/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1184860	1	10/24/18 09:42	10/24/18 10:00	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1184313	1	10/17/18 10:50	10/22/18 03:18	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1185140	10	10/17/18 10:50	10/23/18 21:38	BMB
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1185815	80	10/17/18 10:50	10/25/18 00:59	JHH

B-261-3 L1036155-20 Solid

Collected by: RM / JM | Collected date/time: 10/17/18 11:18 | Received date/time: 10/18/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1184860	1	10/24/18 09:42	10/24/18 10:00	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1184313	1	10/17/18 11:18	10/22/18 03:38	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1185140	1	10/17/18 11:18	10/23/18 20:37	BMB

B-261-5 L1036155-21 Solid

Collected by: RM / JM | Collected date/time: 10/17/18 11:20 | Received date/time: 10/18/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1184860	1	10/24/18 09:42	10/24/18 10:00	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1184313	1	10/17/18 11:20	10/22/18 03:58	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1185140	80	10/17/18 11:20	10/23/18 22:59	BMB

B-261-8 L1036155-22 Solid

Collected by: RM / JM | Collected date/time: 10/17/18 11:28 | Received date/time: 10/18/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1184862	1	10/24/18 09:33	10/24/18 09:40	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1184313	1	10/17/18 11:28	10/22/18 04:18	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1185140	10	10/17/18 11:28	10/23/18 21:58	BMB
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1185815	40	10/17/18 11:28	10/25/18 01:18	JHH

B-261-10 L1036155-23 Solid

Collected by: RM / JM | Collected date/time: 10/17/18 11:30 | Received date/time: 10/18/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1184862	1	10/24/18 09:33	10/24/18 09:40	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1184313	1	10/17/18 11:30	10/22/18 04:38	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1185140	40	10/17/18 11:30	10/23/18 22:39	BMB

B-261-15 L1036155-24 Solid

Collected by: RM / JM | Collected date/time: 10/17/18 11:40 | Received date/time: 10/18/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1184862	1	10/24/18 09:33	10/24/18 09:40	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1184313	1	10/17/18 11:40	10/22/18 04:58	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1185140	20	10/17/18 11:40	10/23/18 22:19	BMB

B-261-20 L1036155-25 Solid

Collected by	Collected date/time	Received date/time
RM / JM	10/17/18 11:42	10/18/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1184862	1	10/24/18 09:33	10/24/18 09:40	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1184313	1	10/17/18 11:42	10/22/18 05:18	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1185140	200	10/17/18 11:42	10/23/18 23:20	BMB

B-262-5 L1036155-26 Solid

Collected by	Collected date/time	Received date/time
RM / JM	10/17/18 13:32	10/18/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1184862	1	10/24/18 09:33	10/24/18 09:40	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1184455	1	10/17/18 13:32	10/22/18 15:59	ACG
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1185221	80	10/17/18 13:32	10/24/18 01:06	JHH

B-262-8 L1036155-27 Solid

Collected by	Collected date/time	Received date/time
RM / JM	10/17/18 13:43	10/18/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1184862	1	10/24/18 09:33	10/24/18 09:40	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1184455	1	10/17/18 13:43	10/22/18 16:17	ACG
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1185221	1	10/17/18 13:43	10/23/18 16:01	JHH
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1185845	1	10/17/18 13:43	10/24/18 23:43	JHH

B-262-10 L1036155-28 Solid

Collected by	Collected date/time	Received date/time
RM / JM	10/17/18 13:45	10/18/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1184862	1	10/24/18 09:33	10/24/18 09:40	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1184455	1	10/17/18 13:45	10/22/18 16:36	ACG
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1185221	1	10/17/18 13:45	10/23/18 16:21	JHH

B-262-15 L1036155-29 Solid

Collected by	Collected date/time	Received date/time
RM / JM	10/17/18 14:00	10/18/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1184862	1	10/24/18 09:33	10/24/18 09:40	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1184455	1	10/17/18 14:00	10/22/18 16:54	ACG
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1185221	1	10/17/18 14:00	10/23/18 16:41	JHH

B-262-20 L1036155-30 Solid

Collected by	Collected date/time	Received date/time
RM / JM	10/17/18 14:25	10/18/18 08:45

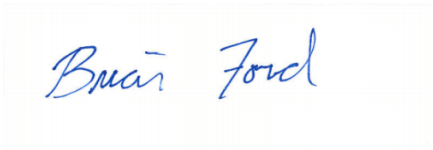
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1184862	1	10/24/18 09:33	10/24/18 09:40	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1184455	1	10/17/18 14:25	10/22/18 17:13	ACG
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1185221	10	10/17/18 14:25	10/24/18 00:06	JHH

TRIP BLANK L1036155-31 GW

Collected by	Collected date/time	Received date/time
RM / JM	10/17/18 00:00	10/18/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1183421	1	10/19/18 11:37	10/19/18 11:37	JAH

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, 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.



Brian Ford
Project Manager

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	82.6		1	10/24/2018 12:36	WG1184858

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0166	0.0303	1	10/23/2018 04:17	WG1184696
Acrylonitrile	U		0.00230	0.0151	1	10/19/2018 19:58	WG1183540
Benzene	U		0.000484	0.00121	1	10/19/2018 19:58	WG1183540
Bromobenzene	U		0.00127	0.0151	1	10/19/2018 19:58	WG1183540
Bromodichloromethane	U		0.000954	0.00303	1	10/19/2018 19:58	WG1183540
Bromochloromethane	U		0.00137	0.00605	1	10/19/2018 19:58	WG1183540
Bromoform	U		0.00724	0.0303	1	10/19/2018 19:58	WG1183540
Bromomethane	U		0.00448	0.0151	1	10/19/2018 19:58	WG1183540
n-Butylbenzene	U		0.00465	0.0151	1	10/19/2018 19:58	WG1183540
sec-Butylbenzene	U		0.00306	0.0151	1	10/19/2018 19:58	WG1183540
tert-Butylbenzene	U		0.00188	0.00605	1	10/19/2018 19:58	WG1183540
Carbon disulfide	U	J0	0.00492	0.0151	1	10/19/2018 19:58	WG1183540
Carbon tetrachloride	U		0.00131	0.00605	1	10/19/2018 19:58	WG1183540
Chlorobenzene	U		0.000694	0.00303	1	10/19/2018 19:58	WG1183540
Chlorodibromomethane	U		0.000545	0.00303	1	10/19/2018 19:58	WG1183540
Chloroethane	U		0.00131	0.00605	1	10/19/2018 19:58	WG1183540
Chloroform	U		0.000502	0.00303	1	10/19/2018 19:58	WG1183540
Chloromethane	U		0.00168	0.0151	1	10/19/2018 19:58	WG1183540
2-Chlorotoluene	U		0.00111	0.00303	1	10/19/2018 19:58	WG1183540
4-Chlorotoluene	U		0.00137	0.00605	1	10/19/2018 19:58	WG1183540
1,2-Dibromo-3-Chloropropane	U		0.00617	0.0303	1	10/19/2018 19:58	WG1183540
1,2-Dibromoethane	U		0.000636	0.00303	1	10/19/2018 19:58	WG1183540
Dibromomethane	U		0.00121	0.00605	1	10/19/2018 19:58	WG1183540
1,2-Dichlorobenzene	U		0.00176	0.00605	1	10/19/2018 19:58	WG1183540
1,3-Dichlorobenzene	U		0.00206	0.00605	1	10/19/2018 19:58	WG1183540
1,4-Dichlorobenzene	U		0.00239	0.00605	1	10/19/2018 19:58	WG1183540
Dichlorodifluoromethane	U	J4	0.000990	0.00303	1	10/23/2018 04:17	WG1184696
1,1-Dichloroethane	U		0.000696	0.00303	1	10/19/2018 19:58	WG1183540
1,2-Dichloroethane	U		0.000575	0.00303	1	10/19/2018 19:58	WG1183540
1,1-Dichloroethene	U		0.000605	0.00303	1	10/19/2018 19:58	WG1183540
cis-1,2-Dichloroethene	0.0699		0.000835	0.00303	1	10/19/2018 19:58	WG1183540
trans-1,2-Dichloroethene	U		0.00173	0.00605	1	10/19/2018 19:58	WG1183540
1,2-Dichloropropane	U		0.00154	0.00605	1	10/19/2018 19:58	WG1183540
1,1-Dichloropropene	U		0.000848	0.00303	1	10/19/2018 19:58	WG1183540
1,3-Dichloropropane	U		0.00212	0.00605	1	10/19/2018 19:58	WG1183540
cis-1,3-Dichloropropene	U		0.000821	0.00303	1	10/19/2018 19:58	WG1183540
trans-1,3-Dichloropropene	U	J4	0.00185	0.00605	1	10/19/2018 19:58	WG1183540
trans-1,4-Dichloro-2-butene	U		0.00170	0.00605	1	10/19/2018 19:58	WG1183540
2,2-Dichloropropane	U		0.000960	0.00303	1	10/19/2018 19:58	WG1183540
Di-isopropyl ether	U		0.000424	0.00121	1	10/19/2018 19:58	WG1183540
Ethylbenzene	U	J0	0.000642	0.00303	1	10/19/2018 19:58	WG1183540
Hexachloro-1,3-butadiene	U		0.0154	0.0303	1	10/19/2018 19:58	WG1183540
2-Hexanone	U		0.0121	0.0303	1	10/19/2018 19:58	WG1183540
n-Hexane	0.00420	J J0 J4	0.00128	0.00605	1	10/19/2018 19:58	WG1183540
Iodomethane	U		0.00732	0.0151	1	10/19/2018 19:58	WG1183540
Isopropylbenzene	U		0.00104	0.00303	1	10/19/2018 19:58	WG1183540
p-Isopropyltoluene	U		0.00282	0.00605	1	10/19/2018 19:58	WG1183540
2-Butanone (MEK)	0.0553	B J4	0.0151	0.0303	1	10/19/2018 19:58	WG1183540
Methylene Chloride	U		0.00804	0.0303	1	10/19/2018 19:58	WG1183540
4-Methyl-2-pentanone (MIBK)	U		0.0121	0.0303	1	10/19/2018 19:58	WG1183540

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000357	0.00121	1	10/19/2018 19:58	WG1183540
Naphthalene	U		0.00378	0.0151	1	10/19/2018 19:58	WG1183540
n-Propylbenzene	U		0.00143	0.00605	1	10/19/2018 19:58	WG1183540
Styrene	U		0.00331	0.0151	1	10/19/2018 19:58	WG1183540
1,1,1,2-Tetrachloroethane	U		0.000605	0.00303	1	10/19/2018 19:58	WG1183540
1,1,2,2-Tetrachloroethane	U		0.000472	0.00303	1	10/23/2018 04:17	WG1184696
1,1,2-Trichlorotrifluoroethane	U		0.000817	0.00303	1	10/23/2018 04:17	WG1184696
Tetrachloroethene	0.0333		0.000848	0.00303	1	10/19/2018 19:58	WG1183540
Toluene	U		0.00151	0.00605	1	10/19/2018 19:58	WG1183540
1,2,3-Trichlorobenzene	U		0.000757	0.00303	1	10/23/2018 04:17	WG1184696
1,2,4-Trichlorobenzene	U		0.00584	0.0151	1	10/19/2018 19:58	WG1183540
1,1,1-Trichloroethane	U		0.000333	0.00303	1	10/19/2018 19:58	WG1183540
1,1,2-Trichloroethane	U		0.00107	0.00303	1	10/19/2018 19:58	WG1183540
Trichloroethene	0.0356		0.000484	0.00121	1	10/19/2018 19:58	WG1183540
Trichlorofluoromethane	U		0.000605	0.00303	1	10/19/2018 19:58	WG1183540
1,2,3-Trichloropropane	U		0.00617	0.0151	1	10/19/2018 19:58	WG1183540
1,2,4-Trimethylbenzene	U		0.00140	0.00605	1	10/19/2018 19:58	WG1183540
1,2,3-Trimethylbenzene	U		0.00139	0.00605	1	10/19/2018 19:58	WG1183540
1,3,5-Trimethylbenzene	U		0.00131	0.00605	1	10/19/2018 19:58	WG1183540
Vinyl acetate	U		0.00426	0.0151	1	10/19/2018 19:58	WG1183540
Vinyl chloride	0.00478		0.000827	0.00303	1	10/23/2018 04:17	WG1184696
Xylenes, Total	U		0.00579	0.00787	1	10/19/2018 19:58	WG1183540
(S) Toluene-d8	*101*			*75.0-131*		*10/19/2018 19:58*	WG1183540
(S) Toluene-d8	*100*			*75.0-131*		*10/23/2018 04:17*	WG1184696
(S) Dibromofluoromethane	*94.1*			*65.0-129*		*10/19/2018 19:58*	WG1183540
(S) Dibromofluoromethane	*112*			*65.0-129*		*10/23/2018 04:17*	WG1184696
(S) 4-Bromofluorobenzene	*90.0*			*67.0-138*		*10/19/2018 19:58*	WG1183540
(S) 4-Bromofluorobenzene	*119*			*67.0-138*		*10/23/2018 04:17*	WG1184696

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	89.6		1	10/24/2018 10:10	WG1184859

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0153	0.0279	1	10/23/2018 04:37	WG1184696
Acrylonitrile	U		0.00212	0.0140	1	10/19/2018 20:16	WG1183540
Benzene	U		0.000447	0.00112	1	10/19/2018 20:16	WG1183540
Bromobenzene	U		0.00117	0.0140	1	10/19/2018 20:16	WG1183540
Bromodichloromethane	U		0.000880	0.00279	1	10/19/2018 20:16	WG1183540
Bromochloromethane	U		0.00126	0.00558	1	10/19/2018 20:16	WG1183540
Bromoform	U		0.00668	0.0279	1	10/19/2018 20:16	WG1183540
Bromomethane	U		0.00413	0.0140	1	10/19/2018 20:16	WG1183540
n-Butylbenzene	U		0.00429	0.0140	1	10/19/2018 20:16	WG1183540
sec-Butylbenzene	U		0.00283	0.0140	1	10/19/2018 20:16	WG1183540
tert-Butylbenzene	U		0.00173	0.00558	1	10/19/2018 20:16	WG1183540
Carbon disulfide	U	J0	0.00453	0.0140	1	10/19/2018 20:16	WG1183540
Carbon tetrachloride	U		0.00121	0.00558	1	10/19/2018 20:16	WG1183540
Chlorobenzene	U		0.000640	0.00279	1	10/19/2018 20:16	WG1183540
Chlorodibromomethane	U		0.000502	0.00279	1	10/19/2018 20:16	WG1183540
Chloroethane	U		0.00121	0.00558	1	10/19/2018 20:16	WG1183540
Chloroform	U		0.000463	0.00279	1	10/19/2018 20:16	WG1183540
Chloromethane	U		0.00155	0.0140	1	10/19/2018 20:16	WG1183540
2-Chlorotoluene	U		0.00103	0.00279	1	10/19/2018 20:16	WG1183540
4-Chlorotoluene	U		0.00126	0.00558	1	10/19/2018 20:16	WG1183540
1,2-Dibromo-3-Chloropropane	U		0.00569	0.0279	1	10/19/2018 20:16	WG1183540
1,2-Dibromoethane	U		0.000586	0.00279	1	10/19/2018 20:16	WG1183540
Dibromomethane	U		0.00112	0.00558	1	10/19/2018 20:16	WG1183540
1,2-Dichlorobenzene	U		0.00162	0.00558	1	10/19/2018 20:16	WG1183540
1,3-Dichlorobenzene	U		0.00190	0.00558	1	10/19/2018 20:16	WG1183540
1,4-Dichlorobenzene	U		0.00220	0.00558	1	10/19/2018 20:16	WG1183540
Dichlorodifluoromethane	U	J4	0.000913	0.00279	1	10/23/2018 04:37	WG1184696
1,1-Dichloroethane	U		0.000642	0.00279	1	10/19/2018 20:16	WG1183540
1,2-Dichloroethane	U		0.000530	0.00279	1	10/19/2018 20:16	WG1183540
1,1-Dichloroethene	U		0.000558	0.00279	1	10/19/2018 20:16	WG1183540
cis-1,2-Dichloroethene	0.481		0.000770	0.00279	1	10/19/2018 20:16	WG1183540
trans-1,2-Dichloroethene	0.00474	J	0.00160	0.00558	1	10/19/2018 20:16	WG1183540
1,2-Dichloropropane	U		0.00142	0.00558	1	10/19/2018 20:16	WG1183540
1,1-Dichloropropene	U		0.000782	0.00279	1	10/19/2018 20:16	WG1183540
1,3-Dichloropropane	U		0.00195	0.00558	1	10/19/2018 20:16	WG1183540
cis-1,3-Dichloropropene	U		0.000757	0.00279	1	10/19/2018 20:16	WG1183540
trans-1,3-Dichloropropene	U	J4	0.00171	0.00558	1	10/19/2018 20:16	WG1183540
trans-1,4-Dichloro-2-butene	U		0.00156	0.00558	1	10/19/2018 20:16	WG1183540
2,2-Dichloropropane	U		0.000885	0.00279	1	10/19/2018 20:16	WG1183540
Di-isopropyl ether	U		0.000391	0.00112	1	10/19/2018 20:16	WG1183540
Ethylbenzene	U	J0	0.000592	0.00279	1	10/19/2018 20:16	WG1183540
Hexachloro-1,3-butadiene	U		0.0142	0.0279	1	10/19/2018 20:16	WG1183540
2-Hexanone	U		0.0112	0.0279	1	10/19/2018 20:16	WG1183540
n-Hexane	0.00506	J J0 J4	0.00118	0.00558	1	10/19/2018 20:16	WG1183540
Iodomethane	U		0.00676	0.0140	1	10/19/2018 20:16	WG1183540
Isopropylbenzene	U		0.000964	0.00279	1	10/19/2018 20:16	WG1183540
p-Isopropyltoluene	U		0.00260	0.00558	1	10/19/2018 20:16	WG1183540
2-Butanone (MEK)	0.0232	B J J4	0.0140	0.0279	1	10/19/2018 20:16	WG1183540
Methylene Chloride	U		0.00741	0.0279	1	10/19/2018 20:16	WG1183540
4-Methyl-2-pentanone (MIBK)	U		0.0112	0.0279	1	10/19/2018 20:16	WG1183540

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000329	0.00112	1	10/19/2018 20:16	WG1183540
Naphthalene	U		0.00348	0.0140	1	10/19/2018 20:16	WG1183540
n-Propylbenzene	U		0.00132	0.00558	1	10/19/2018 20:16	WG1183540
Styrene	U		0.00305	0.0140	1	10/19/2018 20:16	WG1183540
1,1,1,2-Tetrachloroethane	U		0.000558	0.00279	1	10/19/2018 20:16	WG1183540
1,1,2,2-Tetrachloroethane	U		0.000435	0.00279	1	10/23/2018 04:37	WG1184696
1,1,2-Trichlorotrifluoroethane	U		0.000754	0.00279	1	10/23/2018 04:37	WG1184696
Tetrachloroethene	1.75		0.000782	0.00279	1	10/19/2018 20:16	WG1183540
Toluene	U		0.00140	0.00558	1	10/19/2018 20:16	WG1183540
1,2,3-Trichlorobenzene	U		0.000698	0.00279	1	10/23/2018 04:37	WG1184696
1,2,4-Trichlorobenzene	U		0.00538	0.0140	1	10/19/2018 20:16	WG1183540
1,1,1-Trichloroethane	U		0.000307	0.00279	1	10/19/2018 20:16	WG1183540
1,1,2-Trichloroethane	U		0.000986	0.00279	1	10/19/2018 20:16	WG1183540
Trichloroethene	0.183		0.000447	0.00112	1	10/19/2018 20:16	WG1183540
Trichlorofluoromethane	U		0.000558	0.00279	1	10/19/2018 20:16	WG1183540
1,2,3-Trichloropropane	U		0.00569	0.0140	1	10/19/2018 20:16	WG1183540
1,2,4-Trimethylbenzene	U		0.00130	0.00558	1	10/19/2018 20:16	WG1183540
1,2,3-Trimethylbenzene	U		0.00128	0.00558	1	10/19/2018 20:16	WG1183540
1,3,5-Trimethylbenzene	U		0.00121	0.00558	1	10/19/2018 20:16	WG1183540
Vinyl acetate	U		0.00393	0.0140	1	10/19/2018 20:16	WG1183540
Vinyl chloride	0.0252		0.000763	0.00279	1	10/23/2018 04:37	WG1184696
Xylenes, Total	U		0.00534	0.00726	1	10/19/2018 20:16	WG1183540
(S) Toluene-d8	*102*			*75.0-131*		*10/19/2018 20:16*	WG1183540
(S) Toluene-d8	*99.5*			*75.0-131*		*10/23/2018 04:37*	WG1184696
(S) Dibromofluoromethane	*93.8*			*65.0-129*		*10/19/2018 20:16*	WG1183540
(S) Dibromofluoromethane	*116*			*65.0-129*		*10/23/2018 04:37*	WG1184696
(S) 4-Bromofluorobenzene	*88.8*			*67.0-138*		*10/19/2018 20:16*	WG1183540
(S) 4-Bromofluorobenzene	*120*			*67.0-138*		*10/23/2018 04:37*	WG1184696

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	86.1		1	10/24/2018 10:10	WG1184859

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0159	0.0290	1	10/23/2018 04:57	WG1184696
Acrylonitrile	U		0.00221	0.0145	1	10/19/2018 20:34	WG1183540
Benzene	U		0.000465	0.00116	1	10/19/2018 20:34	WG1183540
Bromobenzene	U		0.00122	0.0145	1	10/19/2018 20:34	WG1183540
Bromodichloromethane	U		0.000915	0.00290	1	10/19/2018 20:34	WG1183540
Bromochloromethane	U		0.00131	0.00581	1	10/19/2018 20:34	WG1183540
Bromoform	U		0.00695	0.0290	1	10/19/2018 20:34	WG1183540
Bromomethane	U		0.00430	0.0145	1	10/19/2018 20:34	WG1183540
n-Butylbenzene	U		0.00446	0.0145	1	10/19/2018 20:34	WG1183540
sec-Butylbenzene	U		0.00294	0.0145	1	10/19/2018 20:34	WG1183540
tert-Butylbenzene	U		0.00180	0.00581	1	10/19/2018 20:34	WG1183540
Carbon disulfide	U	J0	0.00472	0.0145	1	10/19/2018 20:34	WG1183540
Carbon tetrachloride	U		0.00125	0.00581	1	10/19/2018 20:34	WG1183540
Chlorobenzene	U		0.000666	0.00290	1	10/19/2018 20:34	WG1183540
Chlorodibromomethane	U		0.000523	0.00290	1	10/19/2018 20:34	WG1183540
Chloroethane	U		0.00125	0.00581	1	10/19/2018 20:34	WG1183540
Chloroform	U		0.000482	0.00290	1	10/19/2018 20:34	WG1183540
Chloromethane	U		0.00161	0.0145	1	10/19/2018 20:34	WG1183540
2-Chlorotoluene	U		0.00107	0.00290	1	10/19/2018 20:34	WG1183540
4-Chlorotoluene	U		0.00131	0.00581	1	10/19/2018 20:34	WG1183540
1,2-Dibromo-3-Chloropropane	U		0.00592	0.0290	1	10/19/2018 20:34	WG1183540
1,2-Dibromoethane	U		0.000610	0.00290	1	10/19/2018 20:34	WG1183540
Dibromomethane	U		0.00116	0.00581	1	10/19/2018 20:34	WG1183540
1,2-Dichlorobenzene	U		0.00168	0.00581	1	10/19/2018 20:34	WG1183540
1,3-Dichlorobenzene	U		0.00197	0.00581	1	10/19/2018 20:34	WG1183540
1,4-Dichlorobenzene	U		0.00229	0.00581	1	10/19/2018 20:34	WG1183540
Dichlorodifluoromethane	U	J4	0.000950	0.00290	1	10/23/2018 04:57	WG1184696
1,1-Dichloroethane	U		0.000668	0.00290	1	10/19/2018 20:34	WG1183540
1,2-Dichloroethane	U		0.000552	0.00290	1	10/19/2018 20:34	WG1183540
1,1-Dichloroethene	0.000652	J	0.000581	0.00290	1	10/19/2018 20:34	WG1183540
cis-1,2-Dichloroethene	0.364		0.000802	0.00290	1	10/19/2018 20:34	WG1183540
trans-1,2-Dichloroethene	0.00411	J	0.00166	0.00581	1	10/19/2018 20:34	WG1183540
1,2-Dichloropropane	U		0.00148	0.00581	1	10/19/2018 20:34	WG1183540
1,1-Dichloropropene	U		0.000813	0.00290	1	10/19/2018 20:34	WG1183540
1,3-Dichloropropane	U		0.00203	0.00581	1	10/19/2018 20:34	WG1183540
cis-1,3-Dichloropropene	U		0.000788	0.00290	1	10/19/2018 20:34	WG1183540
trans-1,3-Dichloropropene	U	J4	0.00178	0.00581	1	10/19/2018 20:34	WG1183540
trans-1,4-Dichloro-2-butene	U		0.00163	0.00581	1	10/19/2018 20:34	WG1183540
2,2-Dichloropropane	U		0.000921	0.00290	1	10/19/2018 20:34	WG1183540
Di-isopropyl ether	U		0.000407	0.00116	1	10/19/2018 20:34	WG1183540
Ethylbenzene	U	J0	0.000616	0.00290	1	10/19/2018 20:34	WG1183540
Hexachloro-1,3-butadiene	U		0.0148	0.0290	1	10/19/2018 20:34	WG1183540
2-Hexanone	U		0.0116	0.0290	1	10/19/2018 20:34	WG1183540
n-Hexane	0.00558	J J0 J4	0.00123	0.00581	1	10/19/2018 20:34	WG1183540
Iodomethane	U		0.00703	0.0145	1	10/19/2018 20:34	WG1183540
Isopropylbenzene	U		0.00100	0.00290	1	10/19/2018 20:34	WG1183540
p-Isopropyltoluene	U		0.00271	0.00581	1	10/19/2018 20:34	WG1183540
2-Butanone (MEK)	0.0225	B J J4	0.0145	0.0290	1	10/19/2018 20:34	WG1183540
Methylene Chloride	U		0.00771	0.0290	1	10/19/2018 20:34	WG1183540
4-Methyl-2-pentanone (MIBK)	U		0.0116	0.0290	1	10/19/2018 20:34	WG1183540

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000343	0.00116	1	10/19/2018 20:34	WG1183540
Naphthalene	U		0.00362	0.0145	1	10/19/2018 20:34	WG1183540
n-Propylbenzene	U		0.00137	0.00581	1	10/19/2018 20:34	WG1183540
Styrene	U		0.00317	0.0145	1	10/19/2018 20:34	WG1183540
1,1,1,2-Tetrachloroethane	U		0.000581	0.00290	1	10/19/2018 20:34	WG1183540
1,1,2,2-Tetrachloroethane	U		0.000453	0.00290	1	10/23/2018 04:57	WG1184696
1,1,2-Trichlorotrifluoroethane	U		0.000784	0.00290	1	10/23/2018 04:57	WG1184696
Tetrachloroethene	1.26		0.000813	0.00290	1	10/19/2018 20:34	WG1183540
Toluene	U		0.00145	0.00581	1	10/19/2018 20:34	WG1183540
1,2,3-Trichlorobenzene	U		0.000726	0.00290	1	10/23/2018 04:57	WG1184696
1,2,4-Trichlorobenzene	U		0.00560	0.0145	1	10/19/2018 20:34	WG1183540
1,1,1-Trichloroethane	U		0.000319	0.00290	1	10/19/2018 20:34	WG1183540
1,1,2-Trichloroethane	U		0.00103	0.00290	1	10/19/2018 20:34	WG1183540
Trichloroethene	0.134		0.000465	0.00116	1	10/19/2018 20:34	WG1183540
Trichlorofluoromethane	U		0.000581	0.00290	1	10/19/2018 20:34	WG1183540
1,2,3-Trichloropropane	U		0.00592	0.0145	1	10/19/2018 20:34	WG1183540
1,2,4-Trimethylbenzene	U		0.00135	0.00581	1	10/19/2018 20:34	WG1183540
1,2,3-Trimethylbenzene	U		0.00134	0.00581	1	10/19/2018 20:34	WG1183540
1,3,5-Trimethylbenzene	U		0.00125	0.00581	1	10/19/2018 20:34	WG1183540
Vinyl acetate	U		0.00409	0.0145	1	10/19/2018 20:34	WG1183540
Vinyl chloride	U		0.000793	0.00290	1	10/23/2018 04:57	WG1184696
Xylenes, Total	U		0.00555	0.00755	1	10/19/2018 20:34	WG1183540
(S) Toluene-d8	*104*			*75.0-131*		*10/19/2018 20:34*	WG1183540
(S) Toluene-d8	*99.5*			*75.0-131*		*10/23/2018 04:57*	WG1184696
(S) Dibromofluoromethane	*93.9*			*65.0-129*		*10/19/2018 20:34*	WG1183540
(S) Dibromofluoromethane	*115*			*65.0-129*		*10/23/2018 04:57*	WG1184696
(S) 4-Bromofluorobenzene	*90.1*			*67.0-138*		*10/19/2018 20:34*	WG1183540
(S) 4-Bromofluorobenzene	*120*			*67.0-138*		*10/23/2018 04:57*	WG1184696

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	89.0		1	10/24/2018 10:10	WG1184859

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.124	0.225	8	10/23/2018 07:38	WG1184696
Acrylonitrile	U		0.00214	0.0140	1	10/19/2018 20:53	WG1183540
Benzene	U		0.000450	0.00112	1	10/19/2018 20:53	WG1183540
Bromobenzene	U		0.00118	0.0140	1	10/19/2018 20:53	WG1183540
Bromodichloromethane	U		0.000886	0.00281	1	10/19/2018 20:53	WG1183540
Bromochloromethane	U		0.00127	0.00562	1	10/19/2018 20:53	WG1183540
Bromoform	U		0.00672	0.0281	1	10/19/2018 20:53	WG1183540
Bromomethane	U		0.00416	0.0140	1	10/19/2018 20:53	WG1183540
n-Butylbenzene	U		0.00432	0.0140	1	10/19/2018 20:53	WG1183540
sec-Butylbenzene	U		0.00284	0.0140	1	10/19/2018 20:53	WG1183540
tert-Butylbenzene	U		0.00174	0.00562	1	10/19/2018 20:53	WG1183540
Carbon disulfide	U	J0	0.00456	0.0140	1	10/19/2018 20:53	WG1183540
Carbon tetrachloride	U		0.00121	0.00562	1	10/19/2018 20:53	WG1183540
Chlorobenzene	U		0.000644	0.00281	1	10/19/2018 20:53	WG1183540
Chlorodibromomethane	U		0.000506	0.00281	1	10/19/2018 20:53	WG1183540
Chloroethane	U		0.00121	0.00562	1	10/19/2018 20:53	WG1183540
Chloroform	U		0.000466	0.00281	1	10/19/2018 20:53	WG1183540
Chloromethane	U		0.00156	0.0140	1	10/19/2018 20:53	WG1183540
2-Chlorotoluene	U		0.00103	0.00281	1	10/19/2018 20:53	WG1183540
4-Chlorotoluene	U		0.00127	0.00562	1	10/19/2018 20:53	WG1183540
1,2-Dibromo-3-Chloropropane	U		0.00573	0.0281	1	10/19/2018 20:53	WG1183540
1,2-Dibromoethane	U		0.000590	0.00281	1	10/19/2018 20:53	WG1183540
Dibromomethane	U		0.00112	0.00562	1	10/19/2018 20:53	WG1183540
1,2-Dichlorobenzene	U		0.00163	0.00562	1	10/19/2018 20:53	WG1183540
1,3-Dichlorobenzene	U		0.00191	0.00562	1	10/19/2018 20:53	WG1183540
1,4-Dichlorobenzene	U		0.00221	0.00562	1	10/19/2018 20:53	WG1183540
Dichlorodifluoromethane	U	J4	0.00735	0.0225	8	10/23/2018 07:38	WG1184696
1,1-Dichloroethane	U		0.000646	0.00281	1	10/19/2018 20:53	WG1183540
1,2-Dichloroethane	U		0.000534	0.00281	1	10/19/2018 20:53	WG1183540
1,1-Dichloroethene	0.00801		0.000562	0.00281	1	10/19/2018 20:53	WG1183540
cis-1,2-Dichloroethene	1.67		0.000776	0.00281	1	10/19/2018 20:53	WG1183540
trans-1,2-Dichloroethene	0.00652		0.00161	0.00562	1	10/19/2018 20:53	WG1183540
1,2-Dichloropropane	U		0.00143	0.00562	1	10/19/2018 20:53	WG1183540
1,1-Dichloropropene	U		0.000787	0.00281	1	10/19/2018 20:53	WG1183540
1,3-Dichloropropane	U		0.00197	0.00562	1	10/19/2018 20:53	WG1183540
cis-1,3-Dichloropropene	U		0.000762	0.00281	1	10/19/2018 20:53	WG1183540
trans-1,3-Dichloropropene	U	J4	0.00172	0.00562	1	10/19/2018 20:53	WG1183540
trans-1,4-Dichloro-2-butene	U		0.00157	0.00562	1	10/19/2018 20:53	WG1183540
2,2-Dichloropropane	U		0.000891	0.00281	1	10/19/2018 20:53	WG1183540
Di-isopropyl ether	U		0.000393	0.00112	1	10/19/2018 20:53	WG1183540
Ethylbenzene	U	J0	0.000596	0.00281	1	10/19/2018 20:53	WG1183540
Hexachloro-1,3-butadiene	U		0.0143	0.0281	1	10/19/2018 20:53	WG1183540
2-Hexanone	U		0.0112	0.0281	1	10/19/2018 20:53	WG1183540
n-Hexane	0.00569	J0 J4	0.00119	0.00562	1	10/19/2018 20:53	WG1183540
Iodomethane	U		0.00680	0.0140	1	10/19/2018 20:53	WG1183540
Isopropylbenzene	U		0.000970	0.00281	1	10/19/2018 20:53	WG1183540
p-Isopropyltoluene	U		0.00262	0.00562	1	10/19/2018 20:53	WG1183540
2-Butanone (MEK)	0.0273	B J J4	0.0140	0.0281	1	10/19/2018 20:53	WG1183540
Methylene Chloride	U		0.00746	0.0281	1	10/19/2018 20:53	WG1183540
4-Methyl-2-pentanone (MIBK)	U		0.0112	0.0281	1	10/19/2018 20:53	WG1183540

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000332	0.00112	1	10/19/2018 20:53	WG1183540
Naphthalene	U		0.00351	0.0140	1	10/19/2018 20:53	WG1183540
n-Propylbenzene	U		0.00133	0.00562	1	10/19/2018 20:53	WG1183540
Styrene	U		0.00307	0.0140	1	10/19/2018 20:53	WG1183540
1,1,1,2-Tetrachloroethane	U		0.000562	0.00281	1	10/19/2018 20:53	WG1183540
1,1,2,2-Tetrachloroethane	U		0.00351	0.0225	8	10/23/2018 07:38	WG1184696
1,1,2-Trichlorotrifluoroethane	U		0.00607	0.0225	8	10/23/2018 07:38	WG1184696
Tetrachloroethene	2.06		0.00629	0.0225	8	10/23/2018 07:38	WG1184696
Toluene	U		0.00140	0.00562	1	10/19/2018 20:53	WG1183540
1,2,3-Trichlorobenzene	U		0.00562	0.0225	8	10/23/2018 07:38	WG1184696
1,2,4-Trichlorobenzene	U		0.00542	0.0140	1	10/19/2018 20:53	WG1183540
1,1,1-Trichloroethane	U		0.000309	0.00281	1	10/19/2018 20:53	WG1183540
1,1,2-Trichloroethane	U		0.000992	0.00281	1	10/19/2018 20:53	WG1183540
Trichloroethene	0.455		0.000450	0.00112	1	10/19/2018 20:53	WG1183540
Trichlorofluoromethane	U		0.000562	0.00281	1	10/19/2018 20:53	WG1183540
1,2,3-Trichloropropane	U		0.00573	0.0140	1	10/19/2018 20:53	WG1183540
1,2,4-Trimethylbenzene	U		0.00130	0.00562	1	10/19/2018 20:53	WG1183540
1,2,3-Trimethylbenzene	U		0.00129	0.00562	1	10/19/2018 20:53	WG1183540
1,3,5-Trimethylbenzene	U		0.00121	0.00562	1	10/19/2018 20:53	WG1183540
Vinyl acetate	U		0.00396	0.0140	1	10/19/2018 20:53	WG1183540
Vinyl chloride	0.226		0.00614	0.0225	8	10/23/2018 07:38	WG1184696
Xylenes, Total	U		0.00537	0.00731	1	10/19/2018 20:53	WG1183540
(S) Toluene-d8	*103*			*75.0-131*		*10/19/2018 20:53*	WG1183540
(S) Toluene-d8	*97.8*			*75.0-131*		*10/23/2018 07:38*	WG1184696
(S) Dibromofluoromethane	*95.2*			*65.0-129*		*10/19/2018 20:53*	WG1183540
(S) Dibromofluoromethane	*118*			*65.0-129*		*10/23/2018 07:38*	WG1184696
(S) 4-Bromofluorobenzene	*90.3*			*67.0-138*		*10/19/2018 20:53*	WG1183540
(S) 4-Bromofluorobenzene	*122*			*67.0-138*		*10/23/2018 07:38*	WG1184696

Sample Narrative:

L1036155-04 WG1184696, WG1183540: Cannot be reanalyzed at a lower dilution due to high levels of target analytes.

L1036155-04 WG1184696, WG1183540: Not all compounds reportable at lower dilution.

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	91.3		1	10/24/2018 10:10	WG1184859

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0150	0.0274	1	10/23/2018 05:17	WG1184696
Acrylonitrile	U		0.00208	0.0137	1	10/19/2018 21:11	WG1183540
Benzene	U		0.000438	0.00110	1	10/19/2018 21:11	WG1183540
Bromobenzene	U		0.00115	0.0137	1	10/19/2018 21:11	WG1183540
Bromodichloromethane	U		0.000863	0.00274	1	10/19/2018 21:11	WG1183540
Bromochloromethane	U		0.00124	0.00548	1	10/19/2018 21:11	WG1183540
Bromoform	U		0.00655	0.0274	1	10/19/2018 21:11	WG1183540
Bromomethane	U		0.00405	0.0137	1	10/19/2018 21:11	WG1183540
n-Butylbenzene	U		0.00421	0.0137	1	10/19/2018 21:11	WG1183540
sec-Butylbenzene	U		0.00277	0.0137	1	10/19/2018 21:11	WG1183540
tert-Butylbenzene	U		0.00170	0.00548	1	10/19/2018 21:11	WG1183540
Carbon disulfide	U	J0	0.00445	0.0137	1	10/19/2018 21:11	WG1183540
Carbon tetrachloride	U		0.00118	0.00548	1	10/19/2018 21:11	WG1183540
Chlorobenzene	U		0.000628	0.00274	1	10/19/2018 21:11	WG1183540
Chlorodibromomethane	U		0.000493	0.00274	1	10/19/2018 21:11	WG1183540
Chloroethane	U		0.00118	0.00548	1	10/19/2018 21:11	WG1183540
Chloroform	0.00130	J	0.000455	0.00274	1	10/19/2018 21:11	WG1183540
Chloromethane	U		0.00152	0.0137	1	10/19/2018 21:11	WG1183540
2-Chlorotoluene	U		0.00101	0.00274	1	10/19/2018 21:11	WG1183540
4-Chlorotoluene	U		0.00124	0.00548	1	10/19/2018 21:11	WG1183540
1,2-Dibromo-3-Chloropropane	U		0.00559	0.0274	1	10/19/2018 21:11	WG1183540
1,2-Dibromoethane	U		0.000575	0.00274	1	10/19/2018 21:11	WG1183540
Dibromomethane	U		0.00110	0.00548	1	10/19/2018 21:11	WG1183540
1,2-Dichlorobenzene	U		0.00159	0.00548	1	10/19/2018 21:11	WG1183540
1,3-Dichlorobenzene	U		0.00186	0.00548	1	10/19/2018 21:11	WG1183540
1,4-Dichlorobenzene	U		0.00216	0.00548	1	10/19/2018 21:11	WG1183540
Dichlorodifluoromethane	U	J4	0.000896	0.00274	1	10/23/2018 05:17	WG1184696
1,1-Dichloroethane	U		0.000630	0.00274	1	10/19/2018 21:11	WG1183540
1,2-Dichloroethane	U		0.000520	0.00274	1	10/19/2018 21:11	WG1183540
1,1-Dichloroethene	U		0.000548	0.00274	1	10/19/2018 21:11	WG1183540
cis-1,2-Dichloroethene	0.0116		0.000756	0.00274	1	10/19/2018 21:11	WG1183540
trans-1,2-Dichloroethene	U		0.00157	0.00548	1	10/19/2018 21:11	WG1183540
1,2-Dichloropropane	U		0.00139	0.00548	1	10/19/2018 21:11	WG1183540
1,1-Dichloropropene	U		0.000767	0.00274	1	10/19/2018 21:11	WG1183540
1,3-Dichloropropane	U		0.00192	0.00548	1	10/19/2018 21:11	WG1183540
cis-1,3-Dichloropropene	U		0.000743	0.00274	1	10/19/2018 21:11	WG1183540
trans-1,3-Dichloropropene	U	J4	0.00168	0.00548	1	10/19/2018 21:11	WG1183540
trans-1,4-Dichloro-2-butene	U		0.00153	0.00548	1	10/19/2018 21:11	WG1183540
2,2-Dichloropropane	U		0.000869	0.00274	1	10/19/2018 21:11	WG1183540
Di-isopropyl ether	U		0.000384	0.00110	1	10/19/2018 21:11	WG1183540
Ethylbenzene	U	J0	0.000581	0.00274	1	10/19/2018 21:11	WG1183540
Hexachloro-1,3-butadiene	U		0.0139	0.0274	1	10/19/2018 21:11	WG1183540
2-Hexanone	U		0.0110	0.0274	1	10/19/2018 21:11	WG1183540
n-Hexane	0.00671	J0 J4	0.00116	0.00548	1	10/19/2018 21:11	WG1183540
Iodomethane	U		0.00663	0.0137	1	10/19/2018 21:11	WG1183540
Isopropylbenzene	U		0.000946	0.00274	1	10/19/2018 21:11	WG1183540
p-Isopropyltoluene	U		0.00255	0.00548	1	10/19/2018 21:11	WG1183540
2-Butanone (MEK)	0.0293	B J4	0.0137	0.0274	1	10/19/2018 21:11	WG1183540
Methylene Chloride	U		0.00728	0.0274	1	10/19/2018 21:11	WG1183540
4-Methyl-2-pentanone (MIBK)	U		0.0110	0.0274	1	10/19/2018 21:11	WG1183540

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000323	0.00110	1	10/19/2018 21:11	WG1183540
Naphthalene	U		0.00342	0.0137	1	10/19/2018 21:11	WG1183540
n-Propylbenzene	U		0.00129	0.00548	1	10/19/2018 21:11	WG1183540
Styrene	U		0.00299	0.0137	1	10/19/2018 21:11	WG1183540
1,1,1,2-Tetrachloroethane	U		0.000548	0.00274	1	10/19/2018 21:11	WG1183540
1,1,2,2-Tetrachloroethane	U		0.000427	0.00274	1	10/23/2018 05:17	WG1184696
1,1,2-Trichlorotrifluoroethane	U		0.000740	0.00274	1	10/23/2018 05:17	WG1184696
Tetrachloroethene	0.0198		0.000767	0.00274	1	10/23/2018 05:17	WG1184696
Toluene	U		0.00137	0.00548	1	10/19/2018 21:11	WG1183540
1,2,3-Trichlorobenzene	U		0.000685	0.00274	1	10/23/2018 05:17	WG1184696
1,2,4-Trichlorobenzene	U		0.00528	0.0137	1	10/19/2018 21:11	WG1183540
1,1,1-Trichloroethane	U		0.000301	0.00274	1	10/19/2018 21:11	WG1183540
1,1,2-Trichloroethane	U		0.000968	0.00274	1	10/19/2018 21:11	WG1183540
Trichloroethene	0.00793		0.000438	0.00110	1	10/19/2018 21:11	WG1183540
Trichlorofluoromethane	U		0.000548	0.00274	1	10/19/2018 21:11	WG1183540
1,2,3-Trichloropropane	U		0.00559	0.0137	1	10/19/2018 21:11	WG1183540
1,2,4-Trimethylbenzene	U		0.00127	0.00548	1	10/19/2018 21:11	WG1183540
1,2,3-Trimethylbenzene	U		0.00126	0.00548	1	10/19/2018 21:11	WG1183540
1,3,5-Trimethylbenzene	U		0.00118	0.00548	1	10/19/2018 21:11	WG1183540
Vinyl acetate	U		0.00386	0.0137	1	10/19/2018 21:11	WG1183540
Vinyl chloride	U		0.000748	0.00274	1	10/23/2018 05:17	WG1184696
Xylenes, Total	U		0.00524	0.00712	1	10/19/2018 21:11	WG1183540
(S) Toluene-d8	*100*			*75.0-131*		*10/19/2018 21:11*	WG1183540
(S) Toluene-d8	*99.6*			*75.0-131*		*10/23/2018 05:17*	WG1184696
(S) Dibromofluoromethane	*93.8*			*65.0-129*		*10/19/2018 21:11*	WG1183540
(S) Dibromofluoromethane	*114*			*65.0-129*		*10/23/2018 05:17*	WG1184696
(S) 4-Bromofluorobenzene	*90.5*			*67.0-138*		*10/19/2018 21:11*	WG1183540
(S) 4-Bromofluorobenzene	*119*			*67.0-138*		*10/23/2018 05:17*	WG1184696

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	87.9		1	10/24/2018 10:10	WG1184859

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0156	0.0284	1	10/21/2018 22:57	WG1184313
Acrylonitrile	U		0.00216	0.0142	1	10/21/2018 22:57	WG1184313
Benzene	U		0.000455	0.00114	1	10/23/2018 16:51	WG1185140
Bromobenzene	U		0.00119	0.0142	1	10/21/2018 22:57	WG1184313
Bromodichloromethane	U		0.000896	0.00284	1	10/21/2018 22:57	WG1184313
Bromochloromethane	U		0.00129	0.00569	1	10/21/2018 22:57	WG1184313
Bromoform	U		0.00680	0.0284	1	10/21/2018 22:57	WG1184313
Bromomethane	U		0.00421	0.0142	1	10/21/2018 22:57	WG1184313
n-Butylbenzene	U		0.00437	0.0142	1	10/21/2018 22:57	WG1184313
sec-Butylbenzene	U		0.00288	0.0142	1	10/21/2018 22:57	WG1184313
tert-Butylbenzene	U		0.00176	0.00569	1	10/21/2018 22:57	WG1184313
Carbon disulfide	U		0.00462	0.0142	1	10/21/2018 22:57	WG1184313
Carbon tetrachloride	U		0.00123	0.00569	1	10/21/2018 22:57	WG1184313
Chlorobenzene	U		0.000652	0.00284	1	10/21/2018 22:57	WG1184313
Chlorodibromomethane	U		0.000512	0.00284	1	10/21/2018 22:57	WG1184313
Chloroethane	U		0.00123	0.00569	1	10/21/2018 22:57	WG1184313
Chloroform	0.00166	B J	0.000472	0.00284	1	10/21/2018 22:57	WG1184313
Chloromethane	U		0.00158	0.0142	1	10/21/2018 22:57	WG1184313
2-Chlorotoluene	U		0.00105	0.00284	1	10/21/2018 22:57	WG1184313
4-Chlorotoluene	U		0.00129	0.00569	1	10/21/2018 22:57	WG1184313
1,2-Dibromo-3-Chloropropane	U		0.00580	0.0284	1	10/21/2018 22:57	WG1184313
1,2-Dibromoethane	U		0.000597	0.00284	1	10/21/2018 22:57	WG1184313
Dibromomethane	U		0.00114	0.00569	1	10/21/2018 22:57	WG1184313
1,2-Dichlorobenzene	U		0.00165	0.00569	1	10/21/2018 22:57	WG1184313
1,3-Dichlorobenzene	U		0.00193	0.00569	1	10/21/2018 22:57	WG1184313
1,4-Dichlorobenzene	U		0.00224	0.00569	1	10/21/2018 22:57	WG1184313
Dichlorodifluoromethane	U		0.000930	0.00284	1	10/21/2018 22:57	WG1184313
1,1-Dichloroethane	U		0.000654	0.00284	1	10/21/2018 22:57	WG1184313
1,2-Dichloroethane	U		0.000540	0.00284	1	10/21/2018 22:57	WG1184313
1,1-Dichloroethene	U		0.000569	0.00284	1	10/21/2018 22:57	WG1184313
cis-1,2-Dichloroethene	0.00236	J	0.000785	0.00284	1	10/21/2018 22:57	WG1184313
trans-1,2-Dichloroethene	U		0.00163	0.00569	1	10/21/2018 22:57	WG1184313
1,2-Dichloropropane	U		0.00144	0.00569	1	10/21/2018 22:57	WG1184313
1,1-Dichloropropene	U		0.000796	0.00284	1	10/21/2018 22:57	WG1184313
1,3-Dichloropropane	U		0.00199	0.00569	1	10/21/2018 22:57	WG1184313
cis-1,3-Dichloropropene	U		0.000771	0.00284	1	10/21/2018 22:57	WG1184313
trans-1,3-Dichloropropene	U		0.00174	0.00569	1	10/21/2018 22:57	WG1184313
trans-1,4-Dichloro-2-butene	U		0.00159	0.00569	1	10/21/2018 22:57	WG1184313
2,2-Dichloropropane	U	J4	0.000902	0.00284	1	10/21/2018 22:57	WG1184313
Di-isopropyl ether	U		0.000398	0.00114	1	10/23/2018 16:51	WG1185140
Ethylbenzene	U		0.000603	0.00284	1	10/21/2018 22:57	WG1184313
Hexachloro-1,3-butadiene	U		0.0144	0.0284	1	10/21/2018 22:57	WG1184313
2-Hexanone	U		0.0114	0.0284	1	10/21/2018 22:57	WG1184313
n-Hexane	U		0.00121	0.00569	1	10/21/2018 22:57	WG1184313
Iodomethane	U		0.00688	0.0142	1	10/21/2018 22:57	WG1184313
Isopropylbenzene	U		0.000981	0.00284	1	10/21/2018 22:57	WG1184313
p-Isopropyltoluene	U		0.00265	0.00569	1	10/21/2018 22:57	WG1184313
2-Butanone (MEK)	0.0301		0.0142	0.0284	1	10/21/2018 22:57	WG1184313
Methylene Chloride	U		0.00755	0.0284	1	10/21/2018 22:57	WG1184313
4-Methyl-2-pentanone (MIBK)	U		0.0114	0.0284	1	10/21/2018 22:57	WG1184313

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000335	0.00114	1	10/23/2018 16:51	WG1185140
Naphthalene	U		0.00355	0.0142	1	10/21/2018 22:57	WG1184313
n-Propylbenzene	U		0.00134	0.00569	1	10/21/2018 22:57	WG1184313
Styrene	U		0.00310	0.0142	1	10/21/2018 22:57	WG1184313
1,1,1,2-Tetrachloroethane	U		0.000569	0.00284	1	10/21/2018 22:57	WG1184313
1,1,2,2-Tetrachloroethane	U		0.000444	0.00284	1	10/21/2018 22:57	WG1184313
1,1,2-Trichlorotrifluoroethane	U		0.000768	0.00284	1	10/21/2018 22:57	WG1184313
Tetrachloroethene	0.0619		0.000796	0.00284	1	10/23/2018 16:51	WG1185140
Toluene	U		0.00142	0.00569	1	10/21/2018 22:57	WG1184313
1,2,3-Trichlorobenzene	U		0.000711	0.00284	1	10/21/2018 22:57	WG1184313
1,2,4-Trichlorobenzene	U		0.00548	0.0142	1	10/23/2018 16:51	WG1185140
1,1,1-Trichloroethane	U		0.000313	0.00284	1	10/21/2018 22:57	WG1184313
1,1,2-Trichloroethane	U		0.00100	0.00284	1	10/21/2018 22:57	WG1184313
Trichloroethene	0.00635		0.000455	0.00114	1	10/23/2018 16:51	WG1185140
Trichlorofluoromethane	U		0.000569	0.00284	1	10/21/2018 22:57	WG1184313
1,2,3-Trichloropropane	U		0.00580	0.0142	1	10/21/2018 22:57	WG1184313
1,2,4-Trimethylbenzene	U		0.00132	0.00569	1	10/21/2018 22:57	WG1184313
1,2,3-Trimethylbenzene	U		0.00131	0.00569	1	10/21/2018 22:57	WG1184313
1,3,5-Trimethylbenzene	U		0.00123	0.00569	1	10/21/2018 22:57	WG1184313
Vinyl acetate	U		0.00400	0.0142	1	10/21/2018 22:57	WG1184313
Vinyl chloride	U		0.000777	0.00284	1	10/21/2018 22:57	WG1184313
Xylenes, Total	U		0.00544	0.00739	1	10/21/2018 22:57	WG1184313
(S) Toluene-d8	*99.7*			*75.0-131*		*10/21/2018 22:57*	WG1184313
(S) Toluene-d8	*122*			*75.0-131*		*10/23/2018 16:51*	WG1185140
(S) Dibromofluoromethane	*114*			*65.0-129*		*10/21/2018 22:57*	WG1184313
(S) Dibromofluoromethane	*94.1*			*65.0-129*		*10/23/2018 16:51*	WG1185140
(S) 4-Bromofluorobenzene	*121*			*67.0-138*		*10/21/2018 22:57*	WG1184313
(S) 4-Bromofluorobenzene	*87.9*			*67.0-138*		*10/23/2018 16:51*	WG1185140

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	83.6		1	10/24/2018 10:10	WG1184859

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0164	0.0299	1	10/21/2018 23:17	WG1184313
Acrylonitrile	U		0.00227	0.0150	1	10/21/2018 23:17	WG1184313
Benzene	U		0.000479	0.00120	1	10/23/2018 17:12	WG1185140
Bromobenzene	U		0.00126	0.0150	1	10/21/2018 23:17	WG1184313
Bromodichloromethane	U		0.000943	0.00299	1	10/21/2018 23:17	WG1184313
Bromochloromethane	U		0.00135	0.00598	1	10/21/2018 23:17	WG1184313
Bromoform	U		0.00716	0.0299	1	10/21/2018 23:17	WG1184313
Bromomethane	U		0.00443	0.0150	1	10/21/2018 23:17	WG1184313
n-Butylbenzene	U		0.00460	0.0150	1	10/21/2018 23:17	WG1184313
sec-Butylbenzene	U		0.00303	0.0150	1	10/21/2018 23:17	WG1184313
tert-Butylbenzene	U		0.00185	0.00598	1	10/21/2018 23:17	WG1184313
Carbon disulfide	U		0.00486	0.0150	1	10/21/2018 23:17	WG1184313
Carbon tetrachloride	U		0.00129	0.00598	1	10/21/2018 23:17	WG1184313
Chlorobenzene	U		0.000686	0.00299	1	10/21/2018 23:17	WG1184313
Chlorodibromomethane	U		0.000538	0.00299	1	10/21/2018 23:17	WG1184313
Chloroethane	U		0.00129	0.00598	1	10/21/2018 23:17	WG1184313
Chloroform	0.00168	B J	0.000497	0.00299	1	10/21/2018 23:17	WG1184313
Chloromethane	U		0.00166	0.0150	1	10/21/2018 23:17	WG1184313
2-Chlorotoluene	U		0.00110	0.00299	1	10/21/2018 23:17	WG1184313
4-Chlorotoluene	U		0.00135	0.00598	1	10/21/2018 23:17	WG1184313
1,2-Dibromo-3-Chloropropane	U		0.00610	0.0299	1	10/21/2018 23:17	WG1184313
1,2-Dibromoethane	U		0.000628	0.00299	1	10/21/2018 23:17	WG1184313
Dibromomethane	U		0.00120	0.00598	1	10/21/2018 23:17	WG1184313
1,2-Dichlorobenzene	U		0.00174	0.00598	1	10/21/2018 23:17	WG1184313
1,3-Dichlorobenzene	U		0.00203	0.00598	1	10/21/2018 23:17	WG1184313
1,4-Dichlorobenzene	U		0.00236	0.00598	1	10/21/2018 23:17	WG1184313
Dichlorodifluoromethane	U		0.000979	0.00299	1	10/21/2018 23:17	WG1184313
1,1-Dichloroethane	U		0.000688	0.00299	1	10/21/2018 23:17	WG1184313
1,2-Dichloroethane	U		0.000568	0.00299	1	10/21/2018 23:17	WG1184313
1,1-Dichloroethene	U		0.000598	0.00299	1	10/21/2018 23:17	WG1184313
cis-1,2-Dichloroethene	0.00481		0.000826	0.00299	1	10/21/2018 23:17	WG1184313
trans-1,2-Dichloroethene	U		0.00171	0.00598	1	10/21/2018 23:17	WG1184313
1,2-Dichloropropane	U		0.00152	0.00598	1	10/21/2018 23:17	WG1184313
1,1-Dichloropropene	U		0.000838	0.00299	1	10/21/2018 23:17	WG1184313
1,3-Dichloropropane	U		0.00209	0.00598	1	10/21/2018 23:17	WG1184313
cis-1,3-Dichloropropene	U		0.000811	0.00299	1	10/21/2018 23:17	WG1184313
trans-1,3-Dichloropropene	U		0.00183	0.00598	1	10/21/2018 23:17	WG1184313
trans-1,4-Dichloro-2-butene	U		0.00168	0.00598	1	10/21/2018 23:17	WG1184313
2,2-Dichloropropane	U	J4	0.000949	0.00299	1	10/21/2018 23:17	WG1184313
Di-isopropyl ether	U		0.000419	0.00120	1	10/23/2018 17:12	WG1185140
Ethylbenzene	U		0.000634	0.00299	1	10/21/2018 23:17	WG1184313
Hexachloro-1,3-butadiene	U		0.0152	0.0299	1	10/21/2018 23:17	WG1184313
2-Hexanone	U		0.0120	0.0299	1	10/21/2018 23:17	WG1184313
n-Hexane	U		0.00127	0.00598	1	10/21/2018 23:17	WG1184313
Iodomethane	U		0.00724	0.0150	1	10/21/2018 23:17	WG1184313
Isopropylbenzene	U		0.00103	0.00299	1	10/21/2018 23:17	WG1184313
p-Isopropyltoluene	U		0.00279	0.00598	1	10/21/2018 23:17	WG1184313
2-Butanone (MEK)	0.0268	J	0.0150	0.0299	1	10/21/2018 23:17	WG1184313
Methylene Chloride	U		0.00795	0.0299	1	10/21/2018 23:17	WG1184313
4-Methyl-2-pentanone (MIBK)	U		0.0120	0.0299	1	10/21/2018 23:17	WG1184313

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000353	0.00120	1	10/23/2018 17:12	WG1185140
Naphthalene	U		0.00373	0.0150	1	10/21/2018 23:17	WG1184313
n-Propylbenzene	U		0.00141	0.00598	1	10/21/2018 23:17	WG1184313
Styrene	U		0.00327	0.0150	1	10/21/2018 23:17	WG1184313
1,1,1,2-Tetrachloroethane	U		0.000598	0.00299	1	10/21/2018 23:17	WG1184313
1,1,2,2-Tetrachloroethane	U		0.000467	0.00299	1	10/21/2018 23:17	WG1184313
1,1,2-Trichlorotrifluoroethane	U		0.000808	0.00299	1	10/21/2018 23:17	WG1184313
Tetrachloroethene	0.538		0.000838	0.00299	1	10/23/2018 17:12	WG1185140
Toluene	U		0.00150	0.00598	1	10/21/2018 23:17	WG1184313
1,2,3-Trichlorobenzene	U		0.000748	0.00299	1	10/21/2018 23:17	WG1184313
1,2,4-Trichlorobenzene	U		0.00577	0.0150	1	10/23/2018 17:12	WG1185140
1,1,1-Trichloroethane	U		0.000329	0.00299	1	10/21/2018 23:17	WG1184313
1,1,2-Trichloroethane	U		0.00106	0.00299	1	10/21/2018 23:17	WG1184313
Trichloroethene	0.0149		0.000479	0.00120	1	10/23/2018 17:12	WG1185140
Trichlorofluoromethane	U		0.000598	0.00299	1	10/21/2018 23:17	WG1184313
1,2,3-Trichloropropane	U		0.00610	0.0150	1	10/21/2018 23:17	WG1184313
1,2,4-Trimethylbenzene	U		0.00139	0.00598	1	10/21/2018 23:17	WG1184313
1,2,3-Trimethylbenzene	U		0.00138	0.00598	1	10/21/2018 23:17	WG1184313
1,3,5-Trimethylbenzene	U		0.00129	0.00598	1	10/21/2018 23:17	WG1184313
Vinyl acetate	U		0.00421	0.0150	1	10/21/2018 23:17	WG1184313
Vinyl chloride	U		0.000817	0.00299	1	10/21/2018 23:17	WG1184313
Xylenes, Total	U		0.00572	0.00778	1	10/21/2018 23:17	WG1184313
(S) Toluene-d8	*98.5*			*75.0-131*		*10/21/2018 23:17*	WG1184313
(S) Toluene-d8	*122*			*75.0-131*		*10/23/2018 17:12*	WG1185140
(S) Dibromofluoromethane	*114*			*65.0-129*		*10/21/2018 23:17*	WG1184313
(S) Dibromofluoromethane	*91.9*			*65.0-129*		*10/23/2018 17:12*	WG1185140
(S) 4-Bromofluorobenzene	*118*			*67.0-138*		*10/21/2018 23:17*	WG1184313
(S) 4-Bromofluorobenzene	*93.9*			*67.0-138*		*10/23/2018 17:12*	WG1185140

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	84.7		1	10/24/2018 10:10	WG1184859

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0162	0.0295	1	10/21/2018 23:37	WG1184313
Acrylonitrile	U		0.00224	0.0148	1	10/21/2018 23:37	WG1184313
Benzene	U		0.00944	0.0236	20	10/23/2018 20:58	WG1185140
Bromobenzene	U		0.00124	0.0148	1	10/21/2018 23:37	WG1184313
Bromodichloromethane	U		0.000930	0.00295	1	10/21/2018 23:37	WG1184313
Bromochloromethane	U		0.00133	0.00590	1	10/21/2018 23:37	WG1184313
Bromoform	U		0.00706	0.0295	1	10/21/2018 23:37	WG1184313
Bromomethane	U		0.00437	0.0148	1	10/21/2018 23:37	WG1184313
n-Butylbenzene	U		0.00453	0.0148	1	10/21/2018 23:37	WG1184313
sec-Butylbenzene	U		0.00299	0.0148	1	10/21/2018 23:37	WG1184313
tert-Butylbenzene	U		0.00183	0.00590	1	10/21/2018 23:37	WG1184313
Carbon disulfide	U		0.00479	0.0148	1	10/21/2018 23:37	WG1184313
Carbon tetrachloride	U		0.00127	0.00590	1	10/21/2018 23:37	WG1184313
Chlorobenzene	U		0.000676	0.00295	1	10/21/2018 23:37	WG1184313
Chlorodibromomethane	U		0.000531	0.00295	1	10/21/2018 23:37	WG1184313
Chloroethane	U		0.00127	0.00590	1	10/21/2018 23:37	WG1184313
Chloroform	0.00158	B J	0.000490	0.00295	1	10/21/2018 23:37	WG1184313
Chloromethane	U		0.00164	0.0148	1	10/21/2018 23:37	WG1184313
2-Chlorotoluene	U		0.00109	0.00295	1	10/21/2018 23:37	WG1184313
4-Chlorotoluene	U		0.00133	0.00590	1	10/21/2018 23:37	WG1184313
1,2-Dibromo-3-Chloropropane	U		0.00602	0.0295	1	10/21/2018 23:37	WG1184313
1,2-Dibromoethane	U		0.000620	0.00295	1	10/21/2018 23:37	WG1184313
Dibromomethane	U		0.00118	0.00590	1	10/21/2018 23:37	WG1184313
1,2-Dichlorobenzene	U		0.00171	0.00590	1	10/21/2018 23:37	WG1184313
1,3-Dichlorobenzene	U		0.00201	0.00590	1	10/21/2018 23:37	WG1184313
1,4-Dichlorobenzene	U		0.00232	0.00590	1	10/21/2018 23:37	WG1184313
Dichlorodifluoromethane	U		0.000965	0.00295	1	10/21/2018 23:37	WG1184313
1,1-Dichloroethane	U		0.000679	0.00295	1	10/21/2018 23:37	WG1184313
1,2-Dichloroethane	U		0.000561	0.00295	1	10/21/2018 23:37	WG1184313
1,1-Dichloroethene	0.000600	J	0.000590	0.00295	1	10/21/2018 23:37	WG1184313
cis-1,2-Dichloroethene	0.0119		0.000814	0.00295	1	10/21/2018 23:37	WG1184313
trans-1,2-Dichloroethene	U		0.00169	0.00590	1	10/21/2018 23:37	WG1184313
1,2-Dichloropropane	U		0.00150	0.00590	1	10/21/2018 23:37	WG1184313
1,1-Dichloropropene	U		0.000826	0.00295	1	10/21/2018 23:37	WG1184313
1,3-Dichloropropane	U		0.00207	0.00590	1	10/21/2018 23:37	WG1184313
cis-1,3-Dichloropropene	U		0.000800	0.00295	1	10/21/2018 23:37	WG1184313
trans-1,3-Dichloropropene	U		0.00181	0.00590	1	10/21/2018 23:37	WG1184313
trans-1,4-Dichloro-2-butene	U		0.00165	0.00590	1	10/21/2018 23:37	WG1184313
2,2-Dichloropropane	0.000945	J J4	0.000936	0.00295	1	10/21/2018 23:37	WG1184313
Di-isopropyl ether	U		0.00826	0.0236	20	10/23/2018 20:58	WG1185140
Ethylbenzene	U		0.000625	0.00295	1	10/21/2018 23:37	WG1184313
Hexachloro-1,3-butadiene	U		0.0150	0.0295	1	10/21/2018 23:37	WG1184313
2-Hexanone	U		0.0118	0.0295	1	10/21/2018 23:37	WG1184313
n-Hexane	U		0.00125	0.00590	1	10/21/2018 23:37	WG1184313
Iodomethane	U		0.00714	0.0148	1	10/21/2018 23:37	WG1184313
Isopropylbenzene	U		0.00102	0.00295	1	10/21/2018 23:37	WG1184313
p-Isopropyltoluene	U		0.00275	0.00590	1	10/21/2018 23:37	WG1184313
2-Butanone (MEK)	0.0343		0.0148	0.0295	1	10/21/2018 23:37	WG1184313
Methylene Chloride	U		0.00784	0.0295	1	10/21/2018 23:37	WG1184313
4-Methyl-2-pentanone (MIBK)	U		0.0118	0.0295	1	10/21/2018 23:37	WG1184313

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

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.00696	0.0236	20	10/23/2018 20:58	WG1185140
Naphthalene	U		0.00368	0.0148	1	10/21/2018 23:37	WG1184313
n-Propylbenzene	U		0.00139	0.00590	1	10/21/2018 23:37	WG1184313
Styrene	U		0.00322	0.0148	1	10/21/2018 23:37	WG1184313
1,1,1,2-Tetrachloroethane	U		0.000590	0.00295	1	10/21/2018 23:37	WG1184313
1,1,2,2-Tetrachloroethane	0.000480	J	0.000460	0.00295	1	10/21/2018 23:37	WG1184313
1,1,2-Trichlorotrifluoroethane	U		0.000797	0.00295	1	10/21/2018 23:37	WG1184313
Tetrachloroethene	16.2		0.0165	0.0590	20	10/23/2018 20:58	WG1185140
Toluene	U		0.00148	0.00590	1	10/21/2018 23:37	WG1184313
1,2,3-Trichlorobenzene	U		0.000738	0.00295	1	10/21/2018 23:37	WG1184313
1,2,4-Trichlorobenzene	U		0.114	0.295	20	10/23/2018 20:58	WG1185140
1,1,1-Trichloroethane	U		0.000325	0.00295	1	10/21/2018 23:37	WG1184313
1,1,2-Trichloroethane	U		0.00104	0.00295	1	10/21/2018 23:37	WG1184313
Trichloroethene	0.0763		0.00944	0.0236	20	10/23/2018 20:58	WG1185140
Trichlorofluoromethane	U		0.000590	0.00295	1	10/21/2018 23:37	WG1184313
1,2,3-Trichloropropane	U		0.00602	0.0148	1	10/21/2018 23:37	WG1184313
1,2,4-Trimethylbenzene	U		0.00137	0.00590	1	10/21/2018 23:37	WG1184313
1,2,3-Trimethylbenzene	0.00234	J	0.00136	0.00590	1	10/21/2018 23:37	WG1184313
1,3,5-Trimethylbenzene	0.00148	J	0.00127	0.00590	1	10/21/2018 23:37	WG1184313
Vinyl acetate	U		0.00415	0.0148	1	10/21/2018 23:37	WG1184313
Vinyl chloride	U		0.000806	0.00295	1	10/21/2018 23:37	WG1184313
Xylenes, Total	U		0.00564	0.00767	1	10/21/2018 23:37	WG1184313
(S) Toluene-d8	*97.6*			*75.0-131*		*10/21/2018 23:37*	WG1184313
(S) Toluene-d8	*116*			*75.0-131*		*10/23/2018 20:58*	WG1185140
(S) Dibromofluoromethane	*112*			*65.0-129*		*10/21/2018 23:37*	WG1184313
(S) Dibromofluoromethane	*101*			*65.0-129*		*10/23/2018 20:58*	WG1185140
(S) 4-Bromofluorobenzene	*120*			*67.0-138*		*10/21/2018 23:37*	WG1184313
(S) 4-Bromofluorobenzene	*91.3*			*67.0-138*		*10/23/2018 20:58*	WG1185140

Sample Narrative:

L1036155-08 WG1184313, WG1185140: Not all compounds reportable at lower dilution.

L1036155-08 WG1184313, WG1185140: Cannot be reanalyzed at a lower dilution due to high levels of target analytes.

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	89.6		1	10/24/2018 10:10	WG1184859

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0153	0.0279	1	10/21/2018 23:57	WG1184313
Acrylonitrile	U		0.00212	0.0140	1	10/21/2018 23:57	WG1184313
Benzene	U		0.000446	0.00112	1	10/23/2018 17:32	WG1185140
Bromobenzene	U		0.00117	0.0140	1	10/21/2018 23:57	WG1184313
Bromodichloromethane	U		0.000879	0.00279	1	10/21/2018 23:57	WG1184313
Bromochloromethane	U		0.00126	0.00558	1	10/21/2018 23:57	WG1184313
Bromoform	U		0.00667	0.0279	1	10/21/2018 23:57	WG1184313
Bromomethane	U		0.00413	0.0140	1	10/21/2018 23:57	WG1184313
n-Butylbenzene	U		0.00429	0.0140	1	10/21/2018 23:57	WG1184313
sec-Butylbenzene	U		0.00282	0.0140	1	10/21/2018 23:57	WG1184313
tert-Butylbenzene	U		0.00173	0.00558	1	10/21/2018 23:57	WG1184313
Carbon disulfide	U		0.00453	0.0140	1	10/21/2018 23:57	WG1184313
Carbon tetrachloride	U		0.00121	0.00558	1	10/21/2018 23:57	WG1184313
Chlorobenzene	U		0.000640	0.00279	1	10/21/2018 23:57	WG1184313
Chlorodibromomethane	U		0.000502	0.00279	1	10/21/2018 23:57	WG1184313
Chloroethane	U		0.00121	0.00558	1	10/21/2018 23:57	WG1184313
Chloroform	0.00141	B J	0.000463	0.00279	1	10/21/2018 23:57	WG1184313
Chloromethane	U		0.00155	0.0140	1	10/21/2018 23:57	WG1184313
2-Chlorotoluene	U		0.00103	0.00279	1	10/21/2018 23:57	WG1184313
4-Chlorotoluene	U		0.00126	0.00558	1	10/21/2018 23:57	WG1184313
1,2-Dibromo-3-Chloropropane	U		0.00569	0.0279	1	10/21/2018 23:57	WG1184313
1,2-Dibromoethane	U		0.000586	0.00279	1	10/21/2018 23:57	WG1184313
Dibromomethane	U		0.00112	0.00558	1	10/21/2018 23:57	WG1184313
1,2-Dichlorobenzene	U		0.00162	0.00558	1	10/21/2018 23:57	WG1184313
1,3-Dichlorobenzene	U		0.00190	0.00558	1	10/21/2018 23:57	WG1184313
1,4-Dichlorobenzene	U		0.00220	0.00558	1	10/21/2018 23:57	WG1184313
Dichlorodifluoromethane	U		0.000913	0.00279	1	10/21/2018 23:57	WG1184313
1,1-Dichloroethane	U		0.000642	0.00279	1	10/21/2018 23:57	WG1184313
1,2-Dichloroethane	U		0.000530	0.00279	1	10/21/2018 23:57	WG1184313
1,1-Dichloroethene	U		0.000558	0.00279	1	10/21/2018 23:57	WG1184313
cis-1,2-Dichloroethene	0.0135		0.000770	0.00279	1	10/21/2018 23:57	WG1184313
trans-1,2-Dichloroethene	U		0.00160	0.00558	1	10/21/2018 23:57	WG1184313
1,2-Dichloropropane	U		0.00142	0.00558	1	10/21/2018 23:57	WG1184313
1,1-Dichloropropene	U		0.000781	0.00279	1	10/21/2018 23:57	WG1184313
1,3-Dichloropropane	U		0.00195	0.00558	1	10/21/2018 23:57	WG1184313
cis-1,3-Dichloropropene	U		0.000757	0.00279	1	10/21/2018 23:57	WG1184313
trans-1,3-Dichloropropene	U		0.00171	0.00558	1	10/21/2018 23:57	WG1184313
trans-1,4-Dichloro-2-butene	U		0.00156	0.00558	1	10/21/2018 23:57	WG1184313
2,2-Dichloropropane	U	J4	0.000885	0.00279	1	10/21/2018 23:57	WG1184313
Di-isopropyl ether	U		0.000391	0.00112	1	10/23/2018 17:32	WG1185140
Ethylbenzene	U		0.000592	0.00279	1	10/21/2018 23:57	WG1184313
Hexachloro-1,3-butadiene	U		0.0142	0.0279	1	10/21/2018 23:57	WG1184313
2-Hexanone	U		0.0112	0.0279	1	10/21/2018 23:57	WG1184313
n-Hexane	U		0.00118	0.00558	1	10/21/2018 23:57	WG1184313
Iodomethane	U		0.00675	0.0140	1	10/21/2018 23:57	WG1184313
Isopropylbenzene	U		0.000963	0.00279	1	10/21/2018 23:57	WG1184313
p-Isopropyltoluene	U		0.00260	0.00558	1	10/21/2018 23:57	WG1184313
2-Butanone (MEK)	0.0211	J	0.0140	0.0279	1	10/21/2018 23:57	WG1184313
Methylene Chloride	U		0.00741	0.0279	1	10/21/2018 23:57	WG1184313
4-Methyl-2-pentanone (MIBK)	U		0.0112	0.0279	1	10/21/2018 23:57	WG1184313

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

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000329	0.00112	1	10/23/2018 17:32	WG1185140
Naphthalene	U		0.00348	0.0140	1	10/21/2018 23:57	WG1184313
n-Propylbenzene	U		0.00132	0.00558	1	10/21/2018 23:57	WG1184313
Styrene	U		0.00305	0.0140	1	10/21/2018 23:57	WG1184313
1,1,1,2-Tetrachloroethane	U		0.000558	0.00279	1	10/21/2018 23:57	WG1184313
1,1,2,2-Tetrachloroethane	U		0.000435	0.00279	1	10/21/2018 23:57	WG1184313
1,1,2-Trichlorotrifluoroethane	U		0.000753	0.00279	1	10/21/2018 23:57	WG1184313
Tetrachloroethene	3.71		0.00313	0.0112	4	10/25/2018 00:22	WG1185815
Toluene	U		0.00140	0.00558	1	10/21/2018 23:57	WG1184313
1,2,3-Trichlorobenzene	U		0.000698	0.00279	1	10/21/2018 23:57	WG1184313
1,2,4-Trichlorobenzene	U		0.00538	0.0140	1	10/23/2018 17:32	WG1185140
1,1,1-Trichloroethane	U		0.000307	0.00279	1	10/21/2018 23:57	WG1184313
1,1,2-Trichloroethane	U		0.000986	0.00279	1	10/21/2018 23:57	WG1184313
Trichloroethene	0.0117		0.000446	0.00112	1	10/23/2018 17:32	WG1185140
Trichlorofluoromethane	U		0.000558	0.00279	1	10/21/2018 23:57	WG1184313
1,2,3-Trichloropropane	U		0.00569	0.0140	1	10/21/2018 23:57	WG1184313
1,2,4-Trimethylbenzene	U		0.00129	0.00558	1	10/21/2018 23:57	WG1184313
1,2,3-Trimethylbenzene	U		0.00128	0.00558	1	10/21/2018 23:57	WG1184313
1,3,5-Trimethylbenzene	U		0.00121	0.00558	1	10/21/2018 23:57	WG1184313
Vinyl acetate	U		0.00393	0.0140	1	10/21/2018 23:57	WG1184313
Vinyl chloride	U		0.000762	0.00279	1	10/21/2018 23:57	WG1184313
Xylenes, Total	U		0.00533	0.00725	1	10/21/2018 23:57	WG1184313
(S) Toluene-d8	*98.8*			*75.0-131*		*10/21/2018 23:57*	WG1184313
(S) Toluene-d8	*126*			*75.0-131*		*10/23/2018 17:32*	WG1185140
(S) Toluene-d8	*104*			*75.0-131*		*10/25/2018 00:22*	WG1185815
(S) Dibromofluoromethane	*113*			*65.0-129*		*10/21/2018 23:57*	WG1184313
(S) Dibromofluoromethane	*92.9*			*65.0-129*		*10/23/2018 17:32*	WG1185140
(S) Dibromofluoromethane	*100*			*65.0-129*		*10/25/2018 00:22*	WG1185815
(S) 4-Bromofluorobenzene	*119*			*67.0-138*		*10/21/2018 23:57*	WG1184313
(S) 4-Bromofluorobenzene	*87.7*			*67.0-138*		*10/23/2018 17:32*	WG1185140
(S) 4-Bromofluorobenzene	*103*			*67.0-138*		*10/25/2018 00:22*	WG1185815

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	88.8		1	10/24/2018 10:10	WG1184859

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0154	0.0281	1	10/22/2018 00:17	WG1184313
Acrylonitrile	U		0.00214	0.0141	1	10/22/2018 00:17	WG1184313
Benzene	U		0.000450	0.00113	1	10/23/2018 17:53	WG1185140
Bromobenzene	U		0.00118	0.0141	1	10/22/2018 00:17	WG1184313
Bromodichloromethane	U		0.000887	0.00281	1	10/22/2018 00:17	WG1184313
Bromochloromethane	U		0.00127	0.00563	1	10/22/2018 00:17	WG1184313
Bromoform	U		0.00673	0.0281	1	10/22/2018 00:17	WG1184313
Bromomethane	U		0.00416	0.0141	1	10/22/2018 00:17	WG1184313
n-Butylbenzene	U		0.00432	0.0141	1	10/22/2018 00:17	WG1184313
sec-Butylbenzene	U		0.00285	0.0141	1	10/22/2018 00:17	WG1184313
tert-Butylbenzene	U		0.00174	0.00563	1	10/22/2018 00:17	WG1184313
Carbon disulfide	U		0.00457	0.0141	1	10/22/2018 00:17	WG1184313
Carbon tetrachloride	U		0.00122	0.00563	1	10/22/2018 00:17	WG1184313
Chlorobenzene	U		0.000645	0.00281	1	10/22/2018 00:17	WG1184313
Chlorodibromomethane	U		0.000506	0.00281	1	10/22/2018 00:17	WG1184313
Chloroethane	U		0.00122	0.00563	1	10/22/2018 00:17	WG1184313
Chloroform	0.00211	B J	0.000467	0.00281	1	10/22/2018 00:17	WG1184313
Chloromethane	U		0.00156	0.0141	1	10/22/2018 00:17	WG1184313
2-Chlorotoluene	U		0.00104	0.00281	1	10/22/2018 00:17	WG1184313
4-Chlorotoluene	U		0.00127	0.00563	1	10/22/2018 00:17	WG1184313
1,2-Dibromo-3-Chloropropane	U		0.00574	0.0281	1	10/22/2018 00:17	WG1184313
1,2-Dibromoethane	U		0.000591	0.00281	1	10/22/2018 00:17	WG1184313
Dibromomethane	U		0.00113	0.00563	1	10/22/2018 00:17	WG1184313
1,2-Dichlorobenzene	U		0.00163	0.00563	1	10/22/2018 00:17	WG1184313
1,3-Dichlorobenzene	U		0.00191	0.00563	1	10/22/2018 00:17	WG1184313
1,4-Dichlorobenzene	U		0.00222	0.00563	1	10/22/2018 00:17	WG1184313
Dichlorodifluoromethane	U		0.000921	0.00281	1	10/22/2018 00:17	WG1184313
1,1-Dichloroethane	U		0.000647	0.00281	1	10/22/2018 00:17	WG1184313
1,2-Dichloroethane	U		0.000535	0.00281	1	10/22/2018 00:17	WG1184313
1,1-Dichloroethene	U		0.000563	0.00281	1	10/22/2018 00:17	WG1184313
cis-1,2-Dichloroethene	0.00815		0.000777	0.00281	1	10/22/2018 00:17	WG1184313
trans-1,2-Dichloroethene	U		0.00161	0.00563	1	10/22/2018 00:17	WG1184313
1,2-Dichloropropane	U		0.00143	0.00563	1	10/22/2018 00:17	WG1184313
1,1-Dichloropropene	U		0.000788	0.00281	1	10/22/2018 00:17	WG1184313
1,3-Dichloropropane	U		0.00197	0.00563	1	10/22/2018 00:17	WG1184313
cis-1,3-Dichloropropene	U		0.000763	0.00281	1	10/22/2018 00:17	WG1184313
trans-1,3-Dichloropropene	U		0.00172	0.00563	1	10/22/2018 00:17	WG1184313
trans-1,4-Dichloro-2-butene	U		0.00158	0.00563	1	10/22/2018 00:17	WG1184313
2,2-Dichloropropane	U	J4	0.000893	0.00281	1	10/22/2018 00:17	WG1184313
Di-isopropyl ether	U		0.000394	0.00113	1	10/23/2018 17:53	WG1185140
Ethylbenzene	U		0.000597	0.00281	1	10/22/2018 00:17	WG1184313
Hexachloro-1,3-butadiene	U		0.0143	0.0281	1	10/22/2018 00:17	WG1184313
2-Hexanone	U		0.0113	0.0281	1	10/22/2018 00:17	WG1184313
n-Hexane	0.00602		0.00119	0.00563	1	10/22/2018 00:17	WG1184313
Iodomethane	U		0.00681	0.0141	1	10/22/2018 00:17	WG1184313
Isopropylbenzene	U		0.000971	0.00281	1	10/22/2018 00:17	WG1184313
p-Isopropyltoluene	U		0.00262	0.00563	1	10/22/2018 00:17	WG1184313
2-Butanone (MEK)	0.0274	J	0.0141	0.0281	1	10/22/2018 00:17	WG1184313
Methylene Chloride	U		0.00747	0.0281	1	10/22/2018 00:17	WG1184313
4-Methyl-2-pentanone (MIBK)	U		0.0113	0.0281	1	10/22/2018 00:17	WG1184313

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000332	0.00113	1	10/23/2018 17:53	WG1185140
Naphthalene	U		0.00351	0.0141	1	10/22/2018 00:17	WG1184313
n-Propylbenzene	U		0.00133	0.00563	1	10/22/2018 00:17	WG1184313
Styrene	U		0.00307	0.0141	1	10/22/2018 00:17	WG1184313
1,1,1,2-Tetrachloroethane	U		0.000563	0.00281	1	10/22/2018 00:17	WG1184313
1,1,2,2-Tetrachloroethane	U		0.000439	0.00281	1	10/22/2018 00:17	WG1184313
1,1,2-Trichlorotrifluoroethane	U		0.000760	0.00281	1	10/22/2018 00:17	WG1184313
Tetrachloroethene	0.0784		0.000788	0.00281	1	10/23/2018 17:53	WG1185140
Toluene	0.00189	J	0.00141	0.00563	1	10/22/2018 00:17	WG1184313
1,2,3-Trichlorobenzene	U		0.000703	0.00281	1	10/22/2018 00:17	WG1184313
1,2,4-Trichlorobenzene	U		0.00542	0.0141	1	10/23/2018 17:53	WG1185140
1,1,1-Trichloroethane	U		0.000310	0.00281	1	10/22/2018 00:17	WG1184313
1,1,2-Trichloroethane	0.00199	J	0.000994	0.00281	1	10/22/2018 00:17	WG1184313
Trichloroethene	0.00504		0.000450	0.00113	1	10/23/2018 17:53	WG1185140
Trichlorofluoromethane	U		0.000563	0.00281	1	10/22/2018 00:17	WG1184313
1,2,3-Trichloropropane	U		0.00574	0.0141	1	10/22/2018 00:17	WG1184313
1,2,4-Trimethylbenzene	U		0.00131	0.00563	1	10/22/2018 00:17	WG1184313
1,2,3-Trimethylbenzene	U		0.00129	0.00563	1	10/22/2018 00:17	WG1184313
1,3,5-Trimethylbenzene	U		0.00122	0.00563	1	10/22/2018 00:17	WG1184313
Vinyl acetate	U		0.00396	0.0141	1	10/22/2018 00:17	WG1184313
Vinyl chloride	U		0.000769	0.00281	1	10/22/2018 00:17	WG1184313
Xylenes, Total	U		0.00538	0.00732	1	10/22/2018 00:17	WG1184313
(S) Toluene-d8	*101*			*75.0-131*		*10/22/2018 00:17*	WG1184313
(S) Toluene-d8	*128*			*75.0-131*		*10/23/2018 17:53*	WG1185140
(S) Dibromofluoromethane	*113*			*65.0-129*		*10/22/2018 00:17*	WG1184313
(S) Dibromofluoromethane	*89.5*			*65.0-129*		*10/23/2018 17:53*	WG1185140
(S) 4-Bromofluorobenzene	*119*			*67.0-138*		*10/22/2018 00:17*	WG1184313
(S) 4-Bromofluorobenzene	*99.3*			*67.0-138*		*10/23/2018 17:53*	WG1185140

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	91.3		1	10/24/2018 10:10	WG1184859

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0150	0.0274	1	10/22/2018 00:38	WG1184313
Acrylonitrile	U		0.00208	0.0137	1	10/22/2018 00:38	WG1184313
Benzene	U		0.000438	0.00110	1	10/23/2018 18:14	WG1185140
Bromobenzene	U		0.00115	0.0137	1	10/22/2018 00:38	WG1184313
Bromodichloromethane	U		0.000864	0.00274	1	10/22/2018 00:38	WG1184313
Bromochloromethane	U		0.00124	0.00548	1	10/22/2018 00:38	WG1184313
Bromoform	U		0.00655	0.0274	1	10/22/2018 00:38	WG1184313
Bromomethane	U		0.00405	0.0137	1	10/22/2018 00:38	WG1184313
n-Butylbenzene	U		0.00421	0.0137	1	10/22/2018 00:38	WG1184313
sec-Butylbenzene	U		0.00277	0.0137	1	10/22/2018 00:38	WG1184313
tert-Butylbenzene	U		0.00170	0.00548	1	10/22/2018 00:38	WG1184313
Carbon disulfide	U		0.00445	0.0137	1	10/22/2018 00:38	WG1184313
Carbon tetrachloride	U		0.00118	0.00548	1	10/22/2018 00:38	WG1184313
Chlorobenzene	U		0.000628	0.00274	1	10/22/2018 00:38	WG1184313
Chlorodibromomethane	U		0.000493	0.00274	1	10/22/2018 00:38	WG1184313
Chloroethane	U		0.00118	0.00548	1	10/22/2018 00:38	WG1184313
Chloroform	0.00140	B J	0.000455	0.00274	1	10/22/2018 00:38	WG1184313
Chloromethane	U		0.00152	0.0137	1	10/22/2018 00:38	WG1184313
2-Chlorotoluene	U		0.00101	0.00274	1	10/22/2018 00:38	WG1184313
4-Chlorotoluene	U		0.00124	0.00548	1	10/22/2018 00:38	WG1184313
1,2-Dibromo-3-Chloropropane	U		0.00559	0.0274	1	10/22/2018 00:38	WG1184313
1,2-Dibromoethane	U		0.000575	0.00274	1	10/22/2018 00:38	WG1184313
Dibromomethane	U		0.00110	0.00548	1	10/22/2018 00:38	WG1184313
1,2-Dichlorobenzene	U		0.00159	0.00548	1	10/22/2018 00:38	WG1184313
1,3-Dichlorobenzene	U		0.00186	0.00548	1	10/22/2018 00:38	WG1184313
1,4-Dichlorobenzene	U		0.00216	0.00548	1	10/22/2018 00:38	WG1184313
Dichlorodifluoromethane	U		0.000896	0.00274	1	10/22/2018 00:38	WG1184313
1,1-Dichloroethane	U		0.000630	0.00274	1	10/22/2018 00:38	WG1184313
1,2-Dichloroethane	U		0.000521	0.00274	1	10/22/2018 00:38	WG1184313
1,1-Dichloroethene	U		0.000548	0.00274	1	10/22/2018 00:38	WG1184313
cis-1,2-Dichloroethene	0.0696		0.000756	0.00274	1	10/22/2018 00:38	WG1184313
trans-1,2-Dichloroethene	U		0.00157	0.00548	1	10/22/2018 00:38	WG1184313
1,2-Dichloropropane	U		0.00139	0.00548	1	10/22/2018 00:38	WG1184313
1,1-Dichloropropene	U		0.000767	0.00274	1	10/22/2018 00:38	WG1184313
1,3-Dichloropropane	U		0.00192	0.00548	1	10/22/2018 00:38	WG1184313
cis-1,3-Dichloropropene	U		0.000743	0.00274	1	10/22/2018 00:38	WG1184313
trans-1,3-Dichloropropene	U		0.00168	0.00548	1	10/22/2018 00:38	WG1184313
trans-1,4-Dichloro-2-butene	U		0.00153	0.00548	1	10/22/2018 00:38	WG1184313
2,2-Dichloropropane	U	J4	0.000869	0.00274	1	10/22/2018 00:38	WG1184313
Di-isopropyl ether	U		0.000384	0.00110	1	10/23/2018 18:14	WG1185140
Ethylbenzene	U		0.000581	0.00274	1	10/22/2018 00:38	WG1184313
Hexachloro-1,3-butadiene	U		0.0139	0.0274	1	10/22/2018 00:38	WG1184313
2-Hexanone	U		0.0110	0.0274	1	10/22/2018 00:38	WG1184313
n-Hexane	U		0.00116	0.00548	1	10/22/2018 00:38	WG1184313
Iodomethane	U		0.00663	0.0137	1	10/22/2018 00:38	WG1184313
Isopropylbenzene	U		0.000946	0.00274	1	10/22/2018 00:38	WG1184313
p-Isopropyltoluene	U		0.00255	0.00548	1	10/22/2018 00:38	WG1184313
2-Butanone (MEK)	0.0348		0.0137	0.0274	1	10/22/2018 00:38	WG1184313
Methylene Chloride	U		0.00728	0.0274	1	10/22/2018 00:38	WG1184313
4-Methyl-2-pentanone (MIBK)	U		0.0110	0.0274	1	10/22/2018 00:38	WG1184313

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000323	0.00110	1	10/23/2018 18:14	WG1185140
Naphthalene	U		0.00342	0.0137	1	10/22/2018 00:38	WG1184313
n-Propylbenzene	U		0.00129	0.00548	1	10/22/2018 00:38	WG1184313
Styrene	U		0.00299	0.0137	1	10/22/2018 00:38	WG1184313
1,1,1,2-Tetrachloroethane	U		0.000548	0.00274	1	10/22/2018 00:38	WG1184313
1,1,2,2-Tetrachloroethane	U		0.000427	0.00274	1	10/22/2018 00:38	WG1184313
1,1,2-Trichlorotrifluoroethane	U		0.000740	0.00274	1	10/22/2018 00:38	WG1184313
Tetrachloroethene	0.00933		0.000767	0.00274	1	10/23/2018 18:14	WG1185140
Toluene	U		0.00137	0.00548	1	10/22/2018 00:38	WG1184313
1,2,3-Trichlorobenzene	U		0.000685	0.00274	1	10/22/2018 00:38	WG1184313
1,2,4-Trichlorobenzene	U		0.00528	0.0137	1	10/23/2018 18:14	WG1185140
1,1,1-Trichloroethane	U		0.000301	0.00274	1	10/22/2018 00:38	WG1184313
1,1,2-Trichloroethane	U		0.000968	0.00274	1	10/22/2018 00:38	WG1184313
Trichloroethene	0.00910		0.000438	0.00110	1	10/23/2018 18:14	WG1185140
Trichlorofluoromethane	U		0.000548	0.00274	1	10/22/2018 00:38	WG1184313
1,2,3-Trichloropropane	U		0.00559	0.0137	1	10/22/2018 00:38	WG1184313
1,2,4-Trimethylbenzene	U		0.00127	0.00548	1	10/22/2018 00:38	WG1184313
1,2,3-Trimethylbenzene	U		0.00126	0.00548	1	10/22/2018 00:38	WG1184313
1,3,5-Trimethylbenzene	U		0.00118	0.00548	1	10/22/2018 00:38	WG1184313
Vinyl acetate	U		0.00386	0.0137	1	10/22/2018 00:38	WG1184313
Vinyl chloride	0.00121	J	0.000748	0.00274	1	10/22/2018 00:38	WG1184313
Xylenes, Total	U		0.00524	0.00712	1	10/22/2018 00:38	WG1184313
(S) Toluene-d8	*90.8*			*75.0-131*		*10/22/2018 00:38*	WG1184313
(S) Toluene-d8	*127*			*75.0-131*		*10/23/2018 18:14*	WG1185140
(S) Dibromofluoromethane	*112*			*65.0-129*		*10/22/2018 00:38*	WG1184313
(S) Dibromofluoromethane	*83.1*			*65.0-129*		*10/23/2018 18:14*	WG1185140
(S) 4-Bromofluorobenzene	*120*			*67.0-138*		*10/22/2018 00:38*	WG1184313
(S) 4-Bromofluorobenzene	*88.1*			*67.0-138*		*10/23/2018 18:14*	WG1185140

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	87.3		1	10/24/2018 10:00	WG1184860

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0157	0.0286	1	10/22/2018 00:58	WG1184313
Acrylonitrile	U		0.00218	0.0143	1	10/22/2018 00:58	WG1184313
Benzene	U		0.000458	0.00115	1	10/23/2018 18:35	WG1185140
Bromobenzene	U		0.00120	0.0143	1	10/22/2018 00:58	WG1184313
Bromodichloromethane	U		0.000903	0.00286	1	10/22/2018 00:58	WG1184313
Bromochloromethane	U		0.00129	0.00573	1	10/22/2018 00:58	WG1184313
Bromoform	U		0.00685	0.0286	1	10/22/2018 00:58	WG1184313
Bromomethane	U		0.00424	0.0143	1	10/22/2018 00:58	WG1184313
n-Butylbenzene	U		0.00440	0.0143	1	10/22/2018 00:58	WG1184313
sec-Butylbenzene	U		0.00290	0.0143	1	10/22/2018 00:58	WG1184313
tert-Butylbenzene	U		0.00178	0.00573	1	10/22/2018 00:58	WG1184313
Carbon disulfide	U		0.00465	0.0143	1	10/22/2018 00:58	WG1184313
Carbon tetrachloride	U		0.00124	0.00573	1	10/22/2018 00:58	WG1184313
Chlorobenzene	U		0.000657	0.00286	1	10/22/2018 00:58	WG1184313
Chlorodibromomethane	U		0.000516	0.00286	1	10/22/2018 00:58	WG1184313
Chloroethane	U		0.00124	0.00573	1	10/22/2018 00:58	WG1184313
Chloroform	0.00244	B J	0.000476	0.00286	1	10/22/2018 00:58	WG1184313
Chloromethane	U		0.00159	0.0143	1	10/22/2018 00:58	WG1184313
2-Chlorotoluene	U		0.00105	0.00286	1	10/22/2018 00:58	WG1184313
4-Chlorotoluene	U		0.00129	0.00573	1	10/22/2018 00:58	WG1184313
1,2-Dibromo-3-Chloropropane	U		0.00584	0.0286	1	10/22/2018 00:58	WG1184313
1,2-Dibromoethane	U		0.000602	0.00286	1	10/22/2018 00:58	WG1184313
Dibromomethane	U		0.00115	0.00573	1	10/22/2018 00:58	WG1184313
1,2-Dichlorobenzene	U		0.00166	0.00573	1	10/22/2018 00:58	WG1184313
1,3-Dichlorobenzene	U		0.00195	0.00573	1	10/22/2018 00:58	WG1184313
1,4-Dichlorobenzene	U		0.00226	0.00573	1	10/22/2018 00:58	WG1184313
Dichlorodifluoromethane	U		0.000937	0.00286	1	10/22/2018 00:58	WG1184313
1,1-Dichloroethane	U		0.000659	0.00286	1	10/22/2018 00:58	WG1184313
1,2-Dichloroethane	U		0.000544	0.00286	1	10/22/2018 00:58	WG1184313
1,1-Dichloroethene	0.000899	J	0.000573	0.00286	1	10/22/2018 00:58	WG1184313
cis-1,2-Dichloroethene	0.105		0.000791	0.00286	1	10/22/2018 00:58	WG1184313
trans-1,2-Dichloroethene	U		0.00164	0.00573	1	10/22/2018 00:58	WG1184313
1,2-Dichloropropane	U		0.00146	0.00573	1	10/22/2018 00:58	WG1184313
1,1-Dichloropropene	U		0.000802	0.00286	1	10/22/2018 00:58	WG1184313
1,3-Dichloropropane	U		0.00201	0.00573	1	10/22/2018 00:58	WG1184313
cis-1,3-Dichloropropene	U		0.000777	0.00286	1	10/22/2018 00:58	WG1184313
trans-1,3-Dichloropropene	U		0.00175	0.00573	1	10/22/2018 00:58	WG1184313
trans-1,4-Dichloro-2-butene	U		0.00160	0.00573	1	10/22/2018 00:58	WG1184313
2,2-Dichloropropane	U	J4	0.000909	0.00286	1	10/22/2018 00:58	WG1184313
Di-isopropyl ether	U		0.000401	0.00115	1	10/23/2018 18:35	WG1185140
Ethylbenzene	U		0.000607	0.00286	1	10/22/2018 00:58	WG1184313
Hexachloro-1,3-butadiene	U		0.0146	0.0286	1	10/22/2018 00:58	WG1184313
2-Hexanone	U		0.0115	0.0286	1	10/22/2018 00:58	WG1184313
n-Hexane	U		0.00121	0.00573	1	10/22/2018 00:58	WG1184313
Iodomethane	U		0.00693	0.0143	1	10/22/2018 00:58	WG1184313
Isopropylbenzene	U		0.000989	0.00286	1	10/22/2018 00:58	WG1184313
p-Isopropyltoluene	U		0.00267	0.00573	1	10/22/2018 00:58	WG1184313
2-Butanone (MEK)	0.0255	J	0.0143	0.0286	1	10/22/2018 00:58	WG1184313
Methylene Chloride	U		0.00761	0.0286	1	10/22/2018 00:58	WG1184313
4-Methyl-2-pentanone (MIBK)	U		0.0115	0.0286	1	10/22/2018 00:58	WG1184313

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000338	0.00115	1	10/23/2018 18:35	WG1185140
Naphthalene	U		0.00358	0.0143	1	10/22/2018 00:58	WG1184313
n-Propylbenzene	U		0.00135	0.00573	1	10/22/2018 00:58	WG1184313
Styrene	U		0.00313	0.0143	1	10/22/2018 00:58	WG1184313
1,1,1,2-Tetrachloroethane	0.000757	J	0.000573	0.00286	1	10/22/2018 00:58	WG1184313
1,1,2,2-Tetrachloroethane	U		0.000447	0.00286	1	10/22/2018 00:58	WG1184313
1,1,2-Trichlorotrifluoroethane	U		0.000773	0.00286	1	10/22/2018 00:58	WG1184313
Tetrachloroethene	0.00535		0.000802	0.00286	1	10/23/2018 18:35	WG1185140
Toluene	0.00224	J	0.00143	0.00573	1	10/22/2018 00:58	WG1184313
1,2,3-Trichlorobenzene	U		0.000716	0.00286	1	10/22/2018 00:58	WG1184313
1,2,4-Trichlorobenzene	U		0.00552	0.0143	1	10/23/2018 18:35	WG1185140
1,1,1-Trichloroethane	U		0.000315	0.00286	1	10/22/2018 00:58	WG1184313
1,1,2-Trichloroethane	U		0.00101	0.00286	1	10/22/2018 00:58	WG1184313
Trichloroethene	0.00372		0.000458	0.00115	1	10/23/2018 18:35	WG1185140
Trichlorofluoromethane	U		0.000573	0.00286	1	10/22/2018 00:58	WG1184313
1,2,3-Trichloropropane	U		0.00584	0.0143	1	10/22/2018 00:58	WG1184313
1,2,4-Trimethylbenzene	U		0.00133	0.00573	1	10/22/2018 00:58	WG1184313
1,2,3-Trimethylbenzene	U		0.00132	0.00573	1	10/22/2018 00:58	WG1184313
1,3,5-Trimethylbenzene	U		0.00124	0.00573	1	10/22/2018 00:58	WG1184313
Vinyl acetate	U		0.00403	0.0143	1	10/22/2018 00:58	WG1184313
Vinyl chloride	0.00257	J	0.000783	0.00286	1	10/22/2018 00:58	WG1184313
Xylenes, Total	U		0.00548	0.00745	1	10/22/2018 00:58	WG1184313
(S) Toluene-d8	*99.3*			*75.0-131*		*10/22/2018 00:58*	WG1184313
(S) Toluene-d8	*125*			*75.0-131*		*10/23/2018 18:35*	WG1185140
(S) Dibromofluoromethane	*113*			*65.0-129*		*10/22/2018 00:58*	WG1184313
(S) Dibromofluoromethane	*94.1*			*65.0-129*		*10/23/2018 18:35*	WG1185140
(S) 4-Bromofluorobenzene	*123*			*67.0-138*		*10/22/2018 00:58*	WG1184313
(S) 4-Bromofluorobenzene	*94.5*			*67.0-138*		*10/23/2018 18:35*	WG1185140

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

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	85.2		1	10/24/2018 10:00	WG1184860

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0161	0.0294	1	10/22/2018 01:18	WG1184313
Acrylonitrile	U		0.00223	0.0147	1	10/22/2018 01:18	WG1184313
Benzene	U		0.000470	0.00117	1	10/23/2018 18:55	WG1185140
Bromobenzene	U		0.00123	0.0147	1	10/22/2018 01:18	WG1184313
Bromodichloromethane	U		0.000925	0.00294	1	10/22/2018 01:18	WG1184313
Bromochloromethane	U		0.00133	0.00587	1	10/22/2018 01:18	WG1184313
Bromoform	U		0.00702	0.0294	1	10/22/2018 01:18	WG1184313
Bromomethane	U		0.00434	0.0147	1	10/22/2018 01:18	WG1184313
n-Butylbenzene	U		0.00451	0.0147	1	10/22/2018 01:18	WG1184313
sec-Butylbenzene	U		0.00297	0.0147	1	10/22/2018 01:18	WG1184313
tert-Butylbenzene	U		0.00182	0.00587	1	10/22/2018 01:18	WG1184313
Carbon disulfide	U		0.00477	0.0147	1	10/22/2018 01:18	WG1184313
Carbon tetrachloride	U		0.00127	0.00587	1	10/22/2018 01:18	WG1184313
Chlorobenzene	U		0.000673	0.00294	1	10/22/2018 01:18	WG1184313
Chlorodibromomethane	U		0.000528	0.00294	1	10/22/2018 01:18	WG1184313
Chloroethane	U		0.00127	0.00587	1	10/22/2018 01:18	WG1184313
Chloroform	0.00189	B J	0.000487	0.00294	1	10/22/2018 01:18	WG1184313
Chloromethane	U		0.00163	0.0147	1	10/22/2018 01:18	WG1184313
2-Chlorotoluene	U		0.00108	0.00294	1	10/22/2018 01:18	WG1184313
4-Chlorotoluene	U		0.00133	0.00587	1	10/22/2018 01:18	WG1184313
1,2-Dibromo-3-Chloropropane	U		0.00599	0.0294	1	10/22/2018 01:18	WG1184313
1,2-Dibromoethane	U		0.000616	0.00294	1	10/22/2018 01:18	WG1184313
Dibromomethane	U		0.00117	0.00587	1	10/22/2018 01:18	WG1184313
1,2-Dichlorobenzene	U		0.00170	0.00587	1	10/22/2018 01:18	WG1184313
1,3-Dichlorobenzene	U		0.00200	0.00587	1	10/22/2018 01:18	WG1184313
1,4-Dichlorobenzene	U		0.00231	0.00587	1	10/22/2018 01:18	WG1184313
Dichlorodifluoromethane	U		0.000960	0.00294	1	10/22/2018 01:18	WG1184313
1,1-Dichloroethane	U		0.000675	0.00294	1	10/22/2018 01:18	WG1184313
1,2-Dichloroethane	U		0.000558	0.00294	1	10/22/2018 01:18	WG1184313
1,1-Dichloroethene	0.00509		0.000587	0.00294	1	10/22/2018 01:18	WG1184313
cis-1,2-Dichloroethene	0.715		0.000810	0.00294	1	10/22/2018 01:18	WG1184313
trans-1,2-Dichloroethene	0.00395	J	0.00168	0.00587	1	10/22/2018 01:18	WG1184313
1,2-Dichloropropane	U		0.00149	0.00587	1	10/22/2018 01:18	WG1184313
1,1-Dichloropropene	U		0.000822	0.00294	1	10/22/2018 01:18	WG1184313
1,3-Dichloropropane	U		0.00205	0.00587	1	10/22/2018 01:18	WG1184313
cis-1,3-Dichloropropene	U		0.000796	0.00294	1	10/22/2018 01:18	WG1184313
trans-1,3-Dichloropropene	U		0.00180	0.00587	1	10/22/2018 01:18	WG1184313
trans-1,4-Dichloro-2-butene	U		0.00164	0.00587	1	10/22/2018 01:18	WG1184313
2,2-Dichloropropane	U	J4	0.000931	0.00294	1	10/22/2018 01:18	WG1184313
Di-isopropyl ether	U		0.000411	0.00117	1	10/23/2018 18:55	WG1185140
Ethylbenzene	U		0.000622	0.00294	1	10/22/2018 01:18	WG1184313
Hexachloro-1,3-butadiene	U		0.0149	0.0294	1	10/22/2018 01:18	WG1184313
2-Hexanone	U		0.0117	0.0294	1	10/22/2018 01:18	WG1184313
n-Hexane	U		0.00124	0.00587	1	10/22/2018 01:18	WG1184313
Iodomethane	U		0.00710	0.0147	1	10/22/2018 01:18	WG1184313
Isopropylbenzene	U		0.00101	0.00294	1	10/22/2018 01:18	WG1184313
p-Isopropyltoluene	U		0.00274	0.00587	1	10/22/2018 01:18	WG1184313
2-Butanone (MEK)	0.0272	J	0.0147	0.0294	1	10/22/2018 01:18	WG1184313
Methylene Chloride	U		0.00780	0.0294	1	10/22/2018 01:18	WG1184313
4-Methyl-2-pentanone (MIBK)	U		0.0117	0.0294	1	10/22/2018 01:18	WG1184313

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000346	0.00117	1	10/23/2018 18:55	WG1185140
Naphthalene	U		0.00366	0.0147	1	10/22/2018 01:18	WG1184313
n-Propylbenzene	U		0.00139	0.00587	1	10/22/2018 01:18	WG1184313
Styrene	U		0.00321	0.0147	1	10/22/2018 01:18	WG1184313
1,1,1,2-Tetrachloroethane	U		0.000587	0.00294	1	10/22/2018 01:18	WG1184313
1,1,2,2-Tetrachloroethane	U		0.000458	0.00294	1	10/22/2018 01:18	WG1184313
1,1,2-Trichlorotrifluoroethane	U		0.000792	0.00294	1	10/22/2018 01:18	WG1184313
Tetrachloroethene	0.0251		0.000822	0.00294	1	10/23/2018 18:55	WG1185140
Toluene	0.00152	J	0.00147	0.00587	1	10/22/2018 01:18	WG1184313
1,2,3-Trichlorobenzene	U		0.000734	0.00294	1	10/22/2018 01:18	WG1184313
1,2,4-Trichlorobenzene	U		0.00566	0.0147	1	10/23/2018 18:55	WG1185140
1,1,1-Trichloroethane	U		0.000323	0.00294	1	10/22/2018 01:18	WG1184313
1,1,2-Trichloroethane	U		0.00104	0.00294	1	10/22/2018 01:18	WG1184313
Trichloroethene	0.0103		0.000470	0.00117	1	10/23/2018 18:55	WG1185140
Trichlorofluoromethane	U		0.000587	0.00294	1	10/22/2018 01:18	WG1184313
1,2,3-Trichloropropane	U		0.00599	0.0147	1	10/22/2018 01:18	WG1184313
1,2,4-Trimethylbenzene	U		0.00136	0.00587	1	10/22/2018 01:18	WG1184313
1,2,3-Trimethylbenzene	U		0.00135	0.00587	1	10/22/2018 01:18	WG1184313
1,3,5-Trimethylbenzene	U		0.00127	0.00587	1	10/22/2018 01:18	WG1184313
Vinyl acetate	U		0.00413	0.0147	1	10/22/2018 01:18	WG1184313
Vinyl chloride	0.166		0.000802	0.00294	1	10/22/2018 01:18	WG1184313
Xylenes, Total	U		0.00561	0.00763	1	10/22/2018 01:18	WG1184313
(S) Toluene-d8	*99.7*			*75.0-131*		*10/22/2018 01:18*	WG1184313
(S) Toluene-d8	*121*			*75.0-131*		*10/23/2018 18:55*	WG1185140
(S) Dibromofluoromethane	*110*			*65.0-129*		*10/22/2018 01:18*	WG1184313
(S) Dibromofluoromethane	*93.3*			*65.0-129*		*10/23/2018 18:55*	WG1185140
(S) 4-Bromofluorobenzene	*119*			*67.0-138*		*10/22/2018 01:18*	WG1184313
(S) 4-Bromofluorobenzene	*90.5*			*67.0-138*		*10/23/2018 18:55*	WG1185140

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	89.5		1	10/24/2018 10:00	WG1184860

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0153	0.0279	1	10/22/2018 01:38	WG1184313
Acrylonitrile	U		0.00212	0.0140	1	10/22/2018 01:38	WG1184313
Benzene	U		0.000447	0.00112	1	10/23/2018 19:16	WG1185140
Bromobenzene	U		0.00117	0.0140	1	10/22/2018 01:38	WG1184313
Bromodichloromethane	U		0.000881	0.00279	1	10/22/2018 01:38	WG1184313
Bromochloromethane	U		0.00126	0.00559	1	10/22/2018 01:38	WG1184313
Bromoform	U		0.00668	0.0279	1	10/22/2018 01:38	WG1184313
Bromomethane	U		0.00414	0.0140	1	10/22/2018 01:38	WG1184313
n-Butylbenzene	U		0.00429	0.0140	1	10/22/2018 01:38	WG1184313
sec-Butylbenzene	U		0.00283	0.0140	1	10/22/2018 01:38	WG1184313
tert-Butylbenzene	U		0.00173	0.00559	1	10/22/2018 01:38	WG1184313
Carbon disulfide	U		0.00454	0.0140	1	10/22/2018 01:38	WG1184313
Carbon tetrachloride	U		0.00121	0.00559	1	10/22/2018 01:38	WG1184313
Chlorobenzene	U		0.000640	0.00279	1	10/22/2018 01:38	WG1184313
Chlorodibromomethane	U		0.000503	0.00279	1	10/22/2018 01:38	WG1184313
Chloroethane	U		0.00121	0.00559	1	10/22/2018 01:38	WG1184313
Chloroform	0.00179	B J	0.000464	0.00279	1	10/22/2018 01:38	WG1184313
Chloromethane	U		0.00155	0.0140	1	10/22/2018 01:38	WG1184313
2-Chlorotoluene	U		0.00103	0.00279	1	10/22/2018 01:38	WG1184313
4-Chlorotoluene	U		0.00126	0.00559	1	10/22/2018 01:38	WG1184313
1,2-Dibromo-3-Chloropropane	U		0.00570	0.0279	1	10/22/2018 01:38	WG1184313
1,2-Dibromoethane	U		0.000587	0.00279	1	10/22/2018 01:38	WG1184313
Dibromomethane	U		0.00112	0.00559	1	10/22/2018 01:38	WG1184313
1,2-Dichlorobenzene	U		0.00162	0.00559	1	10/22/2018 01:38	WG1184313
1,3-Dichlorobenzene	U		0.00190	0.00559	1	10/22/2018 01:38	WG1184313
1,4-Dichlorobenzene	U		0.00220	0.00559	1	10/22/2018 01:38	WG1184313
Dichlorodifluoromethane	U		0.000914	0.00279	1	10/22/2018 01:38	WG1184313
1,1-Dichloroethane	U		0.000643	0.00279	1	10/22/2018 01:38	WG1184313
1,2-Dichloroethane	U		0.000531	0.00279	1	10/22/2018 01:38	WG1184313
1,1-Dichloroethene	0.00344		0.000559	0.00279	1	10/22/2018 01:38	WG1184313
cis-1,2-Dichloroethene	0.718		0.000771	0.00279	1	10/22/2018 01:38	WG1184313
trans-1,2-Dichloroethene	U		0.00160	0.00559	1	10/22/2018 01:38	WG1184313
1,2-Dichloropropane	U		0.00142	0.00559	1	10/22/2018 01:38	WG1184313
1,1-Dichloropropene	U		0.000782	0.00279	1	10/22/2018 01:38	WG1184313
1,3-Dichloropropane	U		0.00196	0.00559	1	10/22/2018 01:38	WG1184313
cis-1,3-Dichloropropene	U		0.000758	0.00279	1	10/22/2018 01:38	WG1184313
trans-1,3-Dichloropropene	U		0.00171	0.00559	1	10/22/2018 01:38	WG1184313
trans-1,4-Dichloro-2-butene	U		0.00156	0.00559	1	10/22/2018 01:38	WG1184313
2,2-Dichloropropane	U	J4	0.000886	0.00279	1	10/22/2018 01:38	WG1184313
Di-isopropyl ether	U		0.000391	0.00112	1	10/23/2018 19:16	WG1185140
Ethylbenzene	U		0.000592	0.00279	1	10/22/2018 01:38	WG1184313
Hexachloro-1,3-butadiene	U		0.0142	0.0279	1	10/22/2018 01:38	WG1184313
2-Hexanone	U		0.0112	0.0279	1	10/22/2018 01:38	WG1184313
n-Hexane	U		0.00118	0.00559	1	10/22/2018 01:38	WG1184313
Iodomethane	U		0.00676	0.0140	1	10/22/2018 01:38	WG1184313
Isopropylbenzene	U		0.000965	0.00279	1	10/22/2018 01:38	WG1184313
p-Isopropyltoluene	U		0.00260	0.00559	1	10/22/2018 01:38	WG1184313
2-Butanone (MEK)	0.0198	J	0.0140	0.0279	1	10/22/2018 01:38	WG1184313
Methylene Chloride	U		0.00742	0.0279	1	10/22/2018 01:38	WG1184313
4-Methyl-2-pentanone (MIBK)	U		0.0112	0.0279	1	10/22/2018 01:38	WG1184313

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000330	0.00112	1	10/23/2018 19:16	WG1185140
Naphthalene	U		0.00349	0.0140	1	10/22/2018 01:38	WG1184313
n-Propylbenzene	U		0.00132	0.00559	1	10/22/2018 01:38	WG1184313
Styrene	U		0.00305	0.0140	1	10/22/2018 01:38	WG1184313
1,1,1,2-Tetrachloroethane	U		0.000559	0.00279	1	10/22/2018 01:38	WG1184313
1,1,2,2-Tetrachloroethane	U		0.000436	0.00279	1	10/22/2018 01:38	WG1184313
1,1,2-Trichlorotrifluoroethane	U		0.000754	0.00279	1	10/22/2018 01:38	WG1184313
Tetrachloroethene	0.697		0.000782	0.00279	1	10/23/2018 19:16	WG1185140
Toluene	U		0.00140	0.00559	1	10/22/2018 01:38	WG1184313
1,2,3-Trichlorobenzene	U		0.000699	0.00279	1	10/22/2018 01:38	WG1184313
1,2,4-Trichlorobenzene	U		0.00539	0.0140	1	10/23/2018 19:16	WG1185140
1,1,1-Trichloroethane	U		0.000307	0.00279	1	10/22/2018 01:38	WG1184313
1,1,2-Trichloroethane	U		0.000987	0.00279	1	10/22/2018 01:38	WG1184313
Trichloroethene	0.253		0.000447	0.00112	1	10/23/2018 19:16	WG1185140
Trichlorofluoromethane	U		0.000559	0.00279	1	10/22/2018 01:38	WG1184313
1,2,3-Trichloropropane	U		0.00570	0.0140	1	10/22/2018 01:38	WG1184313
1,2,4-Trimethylbenzene	U		0.00130	0.00559	1	10/22/2018 01:38	WG1184313
1,2,3-Trimethylbenzene	U		0.00129	0.00559	1	10/22/2018 01:38	WG1184313
1,3,5-Trimethylbenzene	U		0.00121	0.00559	1	10/22/2018 01:38	WG1184313
Vinyl acetate	U		0.00393	0.0140	1	10/22/2018 01:38	WG1184313
Vinyl chloride	0.0191		0.000763	0.00279	1	10/22/2018 01:38	WG1184313
Xylenes, Total	U		0.00534	0.00726	1	10/22/2018 01:38	WG1184313
(S) Toluene-d8	*99.9*			*75.0-131*		*10/22/2018 01:38*	WG1184313
(S) Toluene-d8	*124*			*75.0-131*		*10/23/2018 19:16*	WG1185140
(S) Dibromofluoromethane	*112*			*65.0-129*		*10/22/2018 01:38*	WG1184313
(S) Dibromofluoromethane	*95.5*			*65.0-129*		*10/23/2018 19:16*	WG1185140
(S) 4-Bromofluorobenzene	*122*			*67.0-138*		*10/22/2018 01:38*	WG1184313
(S) 4-Bromofluorobenzene	*88.7*			*67.0-138*		*10/23/2018 19:16*	WG1185140

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	90.2		1	10/24/2018 10:00	WG1184860

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0152	0.0277	1	10/22/2018 01:58	WG1184313
Acrylonitrile	U		0.00211	0.0139	1	10/22/2018 01:58	WG1184313
Benzene	U		0.000444	0.00111	1	10/23/2018 19:36	WG1185140
Bromobenzene	U		0.00116	0.0139	1	10/22/2018 01:58	WG1184313
Bromodichloromethane	U		0.000874	0.00277	1	10/22/2018 01:58	WG1184313
Bromochloromethane	U		0.00125	0.00554	1	10/22/2018 01:58	WG1184313
Bromoform	U		0.00663	0.0277	1	10/22/2018 01:58	WG1184313
Bromomethane	U		0.00410	0.0139	1	10/22/2018 01:58	WG1184313
n-Butylbenzene	U		0.00426	0.0139	1	10/22/2018 01:58	WG1184313
sec-Butylbenzene	U		0.00281	0.0139	1	10/22/2018 01:58	WG1184313
tert-Butylbenzene	U		0.00172	0.00554	1	10/22/2018 01:58	WG1184313
Carbon disulfide	U		0.00450	0.0139	1	10/22/2018 01:58	WG1184313
Carbon tetrachloride	U		0.00120	0.00554	1	10/22/2018 01:58	WG1184313
Chlorobenzene	U		0.000635	0.00277	1	10/22/2018 01:58	WG1184313
Chlorodibromomethane	U		0.000499	0.00277	1	10/22/2018 01:58	WG1184313
Chloroethane	U		0.00120	0.00554	1	10/22/2018 01:58	WG1184313
Chloroform	0.00189	B J	0.000460	0.00277	1	10/22/2018 01:58	WG1184313
Chloromethane	U		0.00154	0.0139	1	10/22/2018 01:58	WG1184313
2-Chlorotoluene	U		0.00102	0.00277	1	10/22/2018 01:58	WG1184313
4-Chlorotoluene	U		0.00125	0.00554	1	10/22/2018 01:58	WG1184313
1,2-Dibromo-3-Chloropropane	U		0.00566	0.0277	1	10/22/2018 01:58	WG1184313
1,2-Dibromoethane	U		0.000582	0.00277	1	10/22/2018 01:58	WG1184313
Dibromomethane	U		0.00111	0.00554	1	10/22/2018 01:58	WG1184313
1,2-Dichlorobenzene	U		0.00161	0.00554	1	10/22/2018 01:58	WG1184313
1,3-Dichlorobenzene	U		0.00189	0.00554	1	10/22/2018 01:58	WG1184313
1,4-Dichlorobenzene	U		0.00218	0.00554	1	10/22/2018 01:58	WG1184313
Dichlorodifluoromethane	U		0.000907	0.00277	1	10/22/2018 01:58	WG1184313
1,1-Dichloroethane	U		0.000638	0.00277	1	10/22/2018 01:58	WG1184313
1,2-Dichloroethane	U		0.000527	0.00277	1	10/22/2018 01:58	WG1184313
1,1-Dichloroethene	U		0.000554	0.00277	1	10/22/2018 01:58	WG1184313
cis-1,2-Dichloroethene	0.0185		0.000765	0.00277	1	10/22/2018 01:58	WG1184313
trans-1,2-Dichloroethene	U		0.00159	0.00554	1	10/22/2018 01:58	WG1184313
1,2-Dichloropropane	U		0.00141	0.00554	1	10/22/2018 01:58	WG1184313
1,1-Dichloropropene	U		0.000776	0.00277	1	10/22/2018 01:58	WG1184313
1,3-Dichloropropane	U		0.00194	0.00554	1	10/22/2018 01:58	WG1184313
cis-1,3-Dichloropropene	U		0.000752	0.00277	1	10/22/2018 01:58	WG1184313
trans-1,3-Dichloropropene	U		0.00170	0.00554	1	10/22/2018 01:58	WG1184313
trans-1,4-Dichloro-2-butene	U		0.00155	0.00554	1	10/22/2018 01:58	WG1184313
2,2-Dichloropropane	U	J4	0.000879	0.00277	1	10/22/2018 01:58	WG1184313
Di-isopropyl ether	U		0.000388	0.00111	1	10/23/2018 19:36	WG1185140
Ethylbenzene	U		0.000588	0.00277	1	10/22/2018 01:58	WG1184313
Hexachloro-1,3-butadiene	U		0.0141	0.0277	1	10/22/2018 01:58	WG1184313
2-Hexanone	U		0.0111	0.0277	1	10/22/2018 01:58	WG1184313
n-Hexane	U		0.00118	0.00554	1	10/22/2018 01:58	WG1184313
Iodomethane	U		0.00671	0.0139	1	10/22/2018 01:58	WG1184313
Isopropylbenzene	U		0.000957	0.00277	1	10/22/2018 01:58	WG1184313
p-Isopropyltoluene	U		0.00258	0.00554	1	10/22/2018 01:58	WG1184313
2-Butanone (MEK)	0.0209	J	0.0139	0.0277	1	10/22/2018 01:58	WG1184313
Methylene Chloride	U		0.00736	0.0277	1	10/22/2018 01:58	WG1184313
4-Methyl-2-pentanone (MIBK)	U		0.0111	0.0277	1	10/22/2018 01:58	WG1184313

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000327	0.00111	1	10/23/2018 19:36	WG1185140
Naphthalene	U		0.00346	0.0139	1	10/22/2018 01:58	WG1184313
n-Propylbenzene	U		0.00131	0.00554	1	10/22/2018 01:58	WG1184313
Styrene	U		0.00303	0.0139	1	10/22/2018 01:58	WG1184313
1,1,1,2-Tetrachloroethane	U		0.000554	0.00277	1	10/22/2018 01:58	WG1184313
1,1,2,2-Tetrachloroethane	U		0.000432	0.00277	1	10/22/2018 01:58	WG1184313
1,1,2-Trichlorotrifluoroethane	U		0.000749	0.00277	1	10/22/2018 01:58	WG1184313
Tetrachloroethene	0.0785		0.000776	0.00277	1	10/23/2018 19:36	WG1185140
Toluene	U		0.00139	0.00554	1	10/22/2018 01:58	WG1184313
1,2,3-Trichlorobenzene	U		0.000693	0.00277	1	10/22/2018 01:58	WG1184313
1,2,4-Trichlorobenzene	U		0.00535	0.0139	1	10/23/2018 19:36	WG1185140
1,1,1-Trichloroethane	U		0.000305	0.00277	1	10/22/2018 01:58	WG1184313
1,1,2-Trichloroethane	0.00189	J	0.000979	0.00277	1	10/22/2018 01:58	WG1184313
Trichloroethene	0.00667		0.000444	0.00111	1	10/23/2018 19:36	WG1185140
Trichlorofluoromethane	U		0.000554	0.00277	1	10/22/2018 01:58	WG1184313
1,2,3-Trichloropropane	U		0.00566	0.0139	1	10/22/2018 01:58	WG1184313
1,2,4-Trimethylbenzene	U		0.00129	0.00554	1	10/22/2018 01:58	WG1184313
1,2,3-Trimethylbenzene	U		0.00128	0.00554	1	10/22/2018 01:58	WG1184313
1,3,5-Trimethylbenzene	U		0.00120	0.00554	1	10/22/2018 01:58	WG1184313
Vinyl acetate	U		0.00390	0.0139	1	10/22/2018 01:58	WG1184313
Vinyl chloride	U		0.000757	0.00277	1	10/22/2018 01:58	WG1184313
Xylenes, Total	U		0.00530	0.00721	1	10/22/2018 01:58	WG1184313
(S) Toluene-d8	*99.1*			*75.0-131*		*10/22/2018 01:58*	WG1184313
(S) Toluene-d8	*124*			*75.0-131*		*10/23/2018 19:36*	WG1185140
(S) Dibromofluoromethane	*111*			*65.0-129*		*10/22/2018 01:58*	WG1184313
(S) Dibromofluoromethane	*95.4*			*65.0-129*		*10/23/2018 19:36*	WG1185140
(S) 4-Bromofluorobenzene	*121*			*67.0-138*		*10/22/2018 01:58*	WG1184313
(S) 4-Bromofluorobenzene	*88.5*			*67.0-138*		*10/23/2018 19:36*	WG1185140

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	89.1		1	10/24/2018 10:00	WG1184860

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0154	0.0281	1	10/22/2018 02:18	WG1184313
Acrylonitrile	U		0.00213	0.0140	1	10/22/2018 02:18	WG1184313
Benzene	U		0.000449	0.00112	1	10/23/2018 19:57	WG1185140
Bromobenzene	U		0.00118	0.0140	1	10/22/2018 02:18	WG1184313
Bromodichloromethane	U		0.000884	0.00281	1	10/22/2018 02:18	WG1184313
Bromochloromethane	U		0.00127	0.00561	1	10/22/2018 02:18	WG1184313
Bromoform	U		0.00671	0.0281	1	10/22/2018 02:18	WG1184313
Bromomethane	U		0.00415	0.0140	1	10/22/2018 02:18	WG1184313
n-Butylbenzene	U		0.00431	0.0140	1	10/22/2018 02:18	WG1184313
sec-Butylbenzene	U		0.00284	0.0140	1	10/22/2018 02:18	WG1184313
tert-Butylbenzene	U		0.00174	0.00561	1	10/22/2018 02:18	WG1184313
Carbon disulfide	U		0.00456	0.0140	1	10/22/2018 02:18	WG1184313
Carbon tetrachloride	U		0.00121	0.00561	1	10/22/2018 02:18	WG1184313
Chlorobenzene	U		0.000643	0.00281	1	10/22/2018 02:18	WG1184313
Chlorodibromomethane	U		0.000505	0.00281	1	10/22/2018 02:18	WG1184313
Chloroethane	U		0.00121	0.00561	1	10/22/2018 02:18	WG1184313
Chloroform	0.00206	B J	0.000466	0.00281	1	10/22/2018 02:18	WG1184313
Chloromethane	U		0.00156	0.0140	1	10/22/2018 02:18	WG1184313
2-Chlorotoluene	U		0.00103	0.00281	1	10/22/2018 02:18	WG1184313
4-Chlorotoluene	U		0.00127	0.00561	1	10/22/2018 02:18	WG1184313
1,2-Dibromo-3-Chloropropane	U		0.00572	0.0281	1	10/22/2018 02:18	WG1184313
1,2-Dibromoethane	U		0.000589	0.00281	1	10/22/2018 02:18	WG1184313
Dibromomethane	U		0.00112	0.00561	1	10/22/2018 02:18	WG1184313
1,2-Dichlorobenzene	U		0.00163	0.00561	1	10/22/2018 02:18	WG1184313
1,3-Dichlorobenzene	U		0.00191	0.00561	1	10/22/2018 02:18	WG1184313
1,4-Dichlorobenzene	U		0.00221	0.00561	1	10/22/2018 02:18	WG1184313
Dichlorodifluoromethane	U		0.000918	0.00281	1	10/22/2018 02:18	WG1184313
1,1-Dichloroethane	U		0.000645	0.00281	1	10/22/2018 02:18	WG1184313
1,2-Dichloroethane	U		0.000533	0.00281	1	10/22/2018 02:18	WG1184313
1,1-Dichloroethene	0.000732	J	0.000561	0.00281	1	10/22/2018 02:18	WG1184313
cis-1,2-Dichloroethene	0.142		0.000774	0.00281	1	10/22/2018 02:18	WG1184313
trans-1,2-Dichloroethene	0.00182	J	0.00160	0.00561	1	10/22/2018 02:18	WG1184313
1,2-Dichloropropane	U		0.00143	0.00561	1	10/22/2018 02:18	WG1184313
1,1-Dichloropropene	U		0.000786	0.00281	1	10/22/2018 02:18	WG1184313
1,3-Dichloropropane	U		0.00196	0.00561	1	10/22/2018 02:18	WG1184313
cis-1,3-Dichloropropene	U		0.000761	0.00281	1	10/22/2018 02:18	WG1184313
trans-1,3-Dichloropropene	U		0.00172	0.00561	1	10/22/2018 02:18	WG1184313
trans-1,4-Dichloro-2-butene	U		0.00157	0.00561	1	10/22/2018 02:18	WG1184313
2,2-Dichloropropane	U	J4	0.000890	0.00281	1	10/22/2018 02:18	WG1184313
Di-isopropyl ether	U		0.000393	0.00112	1	10/23/2018 19:57	WG1185140
Ethylbenzene	U		0.000595	0.00281	1	10/22/2018 02:18	WG1184313
Hexachloro-1,3-butadiene	U		0.0143	0.0281	1	10/22/2018 02:18	WG1184313
2-Hexanone	U		0.0112	0.0281	1	10/22/2018 02:18	WG1184313
n-Hexane	U		0.00119	0.00561	1	10/22/2018 02:18	WG1184313
Iodomethane	U		0.00679	0.0140	1	10/22/2018 02:18	WG1184313
Isopropylbenzene	U		0.000968	0.00281	1	10/22/2018 02:18	WG1184313
p-Isopropyltoluene	U		0.00261	0.00561	1	10/22/2018 02:18	WG1184313
2-Butanone (MEK)	0.0348		0.0140	0.0281	1	10/22/2018 02:18	WG1184313
Methylene Chloride	U		0.00745	0.0281	1	10/22/2018 02:18	WG1184313
4-Methyl-2-pentanone (MIBK)	U		0.0112	0.0281	1	10/22/2018 02:18	WG1184313

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000331	0.00112	1	10/23/2018 19:57	WG1185140
Naphthalene	U		0.00350	0.0140	1	10/22/2018 02:18	WG1184313
n-Propylbenzene	U		0.00132	0.00561	1	10/22/2018 02:18	WG1184313
Styrene	U		0.00306	0.0140	1	10/22/2018 02:18	WG1184313
1,1,1,2-Tetrachloroethane	0.000647	J	0.000561	0.00281	1	10/22/2018 02:18	WG1184313
1,1,2,2-Tetrachloroethane	U		0.000438	0.00281	1	10/22/2018 02:18	WG1184313
1,1,2-Trichlorotrifluoroethane	U		0.000757	0.00281	1	10/22/2018 02:18	WG1184313
Tetrachloroethene	0.0294	V3	0.000786	0.00281	1	10/23/2018 19:57	WG1185140
Toluene	0.00153	J	0.00140	0.00561	1	10/22/2018 02:18	WG1184313
1,2,3-Trichlorobenzene	U		0.000701	0.00281	1	10/22/2018 02:18	WG1184313
1,2,4-Trichlorobenzene	U		0.00541	0.0140	1	10/23/2018 19:57	WG1185140
1,1,1-Trichloroethane	U		0.000309	0.00281	1	10/22/2018 02:18	WG1184313
1,1,2-Trichloroethane	U		0.000991	0.00281	1	10/22/2018 02:18	WG1184313
Trichloroethene	0.00771		0.000449	0.00112	1	10/23/2018 19:57	WG1185140
Trichlorofluoromethane	U		0.000561	0.00281	1	10/22/2018 02:18	WG1184313
1,2,3-Trichloropropane	U		0.00572	0.0140	1	10/22/2018 02:18	WG1184313
1,2,4-Trimethylbenzene	0.00132	J	0.00130	0.00561	1	10/22/2018 02:18	WG1184313
1,2,3-Trimethylbenzene	U		0.00129	0.00561	1	10/22/2018 02:18	WG1184313
1,3,5-Trimethylbenzene	U		0.00121	0.00561	1	10/22/2018 02:18	WG1184313
Vinyl acetate	U		0.00395	0.0140	1	10/22/2018 02:18	WG1184313
Vinyl chloride	0.00269	J	0.000766	0.00281	1	10/22/2018 02:18	WG1184313
Xylenes, Total	U		0.00536	0.00729	1	10/22/2018 02:18	WG1184313
(S) Toluene-d8	*101*			*75.0-131*		*10/22/2018 02:18*	WG1184313
(S) Toluene-d8	*131*			*75.0-131*		*10/23/2018 19:57*	WG1185140
(S) Dibromofluoromethane	*112*			*65.0-129*		*10/22/2018 02:18*	WG1184313
(S) Dibromofluoromethane	*86.1*			*65.0-129*		*10/23/2018 19:57*	WG1185140
(S) 4-Bromofluorobenzene	*120*			*67.0-138*		*10/22/2018 02:18*	WG1184313
(S) 4-Bromofluorobenzene	*58.1*	J2		*67.0-138*		*10/23/2018 19:57*	WG1185140

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	87.1		1	10/24/2018 10:00	WG1184860

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0157	0.0287	1	10/22/2018 02:38	WG1184313
Acrylonitrile	U		0.00218	0.0143	1	10/22/2018 02:38	WG1184313
Benzene	U		0.000459	0.00115	1	10/23/2018 20:17	WG1185140
Bromobenzene	U		0.00120	0.0143	1	10/22/2018 02:38	WG1184313
Bromodichloromethane	U		0.000904	0.00287	1	10/22/2018 02:38	WG1184313
Bromochloromethane	U		0.00130	0.00574	1	10/22/2018 02:38	WG1184313
Bromoform	U		0.00686	0.0287	1	10/22/2018 02:38	WG1184313
Bromomethane	U		0.00425	0.0143	1	10/22/2018 02:38	WG1184313
n-Butylbenzene	U		0.00441	0.0143	1	10/22/2018 02:38	WG1184313
sec-Butylbenzene	U		0.00290	0.0143	1	10/22/2018 02:38	WG1184313
tert-Butylbenzene	U		0.00178	0.00574	1	10/22/2018 02:38	WG1184313
Carbon disulfide	U		0.00466	0.0143	1	10/22/2018 02:38	WG1184313
Carbon tetrachloride	U		0.00124	0.00574	1	10/22/2018 02:38	WG1184313
Chlorobenzene	U		0.000658	0.00287	1	10/22/2018 02:38	WG1184313
Chlorodibromomethane	U		0.000516	0.00287	1	10/22/2018 02:38	WG1184313
Chloroethane	U		0.00124	0.00574	1	10/22/2018 02:38	WG1184313
Chloroform	0.00159	B J	0.000476	0.00287	1	10/22/2018 02:38	WG1184313
Chloromethane	U		0.00160	0.0143	1	10/22/2018 02:38	WG1184313
2-Chlorotoluene	U		0.00106	0.00287	1	10/22/2018 02:38	WG1184313
4-Chlorotoluene	U		0.00130	0.00574	1	10/22/2018 02:38	WG1184313
1,2-Dibromo-3-Chloropropane	U		0.00585	0.0287	1	10/22/2018 02:38	WG1184313
1,2-Dibromoethane	U		0.000602	0.00287	1	10/22/2018 02:38	WG1184313
Dibromomethane	U		0.00115	0.00574	1	10/22/2018 02:38	WG1184313
1,2-Dichlorobenzene	U		0.00166	0.00574	1	10/22/2018 02:38	WG1184313
1,3-Dichlorobenzene	U		0.00195	0.00574	1	10/22/2018 02:38	WG1184313
1,4-Dichlorobenzene	U		0.00226	0.00574	1	10/22/2018 02:38	WG1184313
Dichlorodifluoromethane	U		0.000939	0.00287	1	10/22/2018 02:38	WG1184313
1,1-Dichloroethane	U		0.000660	0.00287	1	10/22/2018 02:38	WG1184313
1,2-Dichloroethane	U		0.000545	0.00287	1	10/22/2018 02:38	WG1184313
1,1-Dichloroethene	0.00166	J	0.000574	0.00287	1	10/22/2018 02:38	WG1184313
cis-1,2-Dichloroethene	0.568		0.000792	0.00287	1	10/22/2018 02:38	WG1184313
trans-1,2-Dichloroethene	0.00241	J	0.00164	0.00574	1	10/22/2018 02:38	WG1184313
1,2-Dichloropropane	U		0.00146	0.00574	1	10/22/2018 02:38	WG1184313
1,1-Dichloropropene	U		0.000803	0.00287	1	10/22/2018 02:38	WG1184313
1,3-Dichloropropane	U		0.00201	0.00574	1	10/22/2018 02:38	WG1184313
cis-1,3-Dichloropropene	U		0.000778	0.00287	1	10/22/2018 02:38	WG1184313
trans-1,3-Dichloropropene	U		0.00176	0.00574	1	10/22/2018 02:38	WG1184313
trans-1,4-Dichloro-2-butene	U		0.00161	0.00574	1	10/22/2018 02:38	WG1184313
2,2-Dichloropropane	U	J4	0.000910	0.00287	1	10/22/2018 02:38	WG1184313
Di-isopropyl ether	U		0.000402	0.00115	1	10/23/2018 20:17	WG1185140
Ethylbenzene	U		0.000608	0.00287	1	10/22/2018 02:38	WG1184313
Hexachloro-1,3-butadiene	U		0.0146	0.0287	1	10/22/2018 02:38	WG1184313
2-Hexanone	U		0.0115	0.0287	1	10/22/2018 02:38	WG1184313
n-Hexane	U		0.00122	0.00574	1	10/22/2018 02:38	WG1184313
Iodomethane	U		0.00694	0.0143	1	10/22/2018 02:38	WG1184313
Isopropylbenzene	U		0.000990	0.00287	1	10/22/2018 02:38	WG1184313
p-Isopropyltoluene	U		0.00267	0.00574	1	10/22/2018 02:38	WG1184313
2-Butanone (MEK)	0.0241	J	0.0143	0.0287	1	10/22/2018 02:38	WG1184313
Methylene Chloride	U		0.00762	0.0287	1	10/22/2018 02:38	WG1184313
4-Methyl-2-pentanone (MIBK)	U		0.0115	0.0287	1	10/22/2018 02:38	WG1184313

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000339	0.00115	1	10/23/2018 20:17	WG1185140
Naphthalene	U		0.00358	0.0143	1	10/22/2018 02:38	WG1184313
n-Propylbenzene	U		0.00135	0.00574	1	10/22/2018 02:38	WG1184313
Styrene	U		0.00313	0.0143	1	10/22/2018 02:38	WG1184313
1,1,1,2-Tetrachloroethane	0.000624	J	0.000574	0.00287	1	10/22/2018 02:38	WG1184313
1,1,2,2-Tetrachloroethane	U		0.000448	0.00287	1	10/22/2018 02:38	WG1184313
1,1,2-Trichlorotrifluoroethane	U		0.000775	0.00287	1	10/22/2018 02:38	WG1184313
Tetrachloroethene	0.0106		0.000803	0.00287	1	10/23/2018 20:17	WG1185140
Toluene	U		0.00143	0.00574	1	10/22/2018 02:38	WG1184313
1,2,3-Trichlorobenzene	U		0.000717	0.00287	1	10/22/2018 02:38	WG1184313
1,2,4-Trichlorobenzene	U		0.00553	0.0143	1	10/23/2018 20:17	WG1185140
1,1,1-Trichloroethane	U		0.000316	0.00287	1	10/22/2018 02:38	WG1184313
1,1,2-Trichloroethane	U		0.00101	0.00287	1	10/22/2018 02:38	WG1184313
Trichloroethene	0.00211		0.000459	0.00115	1	10/23/2018 20:17	WG1185140
Trichlorofluoromethane	U		0.000574	0.00287	1	10/22/2018 02:38	WG1184313
1,2,3-Trichloropropane	U		0.00585	0.0143	1	10/22/2018 02:38	WG1184313
1,2,4-Trimethylbenzene	U		0.00133	0.00574	1	10/22/2018 02:38	WG1184313
1,2,3-Trimethylbenzene	U		0.00132	0.00574	1	10/22/2018 02:38	WG1184313
1,3,5-Trimethylbenzene	U		0.00124	0.00574	1	10/22/2018 02:38	WG1184313
Vinyl acetate	U		0.00404	0.0143	1	10/22/2018 02:38	WG1184313
Vinyl chloride	0.0103		0.000784	0.00287	1	10/22/2018 02:38	WG1184313
Xylenes, Total	U		0.00549	0.00746	1	10/22/2018 02:38	WG1184313
(S) Toluene-d8	*101*			*75.0-131*		*10/22/2018 02:38*	WG1184313
(S) Toluene-d8	*126*			*75.0-131*		*10/23/2018 20:17*	WG1185140
(S) Dibromofluoromethane	*116*			*65.0-129*		*10/22/2018 02:38*	WG1184313
(S) Dibromofluoromethane	*94.2*			*65.0-129*		*10/23/2018 20:17*	WG1185140
(S) 4-Bromofluorobenzene	*119*			*67.0-138*		*10/22/2018 02:38*	WG1184313
(S) 4-Bromofluorobenzene	*94.6*			*67.0-138*		*10/23/2018 20:17*	WG1185140

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	86.1		1	10/24/2018 10:00	WG1184860

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0159	0.0290	1	10/22/2018 02:58	WG1184313
Acrylonitrile	U		0.00221	0.0145	1	10/22/2018 02:58	WG1184313
Benzene	U		0.00465	0.0116	10	10/23/2018 21:18	WG1185140
Bromobenzene	U		0.00122	0.0145	1	10/22/2018 02:58	WG1184313
Bromodichloromethane	U		0.000915	0.00290	1	10/22/2018 02:58	WG1184313
Bromochloromethane	U		0.00131	0.00581	1	10/22/2018 02:58	WG1184313
Bromoform	U		0.00694	0.0290	1	10/22/2018 02:58	WG1184313
Bromomethane	U		0.00430	0.0145	1	10/22/2018 02:58	WG1184313
n-Butylbenzene	U		0.00446	0.0145	1	10/22/2018 02:58	WG1184313
sec-Butylbenzene	U		0.00294	0.0145	1	10/22/2018 02:58	WG1184313
tert-Butylbenzene	U		0.00180	0.00581	1	10/22/2018 02:58	WG1184313
Carbon disulfide	U		0.00471	0.0145	1	10/22/2018 02:58	WG1184313
Carbon tetrachloride	U		0.00125	0.00581	1	10/22/2018 02:58	WG1184313
Chlorobenzene	U		0.000665	0.00290	1	10/22/2018 02:58	WG1184313
Chlorodibromomethane	U		0.000523	0.00290	1	10/22/2018 02:58	WG1184313
Chloroethane	U		0.00125	0.00581	1	10/22/2018 02:58	WG1184313
Chloroform	0.00183	B J	0.000482	0.00290	1	10/22/2018 02:58	WG1184313
Chloromethane	U		0.00161	0.0145	1	10/22/2018 02:58	WG1184313
2-Chlorotoluene	U		0.00107	0.00290	1	10/22/2018 02:58	WG1184313
4-Chlorotoluene	U		0.00131	0.00581	1	10/22/2018 02:58	WG1184313
1,2-Dibromo-3-Chloropropane	U		0.00592	0.0290	1	10/22/2018 02:58	WG1184313
1,2-Dibromoethane	U		0.000610	0.00290	1	10/22/2018 02:58	WG1184313
Dibromomethane	U		0.00116	0.00581	1	10/22/2018 02:58	WG1184313
1,2-Dichlorobenzene	U		0.00168	0.00581	1	10/22/2018 02:58	WG1184313
1,3-Dichlorobenzene	U		0.00197	0.00581	1	10/22/2018 02:58	WG1184313
1,4-Dichlorobenzene	U		0.00229	0.00581	1	10/22/2018 02:58	WG1184313
Dichlorodifluoromethane	U		0.000950	0.00290	1	10/22/2018 02:58	WG1184313
1,1-Dichloroethane	U		0.000668	0.00290	1	10/22/2018 02:58	WG1184313
1,2-Dichloroethane	U		0.000552	0.00290	1	10/22/2018 02:58	WG1184313
1,1-Dichloroethene	0.00427		0.000581	0.00290	1	10/22/2018 02:58	WG1184313
cis-1,2-Dichloroethene	0.414		0.000801	0.00290	1	10/22/2018 02:58	WG1184313
trans-1,2-Dichloroethene	0.00349	J	0.00166	0.00581	1	10/22/2018 02:58	WG1184313
1,2-Dichloropropane	U		0.00147	0.00581	1	10/22/2018 02:58	WG1184313
1,1-Dichloropropene	U		0.000813	0.00290	1	10/22/2018 02:58	WG1184313
1,3-Dichloropropane	U		0.00203	0.00581	1	10/22/2018 02:58	WG1184313
cis-1,3-Dichloropropene	0.000791	J	0.000787	0.00290	1	10/22/2018 02:58	WG1184313
trans-1,3-Dichloropropene	U		0.00178	0.00581	1	10/22/2018 02:58	WG1184313
trans-1,4-Dichloro-2-butene	U		0.00163	0.00581	1	10/22/2018 02:58	WG1184313
2,2-Dichloropropane	U	J4	0.000921	0.00290	1	10/22/2018 02:58	WG1184313
Di-isopropyl ether	U		0.00406	0.0116	10	10/23/2018 21:18	WG1185140
Ethylbenzene	U		0.000615	0.00290	1	10/22/2018 02:58	WG1184313
Hexachloro-1,3-butadiene	U		0.0147	0.0290	1	10/22/2018 02:58	WG1184313
2-Hexanone	U		0.0116	0.0290	1	10/22/2018 02:58	WG1184313
n-Hexane	0.00587		0.00123	0.00581	1	10/22/2018 02:58	WG1184313
Iodomethane	U		0.00703	0.0145	1	10/22/2018 02:58	WG1184313
Isopropylbenzene	U		0.00100	0.00290	1	10/22/2018 02:58	WG1184313
p-Isopropyltoluene	U		0.00271	0.00581	1	10/22/2018 02:58	WG1184313
2-Butanone (MEK)	0.0288	J	0.0145	0.0290	1	10/22/2018 02:58	WG1184313
Methylene Chloride	U		0.00771	0.0290	1	10/22/2018 02:58	WG1184313
4-Methyl-2-pentanone (MIBK)	U		0.0116	0.0290	1	10/22/2018 02:58	WG1184313

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.00343	0.0116	10	10/23/2018 21:18	WG1185140
Naphthalene	U		0.00362	0.0145	1	10/22/2018 02:58	WG1184313
n-Propylbenzene	U		0.00137	0.00581	1	10/22/2018 02:58	WG1184313
Styrene	U		0.00317	0.0145	1	10/22/2018 02:58	WG1184313
1,1,1,2-Tetrachloroethane	U		0.000581	0.00290	1	10/22/2018 02:58	WG1184313
1,1,2,2-Tetrachloroethane	U		0.000453	0.00290	1	10/22/2018 02:58	WG1184313
1,1,2-Trichlorotrifluoroethane	U		0.000784	0.00290	1	10/22/2018 02:58	WG1184313
Tetrachloroethene	9.92		0.0650	0.232	80	10/25/2018 00:40	WG1185815
Toluene	0.00165	J	0.00145	0.00581	1	10/22/2018 02:58	WG1184313
1,2,3-Trichlorobenzene	U		0.000726	0.00290	1	10/22/2018 02:58	WG1184313
1,2,4-Trichlorobenzene	U		0.0560	0.145	10	10/23/2018 21:18	WG1185140
1,1,1-Trichloroethane	U		0.000319	0.00290	1	10/22/2018 02:58	WG1184313
1,1,2-Trichloroethane	U		0.00103	0.00290	1	10/22/2018 02:58	WG1184313
Trichloroethene	1.98		0.00465	0.0116	10	10/23/2018 21:18	WG1185140
Trichlorofluoromethane	U		0.000581	0.00290	1	10/22/2018 02:58	WG1184313
1,2,3-Trichloropropane	U		0.00592	0.0145	1	10/22/2018 02:58	WG1184313
1,2,4-Trimethylbenzene	U		0.00135	0.00581	1	10/22/2018 02:58	WG1184313
1,2,3-Trimethylbenzene	U		0.00134	0.00581	1	10/22/2018 02:58	WG1184313
1,3,5-Trimethylbenzene	U		0.00125	0.00581	1	10/22/2018 02:58	WG1184313
Vinyl acetate	U		0.00409	0.0145	1	10/22/2018 02:58	WG1184313
Vinyl chloride	0.0101		0.000793	0.00290	1	10/22/2018 02:58	WG1184313
Xylenes, Total	U		0.00555	0.00755	1	10/22/2018 02:58	WG1184313
(S) Toluene-d8	*101*			*75.0-131*		*10/22/2018 02:58*	WG1184313
(S) Toluene-d8	*120*			*75.0-131*		*10/23/2018 21:18*	WG1185140
(S) Toluene-d8	*104*			*75.0-131*		*10/25/2018 00:40*	WG1185815
(S) Dibromofluoromethane	*112*			*65.0-129*		*10/22/2018 02:58*	WG1184313
(S) Dibromofluoromethane	*102*			*65.0-129*		*10/23/2018 21:18*	WG1185140
(S) Dibromofluoromethane	*101*			*65.0-129*		*10/25/2018 00:40*	WG1185815
(S) 4-Bromofluorobenzene	*120*			*67.0-138*		*10/22/2018 02:58*	WG1184313
(S) 4-Bromofluorobenzene	*93.1*			*67.0-138*		*10/23/2018 21:18*	WG1185140
(S) 4-Bromofluorobenzene	*103*			*67.0-138*		*10/25/2018 00:40*	WG1185815

Sample Narrative:

L1036155-18 WG1184313, WG1185140: Not all compounds reportable at lower dilution.

L1036155-18 WG1184313, WG1185140: Cannot be reanalyzed at a lower dilution due to high levels of target analytes.

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	90.5		1	10/24/2018 10:00	WG1184860

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0151	0.0276	1	10/22/2018 03:18	WG1184313
Acrylonitrile	U		0.00210	0.0138	1	10/22/2018 03:18	WG1184313
Benzene	U		0.00442	0.0111	10	10/23/2018 21:38	WG1185140
Bromobenzene	U		0.00116	0.0138	1	10/22/2018 03:18	WG1184313
Bromodichloromethane	U		0.000871	0.00276	1	10/22/2018 03:18	WG1184313
Bromochloromethane	U		0.00125	0.00553	1	10/22/2018 03:18	WG1184313
Bromoform	U		0.00661	0.0276	1	10/22/2018 03:18	WG1184313
Bromomethane	U		0.00409	0.0138	1	10/22/2018 03:18	WG1184313
n-Butylbenzene	U		0.00424	0.0138	1	10/22/2018 03:18	WG1184313
sec-Butylbenzene	U		0.00280	0.0138	1	10/22/2018 03:18	WG1184313
tert-Butylbenzene	U		0.00171	0.00553	1	10/22/2018 03:18	WG1184313
Carbon disulfide	U		0.00449	0.0138	1	10/22/2018 03:18	WG1184313
Carbon tetrachloride	U		0.00119	0.00553	1	10/22/2018 03:18	WG1184313
Chlorobenzene	U		0.000633	0.00276	1	10/22/2018 03:18	WG1184313
Chlorodibromomethane	U		0.000497	0.00276	1	10/22/2018 03:18	WG1184313
Chloroethane	U		0.00119	0.00553	1	10/22/2018 03:18	WG1184313
Chloroform	0.00166	B J	0.000459	0.00276	1	10/22/2018 03:18	WG1184313
Chloromethane	U		0.00154	0.0138	1	10/22/2018 03:18	WG1184313
2-Chlorotoluene	U		0.00102	0.00276	1	10/22/2018 03:18	WG1184313
4-Chlorotoluene	U		0.00125	0.00553	1	10/22/2018 03:18	WG1184313
1,2-Dibromo-3-Chloropropane	U		0.00564	0.0276	1	10/22/2018 03:18	WG1184313
1,2-Dibromoethane	U		0.000580	0.00276	1	10/22/2018 03:18	WG1184313
Dibromomethane	U		0.00111	0.00553	1	10/22/2018 03:18	WG1184313
1,2-Dichlorobenzene	U		0.00160	0.00553	1	10/22/2018 03:18	WG1184313
1,3-Dichlorobenzene	U		0.00188	0.00553	1	10/22/2018 03:18	WG1184313
1,4-Dichlorobenzene	U		0.00218	0.00553	1	10/22/2018 03:18	WG1184313
Dichlorodifluoromethane	U		0.000904	0.00276	1	10/22/2018 03:18	WG1184313
1,1-Dichloroethane	U		0.000635	0.00276	1	10/22/2018 03:18	WG1184313
1,2-Dichloroethane	U		0.000525	0.00276	1	10/22/2018 03:18	WG1184313
1,1-Dichloroethene	0.00252	J	0.000553	0.00276	1	10/22/2018 03:18	WG1184313
cis-1,2-Dichloroethene	0.588		0.000763	0.00276	1	10/22/2018 03:18	WG1184313
trans-1,2-Dichloroethene	U		0.00158	0.00553	1	10/22/2018 03:18	WG1184313
1,2-Dichloropropane	U		0.00140	0.00553	1	10/22/2018 03:18	WG1184313
1,1-Dichloropropene	U		0.000774	0.00276	1	10/22/2018 03:18	WG1184313
1,3-Dichloropropane	U		0.00193	0.00553	1	10/22/2018 03:18	WG1184313
cis-1,3-Dichloropropene	U		0.000749	0.00276	1	10/22/2018 03:18	WG1184313
trans-1,3-Dichloropropene	U		0.00169	0.00553	1	10/22/2018 03:18	WG1184313
trans-1,4-Dichloro-2-butene	U		0.00155	0.00553	1	10/22/2018 03:18	WG1184313
2,2-Dichloropropane	U	J4	0.000876	0.00276	1	10/22/2018 03:18	WG1184313
Di-isopropyl ether	U		0.00387	0.0111	10	10/23/2018 21:38	WG1185140
Ethylbenzene	U		0.000586	0.00276	1	10/22/2018 03:18	WG1184313
Hexachloro-1,3-butadiene	U		0.0140	0.0276	1	10/22/2018 03:18	WG1184313
2-Hexanone	U		0.0111	0.0276	1	10/22/2018 03:18	WG1184313
n-Hexane	U		0.00117	0.00553	1	10/22/2018 03:18	WG1184313
Iodomethane	U		0.00669	0.0138	1	10/22/2018 03:18	WG1184313
Isopropylbenzene	U		0.000954	0.00276	1	10/22/2018 03:18	WG1184313
p-Isopropyltoluene	U		0.00258	0.00553	1	10/22/2018 03:18	WG1184313
2-Butanone (MEK)	0.0234	J	0.0138	0.0276	1	10/22/2018 03:18	WG1184313
Methylene Chloride	U		0.00734	0.0276	1	10/22/2018 03:18	WG1184313
4-Methyl-2-pentanone (MIBK)	U		0.0111	0.0276	1	10/22/2018 03:18	WG1184313

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.00326	0.0111	10	10/23/2018 21:38	WG1185140
Naphthalene	U		0.00345	0.0138	1	10/22/2018 03:18	WG1184313
n-Propylbenzene	U		0.00130	0.00553	1	10/22/2018 03:18	WG1184313
Styrene	U		0.00302	0.0138	1	10/22/2018 03:18	WG1184313
1,1,1,2-Tetrachloroethane	0.000619	J	0.000553	0.00276	1	10/22/2018 03:18	WG1184313
1,1,2,2-Tetrachloroethane	U		0.000431	0.00276	1	10/22/2018 03:18	WG1184313
1,1,2-Trichlorotrifluoroethane	U		0.000746	0.00276	1	10/22/2018 03:18	WG1184313
Tetrachloroethene	8.23		0.0619	0.221	80	10/25/2018 00:59	WG1185815
Toluene	U		0.00138	0.00553	1	10/22/2018 03:18	WG1184313
1,2,3-Trichlorobenzene	U		0.000691	0.00276	1	10/22/2018 03:18	WG1184313
1,2,4-Trichlorobenzene	U		0.0533	0.138	10	10/23/2018 21:38	WG1185140
1,1,1-Trichloroethane	U		0.000304	0.00276	1	10/22/2018 03:18	WG1184313
1,1,2-Trichloroethane	U		0.000976	0.00276	1	10/22/2018 03:18	WG1184313
Trichloroethene	1.38		0.00442	0.0111	10	10/23/2018 21:38	WG1185140
Trichlorofluoromethane	U		0.000553	0.00276	1	10/22/2018 03:18	WG1184313
1,2,3-Trichloropropane	U		0.00564	0.0138	1	10/22/2018 03:18	WG1184313
1,2,4-Trimethylbenzene	U		0.00128	0.00553	1	10/22/2018 03:18	WG1184313
1,2,3-Trimethylbenzene	U		0.00127	0.00553	1	10/22/2018 03:18	WG1184313
1,3,5-Trimethylbenzene	U		0.00119	0.00553	1	10/22/2018 03:18	WG1184313
Vinyl acetate	U		0.00389	0.0138	1	10/22/2018 03:18	WG1184313
Vinyl chloride	0.00167	J	0.000755	0.00276	1	10/22/2018 03:18	WG1184313
Xylenes, Total	U		0.00528	0.00718	1	10/22/2018 03:18	WG1184313
(S) Toluene-d8	*98.0*			*75.0-131*		*10/22/2018 03:18*	WG1184313
(S) Toluene-d8	*117*			*75.0-131*		*10/23/2018 21:38*	WG1185140
(S) Toluene-d8	*103*			*75.0-131*		*10/25/2018 00:59*	WG1185815
(S) Dibromofluoromethane	*114*			*65.0-129*		*10/22/2018 03:18*	WG1184313
(S) Dibromofluoromethane	*98.4*			*65.0-129*		*10/23/2018 21:38*	WG1185140
(S) Dibromofluoromethane	*98.4*			*65.0-129*		*10/25/2018 00:59*	WG1185815
(S) 4-Bromofluorobenzene	*117*			*67.0-138*		*10/22/2018 03:18*	WG1184313
(S) 4-Bromofluorobenzene	*97.5*			*67.0-138*		*10/23/2018 21:38*	WG1185140
(S) 4-Bromofluorobenzene	*102*			*67.0-138*		*10/25/2018 00:59*	WG1185815

Sample Narrative:

L1036155-19 WG1184313, WG1185140: Not all compounds reportable at lower dilution.

L1036155-19 WG1184313, WG1185140: Cannot be reanalyzed at a lower dilution due to high levels of target analytes.

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	87.5		1	10/24/2018 10:00	WG1184860

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0157	0.0286	1	10/22/2018 03:38	WG1184313
Acrylonitrile	U		0.00217	0.0143	1	10/22/2018 03:38	WG1184313
Benzene	U		0.000457	0.00114	1	10/23/2018 20:37	WG1185140
Bromobenzene	U		0.00120	0.0143	1	10/22/2018 03:38	WG1184313
Bromodichloromethane	U		0.000900	0.00286	1	10/22/2018 03:38	WG1184313
Bromochloromethane	U		0.00129	0.00571	1	10/22/2018 03:38	WG1184313
Bromoform	U		0.00683	0.0286	1	10/22/2018 03:38	WG1184313
Bromomethane	U		0.00423	0.0143	1	10/22/2018 03:38	WG1184313
n-Butylbenzene	U		0.00439	0.0143	1	10/22/2018 03:38	WG1184313
sec-Butylbenzene	U		0.00289	0.0143	1	10/22/2018 03:38	WG1184313
tert-Butylbenzene	U		0.00177	0.00571	1	10/22/2018 03:38	WG1184313
Carbon disulfide	U		0.00464	0.0143	1	10/22/2018 03:38	WG1184313
Carbon tetrachloride	U		0.00123	0.00571	1	10/22/2018 03:38	WG1184313
Chlorobenzene	U		0.000655	0.00286	1	10/22/2018 03:38	WG1184313
Chlorodibromomethane	U		0.000514	0.00286	1	10/22/2018 03:38	WG1184313
Chloroethane	U		0.00123	0.00571	1	10/22/2018 03:38	WG1184313
Chloroform	0.00165	B J	0.000474	0.00286	1	10/22/2018 03:38	WG1184313
Chloromethane	U		0.00159	0.0143	1	10/22/2018 03:38	WG1184313
2-Chlorotoluene	U		0.00105	0.00286	1	10/22/2018 03:38	WG1184313
4-Chlorotoluene	U		0.00129	0.00571	1	10/22/2018 03:38	WG1184313
1,2-Dibromo-3-Chloropropane	U		0.00583	0.0286	1	10/22/2018 03:38	WG1184313
1,2-Dibromoethane	U		0.000600	0.00286	1	10/22/2018 03:38	WG1184313
Dibromomethane	U		0.00114	0.00571	1	10/22/2018 03:38	WG1184313
1,2-Dichlorobenzene	U		0.00166	0.00571	1	10/22/2018 03:38	WG1184313
1,3-Dichlorobenzene	U		0.00194	0.00571	1	10/22/2018 03:38	WG1184313
1,4-Dichlorobenzene	U		0.00225	0.00571	1	10/22/2018 03:38	WG1184313
Dichlorodifluoromethane	U		0.000935	0.00286	1	10/22/2018 03:38	WG1184313
1,1-Dichloroethane	U		0.000657	0.00286	1	10/22/2018 03:38	WG1184313
1,2-Dichloroethane	U		0.000543	0.00286	1	10/22/2018 03:38	WG1184313
1,1-Dichloroethene	0.000710	J	0.000571	0.00286	1	10/22/2018 03:38	WG1184313
cis-1,2-Dichloroethene	0.00244	J	0.000788	0.00286	1	10/22/2018 03:38	WG1184313
trans-1,2-Dichloroethene	U		0.00163	0.00571	1	10/22/2018 03:38	WG1184313
1,2-Dichloropropane	U		0.00145	0.00571	1	10/22/2018 03:38	WG1184313
1,1-Dichloropropene	U		0.000800	0.00286	1	10/22/2018 03:38	WG1184313
1,3-Dichloropropane	U		0.00200	0.00571	1	10/22/2018 03:38	WG1184313
cis-1,3-Dichloropropene	U		0.000775	0.00286	1	10/22/2018 03:38	WG1184313
trans-1,3-Dichloropropene	U		0.00175	0.00571	1	10/22/2018 03:38	WG1184313
trans-1,4-Dichloro-2-butene	U		0.00160	0.00571	1	10/22/2018 03:38	WG1184313
2,2-Dichloropropane	U	J4	0.000906	0.00286	1	10/22/2018 03:38	WG1184313
Di-isopropyl ether	U		0.000400	0.00114	1	10/23/2018 20:37	WG1185140
Ethylbenzene	U		0.000606	0.00286	1	10/22/2018 03:38	WG1184313
Hexachloro-1,3-butadiene	U		0.0145	0.0286	1	10/22/2018 03:38	WG1184313
2-Hexanone	U		0.0114	0.0286	1	10/22/2018 03:38	WG1184313
n-Hexane	0.00385	J	0.00121	0.00571	1	10/22/2018 03:38	WG1184313
Iodomethane	U		0.00691	0.0143	1	10/22/2018 03:38	WG1184313
Isopropylbenzene	U		0.000986	0.00286	1	10/22/2018 03:38	WG1184313
p-Isopropyltoluene	U		0.00266	0.00571	1	10/22/2018 03:38	WG1184313
2-Butanone (MEK)	0.0385		0.0143	0.0286	1	10/22/2018 03:38	WG1184313
Methylene Chloride	U		0.00759	0.0286	1	10/22/2018 03:38	WG1184313
4-Methyl-2-pentanone (MIBK)	U		0.0114	0.0286	1	10/22/2018 03:38	WG1184313

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000337	0.00114	1	10/23/2018 20:37	WG1185140
Naphthalene	U		0.00357	0.0143	1	10/22/2018 03:38	WG1184313
n-Propylbenzene	U		0.00135	0.00571	1	10/22/2018 03:38	WG1184313
Styrene	U		0.00312	0.0143	1	10/22/2018 03:38	WG1184313
1,1,1,2-Tetrachloroethane	U		0.000571	0.00286	1	10/22/2018 03:38	WG1184313
1,1,2,2-Tetrachloroethane	U		0.000446	0.00286	1	10/22/2018 03:38	WG1184313
1,1,2-Trichlorotrifluoroethane	U		0.000771	0.00286	1	10/22/2018 03:38	WG1184313
Tetrachloroethene	0.0198		0.000800	0.00286	1	10/23/2018 20:37	WG1185140
Toluene	U		0.00143	0.00571	1	10/22/2018 03:38	WG1184313
1,2,3-Trichlorobenzene	U		0.000714	0.00286	1	10/22/2018 03:38	WG1184313
1,2,4-Trichlorobenzene	U		0.00551	0.0143	1	10/23/2018 20:37	WG1185140
1,1,1-Trichloroethane	U		0.000314	0.00286	1	10/22/2018 03:38	WG1184313
1,1,2-Trichloroethane	U		0.00101	0.00286	1	10/22/2018 03:38	WG1184313
Trichloroethene	0.000584	J	0.000457	0.00114	1	10/23/2018 20:37	WG1185140
Trichlorofluoromethane	U		0.000571	0.00286	1	10/22/2018 03:38	WG1184313
1,2,3-Trichloropropane	U		0.00583	0.0143	1	10/22/2018 03:38	WG1184313
1,2,4-Trimethylbenzene	U		0.00133	0.00571	1	10/22/2018 03:38	WG1184313
1,2,3-Trimethylbenzene	U		0.00131	0.00571	1	10/22/2018 03:38	WG1184313
1,3,5-Trimethylbenzene	U		0.00123	0.00571	1	10/22/2018 03:38	WG1184313
Vinyl acetate	U		0.00402	0.0143	1	10/22/2018 03:38	WG1184313
Vinyl chloride	U		0.000780	0.00286	1	10/22/2018 03:38	WG1184313
Xylenes, Total	U		0.00546	0.00743	1	10/22/2018 03:38	WG1184313
(S) Toluene-d8	*101*			*75.0-131*		*10/22/2018 03:38*	WG1184313
(S) Toluene-d8	*124*			*75.0-131*		*10/23/2018 20:37*	WG1185140
(S) Dibromofluoromethane	*111*			*65.0-129*		*10/22/2018 03:38*	WG1184313
(S) Dibromofluoromethane	*94.6*			*65.0-129*		*10/23/2018 20:37*	WG1185140
(S) 4-Bromofluorobenzene	*121*			*67.0-138*		*10/22/2018 03:38*	WG1184313
(S) 4-Bromofluorobenzene	*86.4*			*67.0-138*		*10/23/2018 20:37*	WG1185140

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	88.3		1	10/24/2018 10:00	WG1184860

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0155	0.0283	1	10/22/2018 03:58	WG1184313
Acrylonitrile	U		0.00215	0.0142	1	10/22/2018 03:58	WG1184313
Benzene	U		0.0362	0.0906	80	10/23/2018 22:59	WG1185140
Bromobenzene	U		0.00119	0.0142	1	10/22/2018 03:58	WG1184313
Bromodichloromethane	U		0.000892	0.00283	1	10/22/2018 03:58	WG1184313
Bromochloromethane	U		0.00128	0.00566	1	10/22/2018 03:58	WG1184313
Bromoform	U		0.00677	0.0283	1	10/22/2018 03:58	WG1184313
Bromomethane	U		0.00419	0.0142	1	10/22/2018 03:58	WG1184313
n-Butylbenzene	U		0.00435	0.0142	1	10/22/2018 03:58	WG1184313
sec-Butylbenzene	U		0.00286	0.0142	1	10/22/2018 03:58	WG1184313
tert-Butylbenzene	U		0.00176	0.00566	1	10/22/2018 03:58	WG1184313
Carbon disulfide	U		0.00460	0.0142	1	10/22/2018 03:58	WG1184313
Carbon tetrachloride	U		0.00122	0.00566	1	10/22/2018 03:58	WG1184313
Chlorobenzene	U		0.000649	0.00283	1	10/22/2018 03:58	WG1184313
Chlorodibromomethane	U		0.000510	0.00283	1	10/22/2018 03:58	WG1184313
Chloroethane	U		0.00122	0.00566	1	10/22/2018 03:58	WG1184313
Chloroform	0.00170	B J	0.000470	0.00283	1	10/22/2018 03:58	WG1184313
Chloromethane	U		0.00157	0.0142	1	10/22/2018 03:58	WG1184313
2-Chlorotoluene	U		0.00104	0.00283	1	10/22/2018 03:58	WG1184313
4-Chlorotoluene	U		0.00128	0.00566	1	10/22/2018 03:58	WG1184313
1,2-Dibromo-3-Chloropropane	U		0.00578	0.0283	1	10/22/2018 03:58	WG1184313
1,2-Dibromoethane	U		0.000594	0.00283	1	10/22/2018 03:58	WG1184313
Dibromomethane	U		0.00113	0.00566	1	10/22/2018 03:58	WG1184313
1,2-Dichlorobenzene	U		0.00164	0.00566	1	10/22/2018 03:58	WG1184313
1,3-Dichlorobenzene	U		0.00193	0.00566	1	10/22/2018 03:58	WG1184313
1,4-Dichlorobenzene	U		0.00223	0.00566	1	10/22/2018 03:58	WG1184313
Dichlorodifluoromethane	U		0.000926	0.00283	1	10/22/2018 03:58	WG1184313
1,1-Dichloroethane	U		0.000651	0.00283	1	10/22/2018 03:58	WG1184313
1,2-Dichloroethane	U		0.000538	0.00283	1	10/22/2018 03:58	WG1184313
1,1-Dichloroethene	U		0.000566	0.00283	1	10/22/2018 03:58	WG1184313
cis-1,2-Dichloroethene	0.00255	J	0.000781	0.00283	1	10/22/2018 03:58	WG1184313
trans-1,2-Dichloroethene	U		0.00162	0.00566	1	10/22/2018 03:58	WG1184313
1,2-Dichloropropane	U		0.00144	0.00566	1	10/22/2018 03:58	WG1184313
1,1-Dichloropropene	U		0.000793	0.00283	1	10/22/2018 03:58	WG1184313
1,3-Dichloropropane	U		0.00198	0.00566	1	10/22/2018 03:58	WG1184313
cis-1,3-Dichloropropene	U		0.000768	0.00283	1	10/22/2018 03:58	WG1184313
trans-1,3-Dichloropropene	U		0.00173	0.00566	1	10/22/2018 03:58	WG1184313
trans-1,4-Dichloro-2-butene	U		0.00159	0.00566	1	10/22/2018 03:58	WG1184313
2,2-Dichloropropane	U	J4	0.000898	0.00283	1	10/22/2018 03:58	WG1184313
Di-isopropyl ether	U		0.0317	0.0906	80	10/23/2018 22:59	WG1185140
Ethylbenzene	U		0.000600	0.00283	1	10/22/2018 03:58	WG1184313
Hexachloro-1,3-butadiene	U		0.0144	0.0283	1	10/22/2018 03:58	WG1184313
2-Hexanone	U		0.0113	0.0283	1	10/22/2018 03:58	WG1184313
n-Hexane	U		0.00120	0.00566	1	10/22/2018 03:58	WG1184313
Iodomethane	U		0.00685	0.0142	1	10/22/2018 03:58	WG1184313
Isopropylbenzene	U		0.000977	0.00283	1	10/22/2018 03:58	WG1184313
p-Isopropyltoluene	U		0.00264	0.00566	1	10/22/2018 03:58	WG1184313
2-Butanone (MEK)	0.0396		0.0142	0.0283	1	10/22/2018 03:58	WG1184313
Methylene Chloride	U		0.00752	0.0283	1	10/22/2018 03:58	WG1184313
4-Methyl-2-pentanone (MIBK)	U		0.0113	0.0283	1	10/22/2018 03:58	WG1184313

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.0267	0.0906	80	10/23/2018 22:59	WG1185140
Naphthalene	U		0.00353	0.0142	1	10/22/2018 03:58	WG1184313
n-Propylbenzene	U		0.00134	0.00566	1	10/22/2018 03:58	WG1184313
Styrene	U		0.00309	0.0142	1	10/22/2018 03:58	WG1184313
1,1,1,2-Tetrachloroethane	0.000576	J	0.000566	0.00283	1	10/22/2018 03:58	WG1184313
1,1,2,2-Tetrachloroethane	0.000889	J	0.000442	0.00283	1	10/22/2018 03:58	WG1184313
1,1,2-Trichlorotrifluoroethane	U		0.000764	0.00283	1	10/22/2018 03:58	WG1184313
Tetrachloroethene	25.2	V3	0.0634	0.226	80	10/23/2018 22:59	WG1185140
Toluene	0.00151	J	0.00142	0.00566	1	10/22/2018 03:58	WG1184313
1,2,3-Trichlorobenzene	U		0.000708	0.00283	1	10/22/2018 03:58	WG1184313
1,2,4-Trichlorobenzene	U		0.437	1.13	80	10/23/2018 22:59	WG1185140
1,1,1-Trichloroethane	U		0.000311	0.00283	1	10/22/2018 03:58	WG1184313
1,1,2-Trichloroethane	U		0.00100	0.00283	1	10/22/2018 03:58	WG1184313
Trichloroethene	U		0.0362	0.0906	80	10/23/2018 22:59	WG1185140
Trichlorofluoromethane	U		0.000566	0.00283	1	10/22/2018 03:58	WG1184313
1,2,3-Trichloropropane	U		0.00578	0.0142	1	10/22/2018 03:58	WG1184313
1,2,4-Trimethylbenzene	U		0.00131	0.00566	1	10/22/2018 03:58	WG1184313
1,2,3-Trimethylbenzene	U		0.00130	0.00566	1	10/22/2018 03:58	WG1184313
1,3,5-Trimethylbenzene	U		0.00122	0.00566	1	10/22/2018 03:58	WG1184313
Vinyl acetate	U		0.00399	0.0142	1	10/22/2018 03:58	WG1184313
Vinyl chloride	U		0.000773	0.00283	1	10/22/2018 03:58	WG1184313
Xylenes, Total	U		0.00541	0.00736	1	10/22/2018 03:58	WG1184313
(S) Toluene-d8	*98.4*			*75.0-131*		*10/22/2018 03:58*	WG1184313
(S) Toluene-d8	*120*			*75.0-131*		*10/23/2018 22:59*	WG1185140
(S) Dibromofluoromethane	*110*			*65.0-129*		*10/22/2018 03:58*	WG1184313
(S) Dibromofluoromethane	*96.7*			*65.0-129*		*10/23/2018 22:59*	WG1185140
(S) 4-Bromofluorobenzene	*122*			*67.0-138*		*10/22/2018 03:58*	WG1184313
(S) 4-Bromofluorobenzene	*82.1*			*67.0-138*		*10/23/2018 22:59*	WG1185140

Sample Narrative:

L1036155-21 WG1184313, WG1185140: Not all compounds reportable at lower dilution.

L1036155-21 WG1184313, WG1185140: Cannot be reanalyzed at a lower dilution due to high levels of target analytes.

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	83.5		1	10/24/2018 09:40	WG1184862

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0164	0.0300	1	10/22/2018 04:18	WG1184313
Acrylonitrile	U		0.00228	0.0150	1	10/22/2018 04:18	WG1184313
Benzene	U		0.00479	0.0120	10	10/23/2018 21:58	WG1185140
Bromobenzene	U		0.00126	0.0150	1	10/22/2018 04:18	WG1184313
Bromodichloromethane	U		0.000944	0.00300	1	10/22/2018 04:18	WG1184313
Bromochloromethane	U		0.00135	0.00599	1	10/22/2018 04:18	WG1184313
Bromoform	U		0.00717	0.0300	1	10/22/2018 04:18	WG1184313
Bromomethane	U		0.00443	0.0150	1	10/22/2018 04:18	WG1184313
n-Butylbenzene	U		0.00460	0.0150	1	10/22/2018 04:18	WG1184313
sec-Butylbenzene	U		0.00303	0.0150	1	10/22/2018 04:18	WG1184313
tert-Butylbenzene	U		0.00186	0.00599	1	10/22/2018 04:18	WG1184313
Carbon disulfide	U		0.00487	0.0150	1	10/22/2018 04:18	WG1184313
Carbon tetrachloride	U		0.00129	0.00599	1	10/22/2018 04:18	WG1184313
Chlorobenzene	U		0.000687	0.00300	1	10/22/2018 04:18	WG1184313
Chlorodibromomethane	U		0.000539	0.00300	1	10/22/2018 04:18	WG1184313
Chloroethane	U		0.00129	0.00599	1	10/22/2018 04:18	WG1184313
Chloroform	0.00196	B J	0.000497	0.00300	1	10/22/2018 04:18	WG1184313
Chloromethane	U		0.00167	0.0150	1	10/22/2018 04:18	WG1184313
2-Chlorotoluene	U		0.00110	0.00300	1	10/22/2018 04:18	WG1184313
4-Chlorotoluene	U		0.00135	0.00599	1	10/22/2018 04:18	WG1184313
1,2-Dibromo-3-Chloropropane	U		0.00611	0.0300	1	10/22/2018 04:18	WG1184313
1,2-Dibromoethane	U		0.000629	0.00300	1	10/22/2018 04:18	WG1184313
Dibromomethane	U		0.00120	0.00599	1	10/22/2018 04:18	WG1184313
1,2-Dichlorobenzene	U		0.00174	0.00599	1	10/22/2018 04:18	WG1184313
1,3-Dichlorobenzene	U		0.00204	0.00599	1	10/22/2018 04:18	WG1184313
1,4-Dichlorobenzene	U		0.00236	0.00599	1	10/22/2018 04:18	WG1184313
Dichlorodifluoromethane	U		0.000980	0.00300	1	10/22/2018 04:18	WG1184313
1,1-Dichloroethane	U		0.000689	0.00300	1	10/22/2018 04:18	WG1184313
1,2-Dichloroethane	U		0.000569	0.00300	1	10/22/2018 04:18	WG1184313
1,1-Dichloroethene	U		0.000599	0.00300	1	10/22/2018 04:18	WG1184313
cis-1,2-Dichloroethene	0.00234	J	0.000827	0.00300	1	10/22/2018 04:18	WG1184313
trans-1,2-Dichloroethene	U		0.00171	0.00599	1	10/22/2018 04:18	WG1184313
1,2-Dichloropropane	U		0.00152	0.00599	1	10/22/2018 04:18	WG1184313
1,1-Dichloropropene	U		0.000839	0.00300	1	10/22/2018 04:18	WG1184313
1,3-Dichloropropane	U		0.00210	0.00599	1	10/22/2018 04:18	WG1184313
cis-1,3-Dichloropropene	U		0.000812	0.00300	1	10/22/2018 04:18	WG1184313
trans-1,3-Dichloropropene	U		0.00183	0.00599	1	10/22/2018 04:18	WG1184313
trans-1,4-Dichloro-2-butene	U		0.00168	0.00599	1	10/22/2018 04:18	WG1184313
2,2-Dichloropropane	U	J4	0.000950	0.00300	1	10/22/2018 04:18	WG1184313
Di-isopropyl ether	U		0.00419	0.0120	10	10/23/2018 21:58	WG1185140
Ethylbenzene	U		0.000635	0.00300	1	10/22/2018 04:18	WG1184313
Hexachloro-1,3-butadiene	U		0.0152	0.0300	1	10/22/2018 04:18	WG1184313
2-Hexanone	U		0.0120	0.0300	1	10/22/2018 04:18	WG1184313
n-Hexane	U		0.00127	0.00599	1	10/22/2018 04:18	WG1184313
Iodomethane	U		0.00725	0.0150	1	10/22/2018 04:18	WG1184313
Isopropylbenzene	U		0.00103	0.00300	1	10/22/2018 04:18	WG1184313
p-Isopropyltoluene	U		0.00279	0.00599	1	10/22/2018 04:18	WG1184313
2-Butanone (MEK)	0.0558		0.0150	0.0300	1	10/22/2018 04:18	WG1184313
Methylene Chloride	U		0.00796	0.0300	1	10/22/2018 04:18	WG1184313
4-Methyl-2-pentanone (MIBK)	U		0.0120	0.0300	1	10/22/2018 04:18	WG1184313

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.00354	0.0120	10	10/23/2018 21:58	WG1185140
Naphthalene	U		0.00374	0.0150	1	10/22/2018 04:18	WG1184313
n-Propylbenzene	U		0.00141	0.00599	1	10/22/2018 04:18	WG1184313
Styrene	U		0.00327	0.0150	1	10/22/2018 04:18	WG1184313
1,1,1,2-Tetrachloroethane	U		0.000599	0.00300	1	10/22/2018 04:18	WG1184313
1,1,2,2-Tetrachloroethane	U		0.000467	0.00300	1	10/22/2018 04:18	WG1184313
1,1,2-Trichlorotrifluoroethane	U		0.000809	0.00300	1	10/22/2018 04:18	WG1184313
Tetrachloroethene	7.13		0.0336	0.120	40	10/25/2018 01:18	WG1185815
Toluene	0.00162	J	0.00150	0.00599	1	10/22/2018 04:18	WG1184313
1,2,3-Trichlorobenzene	U		0.000749	0.00300	1	10/22/2018 04:18	WG1184313
1,2,4-Trichlorobenzene	U		0.0578	0.150	10	10/23/2018 21:58	WG1185140
1,1,1-Trichloroethane	U		0.000330	0.00300	1	10/22/2018 04:18	WG1184313
1,1,2-Trichloroethane	U		0.00106	0.00300	1	10/22/2018 04:18	WG1184313
Trichloroethene	U		0.00479	0.0120	10	10/23/2018 21:58	WG1185140
Trichlorofluoromethane	U		0.000599	0.00300	1	10/22/2018 04:18	WG1184313
1,2,3-Trichloropropane	U		0.00611	0.0150	1	10/22/2018 04:18	WG1184313
1,2,4-Trimethylbenzene	U		0.00139	0.00599	1	10/22/2018 04:18	WG1184313
1,2,3-Trimethylbenzene	U		0.00138	0.00599	1	10/22/2018 04:18	WG1184313
1,3,5-Trimethylbenzene	U		0.00129	0.00599	1	10/22/2018 04:18	WG1184313
Vinyl acetate	U		0.00422	0.0150	1	10/22/2018 04:18	WG1184313
Vinyl chloride	U		0.000818	0.00300	1	10/22/2018 04:18	WG1184313
Xylenes, Total	U		0.00573	0.00779	1	10/22/2018 04:18	WG1184313
(S) Toluene-d8	*99.7*			*75.0-131*		*10/22/2018 04:18*	WG1184313
(S) Toluene-d8	*117*			*75.0-131*		*10/23/2018 21:58*	WG1185140
(S) Toluene-d8	*106*			*75.0-131*		*10/25/2018 01:18*	WG1185815
(S) Dibromofluoromethane	*112*			*65.0-129*		*10/22/2018 04:18*	WG1184313
(S) Dibromofluoromethane	*99.8*			*65.0-129*		*10/23/2018 21:58*	WG1185140
(S) Dibromofluoromethane	*101*			*65.0-129*		*10/25/2018 01:18*	WG1185815
(S) 4-Bromofluorobenzene	*122*			*67.0-138*		*10/22/2018 04:18*	WG1184313
(S) 4-Bromofluorobenzene	*94.2*			*67.0-138*		*10/23/2018 21:58*	WG1185140
(S) 4-Bromofluorobenzene	*104*			*67.0-138*		*10/25/2018 01:18*	WG1185815

Sample Narrative:

L1036155-22 WG1184313, WG1185140: Not all compounds reportable at lower dilution.

L1036155-22 WG1184313, WG1185140: Cannot be reanalyzed at a lower dilution due to high levels of target analytes.

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	86.8		1	10/24/2018 09:40	WG1184862

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0158	0.0288	1	10/22/2018 04:38	WG1184313
Acrylonitrile	U		0.00219	0.0144	1	10/22/2018 04:38	WG1184313
Benzene	U		0.0184	0.0461	40	10/23/2018 22:39	WG1185140
Bromobenzene	U		0.00121	0.0144	1	10/22/2018 04:38	WG1184313
Bromodichloromethane	U		0.000908	0.00288	1	10/22/2018 04:38	WG1184313
Bromochloromethane	U		0.00130	0.00576	1	10/22/2018 04:38	WG1184313
Bromoform	U		0.00689	0.0288	1	10/22/2018 04:38	WG1184313
Bromomethane	U		0.00426	0.0144	1	10/22/2018 04:38	WG1184313
n-Butylbenzene	U		0.00442	0.0144	1	10/22/2018 04:38	WG1184313
sec-Butylbenzene	U		0.00292	0.0144	1	10/22/2018 04:38	WG1184313
tert-Butylbenzene	U		0.00179	0.00576	1	10/22/2018 04:38	WG1184313
Carbon disulfide	U		0.00468	0.0144	1	10/22/2018 04:38	WG1184313
Carbon tetrachloride	U		0.00124	0.00576	1	10/22/2018 04:38	WG1184313
Chlorobenzene	U		0.000660	0.00288	1	10/22/2018 04:38	WG1184313
Chlorodibromomethane	0.000554	J	0.000518	0.00288	1	10/22/2018 04:38	WG1184313
Chloroethane	U		0.00124	0.00576	1	10/22/2018 04:38	WG1184313
Chloroform	0.00198	B J	0.000478	0.00288	1	10/22/2018 04:38	WG1184313
Chloromethane	U		0.00160	0.0144	1	10/22/2018 04:38	WG1184313
2-Chlorotoluene	U		0.00106	0.00288	1	10/22/2018 04:38	WG1184313
4-Chlorotoluene	U		0.00130	0.00576	1	10/22/2018 04:38	WG1184313
1,2-Dibromo-3-Chloropropane	U		0.00588	0.0288	1	10/22/2018 04:38	WG1184313
1,2-Dibromoethane	U		0.000605	0.00288	1	10/22/2018 04:38	WG1184313
Dibromomethane	U		0.00115	0.00576	1	10/22/2018 04:38	WG1184313
1,2-Dichlorobenzene	U		0.00167	0.00576	1	10/22/2018 04:38	WG1184313
1,3-Dichlorobenzene	U		0.00196	0.00576	1	10/22/2018 04:38	WG1184313
1,4-Dichlorobenzene	U		0.00227	0.00576	1	10/22/2018 04:38	WG1184313
Dichlorodifluoromethane	U		0.000943	0.00288	1	10/22/2018 04:38	WG1184313
1,1-Dichloroethane	U		0.000663	0.00288	1	10/22/2018 04:38	WG1184313
1,2-Dichloroethane	U		0.000547	0.00288	1	10/22/2018 04:38	WG1184313
1,1-Dichloroethene	U		0.000576	0.00288	1	10/22/2018 04:38	WG1184313
cis-1,2-Dichloroethene	0.00359		0.000795	0.00288	1	10/22/2018 04:38	WG1184313
trans-1,2-Dichloroethene	U		0.00165	0.00576	1	10/22/2018 04:38	WG1184313
1,2-Dichloropropane	U		0.00146	0.00576	1	10/22/2018 04:38	WG1184313
1,1-Dichloropropene	U		0.000807	0.00288	1	10/22/2018 04:38	WG1184313
1,3-Dichloropropane	U		0.00202	0.00576	1	10/22/2018 04:38	WG1184313
cis-1,3-Dichloropropene	U		0.000781	0.00288	1	10/22/2018 04:38	WG1184313
trans-1,3-Dichloropropene	U		0.00176	0.00576	1	10/22/2018 04:38	WG1184313
trans-1,4-Dichloro-2-butene	U		0.00161	0.00576	1	10/22/2018 04:38	WG1184313
2,2-Dichloropropane	U	J4	0.000914	0.00288	1	10/22/2018 04:38	WG1184313
Di-isopropyl ether	U		0.0161	0.0461	40	10/23/2018 22:39	WG1185140
Ethylbenzene	U		0.000611	0.00288	1	10/22/2018 04:38	WG1184313
Hexachloro-1,3-butadiene	U		0.0146	0.0288	1	10/22/2018 04:38	WG1184313
2-Hexanone	U		0.0115	0.0288	1	10/22/2018 04:38	WG1184313
n-Hexane	U		0.00122	0.00576	1	10/22/2018 04:38	WG1184313
Iodomethane	U		0.00697	0.0144	1	10/22/2018 04:38	WG1184313
Isopropylbenzene	U		0.000994	0.00288	1	10/22/2018 04:38	WG1184313
p-Isopropyltoluene	U		0.00268	0.00576	1	10/22/2018 04:38	WG1184313
2-Butanone (MEK)	0.0333		0.0144	0.0288	1	10/22/2018 04:38	WG1184313
Methylene Chloride	U		0.00765	0.0288	1	10/22/2018 04:38	WG1184313
4-Methyl-2-pentanone (MIBK)	U		0.0115	0.0288	1	10/22/2018 04:38	WG1184313

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

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.0136	0.0461	40	10/23/2018 22:39	WG1185140
Naphthalene	U		0.00359	0.0144	1	10/22/2018 04:38	WG1184313
n-Propylbenzene	U		0.00136	0.00576	1	10/22/2018 04:38	WG1184313
Styrene	U		0.00315	0.0144	1	10/22/2018 04:38	WG1184313
1,1,1,2-Tetrachloroethane	U		0.000576	0.00288	1	10/22/2018 04:38	WG1184313
1,1,2,2-Tetrachloroethane	U		0.000449	0.00288	1	10/22/2018 04:38	WG1184313
1,1,2-Trichlorotrifluoroethane	U		0.000778	0.00288	1	10/22/2018 04:38	WG1184313
Tetrachloroethene	25.3	V3	0.0323	0.115	40	10/23/2018 22:39	WG1185140
Toluene	U		0.00144	0.00576	1	10/22/2018 04:38	WG1184313
1,2,3-Trichlorobenzene	U		0.000720	0.00288	1	10/22/2018 04:38	WG1184313
1,2,4-Trichlorobenzene	U		0.222	0.576	40	10/23/2018 22:39	WG1185140
1,1,1-Trichloroethane	U		0.000317	0.00288	1	10/22/2018 04:38	WG1184313
1,1,2-Trichloroethane	U		0.00102	0.00288	1	10/22/2018 04:38	WG1184313
Trichloroethene	U		0.0184	0.0461	40	10/23/2018 22:39	WG1185140
Trichlorofluoromethane	U		0.000576	0.00288	1	10/22/2018 04:38	WG1184313
1,2,3-Trichloropropane	U		0.00588	0.0144	1	10/22/2018 04:38	WG1184313
1,2,4-Trimethylbenzene	U		0.00134	0.00576	1	10/22/2018 04:38	WG1184313
1,2,3-Trimethylbenzene	U		0.00133	0.00576	1	10/22/2018 04:38	WG1184313
1,3,5-Trimethylbenzene	U		0.00124	0.00576	1	10/22/2018 04:38	WG1184313
Vinyl acetate	U		0.00406	0.0144	1	10/22/2018 04:38	WG1184313
Vinyl chloride	U		0.000787	0.00288	1	10/22/2018 04:38	WG1184313
Xylenes, Total	U		0.00551	0.00749	1	10/22/2018 04:38	WG1184313
(S) Toluene-d8	*97.2*			*75.0-131*		*10/22/2018 04:38*	WG1184313
(S) Toluene-d8	*127*			*75.0-131*		*10/23/2018 22:39*	WG1185140
(S) Dibromofluoromethane	*111*			*65.0-129*		*10/22/2018 04:38*	WG1184313
(S) Dibromofluoromethane	*94.6*			*65.0-129*		*10/23/2018 22:39*	WG1185140
(S) 4-Bromofluorobenzene	*122*			*67.0-138*		*10/22/2018 04:38*	WG1184313
(S) 4-Bromofluorobenzene	*84.5*			*67.0-138*		*10/23/2018 22:39*	WG1185140

Sample Narrative:

L1036155-23 WG1184313, WG1185140: Not all compounds reportable at lower dilution.

L1036155-23 WG1184313, WG1185140: Cannot be reanalyzed at a lower dilution due to high levels of target analytes.

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	91.0		1	10/24/2018 09:40	WG1184862

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0151	0.0275	1	10/22/2018 04:58	WG1184313
Acrylonitrile	U		0.00209	0.0137	1	10/22/2018 04:58	WG1184313
Benzene	U		0.00879	0.0220	20	10/23/2018 22:19	WG1185140
Bromobenzene	U		0.00115	0.0137	1	10/22/2018 04:58	WG1184313
Bromodichloromethane	U		0.000866	0.00275	1	10/22/2018 04:58	WG1184313
Bromochloromethane	U		0.00124	0.00549	1	10/22/2018 04:58	WG1184313
Bromoform	U		0.00657	0.0275	1	10/22/2018 04:58	WG1184313
Bromomethane	U		0.00407	0.0137	1	10/22/2018 04:58	WG1184313
n-Butylbenzene	U		0.00422	0.0137	1	10/22/2018 04:58	WG1184313
sec-Butylbenzene	U		0.00278	0.0137	1	10/22/2018 04:58	WG1184313
tert-Butylbenzene	U		0.00170	0.00549	1	10/22/2018 04:58	WG1184313
Carbon disulfide	U		0.00446	0.0137	1	10/22/2018 04:58	WG1184313
Carbon tetrachloride	U		0.00119	0.00549	1	10/22/2018 04:58	WG1184313
Chlorobenzene	U		0.000630	0.00275	1	10/22/2018 04:58	WG1184313
Chlorodibromomethane	U		0.000494	0.00275	1	10/22/2018 04:58	WG1184313
Chloroethane	U		0.00119	0.00549	1	10/22/2018 04:58	WG1184313
Chloroform	0.00171	B J	0.000456	0.00275	1	10/22/2018 04:58	WG1184313
Chloromethane	U		0.00153	0.0137	1	10/22/2018 04:58	WG1184313
2-Chlorotoluene	U		0.00101	0.00275	1	10/22/2018 04:58	WG1184313
4-Chlorotoluene	U		0.00124	0.00549	1	10/22/2018 04:58	WG1184313
1,2-Dibromo-3-Chloropropane	U		0.00560	0.0275	1	10/22/2018 04:58	WG1184313
1,2-Dibromoethane	U		0.000577	0.00275	1	10/22/2018 04:58	WG1184313
Dibromomethane	U		0.00110	0.00549	1	10/22/2018 04:58	WG1184313
1,2-Dichlorobenzene	U		0.00159	0.00549	1	10/22/2018 04:58	WG1184313
1,3-Dichlorobenzene	U		0.00187	0.00549	1	10/22/2018 04:58	WG1184313
1,4-Dichlorobenzene	U		0.00216	0.00549	1	10/22/2018 04:58	WG1184313
Dichlorodifluoromethane	U		0.000899	0.00275	1	10/22/2018 04:58	WG1184313
1,1-Dichloroethane	U		0.000632	0.00275	1	10/22/2018 04:58	WG1184313
1,2-Dichloroethane	U		0.000522	0.00275	1	10/22/2018 04:58	WG1184313
1,1-Dichloroethene	U		0.000549	0.00275	1	10/22/2018 04:58	WG1184313
cis-1,2-Dichloroethene	0.00353		0.000758	0.00275	1	10/22/2018 04:58	WG1184313
trans-1,2-Dichloroethene	U		0.00157	0.00549	1	10/22/2018 04:58	WG1184313
1,2-Dichloropropane	U		0.00140	0.00549	1	10/22/2018 04:58	WG1184313
1,1-Dichloropropene	U		0.000769	0.00275	1	10/22/2018 04:58	WG1184313
1,3-Dichloropropane	U		0.00192	0.00549	1	10/22/2018 04:58	WG1184313
cis-1,3-Dichloropropene	U		0.000745	0.00275	1	10/22/2018 04:58	WG1184313
trans-1,3-Dichloropropene	U		0.00168	0.00549	1	10/22/2018 04:58	WG1184313
trans-1,4-Dichloro-2-butene	U		0.00154	0.00549	1	10/22/2018 04:58	WG1184313
2,2-Dichloropropane	U	J4	0.000871	0.00275	1	10/22/2018 04:58	WG1184313
Di-isopropyl ether	U		0.00769	0.0220	20	10/23/2018 22:19	WG1185140
Ethylbenzene	U		0.000582	0.00275	1	10/22/2018 04:58	WG1184313
Hexachloro-1,3-butadiene	U		0.0140	0.0275	1	10/22/2018 04:58	WG1184313
2-Hexanone	U		0.0110	0.0275	1	10/22/2018 04:58	WG1184313
n-Hexane	U		0.00116	0.00549	1	10/22/2018 04:58	WG1184313
Iodomethane	U		0.00665	0.0137	1	10/22/2018 04:58	WG1184313
Isopropylbenzene	U		0.000948	0.00275	1	10/22/2018 04:58	WG1184313
p-Isopropyltoluene	U		0.00256	0.00549	1	10/22/2018 04:58	WG1184313
2-Butanone (MEK)	0.0179	J	0.0137	0.0275	1	10/22/2018 04:58	WG1184313
Methylene Chloride	U		0.00730	0.0275	1	10/22/2018 04:58	WG1184313
4-Methyl-2-pentanone (MIBK)	U		0.0110	0.0275	1	10/22/2018 04:58	WG1184313

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.00648	0.0220	20	10/23/2018 22:19	WG1185140
Naphthalene	U		0.00343	0.0137	1	10/22/2018 04:58	WG1184313
n-Propylbenzene	U		0.00130	0.00549	1	10/22/2018 04:58	WG1184313
Styrene	U		0.00300	0.0137	1	10/22/2018 04:58	WG1184313
1,1,1,2-Tetrachloroethane	U		0.000549	0.00275	1	10/22/2018 04:58	WG1184313
1,1,2,2-Tetrachloroethane	U		0.000429	0.00275	1	10/22/2018 04:58	WG1184313
1,1,2-Trichlorotrifluoroethane	U		0.000742	0.00275	1	10/22/2018 04:58	WG1184313
Tetrachloroethene	13.1		0.0154	0.0549	20	10/23/2018 22:19	WG1185140
Toluene	U		0.00137	0.00549	1	10/22/2018 04:58	WG1184313
1,2,3-Trichlorobenzene	U		0.000687	0.00275	1	10/22/2018 04:58	WG1184313
1,2,4-Trichlorobenzene	U		0.106	0.275	20	10/23/2018 22:19	WG1185140
1,1,1-Trichloroethane	U		0.000302	0.00275	1	10/22/2018 04:58	WG1184313
1,1,2-Trichloroethane	U		0.000970	0.00275	1	10/22/2018 04:58	WG1184313
Trichloroethene	0.0284		0.00879	0.0220	20	10/23/2018 22:19	WG1185140
Trichlorofluoromethane	U		0.000549	0.00275	1	10/22/2018 04:58	WG1184313
1,2,3-Trichloropropane	U		0.00560	0.0137	1	10/22/2018 04:58	WG1184313
1,2,4-Trimethylbenzene	0.00228	J	0.00127	0.00549	1	10/22/2018 04:58	WG1184313
1,2,3-Trimethylbenzene	U		0.00126	0.00549	1	10/22/2018 04:58	WG1184313
1,3,5-Trimethylbenzene	U		0.00119	0.00549	1	10/22/2018 04:58	WG1184313
Vinyl acetate	U		0.00387	0.0137	1	10/22/2018 04:58	WG1184313
Vinyl chloride	U		0.000750	0.00275	1	10/22/2018 04:58	WG1184313
Xylenes, Total	U		0.00525	0.00714	1	10/22/2018 04:58	WG1184313
(S) Toluene-d8	*96.7*			*75.0-131*		*10/22/2018 04:58*	WG1184313
(S) Toluene-d8	*116*			*75.0-131*		*10/23/2018 22:19*	WG1185140
(S) Dibromofluoromethane	*112*			*65.0-129*		*10/22/2018 04:58*	WG1184313
(S) Dibromofluoromethane	*102*			*65.0-129*		*10/23/2018 22:19*	WG1185140
(S) 4-Bromofluorobenzene	*121*			*67.0-138*		*10/22/2018 04:58*	WG1184313
(S) 4-Bromofluorobenzene	*87.8*			*67.0-138*		*10/23/2018 22:19*	WG1185140

Sample Narrative:

L1036155-24 WG1184313, WG1185140: Not all compounds reportable at lower dilution.

L1036155-24 WG1184313, WG1185140: Cannot be reanalyzed at a lower dilution due to high levels of target analytes.

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	89.0		1	10/24/2018 09:40	WG1184862

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0154	0.0281	1	10/22/2018 05:18	WG1184313
Acrylonitrile	U		0.00214	0.0140	1	10/22/2018 05:18	WG1184313
Benzene	U		0.0899	0.225	200	10/23/2018 23:20	WG1185140
Bromobenzene	U		0.00118	0.0140	1	10/22/2018 05:18	WG1184313
Bromodichloromethane	U		0.000886	0.00281	1	10/22/2018 05:18	WG1184313
Bromochloromethane	U		0.00127	0.00562	1	10/22/2018 05:18	WG1184313
Bromoform	U		0.00672	0.0281	1	10/22/2018 05:18	WG1184313
Bromomethane	U		0.00416	0.0140	1	10/22/2018 05:18	WG1184313
n-Butylbenzene	U		0.00432	0.0140	1	10/22/2018 05:18	WG1184313
sec-Butylbenzene	U		0.00284	0.0140	1	10/22/2018 05:18	WG1184313
tert-Butylbenzene	U		0.00174	0.00562	1	10/22/2018 05:18	WG1184313
Carbon disulfide	U		0.00456	0.0140	1	10/22/2018 05:18	WG1184313
Carbon tetrachloride	U		0.00121	0.00562	1	10/22/2018 05:18	WG1184313
Chlorobenzene	U		0.000644	0.00281	1	10/22/2018 05:18	WG1184313
Chlorodibromomethane	0.000852	J	0.000506	0.00281	1	10/22/2018 05:18	WG1184313
Chloroethane	U		0.00121	0.00562	1	10/22/2018 05:18	WG1184313
Chloroform	0.00214	B J	0.000466	0.00281	1	10/22/2018 05:18	WG1184313
Chloromethane	U		0.00156	0.0140	1	10/22/2018 05:18	WG1184313
2-Chlorotoluene	U		0.00103	0.00281	1	10/22/2018 05:18	WG1184313
4-Chlorotoluene	U		0.00127	0.00562	1	10/22/2018 05:18	WG1184313
1,2-Dibromo-3-Chloropropane	U		0.00573	0.0281	1	10/22/2018 05:18	WG1184313
1,2-Dibromoethane	U		0.000590	0.00281	1	10/22/2018 05:18	WG1184313
Dibromomethane	U		0.00112	0.00562	1	10/22/2018 05:18	WG1184313
1,2-Dichlorobenzene	U		0.00163	0.00562	1	10/22/2018 05:18	WG1184313
1,3-Dichlorobenzene	U		0.00191	0.00562	1	10/22/2018 05:18	WG1184313
1,4-Dichlorobenzene	U		0.00221	0.00562	1	10/22/2018 05:18	WG1184313
Dichlorodifluoromethane	U		0.000919	0.00281	1	10/22/2018 05:18	WG1184313
1,1-Dichloroethane	U		0.000646	0.00281	1	10/22/2018 05:18	WG1184313
1,2-Dichloroethane	U		0.000534	0.00281	1	10/22/2018 05:18	WG1184313
1,1-Dichloroethene	0.00239	J	0.000562	0.00281	1	10/22/2018 05:18	WG1184313
cis-1,2-Dichloroethene	0.105		0.000775	0.00281	1	10/22/2018 05:18	WG1184313
trans-1,2-Dichloroethene	0.00200	J	0.00161	0.00562	1	10/22/2018 05:18	WG1184313
1,2-Dichloropropane	U		0.00143	0.00562	1	10/22/2018 05:18	WG1184313
1,1-Dichloropropene	U		0.000787	0.00281	1	10/22/2018 05:18	WG1184313
1,3-Dichloropropane	U		0.00197	0.00562	1	10/22/2018 05:18	WG1184313
cis-1,3-Dichloropropene	U		0.000762	0.00281	1	10/22/2018 05:18	WG1184313
trans-1,3-Dichloropropene	U		0.00172	0.00562	1	10/22/2018 05:18	WG1184313
trans-1,4-Dichloro-2-butene	U		0.00157	0.00562	1	10/22/2018 05:18	WG1184313
2,2-Dichloropropane	U	J4	0.000891	0.00281	1	10/22/2018 05:18	WG1184313
Di-isopropyl ether	U		0.0787	0.225	200	10/23/2018 23:20	WG1185140
Ethylbenzene	0.000806	J	0.000596	0.00281	1	10/22/2018 05:18	WG1184313
Hexachloro-1,3-butadiene	U		0.0143	0.0281	1	10/22/2018 05:18	WG1184313
2-Hexanone	U		0.0112	0.0281	1	10/22/2018 05:18	WG1184313
n-Hexane	U		0.00119	0.00562	1	10/22/2018 05:18	WG1184313
Iodomethane	U		0.00680	0.0140	1	10/22/2018 05:18	WG1184313
Isopropylbenzene	U		0.000970	0.00281	1	10/22/2018 05:18	WG1184313
p-Isopropyltoluene	0.00394	J	0.00262	0.00562	1	10/22/2018 05:18	WG1184313
2-Butanone (MEK)	0.0256	J	0.0140	0.0281	1	10/22/2018 05:18	WG1184313
Methylene Chloride	U		0.00746	0.0281	1	10/22/2018 05:18	WG1184313
4-Methyl-2-pentanone (MIBK)	U		0.0112	0.0281	1	10/22/2018 05:18	WG1184313

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.0663	0.225	200	10/23/2018 23:20	WG1185140
Naphthalene	U		0.00351	0.0140	1	10/22/2018 05:18	WG1184313
n-Propylbenzene	0.00321	J	0.00133	0.00562	1	10/22/2018 05:18	WG1184313
Styrene	U		0.00307	0.0140	1	10/22/2018 05:18	WG1184313
1,1,1,2-Tetrachloroethane	U		0.000562	0.00281	1	10/22/2018 05:18	WG1184313
1,1,2,2-Tetrachloroethane	U		0.000438	0.00281	1	10/22/2018 05:18	WG1184313
1,1,2-Trichlorotrifluoroethane	U		0.000759	0.00281	1	10/22/2018 05:18	WG1184313
Tetrachloroethene	112	V3	0.157	0.562	200	10/23/2018 23:20	WG1185140
Toluene	0.00203	J	0.00140	0.00562	1	10/22/2018 05:18	WG1184313
1,2,3-Trichlorobenzene	U		0.000702	0.00281	1	10/22/2018 05:18	WG1184313
1,2,4-Trichlorobenzene	U		1.08	2.81	200	10/23/2018 23:20	WG1185140
1,1,1-Trichloroethane	U		0.000309	0.00281	1	10/22/2018 05:18	WG1184313
1,1,2-Trichloroethane	U		0.000992	0.00281	1	10/22/2018 05:18	WG1184313
Trichloroethene	0.908		0.0899	0.225	200	10/23/2018 23:20	WG1185140
Trichlorofluoromethane	U		0.000562	0.00281	1	10/22/2018 05:18	WG1184313
1,2,3-Trichloropropane	U		0.00573	0.0140	1	10/22/2018 05:18	WG1184313
1,2,4-Trimethylbenzene	0.0136		0.00130	0.00562	1	10/22/2018 05:18	WG1184313
1,2,3-Trimethylbenzene	0.00393	J	0.00129	0.00562	1	10/22/2018 05:18	WG1184313
1,3,5-Trimethylbenzene	0.00399	J	0.00121	0.00562	1	10/22/2018 05:18	WG1184313
Vinyl acetate	U		0.00396	0.0140	1	10/22/2018 05:18	WG1184313
Vinyl chloride	U		0.000768	0.00281	1	10/22/2018 05:18	WG1184313
Xylenes, Total	U		0.00537	0.00730	1	10/22/2018 05:18	WG1184313
(S) Toluene-d8	*89.7*			*75.0-131*		*10/22/2018 05:18*	WG1184313
(S) Toluene-d8	*120*			*75.0-131*		*10/23/2018 23:20*	WG1185140
(S) Dibromofluoromethane	*111*			*65.0-129*		*10/22/2018 05:18*	WG1184313
(S) Dibromofluoromethane	*95.1*			*65.0-129*		*10/23/2018 23:20*	WG1185140
(S) 4-Bromofluorobenzene	*121*			*67.0-138*		*10/22/2018 05:18*	WG1184313
(S) 4-Bromofluorobenzene	*78.4*			*67.0-138*		*10/23/2018 23:20*	WG1185140

Sample Narrative:

L1036155-25 WG1184313, WG1185140: Not all compounds reportable at lower dilution.

L1036155-25 WG1184313, WG1185140: Cannot be reanalyzed at a lower dilution due to high levels of target analytes.

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	84.9		1	10/24/2018 09:40	WG1184862

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		1.30	2.36	80	10/24/2018 01:06	WG1185221
Acrylonitrile	U		0.00224	0.0147	1	10/22/2018 15:59	WG1184455
Benzene	U		0.000471	0.00118	1	10/22/2018 15:59	WG1184455
Bromobenzene	U		0.00124	0.0147	1	10/22/2018 15:59	WG1184455
Bromodichloromethane	U		0.000928	0.00294	1	10/22/2018 15:59	WG1184455
Bromochloromethane	U		0.00133	0.00589	1	10/22/2018 15:59	WG1184455
Bromoform	U		0.00704	0.0294	1	10/22/2018 15:59	WG1184455
Bromomethane	U		0.00436	0.0147	1	10/22/2018 15:59	WG1184455
n-Butylbenzene	U		0.00452	0.0147	1	10/22/2018 15:59	WG1184455
sec-Butylbenzene	U		0.00298	0.0147	1	10/22/2018 15:59	WG1184455
tert-Butylbenzene	U		0.00183	0.00589	1	10/22/2018 15:59	WG1184455
Carbon disulfide	U		0.00478	0.0147	1	10/22/2018 15:59	WG1184455
Carbon tetrachloride	U		0.00127	0.00589	1	10/22/2018 15:59	WG1184455
Chlorobenzene	U		0.000675	0.00294	1	10/22/2018 15:59	WG1184455
Chlorodibromomethane	U		0.000530	0.00294	1	10/22/2018 15:59	WG1184455
Chloroethane	U		0.00127	0.00589	1	10/22/2018 15:59	WG1184455
Chloroform	0.00115	B J	0.000489	0.00294	1	10/22/2018 15:59	WG1184455
Chloromethane	U		0.00164	0.0147	1	10/22/2018 15:59	WG1184455
2-Chlorotoluene	U		0.00108	0.00294	1	10/22/2018 15:59	WG1184455
4-Chlorotoluene	U		0.00133	0.00589	1	10/22/2018 15:59	WG1184455
1,2-Dibromo-3-Chloropropane	U		0.00601	0.0294	1	10/22/2018 15:59	WG1184455
1,2-Dibromoethane	U		0.000618	0.00294	1	10/22/2018 15:59	WG1184455
Dibromomethane	U		0.00118	0.00589	1	10/22/2018 15:59	WG1184455
1,2-Dichlorobenzene	U		0.00171	0.00589	1	10/22/2018 15:59	WG1184455
1,3-Dichlorobenzene	U		0.00200	0.00589	1	10/22/2018 15:59	WG1184455
1,4-Dichlorobenzene	U		0.00232	0.00589	1	10/22/2018 15:59	WG1184455
Dichlorodifluoromethane	U		0.0770	0.236	80	10/24/2018 01:06	WG1185221
1,1-Dichloroethane	U		0.000677	0.00294	1	10/22/2018 15:59	WG1184455
1,2-Dichloroethane	U		0.000560	0.00294	1	10/22/2018 15:59	WG1184455
1,1-Dichloroethene	U		0.000589	0.00294	1	10/22/2018 15:59	WG1184455
cis-1,2-Dichloroethene	U		0.0650	0.236	80	10/24/2018 01:06	WG1185221
trans-1,2-Dichloroethene	U		0.00168	0.00589	1	10/22/2018 15:59	WG1184455
1,2-Dichloropropane	U		0.00150	0.00589	1	10/22/2018 15:59	WG1184455
1,1-Dichloropropene	U		0.000825	0.00294	1	10/22/2018 15:59	WG1184455
1,3-Dichloropropane	U		0.00206	0.00589	1	10/22/2018 15:59	WG1184455
cis-1,3-Dichloropropene	U		0.000799	0.00294	1	10/22/2018 15:59	WG1184455
trans-1,3-Dichloropropene	U	J4	0.00180	0.00589	1	10/22/2018 15:59	WG1184455
trans-1,4-Dichloro-2-butene	U		0.00165	0.00589	1	10/22/2018 15:59	WG1184455
2,2-Dichloropropane	U		0.000934	0.00294	1	10/22/2018 15:59	WG1184455
Di-isopropyl ether	U		0.000412	0.00118	1	10/22/2018 15:59	WG1184455
Ethylbenzene	0.00214	J	0.000624	0.00294	1	10/22/2018 15:59	WG1184455
Hexachloro-1,3-butadiene	U		0.0150	0.0294	1	10/22/2018 15:59	WG1184455
2-Hexanone	U		0.0118	0.0294	1	10/22/2018 15:59	WG1184455
n-Hexane	U		0.00125	0.00589	1	10/22/2018 15:59	WG1184455
Iodomethane	U		0.00713	0.0147	1	10/22/2018 15:59	WG1184455
Isopropylbenzene	U		0.00102	0.00294	1	10/22/2018 15:59	WG1184455
p-Isopropyltoluene	U		0.00274	0.00589	1	10/22/2018 15:59	WG1184455
2-Butanone (MEK)	0.0207	J	0.0147	0.0294	1	10/22/2018 15:59	WG1184455
Methylene Chloride	U		0.00782	0.0294	1	10/22/2018 15:59	WG1184455
4-Methyl-2-pentanone (MIBK)	U		0.0118	0.0294	1	10/22/2018 15:59	WG1184455

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000348	0.00118	1	10/22/2018 15:59	WG1184455
Naphthalene	0.00764	J	0.00368	0.0147	1	10/22/2018 15:59	WG1184455
n-Propylbenzene	U		0.00139	0.00589	1	10/22/2018 15:59	WG1184455
Styrene	U		0.00322	0.0147	1	10/22/2018 15:59	WG1184455
1,1,1,2-Tetrachloroethane	U	J4	0.000589	0.00294	1	10/22/2018 15:59	WG1184455
1,1,2,2-Tetrachloroethane	U		0.0368	0.236	80	10/24/2018 01:06	WG1185221
1,1,2-Trichlorotrifluoroethane	U		0.000795	0.00294	1	10/22/2018 15:59	WG1184455
Tetrachloroethene	14.4	J0	0.0660	0.236	80	10/24/2018 01:06	WG1185221
Toluene	0.00858		0.00147	0.00589	1	10/22/2018 15:59	WG1184455
1,2,3-Trichlorobenzene	U		0.0589	0.236	80	10/24/2018 01:06	WG1185221
1,2,4-Trichlorobenzene	U		0.00568	0.0147	1	10/22/2018 15:59	WG1184455
1,1,1-Trichloroethane	U		0.000324	0.00294	1	10/22/2018 15:59	WG1184455
1,1,2-Trichloroethane	U		0.00104	0.00294	1	10/22/2018 15:59	WG1184455
Trichloroethene	0.0142		0.000471	0.00118	1	10/22/2018 15:59	WG1184455
Trichlorofluoromethane	U		0.000589	0.00294	1	10/22/2018 15:59	WG1184455
1,2,3-Trichloropropane	U		0.00601	0.0147	1	10/22/2018 15:59	WG1184455
1,2,4-Trimethylbenzene	0.00354	J	0.00137	0.00589	1	10/22/2018 15:59	WG1184455
1,2,3-Trimethylbenzene	U		0.00135	0.00589	1	10/22/2018 15:59	WG1184455
1,3,5-Trimethylbenzene	U		0.00127	0.00589	1	10/22/2018 15:59	WG1184455
Vinyl acetate	U		0.00415	0.0147	1	10/22/2018 15:59	WG1184455
Vinyl chloride	U		0.000805	0.00294	1	10/22/2018 15:59	WG1184455
Xylenes, Total	0.00775		0.00563	0.00766	1	10/22/2018 15:59	WG1184455
(S) Toluene-d8	*115*			*75.0-131*		*10/22/2018 15:59*	WG1184455
(S) Toluene-d8	*97.2*			*75.0-131*		*10/24/2018 01:06*	WG1185221
(S) Dibromofluoromethane	*88.8*			*65.0-129*		*10/22/2018 15:59*	WG1184455
(S) Dibromofluoromethane	*120*			*65.0-129*		*10/24/2018 01:06*	WG1185221
(S) 4-Bromofluorobenzene	*93.4*			*67.0-138*		*10/22/2018 15:59*	WG1184455
(S) 4-Bromofluorobenzene	*123*			*67.0-138*		*10/24/2018 01:06*	WG1185221

Sample Narrative:

L1036155-26 WG1185221, WG1184455: Cannot be reanalyzed at a lower dilution due to high levels of target analytes.

L1036155-26 WG1185221, WG1184455: Not all compounds reportable at lower dilution.

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	90.9		1	10/24/2018 09:40	WG1184862

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	0.0214	J	0.0151	0.0275	1	10/23/2018 16:01	WG1185221
Acrylonitrile	U		0.00209	0.0137	1	10/22/2018 16:17	WG1184455
Benzene	U		0.000440	0.00110	1	10/22/2018 16:17	WG1184455
Bromobenzene	U		0.00115	0.0137	1	10/22/2018 16:17	WG1184455
Bromodichloromethane	U		0.000867	0.00275	1	10/22/2018 16:17	WG1184455
Bromochloromethane	U		0.00124	0.00550	1	10/22/2018 16:17	WG1184455
Bromoform	U		0.00658	0.0275	1	10/22/2018 16:17	WG1184455
Bromomethane	U		0.00407	0.0137	1	10/22/2018 16:17	WG1184455
n-Butylbenzene	U		0.00422	0.0137	1	10/22/2018 16:17	WG1184455
sec-Butylbenzene	U		0.00278	0.0137	1	10/22/2018 16:17	WG1184455
tert-Butylbenzene	U		0.00170	0.00550	1	10/22/2018 16:17	WG1184455
Carbon disulfide	U		0.00447	0.0137	1	10/22/2018 16:17	WG1184455
Carbon tetrachloride	U		0.00119	0.00550	1	10/22/2018 16:17	WG1184455
Chlorobenzene	U		0.000630	0.00275	1	10/22/2018 16:17	WG1184455
Chlorodibromomethane	U		0.000495	0.00275	1	10/22/2018 16:17	WG1184455
Chloroethane	U		0.00119	0.00550	1	10/22/2018 16:17	WG1184455
Chloroform	U		0.000456	0.00275	1	10/22/2018 16:17	WG1184455
Chloromethane	U		0.00153	0.0137	1	10/22/2018 16:17	WG1184455
2-Chlorotoluene	U		0.00101	0.00275	1	10/22/2018 16:17	WG1184455
4-Chlorotoluene	U		0.00124	0.00550	1	10/22/2018 16:17	WG1184455
1,2-Dibromo-3-Chloropropane	U		0.00561	0.0275	1	10/22/2018 16:17	WG1184455
1,2-Dibromoethane	U		0.000577	0.00275	1	10/22/2018 16:17	WG1184455
Dibromomethane	U		0.00110	0.00550	1	10/22/2018 16:17	WG1184455
1,2-Dichlorobenzene	U		0.00159	0.00550	1	10/22/2018 16:17	WG1184455
1,3-Dichlorobenzene	U		0.00187	0.00550	1	10/22/2018 16:17	WG1184455
1,4-Dichlorobenzene	U		0.00217	0.00550	1	10/22/2018 16:17	WG1184455
Dichlorodifluoromethane	U		0.000900	0.00275	1	10/23/2018 16:01	WG1185221
1,1-Dichloroethane	U		0.000632	0.00275	1	10/22/2018 16:17	WG1184455
1,2-Dichloroethane	U		0.000522	0.00275	1	10/22/2018 16:17	WG1184455
1,1-Dichloroethene	U		0.000550	0.00275	1	10/22/2018 16:17	WG1184455
cis-1,2-Dichloroethene	0.00981		0.000759	0.00275	1	10/23/2018 16:01	WG1185221
trans-1,2-Dichloroethene	U		0.00157	0.00550	1	10/22/2018 16:17	WG1184455
1,2-Dichloropropane	U		0.00140	0.00550	1	10/22/2018 16:17	WG1184455
1,1-Dichloropropene	U		0.000770	0.00275	1	10/22/2018 16:17	WG1184455
1,3-Dichloropropane	U		0.00192	0.00550	1	10/22/2018 16:17	WG1184455
cis-1,3-Dichloropropene	U		0.000746	0.00275	1	10/22/2018 16:17	WG1184455
trans-1,3-Dichloropropene	U	J4	0.00168	0.00550	1	10/22/2018 16:17	WG1184455
trans-1,4-Dichloro-2-butene	U		0.00154	0.00550	1	10/22/2018 16:17	WG1184455
2,2-Dichloropropane	U		0.000872	0.00275	1	10/22/2018 16:17	WG1184455
Di-isopropyl ether	U		0.000385	0.00110	1	10/22/2018 16:17	WG1184455
Ethylbenzene	U		0.000583	0.00275	1	10/22/2018 16:17	WG1184455
Hexachloro-1,3-butadiene	U		0.0140	0.0275	1	10/22/2018 16:17	WG1184455
2-Hexanone	U		0.0110	0.0275	1	10/22/2018 16:17	WG1184455
n-Hexane	U		0.00117	0.00550	1	10/23/2018 16:01	WG1185221
Iodomethane	U		0.00665	0.0137	1	10/22/2018 16:17	WG1184455
Isopropylbenzene	U		0.000949	0.00275	1	10/22/2018 16:17	WG1184455
p-Isopropyltoluene	U		0.00256	0.00550	1	10/22/2018 16:17	WG1184455
2-Butanone (MEK)	U		0.0137	0.0275	1	10/22/2018 16:17	WG1184455
Methylene Chloride	U		0.00730	0.0275	1	10/22/2018 16:17	WG1184455
4-Methyl-2-pentanone (MIBK)	U		0.0110	0.0275	1	10/22/2018 16:17	WG1184455

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000324	0.00110	1	10/22/2018 16:17	WG1184455
Naphthalene	U		0.00343	0.0137	1	10/22/2018 16:17	WG1184455
n-Propylbenzene	U		0.00130	0.00550	1	10/22/2018 16:17	WG1184455
Styrene	U		0.00300	0.0137	1	10/22/2018 16:17	WG1184455
1,1,1,2-Tetrachloroethane	U	J4	0.000550	0.00275	1	10/22/2018 16:17	WG1184455
1,1,2,2-Tetrachloroethane	U		0.000429	0.00275	1	10/23/2018 16:01	WG1185221
1,1,2-Trichlorotrifluoroethane	U		0.000742	0.00275	1	10/22/2018 16:17	WG1184455
Tetrachloroethene	0.612		0.000770	0.00275	1	10/24/2018 23:43	WG1185845
Toluene	U		0.00137	0.00550	1	10/22/2018 16:17	WG1184455
1,2,3-Trichlorobenzene	U		0.000687	0.00275	1	10/23/2018 16:01	WG1185221
1,2,4-Trichlorobenzene	U		0.00530	0.0137	1	10/22/2018 16:17	WG1184455
1,1,1-Trichloroethane	U		0.000302	0.00275	1	10/22/2018 16:17	WG1184455
1,1,2-Trichloroethane	U		0.000971	0.00275	1	10/22/2018 16:17	WG1184455
Trichloroethene	0.00725		0.000440	0.00110	1	10/22/2018 16:17	WG1184455
Trichlorofluoromethane	U		0.000550	0.00275	1	10/22/2018 16:17	WG1184455
1,2,3-Trichloropropane	U		0.00561	0.0137	1	10/22/2018 16:17	WG1184455
1,2,4-Trimethylbenzene	U		0.00128	0.00550	1	10/22/2018 16:17	WG1184455
1,2,3-Trimethylbenzene	U		0.00126	0.00550	1	10/22/2018 16:17	WG1184455
1,3,5-Trimethylbenzene	U		0.00119	0.00550	1	10/22/2018 16:17	WG1184455
Vinyl acetate	U		0.00387	0.0137	1	10/22/2018 16:17	WG1184455
Vinyl chloride	U		0.000751	0.00275	1	10/22/2018 16:17	WG1184455
Xylenes, Total	U		0.00526	0.00715	1	10/22/2018 16:17	WG1184455
(S) Toluene-d8	*107*			*75.0-131*		*10/22/2018 16:17*	WG1184455
(S) Toluene-d8	*101*			*75.0-131*		*10/23/2018 16:01*	WG1185221
(S) Toluene-d8	*107*			*75.0-131*		*10/24/2018 23:43*	WG1185845
(S) Dibromofluoromethane	*87.3*			*65.0-129*		*10/22/2018 16:17*	WG1184455
(S) Dibromofluoromethane	*114*			*65.0-129*		*10/23/2018 16:01*	WG1185221
(S) Dibromofluoromethane	*97.8*			*65.0-129*		*10/24/2018 23:43*	WG1185845
(S) 4-Bromofluorobenzene	*91.7*			*67.0-138*		*10/22/2018 16:17*	WG1184455
(S) 4-Bromofluorobenzene	*121*			*67.0-138*		*10/23/2018 16:01*	WG1185221
(S) 4-Bromofluorobenzene	*103*			*67.0-138*		*10/24/2018 23:43*	WG1185845

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	89.8		1	10/24/2018 09:40	WG1184862

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0153	0.0278	1	10/23/2018 16:21	WG1185221
Acrylonitrile	U		0.00212	0.0139	1	10/22/2018 16:36	WG1184455
Benzene	U		0.000445	0.00111	1	10/22/2018 16:36	WG1184455
Bromobenzene	U		0.00117	0.0139	1	10/22/2018 16:36	WG1184455
Bromodichloromethane	U		0.000878	0.00278	1	10/22/2018 16:36	WG1184455
Bromochloromethane	U		0.00126	0.00557	1	10/22/2018 16:36	WG1184455
Bromoform	U		0.00666	0.0278	1	10/22/2018 16:36	WG1184455
Bromomethane	U		0.00412	0.0139	1	10/22/2018 16:36	WG1184455
n-Butylbenzene	U		0.00428	0.0139	1	10/22/2018 16:36	WG1184455
sec-Butylbenzene	U		0.00282	0.0139	1	10/22/2018 16:36	WG1184455
tert-Butylbenzene	U		0.00173	0.00557	1	10/22/2018 16:36	WG1184455
Carbon disulfide	U		0.00452	0.0139	1	10/22/2018 16:36	WG1184455
Carbon tetrachloride	U		0.00120	0.00557	1	10/22/2018 16:36	WG1184455
Chlorobenzene	U		0.000638	0.00278	1	10/22/2018 16:36	WG1184455
Chlorodibromomethane	U		0.000501	0.00278	1	10/22/2018 16:36	WG1184455
Chloroethane	U		0.00120	0.00557	1	10/22/2018 16:36	WG1184455
Chloroform	0.00103	B J	0.000462	0.00278	1	10/22/2018 16:36	WG1184455
Chloromethane	U		0.00155	0.0139	1	10/22/2018 16:36	WG1184455
2-Chlorotoluene	U		0.00102	0.00278	1	10/22/2018 16:36	WG1184455
4-Chlorotoluene	U		0.00126	0.00557	1	10/22/2018 16:36	WG1184455
1,2-Dibromo-3-Chloropropane	U		0.00568	0.0278	1	10/22/2018 16:36	WG1184455
1,2-Dibromoethane	U		0.000585	0.00278	1	10/22/2018 16:36	WG1184455
Dibromomethane	U		0.00111	0.00557	1	10/22/2018 16:36	WG1184455
1,2-Dichlorobenzene	U		0.00161	0.00557	1	10/22/2018 16:36	WG1184455
1,3-Dichlorobenzene	U		0.00189	0.00557	1	10/22/2018 16:36	WG1184455
1,4-Dichlorobenzene	U		0.00219	0.00557	1	10/22/2018 16:36	WG1184455
Dichlorodifluoromethane	U		0.000911	0.00278	1	10/23/2018 16:21	WG1185221
1,1-Dichloroethane	U		0.000640	0.00278	1	10/22/2018 16:36	WG1184455
1,2-Dichloroethane	U		0.000529	0.00278	1	10/22/2018 16:36	WG1184455
1,1-Dichloroethene	U		0.000557	0.00278	1	10/22/2018 16:36	WG1184455
cis-1,2-Dichloroethene	0.00190	J	0.000768	0.00278	1	10/23/2018 16:21	WG1185221
trans-1,2-Dichloroethene	U		0.00159	0.00557	1	10/22/2018 16:36	WG1184455
1,2-Dichloropropane	U		0.00141	0.00557	1	10/22/2018 16:36	WG1184455
1,1-Dichloropropene	U		0.000780	0.00278	1	10/22/2018 16:36	WG1184455
1,3-Dichloropropane	U		0.00195	0.00557	1	10/22/2018 16:36	WG1184455
cis-1,3-Dichloropropene	U		0.000755	0.00278	1	10/22/2018 16:36	WG1184455
trans-1,3-Dichloropropene	U	J4	0.00170	0.00557	1	10/22/2018 16:36	WG1184455
trans-1,4-Dichloro-2-butene	U		0.00156	0.00557	1	10/22/2018 16:36	WG1184455
2,2-Dichloropropane	U		0.000883	0.00278	1	10/22/2018 16:36	WG1184455
Di-isopropyl ether	U		0.000390	0.00111	1	10/22/2018 16:36	WG1184455
Ethylbenzene	U		0.000590	0.00278	1	10/22/2018 16:36	WG1184455
Hexachloro-1,3-butadiene	U		0.0141	0.0278	1	10/22/2018 16:36	WG1184455
2-Hexanone	U		0.0111	0.0278	1	10/22/2018 16:36	WG1184455
n-Hexane	U		0.00118	0.00557	1	10/22/2018 16:36	WG1184455
Iodomethane	U		0.00674	0.0139	1	10/22/2018 16:36	WG1184455
Isopropylbenzene	U		0.000961	0.00278	1	10/22/2018 16:36	WG1184455
p-Isopropyltoluene	U		0.00259	0.00557	1	10/22/2018 16:36	WG1184455
2-Butanone (MEK)	0.0232	J	0.0139	0.0278	1	10/22/2018 16:36	WG1184455
Methylene Chloride	U		0.00739	0.0278	1	10/22/2018 16:36	WG1184455
4-Methyl-2-pentanone (MIBK)	U		0.0111	0.0278	1	10/22/2018 16:36	WG1184455

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000329	0.00111	1	10/22/2018 16:36	WG1184455
Naphthalene	U		0.00347	0.0139	1	10/22/2018 16:36	WG1184455
n-Propylbenzene	U		0.00131	0.00557	1	10/22/2018 16:36	WG1184455
Styrene	U		0.00304	0.0139	1	10/22/2018 16:36	WG1184455
1,1,1,2-Tetrachloroethane	U	J4	0.000557	0.00278	1	10/22/2018 16:36	WG1184455
1,1,2,2-Tetrachloroethane	U		0.000434	0.00278	1	10/23/2018 16:21	WG1185221
1,1,2-Trichlorotrifluoroethane	U		0.000752	0.00278	1	10/22/2018 16:36	WG1184455
Tetrachloroethene	0.495		0.000780	0.00278	1	10/22/2018 16:36	WG1184455
Toluene	U		0.00139	0.00557	1	10/22/2018 16:36	WG1184455
1,2,3-Trichlorobenzene	U		0.000696	0.00278	1	10/23/2018 16:21	WG1185221
1,2,4-Trichlorobenzene	U		0.00537	0.0139	1	10/22/2018 16:36	WG1184455
1,1,1-Trichloroethane	U		0.000306	0.00278	1	10/22/2018 16:36	WG1184455
1,1,2-Trichloroethane	U		0.000983	0.00278	1	10/22/2018 16:36	WG1184455
Trichloroethene	0.00390		0.000445	0.00111	1	10/22/2018 16:36	WG1184455
Trichlorofluoromethane	U		0.000557	0.00278	1	10/22/2018 16:36	WG1184455
1,2,3-Trichloropropane	U		0.00568	0.0139	1	10/22/2018 16:36	WG1184455
1,2,4-Trimethylbenzene	U		0.00129	0.00557	1	10/22/2018 16:36	WG1184455
1,2,3-Trimethylbenzene	U		0.00128	0.00557	1	10/22/2018 16:36	WG1184455
1,3,5-Trimethylbenzene	U		0.00120	0.00557	1	10/22/2018 16:36	WG1184455
Vinyl acetate	U		0.00392	0.0139	1	10/22/2018 16:36	WG1184455
Vinyl chloride	U		0.000761	0.00278	1	10/22/2018 16:36	WG1184455
Xylenes, Total	U		0.00532	0.00724	1	10/22/2018 16:36	WG1184455
(S) Toluene-d8	*107*			*75.0-131*		*10/22/2018 16:36*	WG1184455
(S) Toluene-d8	*99.1*			*75.0-131*		*10/23/2018 16:21*	WG1185221
(S) Dibromofluoromethane	*89.0*			*65.0-129*		*10/22/2018 16:36*	WG1184455
(S) Dibromofluoromethane	*114*			*65.0-129*		*10/23/2018 16:21*	WG1185221
(S) 4-Bromofluorobenzene	*93.5*			*67.0-138*		*10/22/2018 16:36*	WG1184455
(S) 4-Bromofluorobenzene	*122*			*67.0-138*		*10/23/2018 16:21*	WG1185221

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	91.1		1	10/24/2018 09:40	WG1184862

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0150	0.0274	1	10/23/2018 16:41	WG1185221
Acrylonitrile	U		0.00209	0.0137	1	10/22/2018 16:54	WG1184455
Benzene	U		0.000439	0.00110	1	10/22/2018 16:54	WG1184455
Bromobenzene	U		0.00115	0.0137	1	10/22/2018 16:54	WG1184455
Bromodichloromethane	U		0.000865	0.00274	1	10/22/2018 16:54	WG1184455
Bromochloromethane	U		0.00124	0.00549	1	10/22/2018 16:54	WG1184455
Bromoform	U		0.00656	0.0274	1	10/22/2018 16:54	WG1184455
Bromomethane	U		0.00406	0.0137	1	10/22/2018 16:54	WG1184455
n-Butylbenzene	U		0.00421	0.0137	1	10/22/2018 16:54	WG1184455
sec-Butylbenzene	U		0.00278	0.0137	1	10/22/2018 16:54	WG1184455
tert-Butylbenzene	U		0.00170	0.00549	1	10/22/2018 16:54	WG1184455
Carbon disulfide	U		0.00446	0.0137	1	10/22/2018 16:54	WG1184455
Carbon tetrachloride	U		0.00119	0.00549	1	10/22/2018 16:54	WG1184455
Chlorobenzene	U		0.000629	0.00274	1	10/22/2018 16:54	WG1184455
Chlorodibromomethane	U		0.000494	0.00274	1	10/22/2018 16:54	WG1184455
Chloroethane	U		0.00119	0.00549	1	10/22/2018 16:54	WG1184455
Chloroform	U		0.000455	0.00274	1	10/22/2018 16:54	WG1184455
Chloromethane	U		0.00153	0.0137	1	10/22/2018 16:54	WG1184455
2-Chlorotoluene	U		0.00101	0.00274	1	10/22/2018 16:54	WG1184455
4-Chlorotoluene	U		0.00124	0.00549	1	10/22/2018 16:54	WG1184455
1,2-Dibromo-3-Chloropropane	U		0.00560	0.0274	1	10/22/2018 16:54	WG1184455
1,2-Dibromoethane	U		0.000576	0.00274	1	10/22/2018 16:54	WG1184455
Dibromomethane	U		0.00110	0.00549	1	10/22/2018 16:54	WG1184455
1,2-Dichlorobenzene	U		0.00159	0.00549	1	10/22/2018 16:54	WG1184455
1,3-Dichlorobenzene	U		0.00187	0.00549	1	10/22/2018 16:54	WG1184455
1,4-Dichlorobenzene	U		0.00216	0.00549	1	10/22/2018 16:54	WG1184455
Dichlorodifluoromethane	U		0.000898	0.00274	1	10/23/2018 16:41	WG1185221
1,1-Dichloroethane	U		0.000631	0.00274	1	10/22/2018 16:54	WG1184455
1,2-Dichloroethane	U		0.000521	0.00274	1	10/22/2018 16:54	WG1184455
1,1-Dichloroethene	U		0.000549	0.00274	1	10/22/2018 16:54	WG1184455
cis-1,2-Dichloroethene	0.00332		0.000757	0.00274	1	10/23/2018 16:41	WG1185221
trans-1,2-Dichloroethene	U		0.00157	0.00549	1	10/22/2018 16:54	WG1184455
1,2-Dichloropropane	U		0.00139	0.00549	1	10/22/2018 16:54	WG1184455
1,1-Dichloropropene	U		0.000768	0.00274	1	10/22/2018 16:54	WG1184455
1,3-Dichloropropane	U		0.00192	0.00549	1	10/22/2018 16:54	WG1184455
cis-1,3-Dichloropropene	U		0.000744	0.00274	1	10/22/2018 16:54	WG1184455
trans-1,3-Dichloropropene	U	J4	0.00168	0.00549	1	10/22/2018 16:54	WG1184455
trans-1,4-Dichloro-2-butene	U		0.00154	0.00549	1	10/22/2018 16:54	WG1184455
2,2-Dichloropropane	U		0.000870	0.00274	1	10/22/2018 16:54	WG1184455
Di-isopropyl ether	U		0.000384	0.00110	1	10/22/2018 16:54	WG1184455
Ethylbenzene	U		0.000582	0.00274	1	10/22/2018 16:54	WG1184455
Hexachloro-1,3-butadiene	U		0.0139	0.0274	1	10/22/2018 16:54	WG1184455
2-Hexanone	U		0.0110	0.0274	1	10/22/2018 16:54	WG1184455
n-Hexane	U		0.00116	0.00549	1	10/23/2018 16:41	WG1185221
Iodomethane	U		0.00664	0.0137	1	10/22/2018 16:54	WG1184455
Isopropylbenzene	U		0.000947	0.00274	1	10/22/2018 16:54	WG1184455
p-Isopropyltoluene	U		0.00256	0.00549	1	10/22/2018 16:54	WG1184455
2-Butanone (MEK)	0.0236	J	0.0137	0.0274	1	10/22/2018 16:54	WG1184455
Methylene Chloride	U		0.00729	0.0274	1	10/22/2018 16:54	WG1184455
4-Methyl-2-pentanone (MIBK)	U		0.0110	0.0274	1	10/22/2018 16:54	WG1184455

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

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000324	0.00110	1	10/22/2018 16:54	WG1184455
Naphthalene	U		0.00342	0.0137	1	10/22/2018 16:54	WG1184455
n-Propylbenzene	U		0.00130	0.00549	1	10/22/2018 16:54	WG1184455
Styrene	U		0.00300	0.0137	1	10/22/2018 16:54	WG1184455
1,1,1,2-Tetrachloroethane	U	J4	0.000549	0.00274	1	10/22/2018 16:54	WG1184455
1,1,2,2-Tetrachloroethane	U		0.000428	0.00274	1	10/23/2018 16:41	WG1185221
1,1,2-Trichlorotrifluoroethane	U		0.000741	0.00274	1	10/22/2018 16:54	WG1184455
Tetrachloroethene	1.81		0.000768	0.00274	1	10/22/2018 16:54	WG1184455
Toluene	U		0.00137	0.00549	1	10/22/2018 16:54	WG1184455
1,2,3-Trichlorobenzene	U		0.000686	0.00274	1	10/23/2018 16:41	WG1185221
1,2,4-Trichlorobenzene	U		0.00529	0.0137	1	10/22/2018 16:54	WG1184455
1,1,1-Trichloroethane	U		0.000302	0.00274	1	10/22/2018 16:54	WG1184455
1,1,2-Trichloroethane	U		0.000969	0.00274	1	10/22/2018 16:54	WG1184455
Trichloroethene	0.0301		0.000439	0.00110	1	10/22/2018 16:54	WG1184455
Trichlorofluoromethane	U		0.000549	0.00274	1	10/22/2018 16:54	WG1184455
1,2,3-Trichloropropane	U		0.00560	0.0137	1	10/22/2018 16:54	WG1184455
1,2,4-Trimethylbenzene	U		0.00127	0.00549	1	10/22/2018 16:54	WG1184455
1,2,3-Trimethylbenzene	U		0.00126	0.00549	1	10/22/2018 16:54	WG1184455
1,3,5-Trimethylbenzene	U		0.00119	0.00549	1	10/22/2018 16:54	WG1184455
Vinyl acetate	U		0.00386	0.0137	1	10/22/2018 16:54	WG1184455
Vinyl chloride	U		0.000750	0.00274	1	10/22/2018 16:54	WG1184455
Xylenes, Total	U		0.00525	0.00713	1	10/22/2018 16:54	WG1184455
(S) Toluene-d8	*106*			*75.0-131*		*10/22/2018 16:54*	WG1184455
(S) Toluene-d8	*97.8*			*75.0-131*		*10/23/2018 16:41*	WG1185221
(S) Dibromofluoromethane	*90.1*			*65.0-129*		*10/22/2018 16:54*	WG1184455
(S) Dibromofluoromethane	*113*			*65.0-129*		*10/23/2018 16:41*	WG1185221
(S) 4-Bromofluorobenzene	*94.3*			*67.0-138*		*10/22/2018 16:54*	WG1184455
(S) 4-Bromofluorobenzene	*120*			*67.0-138*		*10/23/2018 16:41*	WG1185221

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	84.9		1	10/24/2018 09:40	WG1184862

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.161	0.294	10	10/24/2018 00:06	WG1185221
Acrylonitrile	U		0.00224	0.0147	1	10/22/2018 17:13	WG1184455
Benzene	U		0.000471	0.00118	1	10/22/2018 17:13	WG1184455
Bromobenzene	U		0.00124	0.0147	1	10/22/2018 17:13	WG1184455
Bromodichloromethane	U		0.000928	0.00294	1	10/22/2018 17:13	WG1184455
Bromochloromethane	U		0.00133	0.00589	1	10/22/2018 17:13	WG1184455
Bromoform	U		0.00704	0.0294	1	10/22/2018 17:13	WG1184455
Bromomethane	U		0.00436	0.0147	1	10/22/2018 17:13	WG1184455
n-Butylbenzene	U		0.00452	0.0147	1	10/22/2018 17:13	WG1184455
sec-Butylbenzene	U		0.00298	0.0147	1	10/22/2018 17:13	WG1184455
tert-Butylbenzene	U		0.00182	0.00589	1	10/22/2018 17:13	WG1184455
Carbon disulfide	U		0.00478	0.0147	1	10/22/2018 17:13	WG1184455
Carbon tetrachloride	U		0.00127	0.00589	1	10/22/2018 17:13	WG1184455
Chlorobenzene	U		0.000675	0.00294	1	10/22/2018 17:13	WG1184455
Chlorodibromomethane	U		0.000530	0.00294	1	10/22/2018 17:13	WG1184455
Chloroethane	U		0.00127	0.00589	1	10/22/2018 17:13	WG1184455
Chloroform	0.00116	B J	0.000489	0.00294	1	10/22/2018 17:13	WG1184455
Chloromethane	U		0.00164	0.0147	1	10/22/2018 17:13	WG1184455
2-Chlorotoluene	U		0.00108	0.00294	1	10/22/2018 17:13	WG1184455
4-Chlorotoluene	U		0.00133	0.00589	1	10/22/2018 17:13	WG1184455
1,2-Dibromo-3-Chloropropane	U		0.00600	0.0294	1	10/22/2018 17:13	WG1184455
1,2-Dibromoethane	U		0.000618	0.00294	1	10/22/2018 17:13	WG1184455
Dibromomethane	U		0.00118	0.00589	1	10/22/2018 17:13	WG1184455
1,2-Dichlorobenzene	U		0.00171	0.00589	1	10/22/2018 17:13	WG1184455
1,3-Dichlorobenzene	U		0.00200	0.00589	1	10/22/2018 17:13	WG1184455
1,4-Dichlorobenzene	U		0.00232	0.00589	1	10/22/2018 17:13	WG1184455
Dichlorodifluoromethane	U		0.00963	0.0294	10	10/24/2018 00:06	WG1185221
1,1-Dichloroethane	U		0.000677	0.00294	1	10/22/2018 17:13	WG1184455
1,2-Dichloroethane	U		0.000559	0.00294	1	10/22/2018 17:13	WG1184455
1,1-Dichloroethene	U		0.000589	0.00294	1	10/22/2018 17:13	WG1184455
cis-1,2-Dichloroethene	0.0429		0.00812	0.0294	10	10/24/2018 00:06	WG1185221
trans-1,2-Dichloroethene	U		0.00168	0.00589	1	10/22/2018 17:13	WG1184455
1,2-Dichloropropane	U		0.00150	0.00589	1	10/22/2018 17:13	WG1184455
1,1-Dichloropropene	U		0.000824	0.00294	1	10/22/2018 17:13	WG1184455
1,3-Dichloropropane	U		0.00206	0.00589	1	10/22/2018 17:13	WG1184455
cis-1,3-Dichloropropene	U		0.000798	0.00294	1	10/22/2018 17:13	WG1184455
trans-1,3-Dichloropropene	U	J4	0.00180	0.00589	1	10/22/2018 17:13	WG1184455
trans-1,4-Dichloro-2-butene	U		0.00165	0.00589	1	10/22/2018 17:13	WG1184455
2,2-Dichloropropane	U		0.000934	0.00294	1	10/22/2018 17:13	WG1184455
Di-isopropyl ether	U		0.000412	0.00118	1	10/22/2018 17:13	WG1184455
Ethylbenzene	U		0.000624	0.00294	1	10/22/2018 17:13	WG1184455
Hexachloro-1,3-butadiene	U		0.0150	0.0294	1	10/22/2018 17:13	WG1184455
2-Hexanone	U		0.0118	0.0294	1	10/22/2018 17:13	WG1184455
n-Hexane	U		0.00125	0.00589	1	10/22/2018 17:13	WG1184455
Iodomethane	U		0.00712	0.0147	1	10/22/2018 17:13	WG1184455
Isopropylbenzene	U		0.00102	0.00294	1	10/22/2018 17:13	WG1184455
p-Isopropyltoluene	U		0.00274	0.00589	1	10/22/2018 17:13	WG1184455
2-Butanone (MEK)	U		0.0147	0.0294	1	10/22/2018 17:13	WG1184455
Methylene Chloride	U		0.00782	0.0294	1	10/22/2018 17:13	WG1184455
4-Methyl-2-pentanone (MIBK)	U		0.0118	0.0294	1	10/22/2018 17:13	WG1184455

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000347	0.00118	1	10/22/2018 17:13	WG1184455
Naphthalene	U		0.00367	0.0147	1	10/22/2018 17:13	WG1184455
n-Propylbenzene	U		0.00139	0.00589	1	10/22/2018 17:13	WG1184455
Styrene	U		0.00321	0.0147	1	10/22/2018 17:13	WG1184455
1,1,1,2-Tetrachloroethane	U	J4	0.000589	0.00294	1	10/22/2018 17:13	WG1184455
1,1,2,2-Tetrachloroethane	U		0.00459	0.0294	10	10/24/2018 00:06	WG1185221
1,1,2-Trichlorotrifluoroethane	U		0.000795	0.00294	1	10/22/2018 17:13	WG1184455
Tetrachloroethene	2.05	J0	0.00824	0.0294	10	10/24/2018 00:06	WG1185221
Toluene	U		0.00147	0.00589	1	10/22/2018 17:13	WG1184455
1,2,3-Trichlorobenzene	U		0.00736	0.0294	10	10/24/2018 00:06	WG1185221
1,2,4-Trichlorobenzene	U		0.00567	0.0147	1	10/22/2018 17:13	WG1184455
1,1,1-Trichloroethane	U		0.000324	0.00294	1	10/22/2018 17:13	WG1184455
1,1,2-Trichloroethane	U		0.00104	0.00294	1	10/22/2018 17:13	WG1184455
Trichloroethene	0.0634		0.000471	0.00118	1	10/22/2018 17:13	WG1184455
Trichlorofluoromethane	U		0.000589	0.00294	1	10/22/2018 17:13	WG1184455
1,2,3-Trichloropropane	U		0.00600	0.0147	1	10/22/2018 17:13	WG1184455
1,2,4-Trimethylbenzene	U		0.00137	0.00589	1	10/22/2018 17:13	WG1184455
1,2,3-Trimethylbenzene	U		0.00135	0.00589	1	10/22/2018 17:13	WG1184455
1,3,5-Trimethylbenzene	U		0.00127	0.00589	1	10/22/2018 17:13	WG1184455
Vinyl acetate	U		0.00414	0.0147	1	10/22/2018 17:13	WG1184455
Vinyl chloride	U		0.000804	0.00294	1	10/22/2018 17:13	WG1184455
Xylenes, Total	U		0.00563	0.00765	1	10/22/2018 17:13	WG1184455
(S) Toluene-d8	*108*			*75.0-131*		*10/22/2018 17:13*	WG1184455
(S) Toluene-d8	*98.1*			*75.0-131*		*10/24/2018 00:06*	WG1185221
(S) Dibromofluoromethane	*89.0*			*65.0-129*		*10/22/2018 17:13*	WG1184455
(S) Dibromofluoromethane	*116*			*65.0-129*		*10/24/2018 00:06*	WG1185221
(S) 4-Bromofluorobenzene	*94.3*			*67.0-138*		*10/22/2018 17:13*	WG1184455
(S) 4-Bromofluorobenzene	*123*			*67.0-138*		*10/24/2018 00:06*	WG1185221

Sample Narrative:

L1036155-30 WG1185221, WG1184455: Cannot be reanalyzed at a lower dilution due to high levels of target analytes.

L1036155-30 WG1185221, WG1184455: Not all compounds reportable at lower dilution.

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		1.05	25.0	1	10/19/2018 11:37	WG1183421
Acrylonitrile	U		0.873	5.00	1	10/19/2018 11:37	WG1183421
Benzene	U		0.0896	0.500	1	10/19/2018 11:37	WG1183421
Bromobenzene	U		0.133	0.500	1	10/19/2018 11:37	WG1183421
Bromodichloromethane	U		0.0800	0.500	1	10/19/2018 11:37	WG1183421
Bromochloromethane	U		0.145	0.500	1	10/19/2018 11:37	WG1183421
Bromoform	U		0.186	0.500	1	10/19/2018 11:37	WG1183421
Bromomethane	U		0.157	2.50	1	10/19/2018 11:37	WG1183421
n-Butylbenzene	U		0.143	0.500	1	10/19/2018 11:37	WG1183421
sec-Butylbenzene	U		0.134	0.500	1	10/19/2018 11:37	WG1183421
tert-Butylbenzene	U		0.183	0.500	1	10/19/2018 11:37	WG1183421
Carbon disulfide	U		0.101	0.500	1	10/19/2018 11:37	WG1183421
Carbon tetrachloride	U		0.159	0.500	1	10/19/2018 11:37	WG1183421
Chlorobenzene	U		0.140	0.500	1	10/19/2018 11:37	WG1183421
Chlorodibromomethane	U		0.128	0.500	1	10/19/2018 11:37	WG1183421
Chloroethane	U		0.141	2.50	1	10/19/2018 11:37	WG1183421
Chloroform	U		0.0860	0.500	1	10/19/2018 11:37	WG1183421
Chloromethane	U		0.153	1.25	1	10/19/2018 11:37	WG1183421
2-Chlorotoluene	U		0.111	0.500	1	10/19/2018 11:37	WG1183421
4-Chlorotoluene	U		0.0972	0.500	1	10/19/2018 11:37	WG1183421
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	10/19/2018 11:37	WG1183421
1,2-Dibromoethane	U		0.193	0.500	1	10/19/2018 11:37	WG1183421
Dibromomethane	U		0.117	0.500	1	10/19/2018 11:37	WG1183421
1,2-Dichlorobenzene	U		0.101	0.500	1	10/19/2018 11:37	WG1183421
1,3-Dichlorobenzene	U		0.130	0.500	1	10/19/2018 11:37	WG1183421
1,4-Dichlorobenzene	U		0.121	0.500	1	10/19/2018 11:37	WG1183421
Dichlorodifluoromethane	U		0.127	2.50	1	10/19/2018 11:37	WG1183421
1,1-Dichloroethane	U		0.114	0.500	1	10/19/2018 11:37	WG1183421
1,2-Dichloroethane	U		0.108	0.500	1	10/19/2018 11:37	WG1183421
1,1-Dichloroethene	U		0.188	0.500	1	10/19/2018 11:37	WG1183421
cis-1,2-Dichloroethene	U		0.0933	0.500	1	10/19/2018 11:37	WG1183421
trans-1,2-Dichloroethene	U		0.152	0.500	1	10/19/2018 11:37	WG1183421
1,2-Dichloropropane	U		0.190	0.500	1	10/19/2018 11:37	WG1183421
1,1-Dichloropropene	U		0.128	0.500	1	10/19/2018 11:37	WG1183421
1,3-Dichloropropane	U		0.147	1.00	1	10/19/2018 11:37	WG1183421
cis-1,3-Dichloropropene	U		0.0976	0.500	1	10/19/2018 11:37	WG1183421
trans-1,3-Dichloropropene	U		0.222	0.500	1	10/19/2018 11:37	WG1183421
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	10/19/2018 11:37	WG1183421
2,2-Dichloropropane	U	J4	0.0929	0.500	1	10/19/2018 11:37	WG1183421
Di-isopropyl ether	U		0.0924	0.500	1	10/19/2018 11:37	WG1183421
Ethylbenzene	U		0.158	0.500	1	10/19/2018 11:37	WG1183421
Hexachloro-1,3-butadiene	U		0.157	1.00	1	10/19/2018 11:37	WG1183421
2-Hexanone	U		0.757	5.00	1	10/19/2018 11:37	WG1183421
n-Hexane	U		0.305	5.00	1	10/19/2018 11:37	WG1183421
Iodomethane	U		0.377	10.0	1	10/19/2018 11:37	WG1183421
Isopropylbenzene	U		0.126	0.500	1	10/19/2018 11:37	WG1183421
p-Isopropyltoluene	U		0.138	0.500	1	10/19/2018 11:37	WG1183421
2-Butanone (MEK)	U		1.28	5.00	1	10/19/2018 11:37	WG1183421
Methylene Chloride	U		1.07	2.50	1	10/19/2018 11:37	WG1183421
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	10/19/2018 11:37	WG1183421
Methyl tert-butyl ether	U		0.102	0.500	1	10/19/2018 11:37	WG1183421
Naphthalene	U		0.174	2.50	1	10/19/2018 11:37	WG1183421
n-Propylbenzene	U		0.162	0.500	1	10/19/2018 11:37	WG1183421
Styrene	U		0.117	0.500	1	10/19/2018 11:37	WG1183421
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	10/19/2018 11:37	WG1183421
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	10/19/2018 11:37	WG1183421

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	10/19/2018 11:37	WG1183421
Tetrachloroethene	U		0.199	0.500	1	10/19/2018 11:37	WG1183421
Toluene	U		0.412	0.500	1	10/19/2018 11:37	WG1183421
1,2,3-Trichlorobenzene	U		0.164	0.500	1	10/19/2018 11:37	WG1183421
1,2,4-Trichlorobenzene	U		0.355	0.500	1	10/19/2018 11:37	WG1183421
1,1,1-Trichloroethane	U		0.0940	0.500	1	10/19/2018 11:37	WG1183421
1,1,2-Trichloroethane	U		0.186	0.500	1	10/19/2018 11:37	WG1183421
Trichloroethene	U		0.153	0.500	1	10/19/2018 11:37	WG1183421
Trichlorofluoromethane	U		0.130	2.50	1	10/19/2018 11:37	WG1183421
1,2,3-Trichloropropane	U		0.247	2.50	1	10/19/2018 11:37	WG1183421
1,2,4-Trimethylbenzene	U		0.123	0.500	1	10/19/2018 11:37	WG1183421
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	10/19/2018 11:37	WG1183421
1,3,5-Trimethylbenzene	U		0.124	0.500	1	10/19/2018 11:37	WG1183421
Vinyl acetate	U		0.645	5.00	1	10/19/2018 11:37	WG1183421
Vinyl chloride	U		0.118	0.500	1	10/19/2018 11:37	WG1183421
Xylenes, Total	U		0.316	1.50	1	10/19/2018 11:37	WG1183421
(S) Toluene-d8	*99.4*			*80.0-120*		*10/19/2018 11:37*	WG1183421
(S) Dibromofluoromethane	*103*			*75.0-120*		*10/19/2018 11:37*	WG1183421
(S) 4-Bromofluorobenzene	*99.1*			*77.0-126*		*10/19/2018 11:37*	WG1183421

Method Blank (MB)

(MB) R3353695-1 10/24/18 12:36

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.00100			

L1036154-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1036154-03 10/24/18 12:36 • (DUP) R3353695-3 10/24/18 12:36

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	89.4	89.0	1	0.501		10

Laboratory Control Sample (LCS)

(LCS) R3353695-2 10/24/18 12:36

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85.0-115	

Method Blank (MB)

(MB) R3353692-1 10/24/18 10:10

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.00100			

L1036155-10 Original Sample (OS) • Duplicate (DUP)

(OS) L1036155-10 10/24/18 10:10 • (DUP) R3353692-3 10/24/18 10:10

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	88.8	92.0	1	3.53		10

Laboratory Control Sample (LCS)

(LCS) R3353692-2 10/24/18 10:10

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85.0-115	

Method Blank (MB)

(MB) R3353690-1 10/24/18 10:00

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.00100			

L1036155-12 Original Sample (OS) • Duplicate (DUP)

(OS) L1036155-12 10/24/18 10:00 • (DUP) R3353690-3 10/24/18 10:00

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	87.3	91.3	1	4.51		10

Laboratory Control Sample (LCS)

(LCS) R3353690-2 10/24/18 10:00

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85.0-115	

Method Blank (MB)

(MB) R3353689-1 10/24/18 09:40

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.000			

L1036155-24 Original Sample (OS) • Duplicate (DUP)

(OS) L1036155-24 10/24/18 09:40 • (DUP) R3353689-3 10/24/18 09:40

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	91.0	91.1	1	0.155		10

Laboratory Control Sample (LCS)

(LCS) R3353689-2 10/24/18 09:40

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85.0-115	

Method Blank (MB)

(MB) R3352238-4 10/19/18 10:55

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Acetone	U		1.05	25.0
Acrylonitrile	U		0.873	5.00
Benzene	U		0.0896	0.500
Bromobenzene	U		0.133	0.500
Bromodichloromethane	U		0.0800	0.500
Bromochloromethane	U		0.145	0.500
Bromoform	U		0.186	0.500
Bromomethane	U		0.157	2.50
n-Butylbenzene	U		0.143	0.500
sec-Butylbenzene	U		0.134	0.500
tert-Butylbenzene	U		0.183	0.500
Carbon disulfide	U		0.101	0.500
Carbon tetrachloride	U		0.159	0.500
Chlorobenzene	U		0.140	0.500
Chlorodibromomethane	U		0.128	0.500
Chloroethane	U		0.141	2.50
Chloroform	U		0.0860	0.500
Chloromethane	U		0.153	1.25
2-Chlorotoluene	U		0.111	0.500
4-Chlorotoluene	U		0.0972	0.500
1,2-Dibromo-3-Chloropropane	U		0.325	2.50
1,2-Dibromoethane	U		0.193	0.500
Dibromomethane	U		0.117	0.500
1,2-Dichlorobenzene	U		0.101	0.500
1,3-Dichlorobenzene	U		0.130	0.500
1,4-Dichlorobenzene	U		0.121	0.500
Dichlorodifluoromethane	U		0.127	2.50
1,1-Dichloroethane	U		0.114	0.500
1,2-Dichloroethane	U		0.108	0.500
1,1-Dichloroethene	U		0.188	0.500
cis-1,2-Dichloroethene	U		0.0933	0.500
trans-1,2-Dichloroethene	U		0.152	0.500
1,2-Dichloropropane	U		0.190	0.500
1,1-Dichloropropene	U		0.128	0.500
1,3-Dichloropropane	U		0.147	1.00
cis-1,3-Dichloropropene	U		0.0976	0.500
trans-1,3-Dichloropropene	U		0.222	0.500
trans-1,4-Dichloro-2-butene	U		0.257	5.00
2,2-Dichloropropane	U		0.0929	0.500
Di-isopropyl ether	U		0.0924	0.500

Method Blank (MB)

(MB) R3352238-4 10/19/18 10:55

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Ethylbenzene	U		0.158	0.500
Hexachloro-1,3-butadiene	U		0.157	1.00
2-Hexanone	U		0.757	5.00
n-Hexane	U		0.305	5.00
Iodomethane	U		0.377	10.0
Isopropylbenzene	U		0.126	0.500
p-Isopropyltoluene	U		0.138	0.500
2-Butanone (MEK)	U		1.28	5.00
Methylene Chloride	U		1.07	2.50
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00
Methyl tert-butyl ether	U		0.102	0.500
Naphthalene	U		0.174	2.50
n-Propylbenzene	U		0.162	0.500
Styrene	U		0.117	0.500
1,1,1,2-Tetrachloroethane	U		0.120	0.500
1,1,2,2-Tetrachloroethane	U		0.130	0.500
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500
Tetrachloroethene	U		0.199	0.500
Toluene	U		0.412	0.500
1,2,3-Trichlorobenzene	U		0.164	0.500
1,2,4-Trichlorobenzene	U		0.355	0.500
1,1,1-Trichloroethane	U		0.0940	0.500
1,1,2-Trichloroethane	U		0.186	0.500
Trichloroethene	U		0.153	0.500
Trichlorofluoromethane	U		0.130	2.50
1,2,3-Trichloropropane	U		0.247	2.50
1,2,4-Trimethylbenzene	U		0.123	0.500
1,2,3-Trimethylbenzene	U		0.0739	0.500
1,3,5-Trimethylbenzene	U		0.124	0.500
Vinyl acetate	U		0.645	5.00
Vinyl chloride	U		0.118	0.500
Xylenes, Total	U		0.316	1.50
(S) Toluene-d8	*99.0*			*80.0-120*
(S) Dibromofluoromethane	*101*			*75.0-120*
(S) 4-Bromofluorobenzene	*97.4*			*77.0-126*

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

(LCS) R3352238-1 10/19/18 09:37 • (LCSD) R3352238-2 10/19/18 09:56

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	106	102	84.5	81.6	19.0-160			3.46	27
Acrylonitrile	125	126	127	101	101	55.0-149			0.565	20
Benzene	25.0	25.6	25.6	102	102	70.0-123			0.0546	20
Bromobenzene	25.0	23.9	25.0	95.7	100	73.0-121			4.36	20
Bromodichloromethane	25.0	25.7	26.1	103	105	75.0-120			1.51	20
Bromochloromethane	25.0	27.1	26.1	108	104	76.0-122			3.86	20
Bromoform	25.0	25.0	26.0	99.8	104	68.0-132			4.13	20
Bromomethane	25.0	28.1	27.2	112	109	10.0-160			3.02	25
n-Butylbenzene	25.0	25.2	26.1	101	104	73.0-125			3.49	20
sec-Butylbenzene	25.0	24.1	25.6	96.3	102	75.0-125			6.20	20
tert-Butylbenzene	25.0	23.9	25.3	95.5	101	76.0-124			5.94	20
Carbon disulfide	25.0	24.5	24.2	97.8	97.0	61.0-128			0.863	20
Carbon tetrachloride	25.0	25.6	25.4	102	102	68.0-126			0.820	20
Chlorobenzene	25.0	24.4	24.7	97.5	98.9	80.0-121			1.35	20
Chlorodibromomethane	25.0	25.1	25.4	101	102	77.0-125			1.19	20
Chloroethane	25.0	24.2	24.7	96.9	98.6	47.0-150			1.79	20
Chloroform	25.0	25.7	25.9	103	103	73.0-120			0.726	20
Chloromethane	25.0	25.8	25.8	103	103	41.0-142			0.166	20
2-Chlorotoluene	25.0	23.7	25.4	94.6	102	76.0-123			7.18	20
4-Chlorotoluene	25.0	24.5	25.7	98.0	103	75.0-122			4.61	20
1,2-Dibromo-3-Chloropropane	25.0	23.7	24.3	94.9	97.2	58.0-134			2.40	20
1,2-Dibromoethane	25.0	22.7	23.3	90.8	93.3	80.0-122			2.71	20
Dibromomethane	25.0	27.6	27.7	110	111	80.0-120			0.523	20
1,2-Dichlorobenzene	25.0	24.7	26.1	98.8	104	79.0-121			5.50	20
1,3-Dichlorobenzene	25.0	25.7	26.7	103	107	79.0-120			3.97	20
1,4-Dichlorobenzene	25.0	23.4	25.1	93.6	100	79.0-120			7.09	20
Dichlorodifluoromethane	25.0	30.7	28.1	123	112	51.0-149			9.10	20
1,1-Dichloroethane	25.0	26.8	26.5	107	106	70.0-126			1.04	20
1,2-Dichloroethane	25.0	26.4	26.4	106	106	70.0-128			0.0383	20
1,1-Dichloroethene	25.0	25.3	24.6	101	98.3	71.0-124			2.78	20
cis-1,2-Dichloroethene	25.0	25.0	25.0	100	100	73.0-120			0.0400	20
trans-1,2-Dichloroethene	25.0	25.7	25.8	103	103	73.0-120			0.208	20
1,2-Dichloropropane	25.0	27.3	26.4	109	105	77.0-125			3.48	20
1,1-Dichloropropene	25.0	26.9	27.2	108	109	74.0-126			0.954	20
1,3-Dichloropropane	25.0	24.6	25.8	98.3	103	80.0-120			4.79	20
cis-1,3-Dichloropropene	25.0	25.9	26.3	104	105	80.0-123			1.65	20
trans-1,3-Dichloropropene	25.0	25.1	26.2	101	105	78.0-124			4.02	20
trans-1,4-Dichloro-2-butene	25.0	22.9	23.4	91.4	93.6	33.0-144			2.35	20
2,2-Dichloropropane	25.0	34.1	35.8	137	143	58.0-130	J4	J4	4.61	20
Di-isopropyl ether	25.0	25.7	25.1	103	101	58.0-138			2.20	20

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

(LCS) R3352238-1 10/19/18 09:37 • (LCSD) R3352238-2 10/19/18 09:56

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 %
Ethylbenzene	25.0	24.2	24.7	96.9	98.9	79.0-123			1.99	20
Hexachloro-1,3-butadiene	25.0	23.5	25.1	94.0	100	54.0-138			6.60	20
2-Hexanone	125	124	126	98.8	101	67.0-149			1.97	20
n-Hexane	25.0	28.3	27.9	113	111	57.0-133			1.55	20
Iodomethane	125	137	136	110	109	33.0-147			0.754	26
Isopropylbenzene	25.0	23.6	25.5	94.3	102	76.0-127			7.99	20
p-Isopropyltoluene	25.0	23.8	25.6	95.3	103	76.0-125			7.33	20
2-Butanone (MEK)	125	125	125	100	100	44.0-160			0.324	20
Methylene Chloride	25.0	25.8	24.9	103	99.6	67.0-120			3.42	20
4-Methyl-2-pentanone (MIBK)	125	125	124	99.8	99.5	68.0-142			0.371	20
Methyl tert-butyl ether	25.0	24.1	24.6	96.4	98.4	68.0-125			2.09	20
Naphthalene	25.0	23.2	24.8	92.7	99.4	54.0-135			6.91	20
n-Propylbenzene	25.0	24.0	25.0	95.9	99.9	77.0-124			4.16	20
Styrene	25.0	23.9	24.3	95.8	97.2	73.0-130			1.50	20
1,1,1,2-Tetrachloroethane	25.0	25.4	25.3	102	101	75.0-125			0.551	20
1,1,2,2-Tetrachloroethane	25.0	24.5	25.9	98.0	104	65.0-130			5.51	20
1,1,2-Trichlorotrifluoroethane	25.0	20.3	20.7	81.3	82.7	69.0-132			1.69	20
Tetrachloroethene	25.0	25.1	26.0	100	104	72.0-132			3.76	20
Toluene	25.0	24.4	25.2	97.5	101	79.0-120			3.47	20
1,2,3-Trichlorobenzene	25.0	23.2	24.1	92.7	96.4	50.0-138			3.95	20
1,2,4-Trichlorobenzene	25.0	25.3	26.5	101	106	57.0-137			4.90	20
1,1,1-Trichloroethane	25.0	26.3	25.9	105	104	73.0-124			1.52	20
1,1,2-Trichloroethane	25.0	23.9	23.6	95.7	94.6	80.0-120			1.11	20
Trichloroethene	25.0	23.8	24.1	95.2	96.3	78.0-124			1.09	20
Trichlorofluoromethane	25.0	24.9	23.3	99.4	93.1	59.0-147			6.61	20
1,2,3-Trichloropropane	25.0	23.1	25.2	92.5	101	73.0-130			8.50	20
1,2,4-Trimethylbenzene	25.0	23.8	25.1	95.2	100	76.0-121			5.22	20
1,2,3-Trimethylbenzene	25.0	23.6	24.8	94.5	99.2	77.0-120			4.86	20
1,3,5-Trimethylbenzene	25.0	23.9	25.3	95.5	101	76.0-122			5.78	20
Vinyl acetate	125	163	162	130	130	11.0-160			0.0925	20
Vinyl chloride	25.0	27.4	27.3	110	109	67.0-131			0.583	20
Xylenes, Total	75.0	74.6	76.7	99.5	102	79.0-123			2.78	20
(S) Toluene-d8				*96.3*	*98.1*	*80.0-120*				
(S) Dibromofluoromethane				*103*	*100*	*75.0-120*				
(S) 4-Bromofluorobenzene				*96.0*	*98.4*	*77.0-126*				

Method Blank (MB)

(MB) R3352821-2 10/19/18 13:07

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acrylonitrile	U		0.00190	0.0125
Benzene	U		0.000400	0.00100
Bromobenzene	U		0.00105	0.0125
Bromodichloromethane	U		0.000788	0.00250
Bromochloromethane	U		0.00113	0.00500
Bromoform	U		0.00598	0.0250
Bromomethane	U		0.00370	0.0125
n-Butylbenzene	U		0.00384	0.0125
sec-Butylbenzene	U		0.00253	0.0125
tert-Butylbenzene	U		0.00155	0.00500
Carbon disulfide	U		0.00406	0.0125
Carbon tetrachloride	U		0.00108	0.00500
Chlorobenzene	U		0.000573	0.00250
Chlorodibromomethane	U		0.000450	0.00250
Chloroethane	U		0.00108	0.00500
Chloroform	U		0.000415	0.00250
Chloromethane	U		0.00139	0.0125
2-Chlorotoluene	U		0.000920	0.00250
4-Chlorotoluene	U		0.00113	0.00500
1,2-Dibromo-3-Chloropropane	U		0.00510	0.0250
1,2-Dibromoethane	U		0.000525	0.00250
Dibromomethane	U		0.00100	0.00500
1,2-Dichlorobenzene	U		0.00145	0.00500
1,3-Dichlorobenzene	U		0.00170	0.00500
1,4-Dichlorobenzene	U		0.00197	0.00500
trans-1,4-Dichloro-2-butene	U		0.00140	0.00500
1,1-Dichloroethane	U		0.000575	0.00250
1,2-Dichloroethane	U		0.000475	0.00250
1,1-Dichloroethene	U		0.000500	0.00250
cis-1,2-Dichloroethene	U		0.000690	0.00250
trans-1,2-Dichloroethene	U		0.00143	0.00500
1,2-Dichloropropane	U		0.00127	0.00500
1,1-Dichloropropene	U		0.000700	0.00250
1,3-Dichloropropane	U		0.00175	0.00500
cis-1,3-Dichloropropene	U		0.000678	0.00250
trans-1,3-Dichloropropene	U		0.00153	0.00500
2,2-Dichloropropane	U		0.000793	0.00250
Di-isopropyl ether	U		0.000350	0.00100
Ethylbenzene	U		0.000530	0.00250
Hexachloro-1,3-butadiene	U		0.0127	0.0250

Method Blank (MB)

(MB) R3352821-2 10/19/18 13:07

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
n-Hexane	U		0.00106	0.00500
2-Hexanone	U		0.0100	0.0250
Iodomethane	U		0.00605	0.0125
Isopropylbenzene	U		0.000863	0.00250
p-Isopropyltoluene	U		0.00233	0.00500
2-Butanone (MEK)	0.0212	J	0.0125	0.0250
Methylene Chloride	0.0147	J	0.00664	0.0250
4-Methyl-2-pentanone (MIBK)	U		0.0100	0.0250
Methyl tert-butyl ether	U		0.000295	0.00100
Naphthalene	U		0.00312	0.0125
n-Propylbenzene	U		0.00118	0.00500
Styrene	U		0.00273	0.0125
1,1,1,2-Tetrachloroethane	U		0.000500	0.00250
Tetrachloroethene	U		0.000700	0.00250
Toluene	U		0.00125	0.00500
1,2,4-Trichlorobenzene	U		0.00482	0.0125
1,1,1-Trichloroethane	U		0.000275	0.00250
1,1,2-Trichloroethane	U		0.000883	0.00250
Trichloroethene	U		0.000400	0.00100
Trichlorofluoromethane	U		0.000500	0.00250
1,2,3-Trichloropropane	U		0.00510	0.0125
1,2,3-Trimethylbenzene	U		0.00115	0.00500
1,2,4-Trimethylbenzene	U		0.00116	0.00500
1,3,5-Trimethylbenzene	U		0.00108	0.00500
Vinyl acetate	U		0.00352	0.0125
Xylenes, Total	U		0.00478	0.00650
(S) Toluene-d8	*102*			*75.0-131*
(S) Dibromofluoromethane	*95.0*			*65.0-129*
(S) 4-Bromofluorobenzene	*89.8*			*67.0-138*

Laboratory Control Sample (LCS)

(LCS) R3352821-1 10/19/18 12:03

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acrylonitrile	0.625	0.730	117	45.0-153	
Benzene	0.125	0.137	109	70.0-123	
Bromobenzene	0.125	0.108	86.7	73.0-121	
Bromodichloromethane	0.125	0.117	93.3	73.0-121	

Laboratory Control Sample (LCS)

(LCS) R3352821-1 10/19/18 12:03

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Bromochloromethane	0.125	0.0971	77.7	77.0-128	
Bromoform	0.125	0.103	82.1	64.0-132	
Bromomethane	0.125	0.149	119	56.0-147	
n-Butylbenzene	0.125	0.0993	79.5	68.0-135	
sec-Butylbenzene	0.125	0.102	82.0	74.0-130	
tert-Butylbenzene	0.125	0.107	85.9	75.0-127	
Carbon disulfide	0.125	0.102	81.8	56.0-133	
Carbon tetrachloride	0.125	0.101	80.8	66.0-128	
Chlorobenzene	0.125	0.103	82.6	76.0-128	
Chlorodibromomethane	0.125	0.123	98.8	74.0-127	
Chloroethane	0.125	0.124	99.1	61.0-134	
Chloroform	0.125	0.110	87.7	72.0-123	
Chloromethane	0.125	0.163	130	51.0-138	
2-Chlorotoluene	0.125	0.115	91.8	75.0-124	
4-Chlorotoluene	0.125	0.108	86.2	75.0-124	
1,2-Dibromo-3-Chloropropane	0.125	0.124	99.1	59.0-130	
1,2-Dibromoethane	0.125	0.111	88.9	74.0-128	
Dibromomethane	0.125	0.116	92.6	75.0-122	
1,2-Dichlorobenzene	0.125	0.123	98.7	76.0-124	
1,3-Dichlorobenzene	0.125	0.105	83.8	76.0-125	
1,4-Dichlorobenzene	0.125	0.105	84.2	77.0-121	
trans-1,4-Dichloro-2-butene	0.125	0.161	129	45.0-143	
1,1-Dichloroethane	0.125	0.128	102	70.0-127	
1,2-Dichloroethane	0.125	0.122	97.3	65.0-131	
1,1-Dichloroethene	0.125	0.119	94.9	65.0-131	
cis-1,2-Dichloroethene	0.125	0.154	123	73.0-125	
trans-1,2-Dichloroethene	0.125	0.111	88.4	71.0-125	
1,2-Dichloropropane	0.125	0.117	93.7	74.0-125	
1,1-Dichloropropene	0.125	0.136	109	73.0-125	
1,3-Dichloropropane	0.125	0.102	81.6	80.0-125	
cis-1,3-Dichloropropene	0.125	0.128	102	76.0-127	
trans-1,3-Dichloropropene	0.125	0.177	142	73.0-127	J4
2,2-Dichloropropane	0.125	0.118	94.1	59.0-135	
Di-isopropyl ether	0.125	0.121	96.8	60.0-136	
Ethylbenzene	0.125	0.106	85.1	74.0-126	
Hexachloro-1,3-butadiene	0.125	0.182	145	57.0-150	
2-Hexanone	0.625	0.702	112	54.0-147	
n-Hexane	0.125	0.174	139	55.0-137	J4
Iodomethane	0.625	0.655	105	74.0-134	
Isopropylbenzene	0.125	0.110	88.3	72.0-127	

Laboratory Control Sample (LCS)

(LCS) R3352821-1 10/19/18 12:03

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
p-Isopropyltoluene	0.125	0.0983	78.6	72.0-133	
2-Butanone (MEK)	0.625	1.01	161	30.0-160	J4
Methylene Chloride	0.125	0.0978	78.2	68.0-123	
4-Methyl-2-pentanone (MIBK)	0.625	0.747	120	56.0-143	
Methyl tert-butyl ether	0.125	0.110	88.4	66.0-132	
Naphthalene	0.125	0.120	96.1	59.0-130	
n-Propylbenzene	0.125	0.126	101	74.0-126	
Styrene	0.125	0.112	89.8	72.0-127	
1,1,1,2-Tetrachloroethane	0.125	0.150	120	74.0-129	
Tetrachloroethene	0.125	0.135	108	70.0-136	
Toluene	0.125	0.115	92.0	75.0-121	
1,2,4-Trichlorobenzene	0.125	0.135	108	62.0-137	
1,1,1-Trichloroethane	0.125	0.132	106	69.0-126	
1,1,2-Trichloroethane	0.125	0.118	94.1	78.0-123	
Trichloroethene	0.125	0.124	99.0	76.0-126	
Trichlorofluoromethane	0.125	0.129	103	61.0-142	
1,2,3-Trichloropropane	0.125	0.118	94.1	67.0-129	
1,2,3-Trimethylbenzene	0.125	0.125	99.9	74.0-124	
1,2,4-Trimethylbenzene	0.125	0.108	86.5	70.0-126	
1,3,5-Trimethylbenzene	0.125	0.118	94.6	73.0-127	
Vinyl acetate	0.625	0.654	105	43.0-159	
Xylenes, Total	0.375	0.341	90.9	72.0-127	
(S) Toluene-d8			*103*	*75.0-131*	
(S) Dibromofluoromethane			*94.6*	*65.0-129*	
(S) 4-Bromofluorobenzene			*91.2*	*67.0-138*	

Method Blank (MB)

(MB) R3353123-2 10/21/18 22:37

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acetone	U		0.0137	0.0250
Acrylonitrile	U		0.00190	0.0125
Bromobenzene	U		0.00105	0.0125
Bromodichloromethane	U		0.000788	0.00250
Bromochloromethane	U		0.00113	0.00500
Bromoform	U		0.00598	0.0250
Bromomethane	U		0.00370	0.0125
n-Butylbenzene	U		0.00384	0.0125
sec-Butylbenzene	U		0.00253	0.0125
tert-Butylbenzene	U		0.00155	0.00500
Carbon disulfide	U		0.00406	0.0125
Carbon tetrachloride	U		0.00108	0.00500
Chlorobenzene	U		0.000573	0.00250
Chlorodibromomethane	U		0.000450	0.00250
Chloroethane	U		0.00108	0.00500
Chloroform	0.00172	J	0.000415	0.00250
Chloromethane	U		0.00139	0.0125
2-Chlorotoluene	U		0.000920	0.00250
4-Chlorotoluene	U		0.00113	0.00500
1,2-Dibromo-3-Chloropropane	U		0.00510	0.0250
1,2-Dibromoethane	U		0.000525	0.00250
Dibromomethane	U		0.00100	0.00500
1,2-Dichlorobenzene	U		0.00145	0.00500
1,3-Dichlorobenzene	U		0.00170	0.00500
1,4-Dichlorobenzene	U		0.00197	0.00500
trans-1,4-Dichloro-2-butene	U		0.00140	0.00500
Dichlorodifluoromethane	U		0.000818	0.00250
1,1-Dichloroethane	U		0.000575	0.00250
1,2-Dichloroethane	U		0.000475	0.00250
1,1-Dichloroethene	U		0.000500	0.00250
cis-1,2-Dichloroethene	U		0.000690	0.00250
trans-1,2-Dichloroethene	U		0.00143	0.00500
1,2-Dichloropropane	U		0.00127	0.00500
1,1-Dichloropropene	U		0.000700	0.00250
1,3-Dichloropropane	U		0.00175	0.00500
cis-1,3-Dichloropropene	U		0.000678	0.00250
trans-1,3-Dichloropropene	U		0.00153	0.00500
2,2-Dichloropropane	U		0.000793	0.00250
Ethylbenzene	U		0.000530	0.00250
Hexachloro-1,3-butadiene	U		0.0127	0.0250

Method Blank (MB)

(MB) R3353123-2 10/21/18 22:37

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
n-Hexane	U		0.00106	0.00500
2-Hexanone	U		0.0100	0.0250
Iodomethane	U		0.00605	0.0125
Isopropylbenzene	U		0.000863	0.00250
p-Isopropyltoluene	U		0.00233	0.00500
2-Butanone (MEK)	U		0.0125	0.0250
Methylene Chloride	U		0.00664	0.0250
4-Methyl-2-pentanone (MIBK)	U		0.0100	0.0250
Naphthalene	U		0.00312	0.0125
n-Propylbenzene	U		0.00118	0.00500
Styrene	U		0.00273	0.0125
1,1,1,2-Tetrachloroethane	U		0.000500	0.00250
1,1,2,2-Tetrachloroethane	U		0.000390	0.00250
Toluene	U		0.00125	0.00500
1,1,2-Trichlorotrifluoroethane	U		0.000675	0.00250
1,2,3-Trichlorobenzene	0.000752	J	0.000625	0.00250
1,1,1-Trichloroethane	U		0.000275	0.00250
1,1,2-Trichloroethane	U		0.000883	0.00250
Trichlorofluoromethane	U		0.000500	0.00250
1,2,3-Trichloropropane	U		0.00510	0.0125
1,2,3-Trimethylbenzene	U		0.00115	0.00500
1,2,4-Trimethylbenzene	U		0.00116	0.00500
1,3,5-Trimethylbenzene	U		0.00108	0.00500
Vinyl acetate	U		0.00352	0.0125
Vinyl chloride	U		0.000683	0.00250
Xylenes, Total	U		0.00478	0.00650
(S) Toluene-d8	*100*			*75.0-131*
(S) Dibromofluoromethane	*115*			*65.0-129*
(S) 4-Bromofluorobenzene	*120*			*67.0-138*

Laboratory Control Sample (LCS)

(LCS) R3353123-1 10/21/18 21:36

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acetone	0.625	0.620	99.2	10.0-160	
Acrylonitrile	0.625	0.778	124	45.0-153	
Bromobenzene	0.125	0.135	108	73.0-121	
Bromodichloromethane	0.125	0.129	103	73.0-121	

Laboratory Control Sample (LCS)

(LCS) R3353123-1 10/21/18 21:36

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Bromochloromethane	0.125	0.141	113	77.0-128	
Bromoform	0.125	0.131	105	64.0-132	
Bromomethane	0.125	0.106	84.9	56.0-147	
n-Butylbenzene	0.125	0.119	95.1	68.0-135	
sec-Butylbenzene	0.125	0.132	106	74.0-130	
tert-Butylbenzene	0.125	0.137	110	75.0-127	
Carbon disulfide	0.125	0.147	118	56.0-133	
Carbon tetrachloride	0.125	0.148	119	66.0-128	
Chlorobenzene	0.125	0.115	91.8	76.0-128	
Chlorodibromomethane	0.125	0.120	96.2	74.0-127	
Chloroethane	0.125	0.110	87.9	61.0-134	
Chloroform	0.125	0.149	119	72.0-123	
Chloromethane	0.125	0.145	116	51.0-138	
2-Chlorotoluene	0.125	0.138	110	75.0-124	
4-Chlorotoluene	0.125	0.140	112	75.0-124	
1,2-Dibromo-3-Chloropropane	0.125	0.128	103	59.0-130	
1,2-Dibromoethane	0.125	0.117	93.4	74.0-128	
Dibromomethane	0.125	0.129	104	75.0-122	
1,2-Dichlorobenzene	0.125	0.122	97.7	76.0-124	
1,3-Dichlorobenzene	0.125	0.121	96.6	76.0-125	
1,4-Dichlorobenzene	0.125	0.117	93.2	77.0-121	
trans-1,4-Dichloro-2-butene	0.125	0.166	133	45.0-143	
Dichlorodifluoromethane	0.125	0.151	121	43.0-156	
1,1-Dichloroethane	0.125	0.157	125	70.0-127	
1,2-Dichloroethane	0.125	0.160	128	65.0-131	
1,1-Dichloroethene	0.125	0.142	114	65.0-131	
cis-1,2-Dichloroethene	0.125	0.142	114	73.0-125	
trans-1,2-Dichloroethene	0.125	0.145	116	71.0-125	
1,2-Dichloropropane	0.125	0.125	100	74.0-125	
1,1-Dichloropropene	0.125	0.147	118	73.0-125	
1,3-Dichloropropane	0.125	0.120	96.2	80.0-125	
cis-1,3-Dichloropropene	0.125	0.120	95.9	76.0-127	
trans-1,3-Dichloropropene	0.125	0.128	103	73.0-127	
2,2-Dichloropropane	0.125	0.187	150	59.0-135	J4
Ethylbenzene	0.125	0.115	91.7	74.0-126	
Hexachloro-1,3-butadiene	0.125	0.0895	71.6	57.0-150	
2-Hexanone	0.625	0.587	93.9	54.0-147	
n-Hexane	0.125	0.141	112	55.0-137	
Iodomethane	0.625	0.716	115	74.0-134	
Isopropylbenzene	0.125	0.139	111	72.0-127	

Laboratory Control Sample (LCS)

(LCS) R3353123-1 10/21/18 21:36

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
p-Isopropyltoluene	0.125	0.128	103	72.0-133	
2-Butanone (MEK)	0.625	0.749	120	30.0-160	
Methylene Chloride	0.125	0.141	113	68.0-123	
4-Methyl-2-pentanone (MIBK)	0.625	0.626	100	56.0-143	
Naphthalene	0.125	0.130	104	59.0-130	
n-Propylbenzene	0.125	0.138	110	74.0-126	
Styrene	0.125	0.131	105	72.0-127	
1,1,1,2-Tetrachloroethane	0.125	0.120	96.0	74.0-129	
1,1,2,2-Tetrachloroethane	0.125	0.132	106	68.0-128	
Toluene	0.125	0.112	89.3	75.0-121	
1,1,2-Trichlorotrifluoroethane	0.125	0.150	120	61.0-139	
1,2,3-Trichlorobenzene	0.125	0.109	86.8	59.0-139	
1,1,1-Trichloroethane	0.125	0.155	124	69.0-126	
1,1,2-Trichloroethane	0.125	0.115	91.8	78.0-123	
Trichlorofluoromethane	0.125	0.119	95.5	61.0-142	
1,2,3-Trichloropropane	0.125	0.144	115	67.0-129	
1,2,3-Trimethylbenzene	0.125	0.131	105	74.0-124	
1,2,4-Trimethylbenzene	0.125	0.137	109	70.0-126	
1,3,5-Trimethylbenzene	0.125	0.136	109	73.0-127	
Vinyl acetate	0.625	0.577	92.3	43.0-159	
Vinyl chloride	0.125	0.131	105	63.0-134	
Xylenes, Total	0.375	0.354	94.4	72.0-127	
(S) Toluene-d8			*97.6*	*75.0-131*	
(S) Dibromofluoromethane			*120*	*65.0-129*	
(S) 4-Bromofluorobenzene			*123*	*67.0-138*	

Method Blank (MB)

(MB) R3353171-2 10/22/18 11:26

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acrylonitrile	U		0.00190	0.0125
Benzene	U		0.000400	0.00100
Bromobenzene	U		0.00105	0.0125
Bromodichloromethane	U		0.000788	0.00250
Bromochloromethane	U		0.00113	0.00500
Bromoform	U		0.00598	0.0250
Bromomethane	U		0.00370	0.0125
n-Butylbenzene	U		0.00384	0.0125
sec-Butylbenzene	U		0.00253	0.0125
tert-Butylbenzene	U		0.00155	0.00500
Carbon disulfide	U		0.00406	0.0125
Carbon tetrachloride	U		0.00108	0.00500
Chlorobenzene	U		0.000573	0.00250
Chlorodibromomethane	U		0.000450	0.00250
Chloroethane	U		0.00108	0.00500
Chloroform	0.00131	J	0.000415	0.00250
Chloromethane	U		0.00139	0.0125
2-Chlorotoluene	U		0.000920	0.00250
4-Chlorotoluene	U		0.00113	0.00500
1,2-Dibromo-3-Chloropropane	U		0.00510	0.0250
1,2-Dibromoethane	U		0.000525	0.00250
Dibromomethane	U		0.00100	0.00500
1,2-Dichlorobenzene	U		0.00145	0.00500
1,3-Dichlorobenzene	U		0.00170	0.00500
1,4-Dichlorobenzene	U		0.00197	0.00500
trans-1,4-Dichloro-2-butene	U		0.00140	0.00500
1,1-Dichloroethane	U		0.000575	0.00250
1,2-Dichloroethane	U		0.000475	0.00250
1,1-Dichloroethene	U		0.000500	0.00250
trans-1,2-Dichloroethene	U		0.00143	0.00500
1,2-Dichloropropane	U		0.00127	0.00500
1,1-Dichloropropene	U		0.000700	0.00250
1,3-Dichloropropane	U		0.00175	0.00500
cis-1,3-Dichloropropene	U		0.000678	0.00250
trans-1,3-Dichloropropene	U		0.00153	0.00500
2,2-Dichloropropane	U		0.000793	0.00250
Di-isopropyl ether	U		0.000350	0.00100
Ethylbenzene	U		0.000530	0.00250
Hexachloro-1,3-butadiene	U		0.0127	0.0250
n-Hexane	U		0.00106	0.00500

Method Blank (MB)

(MB) R3353171-2 10/22/18 11:26

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
2-Hexanone	U		0.0100	0.0250
Iodomethane	U		0.00605	0.0125
Isopropylbenzene	U		0.000863	0.00250
p-Isopropyltoluene	U		0.00233	0.00500
2-Butanone (MEK)	U		0.0125	0.0250
Methylene Chloride	U		0.00664	0.0250
4-Methyl-2-pentanone (MIBK)	U		0.0100	0.0250
Methyl tert-butyl ether	U		0.000295	0.00100
Naphthalene	U		0.00312	0.0125
n-Propylbenzene	U		0.00118	0.00500
Styrene	U		0.00273	0.0125
1,1,1,2-Tetrachloroethane	U		0.000500	0.00250
Tetrachloroethene	U		0.000700	0.00250
Toluene	U		0.00125	0.00500
1,1,2-Trichlorotrifluoroethane	U		0.000675	0.00250
1,2,4-Trichlorobenzene	U		0.00482	0.0125
1,1,1-Trichloroethane	U		0.000275	0.00250
1,1,2-Trichloroethane	U		0.000883	0.00250
Trichloroethene	U		0.000400	0.00100
Trichlorofluoromethane	U		0.000500	0.00250
1,2,3-Trichloropropane	U		0.00510	0.0125
1,2,3-Trimethylbenzene	U		0.00115	0.00500
1,2,4-Trimethylbenzene	U		0.00116	0.00500
1,3,5-Trimethylbenzene	U		0.00108	0.00500
Vinyl acetate	U		0.00352	0.0125
Vinyl chloride	U		0.000683	0.00250
Xylenes, Total	U		0.00478	0.00650
(S) Toluene-d8	*106*			*75.0-131*
(S) Dibromofluoromethane	*91.7*			*65.0-129*
(S) 4-Bromofluorobenzene	*95.5*			*67.0-138*

Laboratory Control Sample (LCS)

(LCS) R3353171-1 10/22/18 10:17

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acrylonitrile	0.625	0.571	91.3	45.0-153	
Benzene	0.125	0.126	101	70.0-123	
Bromobenzene	0.125	0.111	88.8	73.0-121	

Laboratory Control Sample (LCS)

(LCS) R3353171-1 10/22/18 10:17

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Bromodichloromethane	0.125	0.124	99.5	73.0-121	
Bromochloromethane	0.125	0.101	80.9	77.0-128	
Bromoform	0.125	0.107	85.3	64.0-132	
Bromomethane	0.125	0.109	87.1	56.0-147	
n-Butylbenzene	0.125	0.0907	72.6	68.0-135	
sec-Butylbenzene	0.125	0.0972	77.8	74.0-130	
tert-Butylbenzene	0.125	0.107	85.4	75.0-127	
Carbon disulfide	0.125	0.101	81.1	56.0-133	
Carbon tetrachloride	0.125	0.112	89.6	66.0-128	
Chlorobenzene	0.125	0.107	85.3	76.0-128	
Chlorodibromomethane	0.125	0.135	108	74.0-127	
Chloroethane	0.125	0.101	80.6	61.0-134	
Chloroform	0.125	0.109	87.2	72.0-123	
Chloromethane	0.125	0.115	91.6	51.0-138	
2-Chlorotoluene	0.125	0.119	94.9	75.0-124	
4-Chlorotoluene	0.125	0.112	89.6	75.0-124	
1,2-Dibromo-3-Chloropropane	0.125	0.111	88.6	59.0-130	
1,2-Dibromoethane	0.125	0.116	92.4	74.0-128	
Dibromomethane	0.125	0.130	104	75.0-122	
1,2-Dichlorobenzene	0.125	0.127	102	76.0-124	
1,3-Dichlorobenzene	0.125	0.106	85.1	76.0-125	
1,4-Dichlorobenzene	0.125	0.112	89.9	77.0-121	
trans-1,4-Dichloro-2-butene	0.125	0.139	111	45.0-143	
1,1-Dichloroethane	0.125	0.125	100	70.0-127	
1,2-Dichloroethane	0.125	0.127	101	65.0-131	
1,1-Dichloroethene	0.125	0.119	95.1	65.0-131	
trans-1,2-Dichloroethene	0.125	0.105	83.8	71.0-125	
1,2-Dichloropropane	0.125	0.114	91.1	74.0-125	
1,1-Dichloropropene	0.125	0.128	102	73.0-125	
1,3-Dichloropropane	0.125	0.106	84.7	80.0-125	
cis-1,3-Dichloropropene	0.125	0.129	104	76.0-127	
trans-1,3-Dichloropropene	0.125	0.186	149	73.0-127	J4
2,2-Dichloropropane	0.125	0.137	110	59.0-135	
Di-isopropyl ether	0.125	0.115	92.4	60.0-136	
Ethylbenzene	0.125	0.111	88.5	74.0-126	
Hexachloro-1,3-butadiene	0.125	0.182	146	57.0-150	
2-Hexanone	0.625	0.633	101	54.0-147	
n-Hexane	0.125	0.164	131	55.0-137	
Iodomethane	0.625	0.657	105	74.0-134	
Isopropylbenzene	0.125	0.110	88.1	72.0-127	

Laboratory Control Sample (LCS)

(LCS) R3353171-1 10/22/18 10:17

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
p-Isopropyltoluene	0.125	0.0984	78.8	72.0-133	
2-Butanone (MEK)	0.625	0.692	111	30.0-160	
Methylene Chloride	0.125	0.0916	73.3	68.0-123	
4-Methyl-2-pentanone (MIBK)	0.625	0.706	113	56.0-143	
Methyl tert-butyl ether	0.125	0.119	94.8	66.0-132	
Naphthalene	0.125	0.109	87.5	59.0-130	
n-Propylbenzene	0.125	0.123	98.1	74.0-126	
Styrene	0.125	0.111	89.1	72.0-127	
1,1,1,2-Tetrachloroethane	0.125	0.165	132	74.0-129	J4
Tetrachloroethene	0.125	0.145	116	70.0-136	
Toluene	0.125	0.115	92.1	75.0-121	
1,1,2-Trichlorotrifluoroethane	0.125	0.0912	73.0	61.0-139	
1,2,4-Trichlorobenzene	0.125	0.128	103	62.0-137	
1,1,1-Trichloroethane	0.125	0.138	111	69.0-126	
1,1,2-Trichloroethane	0.125	0.118	94.4	78.0-123	
Trichloroethene	0.125	0.127	101	76.0-126	
Trichlorofluoromethane	0.125	0.120	95.7	61.0-142	
1,2,3-Trichloropropane	0.125	0.120	96.1	67.0-129	
1,2,3-Trimethylbenzene	0.125	0.126	101	74.0-124	
1,2,4-Trimethylbenzene	0.125	0.111	88.7	70.0-126	
1,3,5-Trimethylbenzene	0.125	0.116	92.9	73.0-127	
Vinyl acetate	0.625	0.530	84.7	43.0-159	
Vinyl chloride	0.125	0.125	99.7	63.0-134	
Xylenes, Total	0.375	0.361	96.3	72.0-127	
(S) Toluene-d8			*104*	*75.0-131*	
(S) Dibromofluoromethane			*90.5*	*65.0-129*	
(S) 4-Bromofluorobenzene			*88.9*	*67.0-138*	

Method Blank (MB)

(MB) R3353076-2 10/23/18 00:58

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acetone	U		0.0137	0.0250
Dichlorodifluoromethane	U		0.000818	0.00250
1,1,2,2-Tetrachloroethane	U		0.000390	0.00250
Tetrachloroethene	U		0.000700	0.00250
1,1,2-Trichlorotrifluoroethane	U		0.000675	0.00250
1,2,3-Trichlorobenzene	0.00130	J	0.000625	0.00250
Vinyl chloride	U		0.000683	0.00250
(S) Toluene-d8	*98.5*			*75.0-131*
(S) Dibromofluoromethane	*114*			*65.0-129*
(S) 4-Bromofluorobenzene	*118*			*67.0-138*

Laboratory Control Sample (LCS)

(LCS) R3353076-1 10/22/18 23:43

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acetone	0.625	0.766	123	10.0-160	
Dichlorodifluoromethane	0.125	0.206	165	43.0-156	J4
1,1,2,2-Tetrachloroethane	0.125	0.120	95.9	68.0-128	
Tetrachloroethene	0.125	0.0982	78.6	70.0-136	
1,1,2-Trichlorotrifluoroethane	0.125	0.152	122	61.0-139	
1,2,3-Trichlorobenzene	0.125	0.123	98.2	59.0-139	
Vinyl chloride	0.125	0.152	122	63.0-134	
(S) Toluene-d8			*97.0*	*75.0-131*	
(S) Dibromofluoromethane			*121*	*65.0-129*	
(S) 4-Bromofluorobenzene			*120*	*67.0-138*	

Method Blank (MB)

(MB) R3353505-2 10/23/18 16:17

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	U		0.000400	0.00100
Di-isopropyl ether	U		0.000350	0.00100
Methyl tert-butyl ether	U		0.000295	0.00100
Tetrachloroethene	U		0.000700	0.00250
1,2,4-Trichlorobenzene	U		0.00482	0.0125
Trichloroethene	U		0.000400	0.00100
(S) Toluene-d8	*126*			*75.0-131*
(S) Dibromofluoromethane	*89.5*			*65.0-129*
(S) 4-Bromofluorobenzene	*92.2*			*67.0-138*

Laboratory Control Sample (LCS)

(LCS) R3353505-1 10/23/18 14:49

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.125	0.127	101	70.0-123	
Di-isopropyl ether	0.125	0.127	102	60.0-136	
Methyl tert-butyl ether	0.125	0.133	107	66.0-132	
Tetrachloroethene	0.125	0.147	117	70.0-136	
1,2,4-Trichlorobenzene	0.125	0.121	96.7	62.0-137	
Trichloroethene	0.125	0.109	87.0	76.0-126	
(S) Toluene-d8			*113*	*75.0-131*	
(S) Dibromofluoromethane			*106*	*65.0-129*	
(S) 4-Bromofluorobenzene			*90.2*	*67.0-138*	

Method Blank (MB)

(MB) R3353491-2 10/23/18 10:28

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acetone	U		0.0137	0.0250
Dichlorodifluoromethane	U		0.000818	0.00250
cis-1,2-Dichloroethene	U		0.000690	0.00250
n-Hexane	0.00153	J	0.00106	0.00500
1,1,2,2-Tetrachloroethane	U		0.000390	0.00250
Tetrachloroethene	U		0.000700	0.00250
1,2,3-Trichlorobenzene	U		0.000625	0.00250
(S) Toluene-d8	*97.2*			*75.0-131*
(S) Dibromofluoromethane	*116*			*65.0-129*
(S) 4-Bromofluorobenzene	*121*			*67.0-138*

Laboratory Control Sample (LCS)

(LCS) R3353491-1 10/23/18 09:28

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acetone	0.625	0.680	109	10.0-160	
Dichlorodifluoromethane	0.125	0.142	114	43.0-156	
cis-1,2-Dichloroethene	0.125	0.141	113	73.0-125	
n-Hexane	0.125	0.124	98.9	55.0-137	
1,1,2,2-Tetrachloroethane	0.125	0.137	110	68.0-128	
Tetrachloroethene	0.125	0.0951	76.1	70.0-136	
1,2,3-Trichlorobenzene	0.125	0.116	92.7	59.0-139	
(S) Toluene-d8			*98.4*	*75.0-131*	
(S) Dibromofluoromethane			*118*	*65.0-129*	
(S) 4-Bromofluorobenzene			*120*	*67.0-138*	

Method Blank (MB)

(MB) R3353735-3 10/24/18 16:53

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Tetrachloroethene	U		0.000700	0.00250
(S) Toluene-d8	*107*			*75.0-131*
(S) Dibromofluoromethane	*96.9*			*65.0-129*
(S) 4-Bromofluorobenzene	*103*			*67.0-138*

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

(LCS) R3353735-1 10/24/18 14:59 • (LCSD) R3353735-2 10/24/18 15:18

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Tetrachloroethene	0.125	0.145	0.143	116	114	70.0-136			1.41	20
(S) Toluene-d8				*105*	*105*	*75.0-131*				
(S) Dibromofluoromethane				*104*	*99.9*	*65.0-129*				
(S) 4-Bromofluorobenzene				*104*	*104*	*67.0-138*				

Method Blank (MB)

(MB) R3353736-3 10/24/18 16:53

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Tetrachloroethene	U		0.000700	0.00250
(S) Toluene-d8	*107*			*75.0-131*
(S) Dibromofluoromethane	*96.9*			*65.0-129*
(S) 4-Bromofluorobenzene	*103*			*67.0-138*

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

(LCS) R3353736-1 10/24/18 14:59 • (LCSD) R3353736-2 10/24/18 15:18

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Tetrachloroethene	0.125	0.145	0.143	116	114	70.0-136			1.41	20
(S) Toluene-d8				*105*	*105*	*75.0-131*				
(S) Dibromofluoromethane				*104*	*99.9*	*65.0-129*				
(S) 4-Bromofluorobenzene				*104*	*104*	*67.0-138*				

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Abbreviations and Definitions

(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
MDL	Method Detection Limit.
MDL (dry)	Method Detection Limit.
RDL	Reported Detection Limit.
RDL (dry)	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(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.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
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.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.
J0	J0: Calibration verification outside of acceptance limits. Result is estimated.
J2	Surrogate recovery limits have been exceeded; values are outside lower control limits.
J4	The associated batch QC was outside the established quality control range for accuracy.
V3	The internal standard exhibited poor recovery due to sample matrix interference. The analytical results will be biased high. BDL results will be unaffected.

Pace National 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.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T 104704245-17-14
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

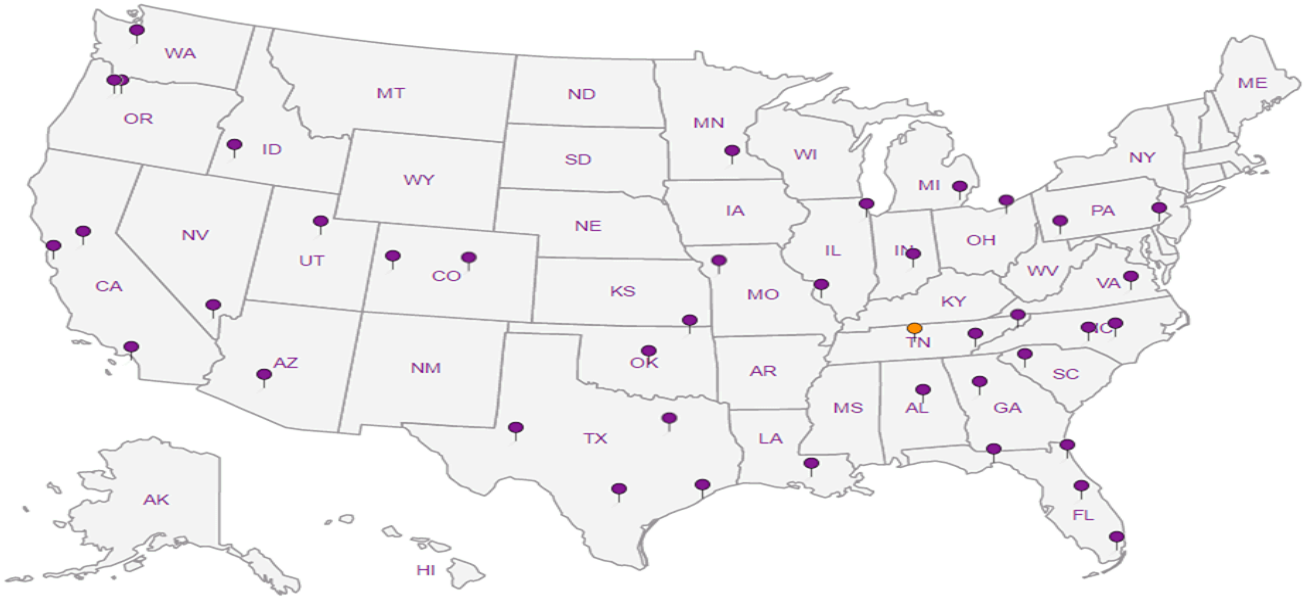
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

Our Locations

Pace National 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. Pace National performs all testing at our central laboratory.



PES Environmental, Inc.- WA

1215 Fourth Ave., Suite 1350
Seattle, WA 98161

Billing Information:
Attn: Accounts Payable
1215 Fourth Ave., Ste. 1350
Seattle, WA 98161

Pres Chk

Report to: Brian O'Neal/Bill Haldeman

Email To: boneal@pesenv.com; bhaldeman@pesenv.com

Project Description: American Linen

City/State Collected: Seattle, WA

Phone: 206-529-3980
Fax: 206-529-3985

Client Project # 1413.001.05

Lab Project # PESENVSWA-ALP

Collected by (print): R. McLaughlin, S. McKernan

Site/Facility ID #

P.O. #

Collected by (signature): RTM

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day X Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

No. of Cntrs

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOCs V8260C 40mlAmb/MeOH5ml/Syr	dry weight 2ozClr-NoPres	trip VOCs V8260LLC 40mlAmb-HCl-Blk	Remarks	Sample # (lab only)
B-257-3	Grab	SS	3	10/17/18	754	2				HOLD	
B-257-5		SS	5		752		X	X			-01
B-257-8		SS	8		759					HOLD	
B-257-10		SS	10		800		X	X			02
B-257-15		SS	15		804		X	X			03
B-257-20		SS	20		810		X	X			04
B-258-3		SS	3		858		X	X			05
B-258-5		SS	5		900					HOLD	
B-258-8		SS	8		904		X	X			06
B-258-10		SS	10		905		X	X			07

Chain of Custody Page 1 of 4

Pace Analytical
National Center for Testing & Innovation

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

L# L1036155

F111

Acctnum: PESENVSWA
Template: T141621
Prelogin: P676248
TSR: 110 - Brian Ford
PB:
Shipped Via:

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

RAD SCREEN: <0.5 mR/hr

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS X FedEx __ Courier __ _____

Tracking # 4196 3258 9710

Sample Receipt Checklist
COC Seal Present/Intact: __NP __Y __N
COC Signed/Accurate: __Y __N
Bottles arrive intact: __Y __N
Correct bottles used: __Y __N
Sufficient volume sent: __Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
RTM	10/17/18	1610	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)
			ASM

Trip Blank Received: Yes / (No) HCl / MeoH TBR

Temp: 2.1 °C (+1 A 2.2) Bottles Received: 74

If preservation required by Login: Date/Time

Date: 10/18/18 Time: 845

10-138

Condition: NCF / (OK)

PES Environmental, Inc.- WA

1215 Fourth Ave., Suite 1350
Seattle, WA 98161

Billing Information:
Attn: Accounts Payable
1215 Fourth Ave., Ste. 1350
Seattle, WA 98161

Pres Chk

Report to: Brian O'Neal/Bill Haldeman

Email To: boneal@pesenv.com; bhaldeman@pesenv.com

Project Description: American Linen

City/State Collected: Seattle, WA

Phone: 206-529-3980
Fax: 206-529-3985

Client Project # 1413.001.05

Lab Project # PESENVSWA-ALP

Collected by (print): R. McLaughlin S. McKernan

Site/Facility ID #

P.O. #

Collected by (signature):

Quote #

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day X Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Date Results Needed

Analysis / Container / Preservative

Chain of Custody Page 2 of 4

Pace Analytical
National Center for Testing & Innovation

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

L# L1036155

Table #

Acctnum: PESENVSWA
Template: T141621
Prelogin: P676248
TSR: 110 - Brian Ford
PB:

Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOCs V8260C 40mlAmb/MeOH5ml/Syr	dry weight 2ozClr-NoPres	trip VOCs V8260LLC 40mlAmb-HCl-Blk	Remarks	Sample # (lab only)
B-258-15	Grab	SS	15	10/17/18	911	2	X	X			08
B-258-20		SS	20		915		X	X			09
B-259-2.5		SS	2.5		945		X	X			10
B-259-5		SS	5		946		X	X			11
B-259-8		SS	8		948					HOLD	
B-259-10		SS	10		950		X	X			12
B-259-15		SS	15		955		X	X			13
B-259-20		SS	20		1005		X	X			14
B-260-3		SS	3		1030					HOLD	
B-260-5	X	SS	5	X	1032	X	X	X			15

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

RAD SCREEN: <0.5 mR/hr

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier __ _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
RTMcLaughlin	10/17/18	1610	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)
			Adm

Trip Blank Received: Yes X No
HCL / MeoH
TBR

Temp: 2.1 +1 4.2.2 °C Bottles Received: 74

Date: 10/18/18 Time: 845

If preservation required by Login: Date/Time

Hold:

Condition: NCF OK

PES Environmental, Inc.- WA

1215 Fourth Ave., Suite 1350
Seattle, WA 98161

Billing Information:
Attn: Accounts Payable
1215 Fourth Ave., Ste. 1350
Seattle, WA 98161

Pres Chk

Report to: Brian O'Neal/Bill Haldeman

Email To: boneal@pesenv.com; bhaldeman@pesenv.com

Project Description: American Linen

City/State Collected: Seattle WA

Phone: 206-529-3980
Fax: 206-529-3985

Client Project # 1413.001.05

Lab Project # PESENVSWA-ALP

Collected by (print): R. McLaughlin S. McKernan

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day X Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOCs V8260C 40mlAmb/MeOH5ml/Syr	dry weight 2ozClr-NoPres	trip VOCs V8260LLC 40mlAmb-HCl-Blk								Remarks	Sample # (lab only)
B-260-8	Grab	SS	8	10/17/18	1037	2	X	X										16
B-260-10		SS	10		1038		X	X										17
B-260-15		SS	15		1045		X	X										18
B-260-20		SS	20		1050		X	X										19
B-261-3		SS	3		1118		X	X										20
B-261-5		SS	5		1120		X	X										21
B-261-8		SS	8		1128		X	X										22
B-261-10		SS	10		1130		X	X										23
B-261-15		SS	15		1140		X	X										24
B-261-20	X	SS	20	X	1142		X	X										25

Analysis / Container / Preservative

Chain of Custody

Pace Analytical
National Center for Testing & Innovation

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

L# L1036155

Table #

Acctnum: PESENVSWA
Template: T141621
Prelogin: P676248
TSR: 110 - Brian Ford
PB:

Shipped Via:

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

RAD SCREEN: <0.5 mR/hr

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
RT McLaughlin	10/17/18	1610	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)
			ASM

Trip Blank Received: Yes X No
HCl / MeoH
TBR

Temp: 2.1 °C Bottles Received: 74

Date: 10/18/18 Time: 845

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

PES Environmental, Inc.- WA

1215 Fourth Ave., Suite 1350
Seattle, WA 98161

Billing Information:
Attn: Accounts Payable
1215 Fourth Ave., Ste. 1350
Seattle, WA 98161

Pres Chk

Report to: Brian O'Neal/Bill Haldeman

Email To: boneal@pesenv.com; bhaldeman@pesenv.com

Project Description: American Linen

City/State Collected: Seattle WA

Phone: 206-529-3980
Fax: 206-529-3985

Client Project # 1413.001.05

Lab Project # PESENVSWA-ALP

Collected by (print): R. McLaughlin S. McKernan

Site/Facility ID #

P.O. #

Collected by (signature): RTM

Rush? (Lab MUST Be Notified)
___ Same Day X Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Immediately Packed on Ice N ___ Y X

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOCs V8260C 40mlAmb/MeOH5ml/Syr	dry weight 2ozClr-NoPres	trip VOCs V8260LLC 40mlAmb-HCl-Blk	Remarks	Sample # (lab only)
B-262-5	Grab	SS	5	10/17/18	1333	2	X				26
B-262-8		SS	8		1343		X				27
B-262-10		SS	10		1345		X				28
B-262-15		SS	15		1400		X				29
B-262-20		SS	20		1425		X				30
~~IW-58A-38~~		SS	38		1510						RTN
~~B-929-38~~		SS	38		1520						
TRIP BLANK	—	SS	—	—	—				X		31
		SS								T	
I		SS		R. McLaughlin 10/17/18							

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
RAD SCREEN: <0.5 mR/hr

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier __ _____

Tracking #

Relinquished by : (Signature) RTM — Date: 10/17/18 — Time: 1610 — Received by: (Signature)

Relinquished by : (Signature) — Date: — Time: — Received by: (Signature)

Relinquished by : (Signature) — Date: — Time: — Received for lab by: (Signature) asm — Date: 10/18/18 — Time: 845

Trip Blank Received: Yes / No (HCl / MeoH) TBR

Temp: 2.1 °C — Bottles Received: 74

If preservation required by Login: Date/Time

Hold: — Condition: NCF / (OK)

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

Chain of Custody Page 4 of 4

Pace Analytical
National Center for Testing & Innovation

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

L# L1036155

Table #

Acctnum: PESENVSWA
Template: T141621
Prelogin: P676248
TSR: 110 - Brian Ford
PB:

Shipped Via:

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

October 26, 2018

PES Environmental, Inc.- WA

Sample Delivery Group:	L1036473
Samples Received:	10/19/2018
Project Number:	1413.001.05
Description:	American Linen
Report To:	Brian O'Neal/Bill Haldeman
	1215 Fourth Ave., Suite 1350
	Seattle, WA 98161

Entire Report Reviewed By:

Brian Ford

Project Manager

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 Pace National is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

Cp: Cover Page 1

Tc: Table of Contents 2

Ss: Sample Summary 4

Cn: Case Narrative 10

Sr: Sample Results 11

B-263-3 L1036473-01 11

B-263-5 L1036473-02 13

B-263-8 L1036473-03 15

B-263-10 L1036473-04 17

B-263-15 L1036473-05 19

B-263-18 L1036473-06 21

B-264-3 L1036473-07 23

B-264-5 L1036473-08 25

B-264-8 L1036473-09 27

B-264-10 L1036473-10 29

B-264-15 L1036473-11 31

B-264-16 L1036473-12 33

B-265-3 L1036473-13 35

B-265-5 L1036473-14 37

B-265-8 L1036473-15 39

B-265-10 L1036473-16 41

B-265-17.5 L1036473-17 43

B-253A-5 L1036473-18 45

B-253A-8 L1036473-19 47

B-253A-10 L1036473-20 49

B-253A-15 L1036473-21 51

B-253A-20 L1036473-22 53

B-266-5 L1036473-23 55

B-266-8 L1036473-24 57

B-266-10 L1036473-25 59

B-266-15 L1036473-26 61

B-266-20 L1036473-27 63

B-267-2.5 L1036473-28 65

B-267-5 L1036473-29 67

B-267-8 L1036473-30 69

B-267-10 L1036473-31 71

B-267-15 L1036473-32 73

B-267-20 L1036473-33 75

Qc: Quality Control Summary 77

Total Solids by Method 2540 G-2011 77

Volatile Organic Compounds (GC/MS) by Method 8260C 81
GI: Glossary of Terms 98
AI: Accreditations & Locations 99
Sc: Sample Chain of Custody 100

B-263-3 L1036473-01 Solid

Collected by: RM / SM | Collected date/time: 10/18/18 08:04 | Received date/time: 10/19/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1185667	1	10/24/18 12:42	10/24/18 12:49	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1184455	1	10/20/18 00:39	10/22/18 18:08	ACG
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1185221	1	10/20/18 00:39	10/23/18 17:01	JHH
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1185845	1	10/20/18 00:39	10/25/18 00:02	JHH

B-263-5 L1036473-02 Solid

Collected by: RM / SM | Collected date/time: 10/18/18 08:05 | Received date/time: 10/19/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1185667	1	10/24/18 12:42	10/24/18 12:49	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1184455	1	10/20/18 00:39	10/22/18 18:27	ACG
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1185221	1	10/20/18 00:39	10/23/18 17:21	JHH

B-263-8 L1036473-03 Solid

Collected by: RM / SM | Collected date/time: 10/18/18 08:06 | Received date/time: 10/19/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1185667	1	10/24/18 12:42	10/24/18 12:49	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1184455	1	10/20/18 00:39	10/22/18 18:45	ACG
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1185221	1	10/20/18 00:39	10/23/18 17:41	JHH

B-263-10 L1036473-04 Solid

Collected by: RM / SM | Collected date/time: 10/18/18 08:07 | Received date/time: 10/19/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1185667	1	10/24/18 12:42	10/24/18 12:49	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1184455	1	10/20/18 00:39	10/22/18 19:03	ACG
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1185221	1	10/20/18 00:39	10/23/18 18:02	JHH

B-263-15 L1036473-05 Solid

Collected by: RM / SM | Collected date/time: 10/18/18 08:15 | Received date/time: 10/19/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1185668	1	10/24/18 13:41	10/24/18 13:49	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1184455	1	10/20/18 00:39	10/22/18 19:22	ACG
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1185221	1	10/20/18 00:39	10/23/18 18:22	JHH

B-263-18 L1036473-06 Solid

Collected by: RM / SM | Collected date/time: 10/18/18 08:24 | Received date/time: 10/19/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1185668	1	10/24/18 13:41	10/24/18 13:49	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1184455	1	10/20/18 00:39	10/22/18 19:40	ACG
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1185221	1	10/20/18 00:39	10/23/18 18:42	JHH

B-264-3 L1036473-07 Solid

Collected by	Collected date/time	Received date/time
RM / SM	10/18/18 09:20	10/19/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1185668	1	10/24/18 13:41	10/24/18 13:49	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1184455	1	10/20/18 00:39	10/22/18 19:58	ACG
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1185221	1	10/20/18 00:39	10/23/18 19:02	JHH

B-264-5 L1036473-08 Solid

Collected by	Collected date/time	Received date/time
RM / SM	10/18/18 09:21	10/19/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1185668	1	10/24/18 13:41	10/24/18 13:49	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1184455	1	10/20/18 00:39	10/22/18 20:17	ACG
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1185221	1	10/20/18 00:39	10/23/18 19:22	JHH

B-264-8 L1036473-09 Solid

Collected by	Collected date/time	Received date/time
RM / SM	10/18/18 09:25	10/19/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1185668	1	10/24/18 13:41	10/24/18 13:49	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1184455	1	10/20/18 00:39	10/22/18 20:35	ACG
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1185221	1	10/20/18 00:39	10/23/18 19:42	JHH

B-264-10 L1036473-10 Solid

Collected by	Collected date/time	Received date/time
RM / SM	10/18/18 09:26	10/19/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1185668	1	10/24/18 13:41	10/24/18 13:49	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1184455	1	10/20/18 00:39	10/22/18 20:54	ACG
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1185221	1	10/20/18 00:39	10/23/18 20:02	JHH

B-264-15 L1036473-11 Solid

Collected by	Collected date/time	Received date/time
RM / SM	10/18/18 09:42	10/19/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1185668	1	10/24/18 13:41	10/24/18 13:49	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1184455	1	10/18/18 09:42	10/22/18 21:12	ACG
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1185221	1	10/18/18 09:42	10/23/18 20:22	JHH

B-264-16 L1036473-12 Solid

Collected by	Collected date/time	Received date/time
RM / SM	10/18/18 09:58	10/19/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1185668	1	10/24/18 13:41	10/24/18 13:49	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1184727	1	10/18/18 09:58	10/22/18 18:41	ACG
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1185319	1	10/18/18 09:58	10/24/18 13:12	BMB

B-265-3 L1036473-13 Solid

Collected by: RM / SM | Collected date/time: 10/18/18 10:38 | Received date/time: 10/19/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1185668	1	10/24/18 13:41	10/24/18 13:49	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1184727	1	10/18/18 10:38	10/22/18 19:02	ACG
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1185319	1	10/18/18 10:38	10/24/18 13:31	BMB

B-265-5 L1036473-14 Solid

Collected by: RM / SM | Collected date/time: 10/18/18 10:40 | Received date/time: 10/19/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1185668	1	10/24/18 13:41	10/24/18 13:49	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1184727	1	10/18/18 10:40	10/22/18 19:22	ACG
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1185319	10	10/18/18 10:40	10/24/18 16:11	BMB

B-265-8 L1036473-15 Solid

Collected by: RM / SM | Collected date/time: 10/18/18 10:47 | Received date/time: 10/19/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1185670	1	10/24/18 13:19	10/24/18 13:36	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1184727	1	10/18/18 10:47	10/22/18 19:43	ACG
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1185319	10	10/18/18 10:47	10/24/18 16:32	BMB

B-265-10 L1036473-16 Solid

Collected by: RM / SM | Collected date/time: 10/18/18 10:50 | Received date/time: 10/19/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1185670	1	10/24/18 13:19	10/24/18 13:36	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1184727	1	10/18/18 10:50	10/22/18 20:03	ACG
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1185319	8	10/18/18 10:50	10/24/18 16:52	BMB

B-265-17.5 L1036473-17 Solid

Collected by: RM / SM | Collected date/time: 10/18/18 11:02 | Received date/time: 10/19/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1185670	1	10/24/18 13:19	10/24/18 13:36	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1184727	1	10/18/18 11:02	10/22/18 20:24	ACG
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1185319	1	10/18/18 11:02	10/24/18 13:51	BMB

B-253A-5 L1036473-18 Solid

Collected by: RM / SM | Collected date/time: 10/18/18 12:34 | Received date/time: 10/19/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1185670	1	10/24/18 13:19	10/24/18 13:36	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1184727	1	10/18/18 12:34	10/22/18 20:44	ACG
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1185319	1	10/18/18 12:34	10/24/18 14:12	BMB

B-253A-8 L1036473-19 Solid

Collected by	Collected date/time	Received date/time
RM / SM	10/18/18 12:38	10/19/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1185670	1	10/24/18 13:19	10/24/18 13:36	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1184727	1	10/18/18 12:38	10/22/18 21:04	ACG
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1185319	4	10/18/18 12:38	10/24/18 17:12	BMB

B-253A-10 L1036473-20 Solid

Collected by	Collected date/time	Received date/time
RM / SM	10/18/18 12:40	10/19/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1185670	1	10/24/18 13:19	10/24/18 13:36	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1184727	1	10/18/18 12:40	10/22/18 21:25	ACG
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1185319	10	10/18/18 12:40	10/24/18 17:32	BMB

B-253A-15 L1036473-21 Solid

Collected by	Collected date/time	Received date/time
RM / SM	10/18/18 12:44	10/19/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1185670	1	10/24/18 13:19	10/24/18 13:36	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1184727	1	10/18/18 12:44	10/22/18 21:45	ACG
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1185319	80	10/18/18 12:44	10/24/18 19:32	BMB

B-253A-20 L1036473-22 Solid

Collected by	Collected date/time	Received date/time
RM / SM	10/18/18 13:05	10/19/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1185670	1	10/24/18 13:19	10/24/18 13:36	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1184727	1	10/18/18 13:05	10/22/18 22:05	ACG
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1185319	4	10/18/18 13:05	10/24/18 17:52	BMB

B-266-5 L1036473-23 Solid

Collected by	Collected date/time	Received date/time
RM / SM	10/18/18 13:35	10/19/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1185670	1	10/24/18 13:19	10/24/18 13:36	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1184727	1	10/18/18 13:35	10/22/18 22:26	ACG
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1185319	1	10/18/18 13:35	10/24/18 14:32	BMB

B-266-8 L1036473-24 Solid

Collected by	Collected date/time	Received date/time
RM / SM	10/18/18 13:38	10/19/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1185670	1	10/24/18 13:19	10/24/18 13:36	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1184727	1.06	10/18/18 13:38	10/22/18 22:46	ACG
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1185319	1.05	10/18/18 13:38	10/24/18 14:52	BMB

B-266-10 L1036473-25 Solid

Collected by: RM / SM | Collected date/time: 10/18/18 13:39 | Received date/time: 10/19/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1185671	1	10/24/18 13:53	10/24/18 14:00	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1184727	1.41	10/18/18 13:39	10/22/18 23:06	ACG
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1185319	1.41	10/18/18 13:39	10/24/18 15:12	BMB

B-266-15 L1036473-26 Solid

Collected by: RM / SM | Collected date/time: 10/18/18 13:48 | Received date/time: 10/19/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1185671	1	10/24/18 13:53	10/24/18 14:00	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1184727	1.16	10/18/18 13:48	10/22/18 23:27	ACG
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1185319	11.6	10/18/18 13:48	10/24/18 18:12	BMB

B-266-20 L1036473-27 Solid

Collected by: RM / SM | Collected date/time: 10/18/18 13:53 | Received date/time: 10/19/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1185671	1	10/24/18 13:53	10/24/18 14:00	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1184727	1	10/18/18 13:53	10/22/18 23:47	ACG
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1185319	40	10/18/18 13:53	10/24/18 19:12	BMB

B-267-2.5 L1036473-28 Solid

Collected by: RM / SM | Collected date/time: 10/18/18 14:43 | Received date/time: 10/19/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1185671	1	10/24/18 13:53	10/24/18 14:00	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1184727	1	10/18/18 14:43	10/23/18 00:07	ACG
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1185319	1	10/18/18 14:43	10/24/18 15:32	BMB

B-267-5 L1036473-29 Solid

Collected by: RM / SM | Collected date/time: 10/18/18 14:44 | Received date/time: 10/19/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1185671	1	10/24/18 13:53	10/24/18 14:00	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1184727	1	10/18/18 14:44	10/23/18 00:28	ACG
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1185319	1	10/18/18 14:44	10/24/18 15:52	BMB

B-267-8 L1036473-30 Solid

Collected by: RM / SM | Collected date/time: 10/18/18 14:49 | Received date/time: 10/19/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1185671	1	10/24/18 13:53	10/24/18 14:00	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1184727	1	10/18/18 14:49	10/23/18 00:48	ACG
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1185319	4	10/18/18 14:49	10/24/18 18:32	BMB

B-267-10 L1036473-31 Solid

Collected by	Collected date/time	Received date/time
RM / SM	10/18/18 14:50	10/19/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1185671	1	10/24/18 13:53	10/24/18 14:00	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1184727	1	10/18/18 14:50	10/23/18 01:08	ACG
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1185319	4	10/18/18 14:50	10/24/18 18:52	BMB

B-267-15 L1036473-32 Solid

Collected by	Collected date/time	Received date/time
RM / SM	10/18/18 14:55	10/19/18 08:45

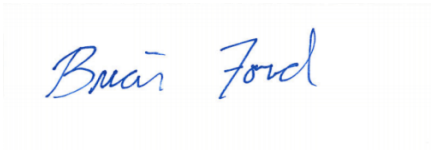
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1185671	1	10/24/18 13:53	10/24/18 14:00	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1186559	20	10/18/18 14:55	10/26/18 05:16	LRL

B-267-20 L1036473-33 Solid

Collected by	Collected date/time	Received date/time
RM / SM	10/18/18 15:17	10/19/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1185671	1	10/24/18 13:53	10/24/18 14:00	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1186559	21.8	10/18/18 15:17	10/26/18 05:35	LRL

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, 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.



Brian Ford
Project Manager

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	81.7		1	10/24/2018 12:49	WG1185667

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0168	0.0306	1	10/23/2018 17:01	WG1185221
Acrylonitrile	U		0.00233	0.0153	1	10/22/2018 18:08	WG1184455
Benzene	U		0.000490	0.00122	1	10/22/2018 18:08	WG1184455
Bromobenzene	U		0.00129	0.0153	1	10/22/2018 18:08	WG1184455
Bromodichloromethane	U		0.000965	0.00306	1	10/22/2018 18:08	WG1184455
Bromochloromethane	U		0.00138	0.00612	1	10/22/2018 18:08	WG1184455
Bromoform	U		0.00732	0.0306	1	10/22/2018 18:08	WG1184455
Bromomethane	U		0.00453	0.0153	1	10/22/2018 18:08	WG1184455
n-Butylbenzene	U		0.00470	0.0153	1	10/22/2018 18:08	WG1184455
sec-Butylbenzene	U		0.00310	0.0153	1	10/22/2018 18:08	WG1184455
tert-Butylbenzene	U		0.00190	0.00612	1	10/22/2018 18:08	WG1184455
Carbon disulfide	U		0.00497	0.0153	1	10/22/2018 18:08	WG1184455
Carbon tetrachloride	U		0.00132	0.00612	1	10/22/2018 18:08	WG1184455
Chlorobenzene	U		0.000702	0.00306	1	10/22/2018 18:08	WG1184455
Chlorodibromomethane	U		0.000551	0.00306	1	10/22/2018 18:08	WG1184455
Chloroethane	U		0.00132	0.00612	1	10/22/2018 18:08	WG1184455
Chloroform	0.00110	B J	0.000508	0.00306	1	10/22/2018 18:08	WG1184455
Chloromethane	U		0.00170	0.0153	1	10/22/2018 18:08	WG1184455
2-Chlorotoluene	U		0.00113	0.00306	1	10/22/2018 18:08	WG1184455
4-Chlorotoluene	U		0.00138	0.00612	1	10/22/2018 18:08	WG1184455
1,2-Dibromo-3-Chloropropane	U		0.00624	0.0306	1	10/22/2018 18:08	WG1184455
1,2-Dibromoethane	U		0.000643	0.00306	1	10/22/2018 18:08	WG1184455
Dibromomethane	U		0.00122	0.00612	1	10/22/2018 18:08	WG1184455
1,2-Dichlorobenzene	U		0.00178	0.00612	1	10/22/2018 18:08	WG1184455
1,3-Dichlorobenzene	U		0.00208	0.00612	1	10/22/2018 18:08	WG1184455
1,4-Dichlorobenzene	U		0.00241	0.00612	1	10/22/2018 18:08	WG1184455
Dichlorodifluoromethane	U		0.00100	0.00306	1	10/23/2018 17:01	WG1185221
1,1-Dichloroethane	U		0.000704	0.00306	1	10/22/2018 18:08	WG1184455
1,2-Dichloroethane	U		0.000582	0.00306	1	10/22/2018 18:08	WG1184455
1,1-Dichloroethene	U		0.000612	0.00306	1	10/22/2018 18:08	WG1184455
cis-1,2-Dichloroethene	0.00113	J	0.000845	0.00306	1	10/23/2018 17:01	WG1185221
trans-1,2-Dichloroethene	U		0.00175	0.00612	1	10/22/2018 18:08	WG1184455
1,2-Dichloropropane	U		0.00156	0.00612	1	10/22/2018 18:08	WG1184455
1,1-Dichloropropene	U		0.000857	0.00306	1	10/22/2018 18:08	WG1184455
1,3-Dichloropropane	U		0.00214	0.00612	1	10/22/2018 18:08	WG1184455
cis-1,3-Dichloropropene	U		0.000830	0.00306	1	10/22/2018 18:08	WG1184455
trans-1,3-Dichloropropene	U	J4	0.00187	0.00612	1	10/22/2018 18:08	WG1184455
trans-1,4-Dichloro-2-butene	U		0.00171	0.00612	1	10/22/2018 18:08	WG1184455
2,2-Dichloropropane	U		0.000971	0.00306	1	10/22/2018 18:08	WG1184455
Di-isopropyl ether	U		0.000429	0.00122	1	10/22/2018 18:08	WG1184455
Ethylbenzene	U		0.000649	0.00306	1	10/22/2018 18:08	WG1184455
Hexachloro-1,3-butadiene	U		0.0156	0.0306	1	10/22/2018 18:08	WG1184455
2-Hexanone	U		0.0122	0.0306	1	10/22/2018 18:08	WG1184455
n-Hexane	U		0.00130	0.00612	1	10/22/2018 18:08	WG1184455
Iodomethane	U		0.00741	0.0153	1	10/22/2018 18:08	WG1184455
Isopropylbenzene	U		0.00106	0.00306	1	10/22/2018 18:08	WG1184455
p-Isopropyltoluene	U		0.00285	0.00612	1	10/22/2018 18:08	WG1184455
2-Butanone (MEK)	0.0386		0.0153	0.0306	1	10/22/2018 18:08	WG1184455
Methylene Chloride	U		0.00813	0.0306	1	10/22/2018 18:08	WG1184455
4-Methyl-2-pentanone (MIBK)	U		0.0122	0.0306	1	10/22/2018 18:08	WG1184455

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000361	0.00122	1	10/22/2018 18:08	WG1184455
Naphthalene	U		0.00382	0.0153	1	10/22/2018 18:08	WG1184455
n-Propylbenzene	U		0.00144	0.00612	1	10/22/2018 18:08	WG1184455
Styrene	U		0.00334	0.0153	1	10/22/2018 18:08	WG1184455
1,1,1,2-Tetrachloroethane	U	J4	0.000612	0.00306	1	10/22/2018 18:08	WG1184455
1,1,2,2-Tetrachloroethane	U		0.000478	0.00306	1	10/23/2018 17:01	WG1185221
1,1,2-Trichlorotrifluoroethane	U		0.000827	0.00306	1	10/22/2018 18:08	WG1184455
Tetrachloroethene	0.0143		0.000857	0.00306	1	10/25/2018 00:02	WG1185845
Toluene	U		0.00153	0.00612	1	10/22/2018 18:08	WG1184455
1,2,3-Trichlorobenzene	U		0.000765	0.00306	1	10/23/2018 17:01	WG1185221
1,2,4-Trichlorobenzene	U		0.00590	0.0153	1	10/22/2018 18:08	WG1184455
1,1,1-Trichloroethane	U		0.000337	0.00306	1	10/22/2018 18:08	WG1184455
1,1,2-Trichloroethane	U		0.00108	0.00306	1	10/22/2018 18:08	WG1184455
Trichloroethene	0.000626	J	0.000490	0.00122	1	10/22/2018 18:08	WG1184455
Trichlorofluoromethane	U		0.000612	0.00306	1	10/22/2018 18:08	WG1184455
1,2,3-Trichloropropane	U		0.00624	0.0153	1	10/22/2018 18:08	WG1184455
1,2,4-Trimethylbenzene	U		0.00142	0.00612	1	10/22/2018 18:08	WG1184455
1,2,3-Trimethylbenzene	U		0.00141	0.00612	1	10/22/2018 18:08	WG1184455
1,3,5-Trimethylbenzene	U		0.00132	0.00612	1	10/22/2018 18:08	WG1184455
Vinyl acetate	U		0.00431	0.0153	1	10/22/2018 18:08	WG1184455
Vinyl chloride	U		0.000836	0.00306	1	10/22/2018 18:08	WG1184455
Xylenes, Total	U		0.00585	0.00796	1	10/22/2018 18:08	WG1184455
(S) Toluene-d8	*105*			*75.0-131*		*10/22/2018 18:08*	WG1184455
(S) Toluene-d8	*98.1*			*75.0-131*		*10/23/2018 17:01*	WG1185221
(S) Toluene-d8	*102*			*75.0-131*		*10/25/2018 00:02*	WG1185845
(S) Dibromofluoromethane	*92.1*			*65.0-129*		*10/22/2018 18:08*	WG1184455
(S) Dibromofluoromethane	*115*			*65.0-129*		*10/23/2018 17:01*	WG1185221
(S) Dibromofluoromethane	*95.0*			*65.0-129*		*10/25/2018 00:02*	WG1185845
(S) 4-Bromofluorobenzene	*93.0*			*67.0-138*		*10/22/2018 18:08*	WG1184455
(S) 4-Bromofluorobenzene	*122*			*67.0-138*		*10/23/2018 17:01*	WG1185221
(S) 4-Bromofluorobenzene	*104*			*67.0-138*		*10/25/2018 00:02*	WG1185845

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	92.5		1	10/24/2018 12:49	WG1185667

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0148	0.0270	1	10/23/2018 17:21	WG1185221
Acrylonitrile	U		0.00205	0.0135	1	10/22/2018 18:27	WG1184455
Benzene	U		0.000432	0.00108	1	10/22/2018 18:27	WG1184455
Bromobenzene	U		0.00113	0.0135	1	10/22/2018 18:27	WG1184455
Bromodichloromethane	U		0.000852	0.00270	1	10/22/2018 18:27	WG1184455
Bromochloromethane	U		0.00122	0.00540	1	10/22/2018 18:27	WG1184455
Bromoform	U		0.00646	0.0270	1	10/22/2018 18:27	WG1184455
Bromomethane	U		0.00400	0.0135	1	10/22/2018 18:27	WG1184455
n-Butylbenzene	U		0.00415	0.0135	1	10/22/2018 18:27	WG1184455
sec-Butylbenzene	U		0.00273	0.0135	1	10/22/2018 18:27	WG1184455
tert-Butylbenzene	U		0.00167	0.00540	1	10/22/2018 18:27	WG1184455
Carbon disulfide	U		0.00439	0.0135	1	10/22/2018 18:27	WG1184455
Carbon tetrachloride	U		0.00117	0.00540	1	10/22/2018 18:27	WG1184455
Chlorobenzene	U		0.000619	0.00270	1	10/22/2018 18:27	WG1184455
Chlorodibromomethane	U		0.000486	0.00270	1	10/22/2018 18:27	WG1184455
Chloroethane	U		0.00117	0.00540	1	10/22/2018 18:27	WG1184455
Chloroform	U		0.000448	0.00270	1	10/22/2018 18:27	WG1184455
Chloromethane	U		0.00150	0.0135	1	10/22/2018 18:27	WG1184455
2-Chlorotoluene	U		0.000994	0.00270	1	10/22/2018 18:27	WG1184455
4-Chlorotoluene	U		0.00122	0.00540	1	10/22/2018 18:27	WG1184455
1,2-Dibromo-3-Chloropropane	U		0.00551	0.0270	1	10/22/2018 18:27	WG1184455
1,2-Dibromoethane	U		0.000567	0.00270	1	10/22/2018 18:27	WG1184455
Dibromomethane	U		0.00108	0.00540	1	10/22/2018 18:27	WG1184455
1,2-Dichlorobenzene	U		0.00157	0.00540	1	10/22/2018 18:27	WG1184455
1,3-Dichlorobenzene	U		0.00184	0.00540	1	10/22/2018 18:27	WG1184455
1,4-Dichlorobenzene	U		0.00213	0.00540	1	10/22/2018 18:27	WG1184455
Dichlorodifluoromethane	U		0.000884	0.00270	1	10/23/2018 17:21	WG1185221
1,1-Dichloroethane	U		0.000621	0.00270	1	10/22/2018 18:27	WG1184455
1,2-Dichloroethane	U		0.000513	0.00270	1	10/22/2018 18:27	WG1184455
1,1-Dichloroethene	U		0.000540	0.00270	1	10/22/2018 18:27	WG1184455
cis-1,2-Dichloroethene	0.0164		0.000746	0.00270	1	10/23/2018 17:21	WG1185221
trans-1,2-Dichloroethene	U		0.00155	0.00540	1	10/22/2018 18:27	WG1184455
1,2-Dichloropropane	U		0.00137	0.00540	1	10/22/2018 18:27	WG1184455
1,1-Dichloropropene	U		0.000756	0.00270	1	10/22/2018 18:27	WG1184455
1,3-Dichloropropane	U		0.00189	0.00540	1	10/22/2018 18:27	WG1184455
cis-1,3-Dichloropropene	U		0.000733	0.00270	1	10/22/2018 18:27	WG1184455
trans-1,3-Dichloropropene	U	J4	0.00165	0.00540	1	10/22/2018 18:27	WG1184455
trans-1,4-Dichloro-2-butene	U		0.00151	0.00540	1	10/22/2018 18:27	WG1184455
2,2-Dichloropropane	U		0.000857	0.00270	1	10/22/2018 18:27	WG1184455
Di-isopropyl ether	U		0.000378	0.00108	1	10/22/2018 18:27	WG1184455
Ethylbenzene	U		0.000573	0.00270	1	10/22/2018 18:27	WG1184455
Hexachloro-1,3-butadiene	U		0.0137	0.0270	1	10/22/2018 18:27	WG1184455
2-Hexanone	U		0.0108	0.0270	1	10/22/2018 18:27	WG1184455
n-Hexane	U		0.00115	0.00540	1	10/23/2018 17:21	WG1185221
Iodomethane	U		0.00654	0.0135	1	10/22/2018 18:27	WG1184455
Isopropylbenzene	U		0.000933	0.00270	1	10/22/2018 18:27	WG1184455
p-Isopropyltoluene	U		0.00252	0.00540	1	10/22/2018 18:27	WG1184455
2-Butanone (MEK)	0.0253	J	0.0135	0.0270	1	10/22/2018 18:27	WG1184455
Methylene Chloride	U		0.00718	0.0270	1	10/22/2018 18:27	WG1184455
4-Methyl-2-pentanone (MIBK)	U		0.0108	0.0270	1	10/22/2018 18:27	WG1184455

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000319	0.00108	1	10/22/2018 18:27	WG1184455
Naphthalene	U		0.00337	0.0135	1	10/22/2018 18:27	WG1184455
n-Propylbenzene	U		0.00128	0.00540	1	10/22/2018 18:27	WG1184455
Styrene	U		0.00295	0.0135	1	10/22/2018 18:27	WG1184455
1,1,1,2-Tetrachloroethane	U	J4	0.000540	0.00270	1	10/22/2018 18:27	WG1184455
1,1,2,2-Tetrachloroethane	U		0.000421	0.00270	1	10/23/2018 17:21	WG1185221
1,1,2-Trichlorotrifluoroethane	U		0.000729	0.00270	1	10/22/2018 18:27	WG1184455
Tetrachloroethene	0.0302		0.000756	0.00270	1	10/22/2018 18:27	WG1184455
Toluene	U		0.00135	0.00540	1	10/22/2018 18:27	WG1184455
1,2,3-Trichlorobenzene	U		0.000675	0.00270	1	10/23/2018 17:21	WG1185221
1,2,4-Trichlorobenzene	U		0.00521	0.0135	1	10/22/2018 18:27	WG1184455
1,1,1-Trichloroethane	U		0.000297	0.00270	1	10/22/2018 18:27	WG1184455
1,1,2-Trichloroethane	U		0.000954	0.00270	1	10/22/2018 18:27	WG1184455
Trichloroethene	0.00438		0.000432	0.00108	1	10/22/2018 18:27	WG1184455
Trichlorofluoromethane	U		0.000540	0.00270	1	10/22/2018 18:27	WG1184455
1,2,3-Trichloropropane	U		0.00551	0.0135	1	10/22/2018 18:27	WG1184455
1,2,4-Trimethylbenzene	U		0.00125	0.00540	1	10/22/2018 18:27	WG1184455
1,2,3-Trimethylbenzene	U		0.00124	0.00540	1	10/22/2018 18:27	WG1184455
1,3,5-Trimethylbenzene	U		0.00117	0.00540	1	10/22/2018 18:27	WG1184455
Vinyl acetate	U		0.00380	0.0135	1	10/22/2018 18:27	WG1184455
Vinyl chloride	U		0.000738	0.00270	1	10/22/2018 18:27	WG1184455
Xylenes, Total	U		0.00517	0.00702	1	10/22/2018 18:27	WG1184455
(S) Toluene-d8	*103*			*75.0-131*		*10/22/2018 18:27*	WG1184455
(S) Toluene-d8	*99.0*			*75.0-131*		*10/23/2018 17:21*	WG1185221
(S) Dibromofluoromethane	*91.8*			*65.0-129*		*10/22/2018 18:27*	WG1184455
(S) Dibromofluoromethane	*114*			*65.0-129*		*10/23/2018 17:21*	WG1185221
(S) 4-Bromofluorobenzene	*93.7*			*67.0-138*		*10/22/2018 18:27*	WG1184455
(S) 4-Bromofluorobenzene	*118*			*67.0-138*		*10/23/2018 17:21*	WG1185221

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	94.8		1	10/24/2018 12:49	WG1185667

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0145	0.0264	1	10/23/2018 17:41	WG1185221
Acrylonitrile	U		0.00200	0.0132	1	10/22/2018 18:45	WG1184455
Benzene	U		0.000422	0.00105	1	10/22/2018 18:45	WG1184455
Bromobenzene	U		0.00111	0.0132	1	10/22/2018 18:45	WG1184455
Bromodichloromethane	U		0.000831	0.00264	1	10/22/2018 18:45	WG1184455
Bromochloromethane	U		0.00119	0.00527	1	10/22/2018 18:45	WG1184455
Bromoform	U		0.00631	0.0264	1	10/22/2018 18:45	WG1184455
Bromomethane	U		0.00390	0.0132	1	10/22/2018 18:45	WG1184455
n-Butylbenzene	U		0.00405	0.0132	1	10/22/2018 18:45	WG1184455
sec-Butylbenzene	U		0.00267	0.0132	1	10/22/2018 18:45	WG1184455
tert-Butylbenzene	U		0.00163	0.00527	1	10/22/2018 18:45	WG1184455
Carbon disulfide	U		0.00428	0.0132	1	10/22/2018 18:45	WG1184455
Carbon tetrachloride	U		0.00114	0.00527	1	10/22/2018 18:45	WG1184455
Chlorobenzene	U		0.000604	0.00264	1	10/22/2018 18:45	WG1184455
Chlorodibromomethane	U		0.000475	0.00264	1	10/22/2018 18:45	WG1184455
Chloroethane	U		0.00114	0.00527	1	10/22/2018 18:45	WG1184455
Chloroform	0.00135	B J	0.000438	0.00264	1	10/22/2018 18:45	WG1184455
Chloromethane	U		0.00147	0.0132	1	10/22/2018 18:45	WG1184455
2-Chlorotoluene	U		0.000970	0.00264	1	10/22/2018 18:45	WG1184455
4-Chlorotoluene	U		0.00119	0.00527	1	10/22/2018 18:45	WG1184455
1,2-Dibromo-3-Chloropropane	U		0.00538	0.0264	1	10/22/2018 18:45	WG1184455
1,2-Dibromoethane	U		0.000554	0.00264	1	10/22/2018 18:45	WG1184455
Dibromomethane	U		0.00105	0.00527	1	10/22/2018 18:45	WG1184455
1,2-Dichlorobenzene	U		0.00153	0.00527	1	10/22/2018 18:45	WG1184455
1,3-Dichlorobenzene	U		0.00179	0.00527	1	10/22/2018 18:45	WG1184455
1,4-Dichlorobenzene	U		0.00208	0.00527	1	10/22/2018 18:45	WG1184455
Dichlorodifluoromethane	U		0.000863	0.00264	1	10/23/2018 17:41	WG1185221
1,1-Dichloroethane	U		0.000607	0.00264	1	10/22/2018 18:45	WG1184455
1,2-Dichloroethane	U		0.000501	0.00264	1	10/22/2018 18:45	WG1184455
1,1-Dichloroethene	U		0.000527	0.00264	1	10/22/2018 18:45	WG1184455
cis-1,2-Dichloroethene	0.0277		0.000728	0.00264	1	10/23/2018 17:41	WG1185221
trans-1,2-Dichloroethene	U		0.00151	0.00527	1	10/22/2018 18:45	WG1184455
1,2-Dichloropropane	U		0.00134	0.00527	1	10/22/2018 18:45	WG1184455
1,1-Dichloropropene	U		0.000738	0.00264	1	10/22/2018 18:45	WG1184455
1,3-Dichloropropane	U		0.00185	0.00527	1	10/22/2018 18:45	WG1184455
cis-1,3-Dichloropropene	U		0.000715	0.00264	1	10/22/2018 18:45	WG1184455
trans-1,3-Dichloropropene	U	J4	0.00161	0.00527	1	10/22/2018 18:45	WG1184455
trans-1,4-Dichloro-2-butene	U		0.00148	0.00527	1	10/22/2018 18:45	WG1184455
2,2-Dichloropropane	U		0.000836	0.00264	1	10/22/2018 18:45	WG1184455
Di-isopropyl ether	U		0.000369	0.00105	1	10/22/2018 18:45	WG1184455
Ethylbenzene	U		0.000559	0.00264	1	10/22/2018 18:45	WG1184455
Hexachloro-1,3-butadiene	U		0.0134	0.0264	1	10/22/2018 18:45	WG1184455
2-Hexanone	U		0.0105	0.0264	1	10/22/2018 18:45	WG1184455
n-Hexane	U		0.00112	0.00527	1	10/22/2018 18:45	WG1184455
Iodomethane	U		0.00638	0.0132	1	10/22/2018 18:45	WG1184455
Isopropylbenzene	U		0.000910	0.00264	1	10/22/2018 18:45	WG1184455
p-Isopropyltoluene	U		0.00246	0.00527	1	10/22/2018 18:45	WG1184455
2-Butanone (MEK)	0.0258	J	0.0132	0.0264	1	10/22/2018 18:45	WG1184455
Methylene Chloride	U		0.00700	0.0264	1	10/22/2018 18:45	WG1184455
4-Methyl-2-pentanone (MIBK)	U		0.0105	0.0264	1	10/22/2018 18:45	WG1184455

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

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000311	0.00105	1	10/22/2018 18:45	WG1184455
Naphthalene	U		0.00329	0.0132	1	10/22/2018 18:45	WG1184455
n-Propylbenzene	U		0.00124	0.00527	1	10/22/2018 18:45	WG1184455
Styrene	U		0.00288	0.0132	1	10/22/2018 18:45	WG1184455
1,1,1,2-Tetrachloroethane	U	J4	0.000527	0.00264	1	10/22/2018 18:45	WG1184455
1,1,2,2-Tetrachloroethane	U		0.000411	0.00264	1	10/23/2018 17:41	WG1185221
1,1,2-Trichlorotrifluoroethane	U		0.000712	0.00264	1	10/22/2018 18:45	WG1184455
Tetrachloroethene	0.0301		0.000738	0.00264	1	10/22/2018 18:45	WG1184455
Toluene	U		0.00132	0.00527	1	10/22/2018 18:45	WG1184455
1,2,3-Trichlorobenzene	U		0.000659	0.00264	1	10/23/2018 17:41	WG1185221
1,2,4-Trichlorobenzene	U		0.00508	0.0132	1	10/22/2018 18:45	WG1184455
1,1,1-Trichloroethane	U		0.000290	0.00264	1	10/22/2018 18:45	WG1184455
1,1,2-Trichloroethane	U		0.000931	0.00264	1	10/22/2018 18:45	WG1184455
Trichloroethene	0.00471		0.000422	0.00105	1	10/22/2018 18:45	WG1184455
Trichlorofluoromethane	U		0.000527	0.00264	1	10/22/2018 18:45	WG1184455
1,2,3-Trichloropropane	U		0.00538	0.0132	1	10/22/2018 18:45	WG1184455
1,2,4-Trimethylbenzene	U		0.00122	0.00527	1	10/22/2018 18:45	WG1184455
1,2,3-Trimethylbenzene	U		0.00121	0.00527	1	10/22/2018 18:45	WG1184455
1,3,5-Trimethylbenzene	U		0.00114	0.00527	1	10/22/2018 18:45	WG1184455
Vinyl acetate	U		0.00371	0.0132	1	10/22/2018 18:45	WG1184455
Vinyl chloride	U		0.000720	0.00264	1	10/22/2018 18:45	WG1184455
Xylenes, Total	U		0.00504	0.00686	1	10/22/2018 18:45	WG1184455
(S) Toluene-d8	*103*			*75.0-131*		*10/22/2018 18:45*	WG1184455
(S) Toluene-d8	*99.9*			*75.0-131*		*10/23/2018 17:41*	WG1185221
(S) Dibromofluoromethane	*91.7*			*65.0-129*		*10/22/2018 18:45*	WG1184455
(S) Dibromofluoromethane	*113*			*65.0-129*		*10/23/2018 17:41*	WG1185221
(S) 4-Bromofluorobenzene	*95.6*			*67.0-138*		*10/22/2018 18:45*	WG1184455
(S) 4-Bromofluorobenzene	*120*			*67.0-138*		*10/23/2018 17:41*	WG1185221

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	87.9		1	10/24/2018 12:49	WG1185667

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0156	0.0285	1	10/23/2018 18:02	WG1185221
Acrylonitrile	U		0.00216	0.0142	1	10/22/2018 19:03	WG1184455
Benzene	U		0.000455	0.00114	1	10/22/2018 19:03	WG1184455
Bromobenzene	U		0.00119	0.0142	1	10/22/2018 19:03	WG1184455
Bromodichloromethane	U		0.000897	0.00285	1	10/22/2018 19:03	WG1184455
Bromochloromethane	U		0.00129	0.00569	1	10/22/2018 19:03	WG1184455
Bromoform	U		0.00681	0.0285	1	10/22/2018 19:03	WG1184455
Bromomethane	U		0.00421	0.0142	1	10/22/2018 19:03	WG1184455
n-Butylbenzene	U		0.00437	0.0142	1	10/22/2018 19:03	WG1184455
sec-Butylbenzene	U		0.00288	0.0142	1	10/22/2018 19:03	WG1184455
tert-Butylbenzene	U		0.00176	0.00569	1	10/22/2018 19:03	WG1184455
Carbon disulfide	U		0.00462	0.0142	1	10/22/2018 19:03	WG1184455
Carbon tetrachloride	U		0.00123	0.00569	1	10/22/2018 19:03	WG1184455
Chlorobenzene	U		0.000652	0.00285	1	10/22/2018 19:03	WG1184455
Chlorodibromomethane	U		0.000512	0.00285	1	10/22/2018 19:03	WG1184455
Chloroethane	U		0.00123	0.00569	1	10/22/2018 19:03	WG1184455
Chloroform	U		0.000472	0.00285	1	10/22/2018 19:03	WG1184455
Chloromethane	U		0.00158	0.0142	1	10/22/2018 19:03	WG1184455
2-Chlorotoluene	U		0.00105	0.00285	1	10/22/2018 19:03	WG1184455
4-Chlorotoluene	U		0.00129	0.00569	1	10/22/2018 19:03	WG1184455
1,2-Dibromo-3-Chloropropane	U		0.00580	0.0285	1	10/22/2018 19:03	WG1184455
1,2-Dibromoethane	U		0.000597	0.00285	1	10/22/2018 19:03	WG1184455
Dibromomethane	U		0.00114	0.00569	1	10/22/2018 19:03	WG1184455
1,2-Dichlorobenzene	U		0.00165	0.00569	1	10/22/2018 19:03	WG1184455
1,3-Dichlorobenzene	U		0.00193	0.00569	1	10/22/2018 19:03	WG1184455
1,4-Dichlorobenzene	U		0.00224	0.00569	1	10/22/2018 19:03	WG1184455
Dichlorodifluoromethane	U		0.000931	0.00285	1	10/23/2018 18:02	WG1185221
1,1-Dichloroethane	U		0.000654	0.00285	1	10/22/2018 19:03	WG1184455
1,2-Dichloroethane	U		0.000541	0.00285	1	10/22/2018 19:03	WG1184455
1,1-Dichloroethene	U		0.000569	0.00285	1	10/22/2018 19:03	WG1184455
cis-1,2-Dichloroethene	U		0.000785	0.00285	1	10/22/2018 19:03	WG1184455
trans-1,2-Dichloroethene	U		0.00163	0.00569	1	10/22/2018 19:03	WG1184455
1,2-Dichloropropane	U		0.00145	0.00569	1	10/22/2018 19:03	WG1184455
1,1-Dichloropropene	U		0.000797	0.00285	1	10/22/2018 19:03	WG1184455
1,3-Dichloropropane	U		0.00199	0.00569	1	10/22/2018 19:03	WG1184455
cis-1,3-Dichloropropene	U		0.000772	0.00285	1	10/22/2018 19:03	WG1184455
trans-1,3-Dichloropropene	U	J4	0.00174	0.00569	1	10/22/2018 19:03	WG1184455
trans-1,4-Dichloro-2-butene	U		0.00159	0.00569	1	10/22/2018 19:03	WG1184455
2,2-Dichloropropane	U		0.000902	0.00285	1	10/22/2018 19:03	WG1184455
Di-isopropyl ether	U		0.000398	0.00114	1	10/22/2018 19:03	WG1184455
Ethylbenzene	U		0.000603	0.00285	1	10/22/2018 19:03	WG1184455
Hexachloro-1,3-butadiene	U		0.0145	0.0285	1	10/22/2018 19:03	WG1184455
2-Hexanone	U		0.0114	0.0285	1	10/22/2018 19:03	WG1184455
n-Hexane	U		0.00121	0.00569	1	10/22/2018 19:03	WG1184455
Iodomethane	U		0.00689	0.0142	1	10/22/2018 19:03	WG1184455
Isopropylbenzene	U		0.000982	0.00285	1	10/22/2018 19:03	WG1184455
p-Isopropyltoluene	U		0.00265	0.00569	1	10/22/2018 19:03	WG1184455
2-Butanone (MEK)	0.0289		0.0142	0.0285	1	10/22/2018 19:03	WG1184455
Methylene Chloride	U		0.00756	0.0285	1	10/22/2018 19:03	WG1184455
4-Methyl-2-pentanone (MIBK)	U		0.0114	0.0285	1	10/22/2018 19:03	WG1184455

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000336	0.00114	1	10/22/2018 19:03	WG1184455
Naphthalene	U		0.00355	0.0142	1	10/22/2018 19:03	WG1184455
n-Propylbenzene	U		0.00134	0.00569	1	10/22/2018 19:03	WG1184455
Styrene	U		0.00311	0.0142	1	10/22/2018 19:03	WG1184455
1,1,1,2-Tetrachloroethane	U	J4	0.000569	0.00285	1	10/22/2018 19:03	WG1184455
1,1,2,2-Tetrachloroethane	U		0.000444	0.00285	1	10/23/2018 18:02	WG1185221
1,1,2-Trichlorotrifluoroethane	U		0.000768	0.00285	1	10/22/2018 19:03	WG1184455
Tetrachloroethene	0.0321		0.000797	0.00285	1	10/22/2018 19:03	WG1184455
Toluene	U		0.00142	0.00569	1	10/22/2018 19:03	WG1184455
1,2,3-Trichlorobenzene	U		0.000711	0.00285	1	10/23/2018 18:02	WG1185221
1,2,4-Trichlorobenzene	U		0.00549	0.0142	1	10/22/2018 19:03	WG1184455
1,1,1-Trichloroethane	U		0.000313	0.00285	1	10/22/2018 19:03	WG1184455
1,1,2-Trichloroethane	U		0.00100	0.00285	1	10/22/2018 19:03	WG1184455
Trichloroethene	0.00106	J	0.000455	0.00114	1	10/22/2018 19:03	WG1184455
Trichlorofluoromethane	U		0.000569	0.00285	1	10/22/2018 19:03	WG1184455
1,2,3-Trichloropropane	U		0.00580	0.0142	1	10/22/2018 19:03	WG1184455
1,2,4-Trimethylbenzene	U		0.00132	0.00569	1	10/22/2018 19:03	WG1184455
1,2,3-Trimethylbenzene	U		0.00131	0.00569	1	10/22/2018 19:03	WG1184455
1,3,5-Trimethylbenzene	U		0.00123	0.00569	1	10/22/2018 19:03	WG1184455
Vinyl acetate	U		0.00401	0.0142	1	10/22/2018 19:03	WG1184455
Vinyl chloride	U		0.000777	0.00285	1	10/22/2018 19:03	WG1184455
Xylenes, Total	U		0.00544	0.00740	1	10/22/2018 19:03	WG1184455
(S) Toluene-d8	*104*			*75.0-131*		*10/22/2018 19:03*	WG1184455
(S) Toluene-d8	*100*			*75.0-131*		*10/23/2018 18:02*	WG1185221
(S) Dibromofluoromethane	*91.8*			*65.0-129*		*10/22/2018 19:03*	WG1184455
(S) Dibromofluoromethane	*114*			*65.0-129*		*10/23/2018 18:02*	WG1185221
(S) 4-Bromofluorobenzene	*94.1*			*67.0-138*		*10/22/2018 19:03*	WG1184455
(S) 4-Bromofluorobenzene	*121*			*67.0-138*		*10/23/2018 18:02*	WG1185221

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	91.6		1	10/24/2018 13:49	WG1185668

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0150	0.0273	1	10/23/2018 18:22	WG1185221
Acrylonitrile	U		0.00207	0.0136	1	10/22/2018 19:22	WG1184455
Benzene	U		0.000437	0.00109	1	10/22/2018 19:22	WG1184455
Bromobenzene	U		0.00115	0.0136	1	10/22/2018 19:22	WG1184455
Bromodichloromethane	U		0.000860	0.00273	1	10/22/2018 19:22	WG1184455
Bromochloromethane	U		0.00123	0.00546	1	10/22/2018 19:22	WG1184455
Bromoform	U		0.00653	0.0273	1	10/22/2018 19:22	WG1184455
Bromomethane	U		0.00404	0.0136	1	10/22/2018 19:22	WG1184455
n-Butylbenzene	U		0.00419	0.0136	1	10/22/2018 19:22	WG1184455
sec-Butylbenzene	U		0.00276	0.0136	1	10/22/2018 19:22	WG1184455
tert-Butylbenzene	U		0.00169	0.00546	1	10/22/2018 19:22	WG1184455
Carbon disulfide	0.00546	J	0.00443	0.0136	1	10/22/2018 19:22	WG1184455
Carbon tetrachloride	U		0.00118	0.00546	1	10/22/2018 19:22	WG1184455
Chlorobenzene	U		0.000625	0.00273	1	10/22/2018 19:22	WG1184455
Chlorodibromomethane	U		0.000491	0.00273	1	10/22/2018 19:22	WG1184455
Chloroethane	U		0.00118	0.00546	1	10/22/2018 19:22	WG1184455
Chloroform	U		0.000453	0.00273	1	10/22/2018 19:22	WG1184455
Chloromethane	U		0.00152	0.0136	1	10/22/2018 19:22	WG1184455
2-Chlorotoluene	U		0.00100	0.00273	1	10/22/2018 19:22	WG1184455
4-Chlorotoluene	U		0.00123	0.00546	1	10/22/2018 19:22	WG1184455
1,2-Dibromo-3-Chloropropane	U		0.00557	0.0273	1	10/22/2018 19:22	WG1184455
1,2-Dibromoethane	U		0.000573	0.00273	1	10/22/2018 19:22	WG1184455
Dibromomethane	U		0.00109	0.00546	1	10/22/2018 19:22	WG1184455
1,2-Dichlorobenzene	U		0.00158	0.00546	1	10/22/2018 19:22	WG1184455
1,3-Dichlorobenzene	U		0.00186	0.00546	1	10/22/2018 19:22	WG1184455
1,4-Dichlorobenzene	U		0.00215	0.00546	1	10/22/2018 19:22	WG1184455
Dichlorodifluoromethane	U		0.000893	0.00273	1	10/23/2018 18:22	WG1185221
1,1-Dichloroethane	U		0.000628	0.00273	1	10/22/2018 19:22	WG1184455
1,2-Dichloroethane	U		0.000519	0.00273	1	10/22/2018 19:22	WG1184455
1,1-Dichloroethene	U		0.000546	0.00273	1	10/22/2018 19:22	WG1184455
cis-1,2-Dichloroethene	0.0170		0.000753	0.00273	1	10/23/2018 18:22	WG1185221
trans-1,2-Dichloroethene	U		0.00156	0.00546	1	10/22/2018 19:22	WG1184455
1,2-Dichloropropane	U		0.00139	0.00546	1	10/22/2018 19:22	WG1184455
1,1-Dichloropropene	U		0.000764	0.00273	1	10/22/2018 19:22	WG1184455
1,3-Dichloropropane	U		0.00191	0.00546	1	10/22/2018 19:22	WG1184455
cis-1,3-Dichloropropene	U		0.000740	0.00273	1	10/22/2018 19:22	WG1184455
trans-1,3-Dichloropropene	U	J4	0.00167	0.00546	1	10/22/2018 19:22	WG1184455
trans-1,4-Dichloro-2-butene	U		0.00153	0.00546	1	10/22/2018 19:22	WG1184455
2,2-Dichloropropane	U		0.000866	0.00273	1	10/22/2018 19:22	WG1184455
Di-isopropyl ether	U		0.000382	0.00109	1	10/22/2018 19:22	WG1184455
Ethylbenzene	U		0.000579	0.00273	1	10/22/2018 19:22	WG1184455
Hexachloro-1,3-butadiene	U		0.0139	0.0273	1	10/22/2018 19:22	WG1184455
2-Hexanone	U		0.0109	0.0273	1	10/22/2018 19:22	WG1184455
n-Hexane	U		0.00116	0.00546	1	10/22/2018 19:22	WG1184455
Iodomethane	U		0.00660	0.0136	1	10/22/2018 19:22	WG1184455
Isopropylbenzene	U		0.000942	0.00273	1	10/22/2018 19:22	WG1184455
p-Isopropyltoluene	U		0.00254	0.00546	1	10/22/2018 19:22	WG1184455
2-Butanone (MEK)	0.0228	J	0.0136	0.0273	1	10/22/2018 19:22	WG1184455
Methylene Chloride	U		0.00725	0.0273	1	10/22/2018 19:22	WG1184455
4-Methyl-2-pentanone (MIBK)	U		0.0109	0.0273	1	10/22/2018 19:22	WG1184455

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000322	0.00109	1	10/22/2018 19:22	WG1184455
Naphthalene	U		0.00341	0.0136	1	10/22/2018 19:22	WG1184455
n-Propylbenzene	U		0.00129	0.00546	1	10/22/2018 19:22	WG1184455
Styrene	U		0.00298	0.0136	1	10/22/2018 19:22	WG1184455
1,1,1,2-Tetrachloroethane	U	J4	0.000546	0.00273	1	10/22/2018 19:22	WG1184455
1,1,2,2-Tetrachloroethane	U		0.000426	0.00273	1	10/23/2018 18:22	WG1185221
1,1,2-Trichlorotrifluoroethane	U		0.000737	0.00273	1	10/22/2018 19:22	WG1184455
Tetrachloroethene	0.0558		0.000764	0.00273	1	10/22/2018 19:22	WG1184455
Toluene	U		0.00136	0.00546	1	10/22/2018 19:22	WG1184455
1,2,3-Trichlorobenzene	U		0.000682	0.00273	1	10/23/2018 18:22	WG1185221
1,2,4-Trichlorobenzene	U		0.00526	0.0136	1	10/22/2018 19:22	WG1184455
1,1,1-Trichloroethane	U		0.000300	0.00273	1	10/22/2018 19:22	WG1184455
1,1,2-Trichloroethane	U		0.000964	0.00273	1	10/22/2018 19:22	WG1184455
Trichloroethene	0.00523		0.000437	0.00109	1	10/22/2018 19:22	WG1184455
Trichlorofluoromethane	U		0.000546	0.00273	1	10/22/2018 19:22	WG1184455
1,2,3-Trichloropropane	U		0.00557	0.0136	1	10/22/2018 19:22	WG1184455
1,2,4-Trimethylbenzene	U		0.00127	0.00546	1	10/22/2018 19:22	WG1184455
1,2,3-Trimethylbenzene	U		0.00126	0.00546	1	10/22/2018 19:22	WG1184455
1,3,5-Trimethylbenzene	U		0.00118	0.00546	1	10/22/2018 19:22	WG1184455
Vinyl acetate	U		0.00384	0.0136	1	10/22/2018 19:22	WG1184455
Vinyl chloride	U		0.000746	0.00273	1	10/22/2018 19:22	WG1184455
Xylenes, Total	U		0.00522	0.00710	1	10/22/2018 19:22	WG1184455
(S) Toluene-d8	*103*			*75.0-131*		*10/22/2018 19:22*	WG1184455
(S) Toluene-d8	*97.5*			*75.0-131*		*10/23/2018 18:22*	WG1185221
(S) Dibromofluoromethane	*94.1*			*65.0-129*		*10/22/2018 19:22*	WG1184455
(S) Dibromofluoromethane	*112*			*65.0-129*		*10/23/2018 18:22*	WG1185221
(S) 4-Bromofluorobenzene	*92.3*			*67.0-138*		*10/22/2018 19:22*	WG1184455
(S) 4-Bromofluorobenzene	*120*			*67.0-138*		*10/23/2018 18:22*	WG1185221

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	92.2		1	10/24/2018 13:49	WG1185668

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0149	0.0271	1	10/23/2018 18:42	WG1185221
Acrylonitrile	U		0.00206	0.0136	1	10/22/2018 19:40	WG1184455
Benzene	U		0.000434	0.00108	1	10/22/2018 19:40	WG1184455
Bromobenzene	U		0.00114	0.0136	1	10/22/2018 19:40	WG1184455
Bromodichloromethane	U		0.000855	0.00271	1	10/22/2018 19:40	WG1184455
Bromochloromethane	U		0.00123	0.00542	1	10/22/2018 19:40	WG1184455
Bromoform	U		0.00649	0.0271	1	10/22/2018 19:40	WG1184455
Bromomethane	U		0.00401	0.0136	1	10/22/2018 19:40	WG1184455
n-Butylbenzene	U		0.00417	0.0136	1	10/22/2018 19:40	WG1184455
sec-Butylbenzene	U		0.00274	0.0136	1	10/22/2018 19:40	WG1184455
tert-Butylbenzene	U		0.00168	0.00542	1	10/22/2018 19:40	WG1184455
Carbon disulfide	U		0.00440	0.0136	1	10/22/2018 19:40	WG1184455
Carbon tetrachloride	U		0.00117	0.00542	1	10/22/2018 19:40	WG1184455
Chlorobenzene	U		0.000622	0.00271	1	10/22/2018 19:40	WG1184455
Chlorodibromomethane	U		0.000488	0.00271	1	10/22/2018 19:40	WG1184455
Chloroethane	U		0.00117	0.00542	1	10/22/2018 19:40	WG1184455
Chloroform	U		0.000450	0.00271	1	10/22/2018 19:40	WG1184455
Chloromethane	U		0.00151	0.0136	1	10/22/2018 19:40	WG1184455
2-Chlorotoluene	U		0.000998	0.00271	1	10/22/2018 19:40	WG1184455
4-Chlorotoluene	U		0.00123	0.00542	1	10/22/2018 19:40	WG1184455
1,2-Dibromo-3-Chloropropane	U		0.00553	0.0271	1	10/22/2018 19:40	WG1184455
1,2-Dibromoethane	U		0.000570	0.00271	1	10/22/2018 19:40	WG1184455
Dibromomethane	U		0.00108	0.00542	1	10/22/2018 19:40	WG1184455
1,2-Dichlorobenzene	U		0.00157	0.00542	1	10/22/2018 19:40	WG1184455
1,3-Dichlorobenzene	U		0.00184	0.00542	1	10/22/2018 19:40	WG1184455
1,4-Dichlorobenzene	U		0.00214	0.00542	1	10/22/2018 19:40	WG1184455
Dichlorodifluoromethane	U		0.000887	0.00271	1	10/23/2018 18:42	WG1185221
1,1-Dichloroethane	U		0.000624	0.00271	1	10/22/2018 19:40	WG1184455
1,2-Dichloroethane	U		0.000515	0.00271	1	10/22/2018 19:40	WG1184455
1,1-Dichloroethene	U		0.000542	0.00271	1	10/22/2018 19:40	WG1184455
cis-1,2-Dichloroethene	0.0894		0.000749	0.00271	1	10/23/2018 18:42	WG1185221
trans-1,2-Dichloroethene	U		0.00155	0.00542	1	10/22/2018 19:40	WG1184455
1,2-Dichloropropane	U		0.00138	0.00542	1	10/22/2018 19:40	WG1184455
1,1-Dichloropropene	U		0.000759	0.00271	1	10/22/2018 19:40	WG1184455
1,3-Dichloropropane	U		0.00190	0.00542	1	10/22/2018 19:40	WG1184455
cis-1,3-Dichloropropene	U		0.000736	0.00271	1	10/22/2018 19:40	WG1184455
trans-1,3-Dichloropropene	U	J4	0.00166	0.00542	1	10/22/2018 19:40	WG1184455
trans-1,4-Dichloro-2-butene	U		0.00152	0.00542	1	10/22/2018 19:40	WG1184455
2,2-Dichloropropane	U		0.000860	0.00271	1	10/22/2018 19:40	WG1184455
Di-isopropyl ether	U		0.000380	0.00108	1	10/22/2018 19:40	WG1184455
Ethylbenzene	U		0.000575	0.00271	1	10/22/2018 19:40	WG1184455
Hexachloro-1,3-butadiene	U		0.0138	0.0271	1	10/22/2018 19:40	WG1184455
2-Hexanone	U		0.0108	0.0271	1	10/22/2018 19:40	WG1184455
n-Hexane	U		0.00115	0.00542	1	10/22/2018 19:40	WG1184455
Iodomethane	U		0.00656	0.0136	1	10/22/2018 19:40	WG1184455
Isopropylbenzene	U		0.000936	0.00271	1	10/22/2018 19:40	WG1184455
p-Isopropyltoluene	U		0.00253	0.00542	1	10/22/2018 19:40	WG1184455
2-Butanone (MEK)	0.0287		0.0136	0.0271	1	10/22/2018 19:40	WG1184455
Methylene Chloride	U		0.00720	0.0271	1	10/22/2018 19:40	WG1184455
4-Methyl-2-pentanone (MIBK)	U		0.0108	0.0271	1	10/22/2018 19:40	WG1184455

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

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000320	0.00108	1	10/22/2018 19:40	WG1184455
Naphthalene	U		0.00338	0.0136	1	10/22/2018 19:40	WG1184455
n-Propylbenzene	U		0.00128	0.00542	1	10/22/2018 19:40	WG1184455
Styrene	U		0.00296	0.0136	1	10/22/2018 19:40	WG1184455
1,1,1,2-Tetrachloroethane	U	J4	0.000542	0.00271	1	10/22/2018 19:40	WG1184455
1,1,2,2-Tetrachloroethane	U		0.000423	0.00271	1	10/23/2018 18:42	WG1185221
1,1,2-Trichlorotrifluoroethane	U		0.000732	0.00271	1	10/22/2018 19:40	WG1184455
Tetrachloroethene	0.416		0.000759	0.00271	1	10/22/2018 19:40	WG1184455
Toluene	U		0.00136	0.00542	1	10/22/2018 19:40	WG1184455
1,2,3-Trichlorobenzene	U		0.000678	0.00271	1	10/23/2018 18:42	WG1185221
1,2,4-Trichlorobenzene	U		0.00523	0.0136	1	10/22/2018 19:40	WG1184455
1,1,1-Trichloroethane	U		0.000298	0.00271	1	10/22/2018 19:40	WG1184455
1,1,2-Trichloroethane	U		0.000958	0.00271	1	10/22/2018 19:40	WG1184455
Trichloroethene	0.0154		0.000434	0.00108	1	10/22/2018 19:40	WG1184455
Trichlorofluoromethane	U		0.000542	0.00271	1	10/22/2018 19:40	WG1184455
1,2,3-Trichloropropane	U		0.00553	0.0136	1	10/22/2018 19:40	WG1184455
1,2,4-Trimethylbenzene	U		0.00126	0.00542	1	10/22/2018 19:40	WG1184455
1,2,3-Trimethylbenzene	U		0.00125	0.00542	1	10/22/2018 19:40	WG1184455
1,3,5-Trimethylbenzene	U		0.00117	0.00542	1	10/22/2018 19:40	WG1184455
Vinyl acetate	U		0.00382	0.0136	1	10/22/2018 19:40	WG1184455
Vinyl chloride	0.00733		0.000741	0.00271	1	10/22/2018 19:40	WG1184455
Xylenes, Total	U		0.00519	0.00705	1	10/22/2018 19:40	WG1184455
(S) Toluene-d8	*104*			*75.0-131*		*10/22/2018 19:40*	WG1184455
(S) Toluene-d8	*96.9*			*75.0-131*		*10/23/2018 18:42*	WG1185221
(S) Dibromofluoromethane	*93.1*			*65.0-129*		*10/22/2018 19:40*	WG1184455
(S) Dibromofluoromethane	*114*			*65.0-129*		*10/23/2018 18:42*	WG1185221
(S) 4-Bromofluorobenzene	*94.6*			*67.0-138*		*10/22/2018 19:40*	WG1184455
(S) 4-Bromofluorobenzene	*121*			*67.0-138*		*10/23/2018 18:42*	WG1185221

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	92.1		1	10/24/2018 13:49	WG1185668

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0149	0.0272	1	10/23/2018 19:02	WG1185221
Acrylonitrile	U		0.00206	0.0136	1	10/22/2018 19:58	WG1184455
Benzene	U		0.000434	0.00109	1	10/22/2018 19:58	WG1184455
Bromobenzene	U		0.00114	0.0136	1	10/22/2018 19:58	WG1184455
Bromodichloromethane	U		0.000856	0.00272	1	10/22/2018 19:58	WG1184455
Bromochloromethane	U		0.00123	0.00543	1	10/22/2018 19:58	WG1184455
Bromoform	U		0.00649	0.0272	1	10/22/2018 19:58	WG1184455
Bromomethane	U		0.00402	0.0136	1	10/22/2018 19:58	WG1184455
n-Butylbenzene	U		0.00417	0.0136	1	10/22/2018 19:58	WG1184455
sec-Butylbenzene	U		0.00275	0.0136	1	10/22/2018 19:58	WG1184455
tert-Butylbenzene	U		0.00168	0.00543	1	10/22/2018 19:58	WG1184455
Carbon disulfide	U		0.00441	0.0136	1	10/22/2018 19:58	WG1184455
Carbon tetrachloride	U		0.00117	0.00543	1	10/22/2018 19:58	WG1184455
Chlorobenzene	U		0.000622	0.00272	1	10/22/2018 19:58	WG1184455
Chlorodibromomethane	U		0.000489	0.00272	1	10/22/2018 19:58	WG1184455
Chloroethane	U		0.00117	0.00543	1	10/22/2018 19:58	WG1184455
Chloroform	U		0.000451	0.00272	1	10/22/2018 19:58	WG1184455
Chloromethane	U		0.00151	0.0136	1	10/22/2018 19:58	WG1184455
2-Chlorotoluene	U		0.000999	0.00272	1	10/22/2018 19:58	WG1184455
4-Chlorotoluene	U		0.00123	0.00543	1	10/22/2018 19:58	WG1184455
1,2-Dibromo-3-Chloropropane	U		0.00554	0.0272	1	10/22/2018 19:58	WG1184455
1,2-Dibromoethane	U		0.000570	0.00272	1	10/22/2018 19:58	WG1184455
Dibromomethane	U		0.00109	0.00543	1	10/22/2018 19:58	WG1184455
1,2-Dichlorobenzene	U		0.00157	0.00543	1	10/22/2018 19:58	WG1184455
1,3-Dichlorobenzene	U		0.00185	0.00543	1	10/22/2018 19:58	WG1184455
1,4-Dichlorobenzene	U		0.00214	0.00543	1	10/22/2018 19:58	WG1184455
Dichlorodifluoromethane	U		0.000888	0.00272	1	10/23/2018 19:02	WG1185221
1,1-Dichloroethane	U		0.000624	0.00272	1	10/22/2018 19:58	WG1184455
1,2-Dichloroethane	U		0.000516	0.00272	1	10/22/2018 19:58	WG1184455
1,1-Dichloroethene	U		0.000543	0.00272	1	10/22/2018 19:58	WG1184455
cis-1,2-Dichloroethene	U		0.000749	0.00272	1	10/22/2018 19:58	WG1184455
trans-1,2-Dichloroethene	U		0.00155	0.00543	1	10/22/2018 19:58	WG1184455
1,2-Dichloropropane	U		0.00138	0.00543	1	10/22/2018 19:58	WG1184455
1,1-Dichloropropene	U		0.000760	0.00272	1	10/22/2018 19:58	WG1184455
1,3-Dichloropropane	U		0.00190	0.00543	1	10/22/2018 19:58	WG1184455
cis-1,3-Dichloropropene	U		0.000736	0.00272	1	10/22/2018 19:58	WG1184455
trans-1,3-Dichloropropene	U	J4	0.00166	0.00543	1	10/22/2018 19:58	WG1184455
trans-1,4-Dichloro-2-butene	U		0.00152	0.00543	1	10/22/2018 19:58	WG1184455
2,2-Dichloropropane	U		0.000861	0.00272	1	10/22/2018 19:58	WG1184455
Di-isopropyl ether	U		0.000380	0.00109	1	10/22/2018 19:58	WG1184455
Ethylbenzene	U		0.000576	0.00272	1	10/22/2018 19:58	WG1184455
Hexachloro-1,3-butadiene	U		0.0138	0.0272	1	10/22/2018 19:58	WG1184455
2-Hexanone	U		0.0109	0.0272	1	10/22/2018 19:58	WG1184455
n-Hexane	U		0.00115	0.00543	1	10/22/2018 19:58	WG1184455
Iodomethane	U		0.00657	0.0136	1	10/22/2018 19:58	WG1184455
Isopropylbenzene	U		0.000937	0.00272	1	10/22/2018 19:58	WG1184455
p-Isopropyltoluene	U		0.00253	0.00543	1	10/22/2018 19:58	WG1184455
2-Butanone (MEK)	U		0.0136	0.0272	1	10/22/2018 19:58	WG1184455
Methylene Chloride	U		0.00721	0.0272	1	10/22/2018 19:58	WG1184455
4-Methyl-2-pentanone (MIBK)	U		0.0109	0.0272	1	10/22/2018 19:58	WG1184455

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000320	0.00109	1	10/22/2018 19:58	WG1184455
Naphthalene	U		0.00339	0.0136	1	10/22/2018 19:58	WG1184455
n-Propylbenzene	U		0.00128	0.00543	1	10/22/2018 19:58	WG1184455
Styrene	U		0.00296	0.0136	1	10/22/2018 19:58	WG1184455
1,1,1,2-Tetrachloroethane	U	J4	0.000543	0.00272	1	10/22/2018 19:58	WG1184455
1,1,2,2-Tetrachloroethane	U		0.000424	0.00272	1	10/23/2018 19:02	WG1185221
1,1,2-Trichlorotrifluoroethane	U		0.000733	0.00272	1	10/22/2018 19:58	WG1184455
Tetrachloroethene	0.200		0.000760	0.00272	1	10/22/2018 19:58	WG1184455
Toluene	U		0.00136	0.00543	1	10/22/2018 19:58	WG1184455
1,2,3-Trichlorobenzene	U		0.000679	0.00272	1	10/23/2018 19:02	WG1185221
1,2,4-Trichlorobenzene	U		0.00523	0.0136	1	10/22/2018 19:58	WG1184455
1,1,1-Trichloroethane	U		0.000299	0.00272	1	10/22/2018 19:58	WG1184455
1,1,2-Trichloroethane	U		0.000959	0.00272	1	10/22/2018 19:58	WG1184455
Trichloroethene	0.00630		0.000434	0.00109	1	10/22/2018 19:58	WG1184455
Trichlorofluoromethane	U		0.000543	0.00272	1	10/22/2018 19:58	WG1184455
1,2,3-Trichloropropane	U		0.00554	0.0136	1	10/22/2018 19:58	WG1184455
1,2,4-Trimethylbenzene	U		0.00126	0.00543	1	10/22/2018 19:58	WG1184455
1,2,3-Trimethylbenzene	U		0.00125	0.00543	1	10/22/2018 19:58	WG1184455
1,3,5-Trimethylbenzene	U		0.00117	0.00543	1	10/22/2018 19:58	WG1184455
Vinyl acetate	U		0.00382	0.0136	1	10/22/2018 19:58	WG1184455
Vinyl chloride	U		0.000742	0.00272	1	10/22/2018 19:58	WG1184455
Xylenes, Total	U		0.00519	0.00706	1	10/22/2018 19:58	WG1184455
(S) Toluene-d8	*107*			*75.0-131*		*10/22/2018 19:58*	WG1184455
(S) Toluene-d8	*99.6*			*75.0-131*		*10/23/2018 19:02*	WG1185221
(S) Dibromofluoromethane	*94.6*			*65.0-129*		*10/22/2018 19:58*	WG1184455
(S) Dibromofluoromethane	*115*			*65.0-129*		*10/23/2018 19:02*	WG1185221
(S) 4-Bromofluorobenzene	*95.2*			*67.0-138*		*10/22/2018 19:58*	WG1184455
(S) 4-Bromofluorobenzene	*118*			*67.0-138*		*10/23/2018 19:02*	WG1185221

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	86.4		1	10/24/2018 13:49	WG1185668

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0159	0.0289	1	10/23/2018 19:22	WG1185221
Acrylonitrile	U		0.00220	0.0145	1	10/22/2018 20:17	WG1184455
Benzene	U		0.000463	0.00116	1	10/22/2018 20:17	WG1184455
Bromobenzene	U		0.00122	0.0145	1	10/22/2018 20:17	WG1184455
Bromodichloromethane	U		0.000912	0.00289	1	10/22/2018 20:17	WG1184455
Bromochloromethane	U		0.00131	0.00579	1	10/22/2018 20:17	WG1184455
Bromoform	U		0.00692	0.0289	1	10/22/2018 20:17	WG1184455
Bromomethane	U		0.00428	0.0145	1	10/22/2018 20:17	WG1184455
n-Butylbenzene	U		0.00444	0.0145	1	10/22/2018 20:17	WG1184455
sec-Butylbenzene	U		0.00293	0.0145	1	10/22/2018 20:17	WG1184455
tert-Butylbenzene	U		0.00179	0.00579	1	10/22/2018 20:17	WG1184455
Carbon disulfide	U		0.00470	0.0145	1	10/22/2018 20:17	WG1184455
Carbon tetrachloride	U		0.00125	0.00579	1	10/22/2018 20:17	WG1184455
Chlorobenzene	U		0.000663	0.00289	1	10/22/2018 20:17	WG1184455
Chlorodibromomethane	U		0.000521	0.00289	1	10/22/2018 20:17	WG1184455
Chloroethane	U		0.00125	0.00579	1	10/22/2018 20:17	WG1184455
Chloroform	U		0.000480	0.00289	1	10/22/2018 20:17	WG1184455
Chloromethane	U		0.00161	0.0145	1	10/22/2018 20:17	WG1184455
2-Chlorotoluene	U		0.00106	0.00289	1	10/22/2018 20:17	WG1184455
4-Chlorotoluene	U		0.00131	0.00579	1	10/22/2018 20:17	WG1184455
1,2-Dibromo-3-Chloropropane	U		0.00590	0.0289	1	10/22/2018 20:17	WG1184455
1,2-Dibromoethane	U		0.000608	0.00289	1	10/22/2018 20:17	WG1184455
Dibromomethane	U		0.00116	0.00579	1	10/22/2018 20:17	WG1184455
1,2-Dichlorobenzene	U		0.00168	0.00579	1	10/22/2018 20:17	WG1184455
1,3-Dichlorobenzene	U		0.00197	0.00579	1	10/22/2018 20:17	WG1184455
1,4-Dichlorobenzene	U		0.00228	0.00579	1	10/22/2018 20:17	WG1184455
Dichlorodifluoromethane	U		0.000947	0.00289	1	10/23/2018 19:22	WG1185221
1,1-Dichloroethane	U		0.000665	0.00289	1	10/22/2018 20:17	WG1184455
1,2-Dichloroethane	U		0.000550	0.00289	1	10/22/2018 20:17	WG1184455
1,1-Dichloroethene	U		0.000579	0.00289	1	10/22/2018 20:17	WG1184455
cis-1,2-Dichloroethene	U		0.000799	0.00289	1	10/22/2018 20:17	WG1184455
trans-1,2-Dichloroethene	U		0.00165	0.00579	1	10/22/2018 20:17	WG1184455
1,2-Dichloropropane	U		0.00147	0.00579	1	10/22/2018 20:17	WG1184455
1,1-Dichloropropene	U		0.000810	0.00289	1	10/22/2018 20:17	WG1184455
1,3-Dichloropropane	U		0.00203	0.00579	1	10/22/2018 20:17	WG1184455
cis-1,3-Dichloropropene	U		0.000785	0.00289	1	10/22/2018 20:17	WG1184455
trans-1,3-Dichloropropene	U	J4	0.00177	0.00579	1	10/22/2018 20:17	WG1184455
trans-1,4-Dichloro-2-butene	U		0.00162	0.00579	1	10/22/2018 20:17	WG1184455
2,2-Dichloropropane	U		0.000918	0.00289	1	10/22/2018 20:17	WG1184455
Di-isopropyl ether	U		0.000405	0.00116	1	10/22/2018 20:17	WG1184455
Ethylbenzene	U		0.000613	0.00289	1	10/22/2018 20:17	WG1184455
Hexachloro-1,3-butadiene	U		0.0147	0.0289	1	10/22/2018 20:17	WG1184455
2-Hexanone	U		0.0116	0.0289	1	10/22/2018 20:17	WG1184455
n-Hexane	U		0.00123	0.00579	1	10/22/2018 20:17	WG1184455
Iodomethane	U		0.00700	0.0145	1	10/22/2018 20:17	WG1184455
Isopropylbenzene	U		0.000999	0.00289	1	10/22/2018 20:17	WG1184455
p-Isopropyltoluene	U		0.00270	0.00579	1	10/22/2018 20:17	WG1184455
2-Butanone (MEK)	0.0277	J	0.0145	0.0289	1	10/22/2018 20:17	WG1184455
Methylene Chloride	U		0.00768	0.0289	1	10/22/2018 20:17	WG1184455
4-Methyl-2-pentanone (MIBK)	U		0.0116	0.0289	1	10/22/2018 20:17	WG1184455

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000341	0.00116	1	10/22/2018 20:17	WG1184455
Naphthalene	U		0.00361	0.0145	1	10/22/2018 20:17	WG1184455
n-Propylbenzene	U		0.00137	0.00579	1	10/22/2018 20:17	WG1184455
Styrene	U		0.00316	0.0145	1	10/22/2018 20:17	WG1184455
1,1,1,2-Tetrachloroethane	U	J4	0.000579	0.00289	1	10/22/2018 20:17	WG1184455
1,1,2,2-Tetrachloroethane	U		0.000451	0.00289	1	10/23/2018 19:22	WG1185221
1,1,2-Trichlorotrifluoroethane	U		0.000781	0.00289	1	10/22/2018 20:17	WG1184455
Tetrachloroethene	0.0960		0.000810	0.00289	1	10/22/2018 20:17	WG1184455
Toluene	U		0.00145	0.00579	1	10/22/2018 20:17	WG1184455
1,2,3-Trichlorobenzene	U		0.000723	0.00289	1	10/23/2018 19:22	WG1185221
1,2,4-Trichlorobenzene	U		0.00558	0.0145	1	10/22/2018 20:17	WG1184455
1,1,1-Trichloroethane	U		0.000318	0.00289	1	10/22/2018 20:17	WG1184455
1,1,2-Trichloroethane	U		0.00102	0.00289	1	10/22/2018 20:17	WG1184455
Trichloroethene	0.00185		0.000463	0.00116	1	10/22/2018 20:17	WG1184455
Trichlorofluoromethane	U		0.000579	0.00289	1	10/22/2018 20:17	WG1184455
1,2,3-Trichloropropane	U		0.00590	0.0145	1	10/22/2018 20:17	WG1184455
1,2,4-Trimethylbenzene	U		0.00134	0.00579	1	10/22/2018 20:17	WG1184455
1,2,3-Trimethylbenzene	U		0.00133	0.00579	1	10/22/2018 20:17	WG1184455
1,3,5-Trimethylbenzene	U		0.00125	0.00579	1	10/22/2018 20:17	WG1184455
Vinyl acetate	U		0.00407	0.0145	1	10/22/2018 20:17	WG1184455
Vinyl chloride	U		0.000790	0.00289	1	10/22/2018 20:17	WG1184455
Xylenes, Total	U		0.00553	0.00752	1	10/22/2018 20:17	WG1184455
(S) Toluene-d8	*103*			*75.0-131*		*10/22/2018 20:17*	WG1184455
(S) Toluene-d8	*100*			*75.0-131*		*10/23/2018 19:22*	WG1185221
(S) Dibromofluoromethane	*95.3*			*65.0-129*		*10/22/2018 20:17*	WG1184455
(S) Dibromofluoromethane	*115*			*65.0-129*		*10/23/2018 19:22*	WG1185221
(S) 4-Bromofluorobenzene	*93.4*			*67.0-138*		*10/22/2018 20:17*	WG1184455
(S) 4-Bromofluorobenzene	*121*			*67.0-138*		*10/23/2018 19:22*	WG1185221

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	87.5		1	10/24/2018 13:49	WG1185668

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0157	0.0286	1	10/23/2018 19:42	WG1185221
Acrylonitrile	U		0.00217	0.0143	1	10/22/2018 20:35	WG1184455
Benzene	U		0.000457	0.00114	1	10/22/2018 20:35	WG1184455
Bromobenzene	U		0.00120	0.0143	1	10/22/2018 20:35	WG1184455
Bromodichloromethane	U		0.000901	0.00286	1	10/22/2018 20:35	WG1184455
Bromochloromethane	U		0.00129	0.00571	1	10/22/2018 20:35	WG1184455
Bromoform	U		0.00683	0.0286	1	10/22/2018 20:35	WG1184455
Bromomethane	U		0.00423	0.0143	1	10/22/2018 20:35	WG1184455
n-Butylbenzene	U		0.00439	0.0143	1	10/22/2018 20:35	WG1184455
sec-Butylbenzene	U		0.00289	0.0143	1	10/22/2018 20:35	WG1184455
tert-Butylbenzene	U		0.00177	0.00571	1	10/22/2018 20:35	WG1184455
Carbon disulfide	U		0.00464	0.0143	1	10/22/2018 20:35	WG1184455
Carbon tetrachloride	U		0.00123	0.00571	1	10/22/2018 20:35	WG1184455
Chlorobenzene	U		0.000655	0.00286	1	10/22/2018 20:35	WG1184455
Chlorodibromomethane	U		0.000514	0.00286	1	10/22/2018 20:35	WG1184455
Chloroethane	U		0.00123	0.00571	1	10/22/2018 20:35	WG1184455
Chloroform	0.00122	B J	0.000474	0.00286	1	10/22/2018 20:35	WG1184455
Chloromethane	U		0.00159	0.0143	1	10/22/2018 20:35	WG1184455
2-Chlorotoluene	U		0.00105	0.00286	1	10/22/2018 20:35	WG1184455
4-Chlorotoluene	U		0.00129	0.00571	1	10/22/2018 20:35	WG1184455
1,2-Dibromo-3-Chloropropane	U		0.00583	0.0286	1	10/22/2018 20:35	WG1184455
1,2-Dibromoethane	U		0.000600	0.00286	1	10/22/2018 20:35	WG1184455
Dibromomethane	U		0.00114	0.00571	1	10/22/2018 20:35	WG1184455
1,2-Dichlorobenzene	U		0.00166	0.00571	1	10/22/2018 20:35	WG1184455
1,3-Dichlorobenzene	U		0.00194	0.00571	1	10/22/2018 20:35	WG1184455
1,4-Dichlorobenzene	U		0.00225	0.00571	1	10/22/2018 20:35	WG1184455
Dichlorodifluoromethane	U		0.000935	0.00286	1	10/23/2018 19:42	WG1185221
1,1-Dichloroethane	U		0.000657	0.00286	1	10/22/2018 20:35	WG1184455
1,2-Dichloroethane	U		0.000543	0.00286	1	10/22/2018 20:35	WG1184455
1,1-Dichloroethene	U		0.000571	0.00286	1	10/22/2018 20:35	WG1184455
cis-1,2-Dichloroethene	U		0.000789	0.00286	1	10/22/2018 20:35	WG1184455
trans-1,2-Dichloroethene	U		0.00163	0.00571	1	10/22/2018 20:35	WG1184455
1,2-Dichloropropane	U		0.00145	0.00571	1	10/22/2018 20:35	WG1184455
1,1-Dichloropropene	U		0.000800	0.00286	1	10/22/2018 20:35	WG1184455
1,3-Dichloropropane	U		0.00200	0.00571	1	10/22/2018 20:35	WG1184455
cis-1,3-Dichloropropene	U		0.000775	0.00286	1	10/22/2018 20:35	WG1184455
trans-1,3-Dichloropropene	U	J4	0.00175	0.00571	1	10/22/2018 20:35	WG1184455
trans-1,4-Dichloro-2-butene	U		0.00160	0.00571	1	10/22/2018 20:35	WG1184455
2,2-Dichloropropane	U		0.000906	0.00286	1	10/22/2018 20:35	WG1184455
Di-isopropyl ether	U		0.000400	0.00114	1	10/22/2018 20:35	WG1184455
Ethylbenzene	U		0.000606	0.00286	1	10/22/2018 20:35	WG1184455
Hexachloro-1,3-butadiene	U		0.0145	0.0286	1	10/22/2018 20:35	WG1184455
2-Hexanone	U		0.0114	0.0286	1	10/22/2018 20:35	WG1184455
n-Hexane	U		0.00121	0.00571	1	10/22/2018 20:35	WG1184455
Iodomethane	U		0.00691	0.0143	1	10/22/2018 20:35	WG1184455
Isopropylbenzene	U		0.000986	0.00286	1	10/22/2018 20:35	WG1184455
p-Isopropyltoluene	U		0.00266	0.00571	1	10/22/2018 20:35	WG1184455
2-Butanone (MEK)	U		0.0143	0.0286	1	10/22/2018 20:35	WG1184455
Methylene Chloride	U		0.00759	0.0286	1	10/22/2018 20:35	WG1184455
4-Methyl-2-pentanone (MIBK)	U		0.0114	0.0286	1	10/22/2018 20:35	WG1184455

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

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000337	0.00114	1	10/22/2018 20:35	WG1184455
Naphthalene	U		0.00357	0.0143	1	10/22/2018 20:35	WG1184455
n-Propylbenzene	U		0.00135	0.00571	1	10/22/2018 20:35	WG1184455
Styrene	U		0.00312	0.0143	1	10/22/2018 20:35	WG1184455
1,1,1,2-Tetrachloroethane	U	J4	0.000571	0.00286	1	10/22/2018 20:35	WG1184455
1,1,2,2-Tetrachloroethane	U		0.000446	0.00286	1	10/23/2018 19:42	WG1185221
1,1,2-Trichlorotrifluoroethane	U		0.000771	0.00286	1	10/22/2018 20:35	WG1184455
Tetrachloroethene	0.415		0.000800	0.00286	1	10/22/2018 20:35	WG1184455
Toluene	U		0.00143	0.00571	1	10/22/2018 20:35	WG1184455
1,2,3-Trichlorobenzene	U		0.000714	0.00286	1	10/23/2018 19:42	WG1185221
1,2,4-Trichlorobenzene	U		0.00551	0.0143	1	10/22/2018 20:35	WG1184455
1,1,1-Trichloroethane	U		0.000314	0.00286	1	10/22/2018 20:35	WG1184455
1,1,2-Trichloroethane	U		0.00101	0.00286	1	10/22/2018 20:35	WG1184455
Trichloroethene	0.00376		0.000457	0.00114	1	10/22/2018 20:35	WG1184455
Trichlorofluoromethane	U		0.000571	0.00286	1	10/22/2018 20:35	WG1184455
1,2,3-Trichloropropane	U		0.00583	0.0143	1	10/22/2018 20:35	WG1184455
1,2,4-Trimethylbenzene	U		0.00133	0.00571	1	10/22/2018 20:35	WG1184455
1,2,3-Trimethylbenzene	U		0.00131	0.00571	1	10/22/2018 20:35	WG1184455
1,3,5-Trimethylbenzene	U		0.00123	0.00571	1	10/22/2018 20:35	WG1184455
Vinyl acetate	U		0.00402	0.0143	1	10/22/2018 20:35	WG1184455
Vinyl chloride	U		0.000781	0.00286	1	10/22/2018 20:35	WG1184455
Xylenes, Total	U		0.00546	0.00743	1	10/22/2018 20:35	WG1184455
(S) Toluene-d8	*105*			*75.0-131*		*10/22/2018 20:35*	WG1184455
(S) Toluene-d8	*98.5*			*75.0-131*		*10/23/2018 19:42*	WG1185221
(S) Dibromofluoromethane	*94.0*			*65.0-129*		*10/22/2018 20:35*	WG1184455
(S) Dibromofluoromethane	*116*			*65.0-129*		*10/23/2018 19:42*	WG1185221
(S) 4-Bromofluorobenzene	*94.0*			*67.0-138*		*10/22/2018 20:35*	WG1184455
(S) 4-Bromofluorobenzene	*120*			*67.0-138*		*10/23/2018 19:42*	WG1185221

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	90.8		1	10/24/2018 13:49	WG1185668

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0151	0.0275	1	10/23/2018 20:02	WG1185221
Acrylonitrile	U		0.00209	0.0138	1	10/22/2018 20:54	WG1184455
Benzene	U		0.000441	0.00110	1	10/22/2018 20:54	WG1184455
Bromobenzene	U		0.00116	0.0138	1	10/22/2018 20:54	WG1184455
Bromodichloromethane	U		0.000868	0.00275	1	10/22/2018 20:54	WG1184455
Bromochloromethane	U		0.00124	0.00551	1	10/22/2018 20:54	WG1184455
Bromoform	U		0.00659	0.0275	1	10/22/2018 20:54	WG1184455
Bromomethane	U		0.00408	0.0138	1	10/22/2018 20:54	WG1184455
n-Butylbenzene	U		0.00423	0.0138	1	10/22/2018 20:54	WG1184455
sec-Butylbenzene	U		0.00279	0.0138	1	10/22/2018 20:54	WG1184455
tert-Butylbenzene	U		0.00171	0.00551	1	10/22/2018 20:54	WG1184455
Carbon disulfide	U		0.00447	0.0138	1	10/22/2018 20:54	WG1184455
Carbon tetrachloride	U		0.00119	0.00551	1	10/22/2018 20:54	WG1184455
Chlorobenzene	U		0.000631	0.00275	1	10/22/2018 20:54	WG1184455
Chlorodibromomethane	U		0.000496	0.00275	1	10/22/2018 20:54	WG1184455
Chloroethane	U		0.00119	0.00551	1	10/22/2018 20:54	WG1184455
Chloroform	U		0.000457	0.00275	1	10/22/2018 20:54	WG1184455
Chloromethane	U		0.00153	0.0138	1	10/22/2018 20:54	WG1184455
2-Chlorotoluene	U		0.00101	0.00275	1	10/22/2018 20:54	WG1184455
4-Chlorotoluene	U		0.00124	0.00551	1	10/22/2018 20:54	WG1184455
1,2-Dibromo-3-Chloropropane	U		0.00562	0.0275	1	10/22/2018 20:54	WG1184455
1,2-Dibromoethane	U		0.000578	0.00275	1	10/22/2018 20:54	WG1184455
Dibromomethane	U		0.00110	0.00551	1	10/22/2018 20:54	WG1184455
1,2-Dichlorobenzene	U		0.00160	0.00551	1	10/22/2018 20:54	WG1184455
1,3-Dichlorobenzene	U		0.00187	0.00551	1	10/22/2018 20:54	WG1184455
1,4-Dichlorobenzene	U		0.00217	0.00551	1	10/22/2018 20:54	WG1184455
Dichlorodifluoromethane	U		0.000901	0.00275	1	10/23/2018 20:02	WG1185221
1,1-Dichloroethane	U		0.000633	0.00275	1	10/22/2018 20:54	WG1184455
1,2-Dichloroethane	U		0.000523	0.00275	1	10/22/2018 20:54	WG1184455
1,1-Dichloroethene	U		0.000551	0.00275	1	10/22/2018 20:54	WG1184455
cis-1,2-Dichloroethene	U		0.000760	0.00275	1	10/22/2018 20:54	WG1184455
trans-1,2-Dichloroethene	U		0.00158	0.00551	1	10/22/2018 20:54	WG1184455
1,2-Dichloropropane	U		0.00140	0.00551	1	10/22/2018 20:54	WG1184455
1,1-Dichloropropene	U		0.000771	0.00275	1	10/22/2018 20:54	WG1184455
1,3-Dichloropropane	U		0.00193	0.00551	1	10/22/2018 20:54	WG1184455
cis-1,3-Dichloropropene	U		0.000747	0.00275	1	10/22/2018 20:54	WG1184455
trans-1,3-Dichloropropene	U	J4	0.00169	0.00551	1	10/22/2018 20:54	WG1184455
trans-1,4-Dichloro-2-butene	U		0.00154	0.00551	1	10/22/2018 20:54	WG1184455
2,2-Dichloropropane	U		0.000874	0.00275	1	10/22/2018 20:54	WG1184455
Di-isopropyl ether	U		0.000386	0.00110	1	10/22/2018 20:54	WG1184455
Ethylbenzene	U		0.000584	0.00275	1	10/22/2018 20:54	WG1184455
Hexachloro-1,3-butadiene	U		0.0140	0.0275	1	10/22/2018 20:54	WG1184455
2-Hexanone	U		0.0110	0.0275	1	10/22/2018 20:54	WG1184455
n-Hexane	U		0.00117	0.00551	1	10/23/2018 20:02	WG1185221
Iodomethane	U		0.00667	0.0138	1	10/22/2018 20:54	WG1184455
Isopropylbenzene	U		0.000951	0.00275	1	10/22/2018 20:54	WG1184455
p-Isopropyltoluene	U		0.00257	0.00551	1	10/22/2018 20:54	WG1184455
2-Butanone (MEK)	0.0274	J	0.0138	0.0275	1	10/22/2018 20:54	WG1184455
Methylene Chloride	U		0.00732	0.0275	1	10/22/2018 20:54	WG1184455
4-Methyl-2-pentanone (MIBK)	U		0.0110	0.0275	1	10/22/2018 20:54	WG1184455

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000325	0.00110	1	10/22/2018 20:54	WG1184455
Naphthalene	U		0.00344	0.0138	1	10/22/2018 20:54	WG1184455
n-Propylbenzene	U		0.00130	0.00551	1	10/22/2018 20:54	WG1184455
Styrene	U		0.00301	0.0138	1	10/22/2018 20:54	WG1184455
1,1,1,2-Tetrachloroethane	U	J4	0.000551	0.00275	1	10/22/2018 20:54	WG1184455
1,1,2,2-Tetrachloroethane	U		0.000430	0.00275	1	10/23/2018 20:02	WG1185221
1,1,2-Trichlorotrifluoroethane	U		0.000744	0.00275	1	10/22/2018 20:54	WG1184455
Tetrachloroethene	1.29		0.000771	0.00275	1	10/22/2018 20:54	WG1184455
Toluene	U		0.00138	0.00551	1	10/22/2018 20:54	WG1184455
1,2,3-Trichlorobenzene	U		0.000689	0.00275	1	10/23/2018 20:02	WG1185221
1,2,4-Trichlorobenzene	U		0.00531	0.0138	1	10/22/2018 20:54	WG1184455
1,1,1-Trichloroethane	U		0.000303	0.00275	1	10/22/2018 20:54	WG1184455
1,1,2-Trichloroethane	U		0.000973	0.00275	1	10/22/2018 20:54	WG1184455
Trichloroethene	0.00533		0.000441	0.00110	1	10/22/2018 20:54	WG1184455
Trichlorofluoromethane	U		0.000551	0.00275	1	10/22/2018 20:54	WG1184455
1,2,3-Trichloropropane	U		0.00562	0.0138	1	10/22/2018 20:54	WG1184455
1,2,4-Trimethylbenzene	U		0.00128	0.00551	1	10/22/2018 20:54	WG1184455
1,2,3-Trimethylbenzene	U		0.00127	0.00551	1	10/22/2018 20:54	WG1184455
1,3,5-Trimethylbenzene	U		0.00119	0.00551	1	10/22/2018 20:54	WG1184455
Vinyl acetate	U		0.00388	0.0138	1	10/22/2018 20:54	WG1184455
Vinyl chloride	U		0.000752	0.00275	1	10/22/2018 20:54	WG1184455
Xylenes, Total	U		0.00527	0.00716	1	10/22/2018 20:54	WG1184455
(S) Toluene-d8	*105*			*75.0-131*		*10/22/2018 20:54*	WG1184455
(S) Toluene-d8	*98.9*			*75.0-131*		*10/23/2018 20:02*	WG1185221
(S) Dibromofluoromethane	*94.7*			*65.0-129*		*10/22/2018 20:54*	WG1184455
(S) Dibromofluoromethane	*113*			*65.0-129*		*10/23/2018 20:02*	WG1185221
(S) 4-Bromofluorobenzene	*93.5*			*67.0-138*		*10/22/2018 20:54*	WG1184455
(S) 4-Bromofluorobenzene	*119*			*67.0-138*		*10/23/2018 20:02*	WG1185221

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	86.0		1	10/24/2018 13:49	WG1185668

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0159	0.0291	1	10/23/2018 20:22	WG1185221
Acrylonitrile	U		0.00221	0.0145	1	10/22/2018 21:12	WG1184455
Benzene	U		0.000465	0.00116	1	10/22/2018 21:12	WG1184455
Bromobenzene	U		0.00122	0.0145	1	10/22/2018 21:12	WG1184455
Bromodichloromethane	U		0.000917	0.00291	1	10/22/2018 21:12	WG1184455
Bromochloromethane	U		0.00131	0.00582	1	10/22/2018 21:12	WG1184455
Bromoform	U		0.00696	0.0291	1	10/22/2018 21:12	WG1184455
Bromomethane	U		0.00430	0.0145	1	10/22/2018 21:12	WG1184455
n-Butylbenzene	U		0.00447	0.0145	1	10/22/2018 21:12	WG1184455
sec-Butylbenzene	U		0.00294	0.0145	1	10/22/2018 21:12	WG1184455
tert-Butylbenzene	U		0.00180	0.00582	1	10/22/2018 21:12	WG1184455
Carbon disulfide	U		0.00472	0.0145	1	10/22/2018 21:12	WG1184455
Carbon tetrachloride	U		0.00126	0.00582	1	10/22/2018 21:12	WG1184455
Chlorobenzene	U		0.000667	0.00291	1	10/22/2018 21:12	WG1184455
Chlorodibromomethane	U		0.000524	0.00291	1	10/22/2018 21:12	WG1184455
Chloroethane	U		0.00126	0.00582	1	10/22/2018 21:12	WG1184455
Chloroform	0.00152	B J	0.000483	0.00291	1	10/22/2018 21:12	WG1184455
Chloromethane	U		0.00162	0.0145	1	10/22/2018 21:12	WG1184455
2-Chlorotoluene	U		0.00107	0.00291	1	10/22/2018 21:12	WG1184455
4-Chlorotoluene	U		0.00131	0.00582	1	10/22/2018 21:12	WG1184455
1,2-Dibromo-3-Chloropropane	U		0.00593	0.0291	1	10/22/2018 21:12	WG1184455
1,2-Dibromoethane	U		0.000611	0.00291	1	10/22/2018 21:12	WG1184455
Dibromomethane	U		0.00116	0.00582	1	10/22/2018 21:12	WG1184455
1,2-Dichlorobenzene	U		0.00169	0.00582	1	10/22/2018 21:12	WG1184455
1,3-Dichlorobenzene	U		0.00198	0.00582	1	10/22/2018 21:12	WG1184455
1,4-Dichlorobenzene	U		0.00229	0.00582	1	10/22/2018 21:12	WG1184455
Dichlorodifluoromethane	U		0.000952	0.00291	1	10/23/2018 20:22	WG1185221
1,1-Dichloroethane	U		0.000669	0.00291	1	10/22/2018 21:12	WG1184455
1,2-Dichloroethane	U		0.000553	0.00291	1	10/22/2018 21:12	WG1184455
1,1-Dichloroethene	U		0.000582	0.00291	1	10/22/2018 21:12	WG1184455
cis-1,2-Dichloroethene	0.000940	J	0.000803	0.00291	1	10/23/2018 20:22	WG1185221
trans-1,2-Dichloroethene	U		0.00166	0.00582	1	10/22/2018 21:12	WG1184455
1,2-Dichloropropane	U		0.00148	0.00582	1	10/22/2018 21:12	WG1184455
1,1-Dichloropropene	U		0.000814	0.00291	1	10/22/2018 21:12	WG1184455
1,3-Dichloropropane	U		0.00204	0.00582	1	10/22/2018 21:12	WG1184455
cis-1,3-Dichloropropene	U		0.000789	0.00291	1	10/22/2018 21:12	WG1184455
trans-1,3-Dichloropropene	U	J4	0.00178	0.00582	1	10/22/2018 21:12	WG1184455
trans-1,4-Dichloro-2-butene	U		0.00163	0.00582	1	10/22/2018 21:12	WG1184455
2,2-Dichloropropane	U		0.000923	0.00291	1	10/22/2018 21:12	WG1184455
Di-isopropyl ether	U		0.000407	0.00116	1	10/22/2018 21:12	WG1184455
Ethylbenzene	U		0.000617	0.00291	1	10/22/2018 21:12	WG1184455
Hexachloro-1,3-butadiene	U		0.0148	0.0291	1	10/22/2018 21:12	WG1184455
2-Hexanone	U		0.0116	0.0291	1	10/22/2018 21:12	WG1184455
n-Hexane	U		0.00123	0.00582	1	10/23/2018 20:22	WG1185221
Iodomethane	U		0.00704	0.0145	1	10/22/2018 21:12	WG1184455
Isopropylbenzene	U		0.00100	0.00291	1	10/22/2018 21:12	WG1184455
p-Isopropyltoluene	U		0.00271	0.00582	1	10/22/2018 21:12	WG1184455
2-Butanone (MEK)	0.0402		0.0145	0.0291	1	10/22/2018 21:12	WG1184455
Methylene Chloride	U		0.00773	0.0291	1	10/22/2018 21:12	WG1184455
4-Methyl-2-pentanone (MIBK)	U		0.0116	0.0291	1	10/22/2018 21:12	WG1184455

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000343	0.00116	1	10/22/2018 21:12	WG1184455
Naphthalene	U		0.00363	0.0145	1	10/22/2018 21:12	WG1184455
n-Propylbenzene	U		0.00137	0.00582	1	10/22/2018 21:12	WG1184455
Styrene	U		0.00318	0.0145	1	10/22/2018 21:12	WG1184455
1,1,1,2-Tetrachloroethane	U	J4	0.000582	0.00291	1	10/22/2018 21:12	WG1184455
1,1,2,2-Tetrachloroethane	U		0.000454	0.00291	1	10/23/2018 20:22	WG1185221
1,1,2-Trichlorotrifluoroethane	U		0.000785	0.00291	1	10/22/2018 21:12	WG1184455
Tetrachloroethene	0.663		0.000814	0.00291	1	10/22/2018 21:12	WG1184455
Toluene	U		0.00145	0.00582	1	10/22/2018 21:12	WG1184455
1,2,3-Trichlorobenzene	U		0.000727	0.00291	1	10/23/2018 20:22	WG1185221
1,2,4-Trichlorobenzene	U		0.00561	0.0145	1	10/22/2018 21:12	WG1184455
1,1,1-Trichloroethane	U		0.000320	0.00291	1	10/22/2018 21:12	WG1184455
1,1,2-Trichloroethane	U		0.00103	0.00291	1	10/22/2018 21:12	WG1184455
Trichloroethene	0.00852		0.000465	0.00116	1	10/22/2018 21:12	WG1184455
Trichlorofluoromethane	U		0.000582	0.00291	1	10/22/2018 21:12	WG1184455
1,2,3-Trichloropropane	U		0.00593	0.0145	1	10/22/2018 21:12	WG1184455
1,2,4-Trimethylbenzene	U		0.00135	0.00582	1	10/22/2018 21:12	WG1184455
1,2,3-Trimethylbenzene	U		0.00134	0.00582	1	10/22/2018 21:12	WG1184455
1,3,5-Trimethylbenzene	U		0.00126	0.00582	1	10/22/2018 21:12	WG1184455
Vinyl acetate	U		0.00410	0.0145	1	10/22/2018 21:12	WG1184455
Vinyl chloride	0.00303		0.000795	0.00291	1	10/22/2018 21:12	WG1184455
Xylenes, Total	U		0.00556	0.00756	1	10/22/2018 21:12	WG1184455
(S) Toluene-d8	*105*			*75.0-131*		*10/22/2018 21:12*	WG1184455
(S) Toluene-d8	*99.2*			*75.0-131*		*10/23/2018 20:22*	WG1185221
(S) Dibromofluoromethane	*94.0*			*65.0-129*		*10/22/2018 21:12*	WG1184455
(S) Dibromofluoromethane	*114*			*65.0-129*		*10/23/2018 20:22*	WG1185221
(S) 4-Bromofluorobenzene	*94.5*			*67.0-138*		*10/22/2018 21:12*	WG1184455
(S) 4-Bromofluorobenzene	*121*			*67.0-138*		*10/23/2018 20:22*	WG1185221

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	89.1		1	10/24/2018 13:49	WG1185668

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0154	0.0281	1	10/24/2018 13:12	WG1185319
Acrylonitrile	U		0.00213	0.0140	1	10/22/2018 18:41	WG1184727
Benzene	0.00115		0.000449	0.00112	1	10/22/2018 18:41	WG1184727
Bromobenzene	U		0.00118	0.0140	1	10/22/2018 18:41	WG1184727
Bromodichloromethane	U		0.000885	0.00281	1	10/22/2018 18:41	WG1184727
Bromochloromethane	U		0.00127	0.00561	1	10/22/2018 18:41	WG1184727
Bromoform	U		0.00671	0.0281	1	10/22/2018 18:41	WG1184727
Bromomethane	U		0.00415	0.0140	1	10/22/2018 18:41	WG1184727
n-Butylbenzene	U		0.00431	0.0140	1	10/22/2018 18:41	WG1184727
sec-Butylbenzene	U		0.00284	0.0140	1	10/22/2018 18:41	WG1184727
tert-Butylbenzene	U		0.00174	0.00561	1	10/22/2018 18:41	WG1184727
Carbon disulfide	U		0.00456	0.0140	1	10/22/2018 18:41	WG1184727
Carbon tetrachloride	U		0.00121	0.00561	1	10/22/2018 18:41	WG1184727
Chlorobenzene	U		0.000643	0.00281	1	10/22/2018 18:41	WG1184727
Chlorodibromomethane	U		0.000505	0.00281	1	10/22/2018 18:41	WG1184727
Chloroethane	U		0.00121	0.00561	1	10/22/2018 18:41	WG1184727
Chloroform	0.00127	B J	0.000466	0.00281	1	10/22/2018 18:41	WG1184727
Chloromethane	U		0.00156	0.0140	1	10/22/2018 18:41	WG1184727
2-Chlorotoluene	U		0.00103	0.00281	1	10/22/2018 18:41	WG1184727
4-Chlorotoluene	U		0.00127	0.00561	1	10/22/2018 18:41	WG1184727
1,2-Dibromo-3-Chloropropane	U		0.00573	0.0281	1	10/22/2018 18:41	WG1184727
1,2-Dibromoethane	U		0.000589	0.00281	1	10/22/2018 18:41	WG1184727
Dibromomethane	U		0.00112	0.00561	1	10/22/2018 18:41	WG1184727
1,2-Dichlorobenzene	U		0.00163	0.00561	1	10/22/2018 18:41	WG1184727
1,3-Dichlorobenzene	U		0.00191	0.00561	1	10/22/2018 18:41	WG1184727
1,4-Dichlorobenzene	U		0.00221	0.00561	1	10/22/2018 18:41	WG1184727
Dichlorodifluoromethane	U		0.000918	0.00281	1	10/22/2018 18:41	WG1184727
1,1-Dichloroethane	U		0.000645	0.00281	1	10/22/2018 18:41	WG1184727
1,2-Dichloroethane	U		0.000533	0.00281	1	10/22/2018 18:41	WG1184727
1,1-Dichloroethene	U		0.000561	0.00281	1	10/22/2018 18:41	WG1184727
cis-1,2-Dichloroethene	0.00250	J	0.000775	0.00281	1	10/22/2018 18:41	WG1184727
trans-1,2-Dichloroethene	U		0.00161	0.00561	1	10/22/2018 18:41	WG1184727
1,2-Dichloropropane	U		0.00143	0.00561	1	10/24/2018 13:12	WG1185319
1,1-Dichloropropene	U		0.000786	0.00281	1	10/22/2018 18:41	WG1184727
1,3-Dichloropropane	U		0.00196	0.00561	1	10/22/2018 18:41	WG1184727
cis-1,3-Dichloropropene	U		0.000761	0.00281	1	10/22/2018 18:41	WG1184727
trans-1,3-Dichloropropene	U		0.00172	0.00561	1	10/22/2018 18:41	WG1184727
trans-1,4-Dichloro-2-butene	U		0.00157	0.00561	1	10/22/2018 18:41	WG1184727
2,2-Dichloropropane	U		0.000890	0.00281	1	10/22/2018 18:41	WG1184727
Di-isopropyl ether	U		0.000393	0.00112	1	10/22/2018 18:41	WG1184727
Ethylbenzene	U		0.000595	0.00281	1	10/22/2018 18:41	WG1184727
Hexachloro-1,3-butadiene	U		0.0143	0.0281	1	10/22/2018 18:41	WG1184727
2-Hexanone	U		0.0112	0.0281	1	10/22/2018 18:41	WG1184727
n-Hexane	U		0.00119	0.00561	1	10/24/2018 13:12	WG1185319
Iodomethane	U		0.00679	0.0140	1	10/22/2018 18:41	WG1184727
Isopropylbenzene	U		0.000969	0.00281	1	10/22/2018 18:41	WG1184727
p-Isopropyltoluene	U		0.00262	0.00561	1	10/22/2018 18:41	WG1184727
2-Butanone (MEK)	0.0297		0.0140	0.0281	1	10/24/2018 13:12	WG1185319
Methylene Chloride	U		0.00745	0.0281	1	10/22/2018 18:41	WG1184727
4-Methyl-2-pentanone (MIBK)	U		0.0112	0.0281	1	10/22/2018 18:41	WG1184727

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000331	0.00112	1	10/22/2018 18:41	WG1184727
Naphthalene	U		0.00350	0.0140	1	10/22/2018 18:41	WG1184727
n-Propylbenzene	U		0.00132	0.00561	1	10/22/2018 18:41	WG1184727
Styrene	U		0.00306	0.0140	1	10/22/2018 18:41	WG1184727
1,1,1,2-Tetrachloroethane	U		0.000561	0.00281	1	10/22/2018 18:41	WG1184727
1,1,2,2-Tetrachloroethane	U		0.000438	0.00281	1	10/22/2018 18:41	WG1184727
1,1,2-Trichlorotrifluoroethane	U		0.000758	0.00281	1	10/22/2018 18:41	WG1184727
Tetrachloroethene	0.199		0.000786	0.00281	1	10/22/2018 18:41	WG1184727
Toluene	0.00291	J	0.00140	0.00561	1	10/22/2018 18:41	WG1184727
1,2,3-Trichlorobenzene	U		0.000702	0.00281	1	10/22/2018 18:41	WG1184727
1,2,4-Trichlorobenzene	U		0.00541	0.0140	1	10/22/2018 18:41	WG1184727
1,1,1-Trichloroethane	U		0.000309	0.00281	1	10/22/2018 18:41	WG1184727
1,1,2-Trichloroethane	U		0.000991	0.00281	1	10/24/2018 13:12	WG1185319
Trichloroethene	0.00250		0.000449	0.00112	1	10/22/2018 18:41	WG1184727
Trichlorofluoromethane	U		0.000561	0.00281	1	10/22/2018 18:41	WG1184727
1,2,3-Trichloropropane	U		0.00573	0.0140	1	10/22/2018 18:41	WG1184727
1,2,4-Trimethylbenzene	U		0.00130	0.00561	1	10/22/2018 18:41	WG1184727
1,2,3-Trimethylbenzene	U		0.00129	0.00561	1	10/22/2018 18:41	WG1184727
1,3,5-Trimethylbenzene	U		0.00121	0.00561	1	10/22/2018 18:41	WG1184727
Vinyl acetate	U		0.00395	0.0140	1	10/22/2018 18:41	WG1184727
Vinyl chloride	U		0.000767	0.00281	1	10/22/2018 18:41	WG1184727
Xylenes, Total	U		0.00537	0.00730	1	10/22/2018 18:41	WG1184727
(S) Toluene-d8	*123*			*75.0-131*		*10/22/2018 18:41*	WG1184727
(S) Toluene-d8	*97.1*			*75.0-131*		*10/24/2018 13:12*	WG1185319
(S) Dibromofluoromethane	*92.5*			*65.0-129*		*10/22/2018 18:41*	WG1184727
(S) Dibromofluoromethane	*115*			*65.0-129*		*10/24/2018 13:12*	WG1185319
(S) 4-Bromofluorobenzene	*86.2*			*67.0-138*		*10/22/2018 18:41*	WG1184727
(S) 4-Bromofluorobenzene	*122*			*67.0-138*		*10/24/2018 13:12*	WG1185319

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	83.8		1	10/24/2018 13:49	WG1185668

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0163	0.0298	1	10/24/2018 13:31	WG1185319
Acrylonitrile	U		0.00227	0.0149	1	10/22/2018 19:02	WG1184727
Benzene	U		0.000477	0.00119	1	10/22/2018 19:02	WG1184727
Bromobenzene	U		0.00125	0.0149	1	10/22/2018 19:02	WG1184727
Bromodichloromethane	U		0.000940	0.00298	1	10/22/2018 19:02	WG1184727
Bromochloromethane	U		0.00135	0.00597	1	10/22/2018 19:02	WG1184727
Bromoform	U		0.00714	0.0298	1	10/22/2018 19:02	WG1184727
Bromomethane	U		0.00442	0.0149	1	10/22/2018 19:02	WG1184727
n-Butylbenzene	U		0.00458	0.0149	1	10/22/2018 19:02	WG1184727
sec-Butylbenzene	U		0.00302	0.0149	1	10/22/2018 19:02	WG1184727
tert-Butylbenzene	U		0.00185	0.00597	1	10/22/2018 19:02	WG1184727
Carbon disulfide	U		0.00485	0.0149	1	10/22/2018 19:02	WG1184727
Carbon tetrachloride	U		0.00129	0.00597	1	10/22/2018 19:02	WG1184727
Chlorobenzene	U		0.000684	0.00298	1	10/22/2018 19:02	WG1184727
Chlorodibromomethane	U		0.000537	0.00298	1	10/22/2018 19:02	WG1184727
Chloroethane	U		0.00129	0.00597	1	10/22/2018 19:02	WG1184727
Chloroform	0.00162	B J	0.000495	0.00298	1	10/22/2018 19:02	WG1184727
Chloromethane	U		0.00166	0.0149	1	10/22/2018 19:02	WG1184727
2-Chlorotoluene	U		0.00110	0.00298	1	10/22/2018 19:02	WG1184727
4-Chlorotoluene	U		0.00135	0.00597	1	10/22/2018 19:02	WG1184727
1,2-Dibromo-3-Chloropropane	U		0.00609	0.0298	1	10/22/2018 19:02	WG1184727
1,2-Dibromoethane	U		0.000627	0.00298	1	10/22/2018 19:02	WG1184727
Dibromomethane	U		0.00119	0.00597	1	10/22/2018 19:02	WG1184727
1,2-Dichlorobenzene	U		0.00173	0.00597	1	10/22/2018 19:02	WG1184727
1,3-Dichlorobenzene	U		0.00203	0.00597	1	10/22/2018 19:02	WG1184727
1,4-Dichlorobenzene	U		0.00235	0.00597	1	10/22/2018 19:02	WG1184727
Dichlorodifluoromethane	U		0.000976	0.00298	1	10/22/2018 19:02	WG1184727
1,1-Dichloroethane	U		0.000686	0.00298	1	10/22/2018 19:02	WG1184727
1,2-Dichloroethane	U		0.000567	0.00298	1	10/22/2018 19:02	WG1184727
1,1-Dichloroethene	U		0.000597	0.00298	1	10/22/2018 19:02	WG1184727
cis-1,2-Dichloroethene	0.00118	J	0.000823	0.00298	1	10/22/2018 19:02	WG1184727
trans-1,2-Dichloroethene	U		0.00171	0.00597	1	10/22/2018 19:02	WG1184727
1,2-Dichloropropane	U		0.00152	0.00597	1	10/24/2018 13:31	WG1185319
1,1-Dichloropropene	U		0.000835	0.00298	1	10/22/2018 19:02	WG1184727
1,3-Dichloropropane	U		0.00209	0.00597	1	10/22/2018 19:02	WG1184727
cis-1,3-Dichloropropene	U		0.000809	0.00298	1	10/22/2018 19:02	WG1184727
trans-1,3-Dichloropropene	U		0.00183	0.00597	1	10/22/2018 19:02	WG1184727
trans-1,4-Dichloro-2-butene	U		0.00167	0.00597	1	10/22/2018 19:02	WG1184727
2,2-Dichloropropane	U		0.000946	0.00298	1	10/22/2018 19:02	WG1184727
Di-isopropyl ether	U		0.000418	0.00119	1	10/22/2018 19:02	WG1184727
Ethylbenzene	U		0.000632	0.00298	1	10/22/2018 19:02	WG1184727
Hexachloro-1,3-butadiene	U		0.0152	0.0298	1	10/22/2018 19:02	WG1184727
2-Hexanone	U		0.0119	0.0298	1	10/22/2018 19:02	WG1184727
n-Hexane	U		0.00126	0.00597	1	10/24/2018 13:31	WG1185319
Iodomethane	U		0.00722	0.0149	1	10/22/2018 19:02	WG1184727
Isopropylbenzene	U		0.00103	0.00298	1	10/22/2018 19:02	WG1184727
p-Isopropyltoluene	U		0.00278	0.00597	1	10/22/2018 19:02	WG1184727
2-Butanone (MEK)	0.0676		0.0149	0.0298	1	10/24/2018 13:31	WG1185319
Methylene Chloride	U		0.00792	0.0298	1	10/22/2018 19:02	WG1184727
4-Methyl-2-pentanone (MIBK)	U		0.0119	0.0298	1	10/22/2018 19:02	WG1184727

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

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000352	0.00119	1	10/22/2018 19:02	WG1184727
Naphthalene	U		0.00372	0.0149	1	10/22/2018 19:02	WG1184727
n-Propylbenzene	U		0.00141	0.00597	1	10/22/2018 19:02	WG1184727
Styrene	U		0.00326	0.0149	1	10/22/2018 19:02	WG1184727
1,1,1,2-Tetrachloroethane	U		0.000597	0.00298	1	10/22/2018 19:02	WG1184727
1,1,2,2-Tetrachloroethane	U		0.000465	0.00298	1	10/22/2018 19:02	WG1184727
1,1,2-Trichlorotrifluoroethane	U		0.000806	0.00298	1	10/22/2018 19:02	WG1184727
Tetrachloroethene	0.154		0.000835	0.00298	1	10/22/2018 19:02	WG1184727
Toluene	0.00150	J	0.00149	0.00597	1	10/22/2018 19:02	WG1184727
1,2,3-Trichlorobenzene	U		0.000746	0.00298	1	10/22/2018 19:02	WG1184727
1,2,4-Trichlorobenzene	U		0.00575	0.0149	1	10/22/2018 19:02	WG1184727
1,1,1-Trichloroethane	U		0.000328	0.00298	1	10/22/2018 19:02	WG1184727
1,1,2-Trichloroethane	U		0.00105	0.00298	1	10/24/2018 13:31	WG1185319
Trichloroethene	0.00198		0.000477	0.00119	1	10/22/2018 19:02	WG1184727
Trichlorofluoromethane	U		0.000597	0.00298	1	10/22/2018 19:02	WG1184727
1,2,3-Trichloropropane	U		0.00609	0.0149	1	10/22/2018 19:02	WG1184727
1,2,4-Trimethylbenzene	U		0.00138	0.00597	1	10/22/2018 19:02	WG1184727
1,2,3-Trimethylbenzene	U		0.00137	0.00597	1	10/22/2018 19:02	WG1184727
1,3,5-Trimethylbenzene	U		0.00129	0.00597	1	10/22/2018 19:02	WG1184727
Vinyl acetate	U		0.00420	0.0149	1	10/22/2018 19:02	WG1184727
Vinyl chloride	U		0.000815	0.00298	1	10/22/2018 19:02	WG1184727
Xylenes, Total	U		0.00570	0.00776	1	10/22/2018 19:02	WG1184727
(S) Toluene-d8	*123*			*75.0-131*		*10/22/2018 19:02*	WG1184727
(S) Toluene-d8	*99.1*			*75.0-131*		*10/24/2018 13:31*	WG1185319
(S) Dibromofluoromethane	*95.1*			*65.0-129*		*10/22/2018 19:02*	WG1184727
(S) Dibromofluoromethane	*116*			*65.0-129*		*10/24/2018 13:31*	WG1185319
(S) 4-Bromofluorobenzene	*89.5*			*67.0-138*		*10/22/2018 19:02*	WG1184727
(S) 4-Bromofluorobenzene	*121*			*67.0-138*		*10/24/2018 13:31*	WG1185319

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	86.3		1	10/24/2018 13:49	WG1185668

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.159	0.290	10	10/24/2018 16:11	WG1185319
Acrylonitrile	U		0.00220	0.0145	1	10/22/2018 19:22	WG1184727
Benzene	U		0.000464	0.00116	1	10/22/2018 19:22	WG1184727
Bromobenzene	U		0.00122	0.0145	1	10/22/2018 19:22	WG1184727
Bromodichloromethane	U		0.000913	0.00290	1	10/22/2018 19:22	WG1184727
Bromochloromethane	U		0.00131	0.00579	1	10/22/2018 19:22	WG1184727
Bromoform	U		0.00693	0.0290	1	10/22/2018 19:22	WG1184727
Bromomethane	U		0.00429	0.0145	1	10/22/2018 19:22	WG1184727
n-Butylbenzene	U		0.00445	0.0145	1	10/22/2018 19:22	WG1184727
sec-Butylbenzene	U		0.00293	0.0145	1	10/22/2018 19:22	WG1184727
tert-Butylbenzene	U		0.00180	0.00579	1	10/22/2018 19:22	WG1184727
Carbon disulfide	U		0.00470	0.0145	1	10/22/2018 19:22	WG1184727
Carbon tetrachloride	U		0.00125	0.00579	1	10/22/2018 19:22	WG1184727
Chlorobenzene	U		0.000664	0.00290	1	10/22/2018 19:22	WG1184727
Chlorodibromomethane	U		0.000521	0.00290	1	10/22/2018 19:22	WG1184727
Chloroethane	U		0.00125	0.00579	1	10/22/2018 19:22	WG1184727
Chloroform	0.00111	B J	0.000481	0.00290	1	10/22/2018 19:22	WG1184727
Chloromethane	U		0.00161	0.0145	1	10/22/2018 19:22	WG1184727
2-Chlorotoluene	U		0.00107	0.00290	1	10/22/2018 19:22	WG1184727
4-Chlorotoluene	U		0.00131	0.00579	1	10/22/2018 19:22	WG1184727
1,2-Dibromo-3-Chloropropane	U		0.00591	0.0290	1	10/22/2018 19:22	WG1184727
1,2-Dibromoethane	U		0.000608	0.00290	1	10/22/2018 19:22	WG1184727
Dibromomethane	U		0.00116	0.00579	1	10/22/2018 19:22	WG1184727
1,2-Dichlorobenzene	U		0.00168	0.00579	1	10/22/2018 19:22	WG1184727
1,3-Dichlorobenzene	U		0.00197	0.00579	1	10/22/2018 19:22	WG1184727
1,4-Dichlorobenzene	U		0.00228	0.00579	1	10/22/2018 19:22	WG1184727
Dichlorodifluoromethane	U		0.000948	0.00290	1	10/22/2018 19:22	WG1184727
1,1-Dichloroethane	U		0.000666	0.00290	1	10/22/2018 19:22	WG1184727
1,2-Dichloroethane	U		0.000550	0.00290	1	10/22/2018 19:22	WG1184727
1,1-Dichloroethene	U		0.000579	0.00290	1	10/22/2018 19:22	WG1184727
cis-1,2-Dichloroethene	0.00391		0.000800	0.00290	1	10/22/2018 19:22	WG1184727
trans-1,2-Dichloroethene	U		0.00166	0.00579	1	10/22/2018 19:22	WG1184727
1,2-Dichloropropane	U		0.0147	0.0579	10	10/24/2018 16:11	WG1185319
1,1-Dichloropropene	U		0.000811	0.00290	1	10/22/2018 19:22	WG1184727
1,3-Dichloropropane	U		0.00203	0.00579	1	10/22/2018 19:22	WG1184727
cis-1,3-Dichloropropene	U		0.000786	0.00290	1	10/22/2018 19:22	WG1184727
trans-1,3-Dichloropropene	U		0.00177	0.00579	1	10/22/2018 19:22	WG1184727
trans-1,4-Dichloro-2-butene	U		0.00162	0.00579	1	10/22/2018 19:22	WG1184727
2,2-Dichloropropane	U		0.000919	0.00290	1	10/22/2018 19:22	WG1184727
Di-isopropyl ether	U		0.000406	0.00116	1	10/22/2018 19:22	WG1184727
Ethylbenzene	U		0.000614	0.00290	1	10/22/2018 19:22	WG1184727
Hexachloro-1,3-butadiene	U		0.0147	0.0290	1	10/22/2018 19:22	WG1184727
2-Hexanone	U		0.0116	0.0290	1	10/22/2018 19:22	WG1184727
n-Hexane	U		0.0123	0.0579	10	10/24/2018 16:11	WG1185319
Iodomethane	U		0.00701	0.0145	1	10/22/2018 19:22	WG1184727
Isopropylbenzene	U		0.00100	0.00290	1	10/22/2018 19:22	WG1184727
p-Isopropyltoluene	U		0.00270	0.00579	1	10/22/2018 19:22	WG1184727
2-Butanone (MEK)	U		0.145	0.290	10	10/24/2018 16:11	WG1185319
Methylene Chloride	U		0.00769	0.0290	1	10/22/2018 19:22	WG1184727
4-Methyl-2-pentanone (MIBK)	U		0.0116	0.0290	1	10/22/2018 19:22	WG1184727

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000342	0.00116	1	10/22/2018 19:22	WG1184727
Naphthalene	U		0.00362	0.0145	1	10/22/2018 19:22	WG1184727
n-Propylbenzene	U		0.00137	0.00579	1	10/22/2018 19:22	WG1184727
Styrene	U		0.00316	0.0145	1	10/22/2018 19:22	WG1184727
1,1,1,2-Tetrachloroethane	U		0.000579	0.00290	1	10/22/2018 19:22	WG1184727
1,1,2,2-Tetrachloroethane	U		0.000452	0.00290	1	10/22/2018 19:22	WG1184727
1,1,2-Trichlorotrifluoroethane	U		0.000782	0.00290	1	10/22/2018 19:22	WG1184727
Tetrachloroethene	1.57	J0	0.00811	0.0290	10	10/24/2018 16:11	WG1185319
Toluene	U		0.00145	0.00579	1	10/22/2018 19:22	WG1184727
1,2,3-Trichlorobenzene	U		0.000724	0.00290	1	10/22/2018 19:22	WG1184727
1,2,4-Trichlorobenzene	U		0.00559	0.0145	1	10/22/2018 19:22	WG1184727
1,1,1-Trichloroethane	U		0.000319	0.00290	1	10/22/2018 19:22	WG1184727
1,1,2-Trichloroethane	U		0.0102	0.0290	10	10/24/2018 16:11	WG1185319
Trichloroethene	0.00413		0.000464	0.00116	1	10/22/2018 19:22	WG1184727
Trichlorofluoromethane	U		0.000579	0.00290	1	10/22/2018 19:22	WG1184727
1,2,3-Trichloropropane	U		0.00591	0.0145	1	10/22/2018 19:22	WG1184727
1,2,4-Trimethylbenzene	U		0.00134	0.00579	1	10/22/2018 19:22	WG1184727
1,2,3-Trimethylbenzene	U		0.00133	0.00579	1	10/22/2018 19:22	WG1184727
1,3,5-Trimethylbenzene	U		0.00125	0.00579	1	10/22/2018 19:22	WG1184727
Vinyl acetate	U		0.00408	0.0145	1	10/22/2018 19:22	WG1184727
Vinyl chloride	U		0.000791	0.00290	1	10/22/2018 19:22	WG1184727
Xylenes, Total	U		0.00554	0.00753	1	10/22/2018 19:22	WG1184727
(S) Toluene-d8	*126*			*75.0-131*		*10/22/2018 19:22*	WG1184727
(S) Toluene-d8	*99.0*			*75.0-131*		*10/24/2018 16:11*	WG1185319
(S) Dibromofluoromethane	*89.1*			*65.0-129*		*10/22/2018 19:22*	WG1184727
(S) Dibromofluoromethane	*120*			*65.0-129*		*10/24/2018 16:11*	WG1185319
(S) 4-Bromofluorobenzene	*85.8*			*67.0-138*		*10/22/2018 19:22*	WG1184727
(S) 4-Bromofluorobenzene	*130*			*67.0-138*		*10/24/2018 16:11*	WG1185319

Sample Narrative:

L1036473-14 WG1185319, WG1184727: Cannot be reanalyzed at a lower dilution due to high levels of target analytes.

L1036473-14 WG1185319, WG1184727: Not all compounds reportable at lower dilution.

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	89.6		1	10/24/2018 13:36	WG1185670

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.153	0.279	10	10/24/2018 16:32	WG1185319
Acrylonitrile	U		0.00212	0.0140	1	10/22/2018 19:43	WG1184727
Benzene	U		0.000447	0.00112	1	10/22/2018 19:43	WG1184727
Bromobenzene	U		0.00117	0.0140	1	10/22/2018 19:43	WG1184727
Bromodichloromethane	U		0.000880	0.00279	1	10/22/2018 19:43	WG1184727
Bromochloromethane	U		0.00126	0.00558	1	10/22/2018 19:43	WG1184727
Bromoform	U		0.00668	0.0279	1	10/22/2018 19:43	WG1184727
Bromomethane	U		0.00413	0.0140	1	10/22/2018 19:43	WG1184727
n-Butylbenzene	U		0.00429	0.0140	1	10/22/2018 19:43	WG1184727
sec-Butylbenzene	U		0.00282	0.0140	1	10/22/2018 19:43	WG1184727
tert-Butylbenzene	U		0.00173	0.00558	1	10/22/2018 19:43	WG1184727
Carbon disulfide	U		0.00453	0.0140	1	10/22/2018 19:43	WG1184727
Carbon tetrachloride	U		0.00121	0.00558	1	10/22/2018 19:43	WG1184727
Chlorobenzene	U		0.000640	0.00279	1	10/22/2018 19:43	WG1184727
Chlorodibromomethane	U		0.000502	0.00279	1	10/22/2018 19:43	WG1184727
Chloroethane	U		0.00121	0.00558	1	10/22/2018 19:43	WG1184727
Chloroform	0.00104	B J	0.000463	0.00279	1	10/22/2018 19:43	WG1184727
Chloromethane	U		0.00155	0.0140	1	10/22/2018 19:43	WG1184727
2-Chlorotoluene	U		0.00103	0.00279	1	10/22/2018 19:43	WG1184727
4-Chlorotoluene	U		0.00126	0.00558	1	10/22/2018 19:43	WG1184727
1,2-Dibromo-3-Chloropropane	U		0.00569	0.0279	1	10/22/2018 19:43	WG1184727
1,2-Dibromoethane	U		0.000586	0.00279	1	10/22/2018 19:43	WG1184727
Dibromomethane	U		0.00112	0.00558	1	10/22/2018 19:43	WG1184727
1,2-Dichlorobenzene	U		0.00162	0.00558	1	10/22/2018 19:43	WG1184727
1,3-Dichlorobenzene	U		0.00190	0.00558	1	10/22/2018 19:43	WG1184727
1,4-Dichlorobenzene	U		0.00220	0.00558	1	10/22/2018 19:43	WG1184727
Dichlorodifluoromethane	U		0.000913	0.00279	1	10/22/2018 19:43	WG1184727
1,1-Dichloroethane	U		0.000642	0.00279	1	10/22/2018 19:43	WG1184727
1,2-Dichloroethane	U		0.000530	0.00279	1	10/22/2018 19:43	WG1184727
1,1-Dichloroethene	U		0.000558	0.00279	1	10/22/2018 19:43	WG1184727
cis-1,2-Dichloroethene	0.00354		0.000770	0.00279	1	10/22/2018 19:43	WG1184727
trans-1,2-Dichloroethene	U		0.00160	0.00558	1	10/22/2018 19:43	WG1184727
1,2-Dichloropropane	U		0.0142	0.0558	10	10/24/2018 16:32	WG1185319
1,1-Dichloropropene	U		0.000781	0.00279	1	10/22/2018 19:43	WG1184727
1,3-Dichloropropane	U		0.00195	0.00558	1	10/22/2018 19:43	WG1184727
cis-1,3-Dichloropropene	U		0.000757	0.00279	1	10/22/2018 19:43	WG1184727
trans-1,3-Dichloropropene	U		0.00171	0.00558	1	10/22/2018 19:43	WG1184727
trans-1,4-Dichloro-2-butene	U		0.00156	0.00558	1	10/22/2018 19:43	WG1184727
2,2-Dichloropropane	U		0.000885	0.00279	1	10/22/2018 19:43	WG1184727
Di-isopropyl ether	U		0.000391	0.00112	1	10/22/2018 19:43	WG1184727
Ethylbenzene	U		0.000592	0.00279	1	10/22/2018 19:43	WG1184727
Hexachloro-1,3-butadiene	U		0.0142	0.0279	1	10/22/2018 19:43	WG1184727
2-Hexanone	U		0.0112	0.0279	1	10/22/2018 19:43	WG1184727
n-Hexane	U		0.0118	0.0558	10	10/24/2018 16:32	WG1185319
Iodomethane	U		0.00675	0.0140	1	10/22/2018 19:43	WG1184727
Isopropylbenzene	U		0.000963	0.00279	1	10/22/2018 19:43	WG1184727
p-Isopropyltoluene	U		0.00260	0.00558	1	10/22/2018 19:43	WG1184727
2-Butanone (MEK)	U		0.140	0.279	10	10/24/2018 16:32	WG1185319
Methylene Chloride	U		0.00741	0.0279	1	10/22/2018 19:43	WG1184727
4-Methyl-2-pentanone (MIBK)	U		0.0112	0.0279	1	10/22/2018 19:43	WG1184727

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000329	0.00112	1	10/22/2018 19:43	WG1184727
Naphthalene	U		0.00348	0.0140	1	10/22/2018 19:43	WG1184727
n-Propylbenzene	U		0.00132	0.00558	1	10/22/2018 19:43	WG1184727
Styrene	U		0.00305	0.0140	1	10/22/2018 19:43	WG1184727
1,1,1,2-Tetrachloroethane	U		0.000558	0.00279	1	10/22/2018 19:43	WG1184727
1,1,2,2-Tetrachloroethane	U		0.000435	0.00279	1	10/22/2018 19:43	WG1184727
1,1,2-Trichlorotrifluoroethane	U		0.000754	0.00279	1	10/22/2018 19:43	WG1184727
Tetrachloroethene	2.37	J0	0.00781	0.0279	10	10/24/2018 16:32	WG1185319
Toluene	U		0.00140	0.00558	1	10/22/2018 19:43	WG1184727
1,2,3-Trichlorobenzene	U		0.000698	0.00279	1	10/22/2018 19:43	WG1184727
1,2,4-Trichlorobenzene	U		0.00538	0.0140	1	10/22/2018 19:43	WG1184727
1,1,1-Trichloroethane	U		0.000307	0.00279	1	10/22/2018 19:43	WG1184727
1,1,2-Trichloroethane	U		0.00986	0.0279	10	10/24/2018 16:32	WG1185319
Trichloroethene	0.00473		0.000447	0.00112	1	10/22/2018 19:43	WG1184727
Trichlorofluoromethane	U		0.000558	0.00279	1	10/22/2018 19:43	WG1184727
1,2,3-Trichloropropane	U		0.00569	0.0140	1	10/22/2018 19:43	WG1184727
1,2,4-Trimethylbenzene	U		0.00129	0.00558	1	10/22/2018 19:43	WG1184727
1,2,3-Trimethylbenzene	U		0.00128	0.00558	1	10/22/2018 19:43	WG1184727
1,3,5-Trimethylbenzene	U		0.00121	0.00558	1	10/22/2018 19:43	WG1184727
Vinyl acetate	U		0.00393	0.0140	1	10/22/2018 19:43	WG1184727
Vinyl chloride	U		0.000762	0.00279	1	10/22/2018 19:43	WG1184727
Xylenes, Total	U		0.00534	0.00726	1	10/22/2018 19:43	WG1184727
(S) Toluene-d8	*129*			*75.0-131*		*10/22/2018 19:43*	WG1184727
(S) Toluene-d8	*98.0*			*75.0-131*		*10/24/2018 16:32*	WG1185319
(S) Dibromofluoromethane	*85.3*			*65.0-129*		*10/22/2018 19:43*	WG1184727
(S) Dibromofluoromethane	*117*			*65.0-129*		*10/24/2018 16:32*	WG1185319
(S) 4-Bromofluorobenzene	*84.0*			*67.0-138*		*10/22/2018 19:43*	WG1184727
(S) 4-Bromofluorobenzene	*127*			*67.0-138*		*10/24/2018 16:32*	WG1185319

Sample Narrative:

L1036473-15 WG1185319, WG1184727: Cannot be reanalyzed at a lower dilution due to high levels of target analytes.

L1036473-15 WG1185319, WG1184727: Not all compounds reportable at lower dilution.

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	91.0		1	10/24/2018 13:36	WG1185670

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.121	0.220	8	10/24/2018 16:52	WG1185319
Acrylonitrile	U		0.00209	0.0137	1	10/22/2018 20:03	WG1184727
Benzene	U		0.000440	0.00110	1	10/22/2018 20:03	WG1184727
Bromobenzene	U		0.00115	0.0137	1	10/22/2018 20:03	WG1184727
Bromodichloromethane	U		0.000866	0.00275	1	10/22/2018 20:03	WG1184727
Bromochloromethane	U		0.00124	0.00550	1	10/22/2018 20:03	WG1184727
Bromoform	U		0.00657	0.0275	1	10/22/2018 20:03	WG1184727
Bromomethane	U		0.00407	0.0137	1	10/22/2018 20:03	WG1184727
n-Butylbenzene	U		0.00422	0.0137	1	10/22/2018 20:03	WG1184727
sec-Butylbenzene	U		0.00278	0.0137	1	10/22/2018 20:03	WG1184727
tert-Butylbenzene	U		0.00170	0.00550	1	10/22/2018 20:03	WG1184727
Carbon disulfide	U		0.00446	0.0137	1	10/22/2018 20:03	WG1184727
Carbon tetrachloride	U		0.00119	0.00550	1	10/22/2018 20:03	WG1184727
Chlorobenzene	U		0.000630	0.00275	1	10/22/2018 20:03	WG1184727
Chlorodibromomethane	U		0.000495	0.00275	1	10/22/2018 20:03	WG1184727
Chloroethane	U		0.00119	0.00550	1	10/22/2018 20:03	WG1184727
Chloroform	0.00127	B J	0.000456	0.00275	1	10/22/2018 20:03	WG1184727
Chloromethane	U		0.00153	0.0137	1	10/22/2018 20:03	WG1184727
2-Chlorotoluene	U		0.00101	0.00275	1	10/22/2018 20:03	WG1184727
4-Chlorotoluene	U		0.00124	0.00550	1	10/22/2018 20:03	WG1184727
1,2-Dibromo-3-Chloropropane	U		0.00561	0.0275	1	10/22/2018 20:03	WG1184727
1,2-Dibromoethane	U		0.000577	0.00275	1	10/22/2018 20:03	WG1184727
Dibromomethane	U		0.00110	0.00550	1	10/22/2018 20:03	WG1184727
1,2-Dichlorobenzene	U		0.00159	0.00550	1	10/22/2018 20:03	WG1184727
1,3-Dichlorobenzene	U		0.00187	0.00550	1	10/22/2018 20:03	WG1184727
1,4-Dichlorobenzene	U		0.00217	0.00550	1	10/22/2018 20:03	WG1184727
Dichlorodifluoromethane	U		0.000899	0.00275	1	10/22/2018 20:03	WG1184727
1,1-Dichloroethane	U		0.000632	0.00275	1	10/22/2018 20:03	WG1184727
1,2-Dichloroethane	U		0.000522	0.00275	1	10/22/2018 20:03	WG1184727
1,1-Dichloroethene	U		0.000550	0.00275	1	10/22/2018 20:03	WG1184727
cis-1,2-Dichloroethene	0.00135	J	0.000759	0.00275	1	10/22/2018 20:03	WG1184727
trans-1,2-Dichloroethene	U		0.00157	0.00550	1	10/22/2018 20:03	WG1184727
1,2-Dichloropropane	U		0.0112	0.0440	8	10/24/2018 16:52	WG1185319
1,1-Dichloropropene	U		0.000770	0.00275	1	10/22/2018 20:03	WG1184727
1,3-Dichloropropane	U		0.00192	0.00550	1	10/22/2018 20:03	WG1184727
cis-1,3-Dichloropropene	U		0.000745	0.00275	1	10/22/2018 20:03	WG1184727
trans-1,3-Dichloropropene	U		0.00168	0.00550	1	10/22/2018 20:03	WG1184727
trans-1,4-Dichloro-2-butene	U		0.00154	0.00550	1	10/22/2018 20:03	WG1184727
2,2-Dichloropropane	U		0.000872	0.00275	1	10/22/2018 20:03	WG1184727
Di-isopropyl ether	U		0.000385	0.00110	1	10/22/2018 20:03	WG1184727
Ethylbenzene	U		0.000583	0.00275	1	10/22/2018 20:03	WG1184727
Hexachloro-1,3-butadiene	U		0.0140	0.0275	1	10/22/2018 20:03	WG1184727
2-Hexanone	U		0.0110	0.0275	1	10/22/2018 20:03	WG1184727
n-Hexane	U		0.00932	0.0440	8	10/24/2018 16:52	WG1185319
Iodomethane	U		0.00665	0.0137	1	10/22/2018 20:03	WG1184727
Isopropylbenzene	U		0.000949	0.00275	1	10/22/2018 20:03	WG1184727
p-Isopropyltoluene	U		0.00256	0.00550	1	10/22/2018 20:03	WG1184727
2-Butanone (MEK)	U		0.110	0.220	8	10/24/2018 16:52	WG1185319
Methylene Chloride	U		0.00730	0.0275	1	10/22/2018 20:03	WG1184727
4-Methyl-2-pentanone (MIBK)	U		0.0110	0.0275	1	10/22/2018 20:03	WG1184727

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

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000324	0.00110	1	10/22/2018 20:03	WG1184727
Naphthalene	U		0.00343	0.0137	1	10/22/2018 20:03	WG1184727
n-Propylbenzene	U		0.00130	0.00550	1	10/22/2018 20:03	WG1184727
Styrene	U		0.00300	0.0137	1	10/22/2018 20:03	WG1184727
1,1,1,2-Tetrachloroethane	U		0.000550	0.00275	1	10/22/2018 20:03	WG1184727
1,1,2,2-Tetrachloroethane	U		0.000429	0.00275	1	10/22/2018 20:03	WG1184727
1,1,2-Trichlorotrifluoroethane	U		0.000742	0.00275	1	10/22/2018 20:03	WG1184727
Tetrachloroethene	1.15	J0	0.00616	0.0220	8	10/24/2018 16:52	WG1185319
Toluene	U		0.00137	0.00550	1	10/22/2018 20:03	WG1184727
1,2,3-Trichlorobenzene	U		0.000687	0.00275	1	10/22/2018 20:03	WG1184727
1,2,4-Trichlorobenzene	U		0.00530	0.0137	1	10/22/2018 20:03	WG1184727
1,1,1-Trichloroethane	U		0.000302	0.00275	1	10/22/2018 20:03	WG1184727
1,1,2-Trichloroethane	U		0.00776	0.0220	8	10/24/2018 16:52	WG1185319
Trichloroethene	0.00325		0.000440	0.00110	1	10/22/2018 20:03	WG1184727
Trichlorofluoromethane	U		0.000550	0.00275	1	10/22/2018 20:03	WG1184727
1,2,3-Trichloropropane	U		0.00561	0.0137	1	10/22/2018 20:03	WG1184727
1,2,4-Trimethylbenzene	U		0.00128	0.00550	1	10/22/2018 20:03	WG1184727
1,2,3-Trimethylbenzene	U		0.00126	0.00550	1	10/22/2018 20:03	WG1184727
1,3,5-Trimethylbenzene	U		0.00119	0.00550	1	10/22/2018 20:03	WG1184727
Vinyl acetate	U		0.00387	0.0137	1	10/22/2018 20:03	WG1184727
Vinyl chloride	U		0.000751	0.00275	1	10/22/2018 20:03	WG1184727
Xylenes, Total	U		0.00526	0.00715	1	10/22/2018 20:03	WG1184727
(S) Toluene-d8	*126*			*75.0-131*		*10/22/2018 20:03*	WG1184727
(S) Toluene-d8	*96.1*			*75.0-131*		*10/24/2018 16:52*	WG1185319
(S) Dibromofluoromethane	*92.1*			*65.0-129*		*10/22/2018 20:03*	WG1184727
(S) Dibromofluoromethane	*120*			*65.0-129*		*10/24/2018 16:52*	WG1185319
(S) 4-Bromofluorobenzene	*88.0*			*67.0-138*		*10/22/2018 20:03*	WG1184727
(S) 4-Bromofluorobenzene	*123*			*67.0-138*		*10/24/2018 16:52*	WG1185319

Sample Narrative:

L1036473-16 WG1185319, WG1184727: Cannot be reanalyzed at a lower dilution due to high levels of target analytes.

L1036473-16 WG1185319, WG1184727: Not all compounds reportable at lower dilution.

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	90.4		1	10/24/2018 13:36	WG1185670

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0152	0.0277	1	10/24/2018 13:51	WG1185319
Acrylonitrile	U		0.00210	0.0138	1	10/22/2018 20:24	WG1184727
Benzene	U		0.000443	0.00111	1	10/22/2018 20:24	WG1184727
Bromobenzene	U		0.00116	0.0138	1	10/22/2018 20:24	WG1184727
Bromodichloromethane	U		0.000872	0.00277	1	10/22/2018 20:24	WG1184727
Bromochloromethane	U		0.00125	0.00553	1	10/22/2018 20:24	WG1184727
Bromoform	U		0.00662	0.0277	1	10/22/2018 20:24	WG1184727
Bromomethane	U		0.00409	0.0138	1	10/22/2018 20:24	WG1184727
n-Butylbenzene	U		0.00425	0.0138	1	10/22/2018 20:24	WG1184727
sec-Butylbenzene	U		0.00280	0.0138	1	10/22/2018 20:24	WG1184727
tert-Butylbenzene	U		0.00171	0.00553	1	10/22/2018 20:24	WG1184727
Carbon disulfide	U		0.00449	0.0138	1	10/22/2018 20:24	WG1184727
Carbon tetrachloride	U		0.00119	0.00553	1	10/22/2018 20:24	WG1184727
Chlorobenzene	U		0.000634	0.00277	1	10/22/2018 20:24	WG1184727
Chlorodibromomethane	U		0.000498	0.00277	1	10/22/2018 20:24	WG1184727
Chloroethane	U		0.00119	0.00553	1	10/22/2018 20:24	WG1184727
Chloroform	0.000779	B J	0.000459	0.00277	1	10/22/2018 20:24	WG1184727
Chloromethane	U		0.00154	0.0138	1	10/22/2018 20:24	WG1184727
2-Chlorotoluene	U		0.00102	0.00277	1	10/22/2018 20:24	WG1184727
4-Chlorotoluene	U		0.00125	0.00553	1	10/22/2018 20:24	WG1184727
1,2-Dibromo-3-Chloropropane	U		0.00564	0.0277	1	10/22/2018 20:24	WG1184727
1,2-Dibromoethane	U		0.000581	0.00277	1	10/22/2018 20:24	WG1184727
Dibromomethane	U		0.00111	0.00553	1	10/22/2018 20:24	WG1184727
1,2-Dichlorobenzene	U		0.00160	0.00553	1	10/22/2018 20:24	WG1184727
1,3-Dichlorobenzene	U		0.00188	0.00553	1	10/22/2018 20:24	WG1184727
1,4-Dichlorobenzene	U		0.00218	0.00553	1	10/22/2018 20:24	WG1184727
Dichlorodifluoromethane	U		0.000905	0.00277	1	10/22/2018 20:24	WG1184727
1,1-Dichloroethane	U		0.000636	0.00277	1	10/22/2018 20:24	WG1184727
1,2-Dichloroethane	U		0.000526	0.00277	1	10/22/2018 20:24	WG1184727
1,1-Dichloroethene	U		0.000553	0.00277	1	10/22/2018 20:24	WG1184727
cis-1,2-Dichloroethene	U		0.000763	0.00277	1	10/22/2018 20:24	WG1184727
trans-1,2-Dichloroethene	U		0.00158	0.00553	1	10/22/2018 20:24	WG1184727
1,2-Dichloropropane	U		0.00141	0.00553	1	10/24/2018 13:51	WG1185319
1,1-Dichloropropene	U		0.000774	0.00277	1	10/22/2018 20:24	WG1184727
1,3-Dichloropropane	U		0.00194	0.00553	1	10/22/2018 20:24	WG1184727
cis-1,3-Dichloropropene	U		0.000750	0.00277	1	10/22/2018 20:24	WG1184727
trans-1,3-Dichloropropene	U		0.00169	0.00553	1	10/22/2018 20:24	WG1184727
trans-1,4-Dichloro-2-butene	U		0.00155	0.00553	1	10/22/2018 20:24	WG1184727
2,2-Dichloropropane	U		0.000877	0.00277	1	10/22/2018 20:24	WG1184727
Di-isopropyl ether	U		0.000387	0.00111	1	10/22/2018 20:24	WG1184727
Ethylbenzene	U		0.000586	0.00277	1	10/22/2018 20:24	WG1184727
Hexachloro-1,3-butadiene	U		0.0141	0.0277	1	10/22/2018 20:24	WG1184727
2-Hexanone	U		0.0111	0.0277	1	10/22/2018 20:24	WG1184727
n-Hexane	U		0.00117	0.00553	1	10/24/2018 13:51	WG1185319
Iodomethane	U		0.00669	0.0138	1	10/22/2018 20:24	WG1184727
Isopropylbenzene	U		0.000955	0.00277	1	10/22/2018 20:24	WG1184727
p-Isopropyltoluene	U		0.00258	0.00553	1	10/22/2018 20:24	WG1184727
2-Butanone (MEK)	U		0.0138	0.0277	1	10/24/2018 13:51	WG1185319
Methylene Chloride	U		0.00735	0.0277	1	10/22/2018 20:24	WG1184727
4-Methyl-2-pentanone (MIBK)	U		0.0111	0.0277	1	10/22/2018 20:24	WG1184727

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000326	0.00111	1	10/22/2018 20:24	WG1184727
Naphthalene	U		0.00345	0.0138	1	10/22/2018 20:24	WG1184727
n-Propylbenzene	U		0.00131	0.00553	1	10/22/2018 20:24	WG1184727
Styrene	U		0.00302	0.0138	1	10/22/2018 20:24	WG1184727
1,1,1,2-Tetrachloroethane	U		0.000553	0.00277	1	10/22/2018 20:24	WG1184727
1,1,2,2-Tetrachloroethane	U		0.000431	0.00277	1	10/22/2018 20:24	WG1184727
1,1,2-Trichlorotrifluoroethane	U		0.000747	0.00277	1	10/22/2018 20:24	WG1184727
Tetrachloroethene	0.0155	J0	0.000774	0.00277	1	10/24/2018 13:51	WG1185319
Toluene	U		0.00138	0.00553	1	10/22/2018 20:24	WG1184727
1,2,3-Trichlorobenzene	U		0.000691	0.00277	1	10/22/2018 20:24	WG1184727
1,2,4-Trichlorobenzene	U		0.00533	0.0138	1	10/22/2018 20:24	WG1184727
1,1,1-Trichloroethane	U		0.000304	0.00277	1	10/22/2018 20:24	WG1184727
1,1,2-Trichloroethane	U		0.000977	0.00277	1	10/24/2018 13:51	WG1185319
Trichloroethene	U		0.000443	0.00111	1	10/22/2018 20:24	WG1184727
Trichlorofluoromethane	U		0.000553	0.00277	1	10/22/2018 20:24	WG1184727
1,2,3-Trichloropropane	U		0.00564	0.0138	1	10/22/2018 20:24	WG1184727
1,2,4-Trimethylbenzene	U		0.00128	0.00553	1	10/22/2018 20:24	WG1184727
1,2,3-Trimethylbenzene	U		0.00127	0.00553	1	10/22/2018 20:24	WG1184727
1,3,5-Trimethylbenzene	U		0.00119	0.00553	1	10/22/2018 20:24	WG1184727
Vinyl acetate	U		0.00389	0.0138	1	10/22/2018 20:24	WG1184727
Vinyl chloride	U		0.000756	0.00277	1	10/22/2018 20:24	WG1184727
Xylenes, Total	U		0.00529	0.00719	1	10/22/2018 20:24	WG1184727
(S) Toluene-d8	*125*			*75.0-131*		*10/22/2018 20:24*	WG1184727
(S) Toluene-d8	*98.6*			*75.0-131*		*10/24/2018 13:51*	WG1185319
(S) Dibromofluoromethane	*89.3*			*65.0-129*		*10/22/2018 20:24*	WG1184727
(S) Dibromofluoromethane	*115*			*65.0-129*		*10/24/2018 13:51*	WG1185319
(S) 4-Bromofluorobenzene	*91.0*			*67.0-138*		*10/22/2018 20:24*	WG1184727
(S) 4-Bromofluorobenzene	*119*			*67.0-138*		*10/24/2018 13:51*	WG1185319

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	87.8		1	10/24/2018 13:36	WG1185670

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0156	0.0285	1	10/24/2018 14:12	WG1185319
Acrylonitrile	U		0.00216	0.0142	1	10/22/2018 20:44	WG1184727
Benzene	U		0.000456	0.00114	1	10/22/2018 20:44	WG1184727
Bromobenzene	U		0.00120	0.0142	1	10/22/2018 20:44	WG1184727
Bromodichloromethane	U		0.000897	0.00285	1	10/22/2018 20:44	WG1184727
Bromochloromethane	U		0.00129	0.00569	1	10/22/2018 20:44	WG1184727
Bromoform	U		0.00681	0.0285	1	10/22/2018 20:44	WG1184727
Bromomethane	U		0.00421	0.0142	1	10/22/2018 20:44	WG1184727
n-Butylbenzene	U		0.00437	0.0142	1	10/22/2018 20:44	WG1184727
sec-Butylbenzene	U		0.00288	0.0142	1	10/22/2018 20:44	WG1184727
tert-Butylbenzene	U		0.00177	0.00569	1	10/22/2018 20:44	WG1184727
Carbon disulfide	U		0.00462	0.0142	1	10/22/2018 20:44	WG1184727
Carbon tetrachloride	U		0.00123	0.00569	1	10/22/2018 20:44	WG1184727
Chlorobenzene	U		0.000653	0.00285	1	10/22/2018 20:44	WG1184727
Chlorodibromomethane	U		0.000512	0.00285	1	10/22/2018 20:44	WG1184727
Chloroethane	U		0.00123	0.00569	1	10/22/2018 20:44	WG1184727
Chloroform	0.00179	B J	0.000473	0.00285	1	10/22/2018 20:44	WG1184727
Chloromethane	U		0.00158	0.0142	1	10/22/2018 20:44	WG1184727
2-Chlorotoluene	U		0.00105	0.00285	1	10/22/2018 20:44	WG1184727
4-Chlorotoluene	U		0.00129	0.00569	1	10/22/2018 20:44	WG1184727
1,2-Dibromo-3-Chloropropane	U		0.00581	0.0285	1	10/22/2018 20:44	WG1184727
1,2-Dibromoethane	U		0.000598	0.00285	1	10/22/2018 20:44	WG1184727
Dibromomethane	U		0.00114	0.00569	1	10/22/2018 20:44	WG1184727
1,2-Dichlorobenzene	U		0.00165	0.00569	1	10/22/2018 20:44	WG1184727
1,3-Dichlorobenzene	U		0.00194	0.00569	1	10/22/2018 20:44	WG1184727
1,4-Dichlorobenzene	U		0.00224	0.00569	1	10/22/2018 20:44	WG1184727
Dichlorodifluoromethane	U		0.000932	0.00285	1	10/22/2018 20:44	WG1184727
1,1-Dichloroethane	U		0.000655	0.00285	1	10/22/2018 20:44	WG1184727
1,2-Dichloroethane	U		0.000541	0.00285	1	10/22/2018 20:44	WG1184727
1,1-Dichloroethene	U		0.000569	0.00285	1	10/22/2018 20:44	WG1184727
cis-1,2-Dichloroethene	0.0322		0.000786	0.00285	1	10/22/2018 20:44	WG1184727
trans-1,2-Dichloroethene	U		0.00163	0.00569	1	10/22/2018 20:44	WG1184727
1,2-Dichloropropane	U		0.00145	0.00569	1	10/24/2018 14:12	WG1185319
1,1-Dichloropropene	U		0.000797	0.00285	1	10/22/2018 20:44	WG1184727
1,3-Dichloropropane	U		0.00199	0.00569	1	10/22/2018 20:44	WG1184727
cis-1,3-Dichloropropene	U		0.000772	0.00285	1	10/22/2018 20:44	WG1184727
trans-1,3-Dichloropropene	U		0.00174	0.00569	1	10/22/2018 20:44	WG1184727
trans-1,4-Dichloro-2-butene	U		0.00159	0.00569	1	10/22/2018 20:44	WG1184727
2,2-Dichloropropane	U		0.000903	0.00285	1	10/22/2018 20:44	WG1184727
Di-isopropyl ether	U		0.000399	0.00114	1	10/22/2018 20:44	WG1184727
Ethylbenzene	U		0.000604	0.00285	1	10/22/2018 20:44	WG1184727
Hexachloro-1,3-butadiene	U		0.0145	0.0285	1	10/22/2018 20:44	WG1184727
2-Hexanone	U		0.0114	0.0285	1	10/22/2018 20:44	WG1184727
n-Hexane	U		0.00121	0.00569	1	10/24/2018 14:12	WG1185319
Iodomethane	U		0.00689	0.0142	1	10/22/2018 20:44	WG1184727
Isopropylbenzene	U		0.000983	0.00285	1	10/22/2018 20:44	WG1184727
p-Isopropyltoluene	U		0.00265	0.00569	1	10/22/2018 20:44	WG1184727
2-Butanone (MEK)	0.0408		0.0142	0.0285	1	10/24/2018 14:12	WG1185319
Methylene Chloride	U		0.00756	0.0285	1	10/22/2018 20:44	WG1184727
4-Methyl-2-pentanone (MIBK)	U		0.0114	0.0285	1	10/22/2018 20:44	WG1184727

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000336	0.00114	1	10/22/2018 20:44	WG1184727
Naphthalene	U		0.00355	0.0142	1	10/22/2018 20:44	WG1184727
n-Propylbenzene	U		0.00134	0.00569	1	10/22/2018 20:44	WG1184727
Styrene	U		0.00311	0.0142	1	10/22/2018 20:44	WG1184727
1,1,1,2-Tetrachloroethane	U		0.000569	0.00285	1	10/22/2018 20:44	WG1184727
1,1,2,2-Tetrachloroethane	U		0.000444	0.00285	1	10/22/2018 20:44	WG1184727
1,1,2-Trichlorotrifluoroethane	U		0.000769	0.00285	1	10/22/2018 20:44	WG1184727
Tetrachloroethene	0.0116	J0	0.000797	0.00285	1	10/24/2018 14:12	WG1185319
Toluene	0.00195	J	0.00142	0.00569	1	10/22/2018 20:44	WG1184727
1,2,3-Trichlorobenzene	U		0.000712	0.00285	1	10/22/2018 20:44	WG1184727
1,2,4-Trichlorobenzene	U		0.00549	0.0142	1	10/22/2018 20:44	WG1184727
1,1,1-Trichloroethane	U		0.000313	0.00285	1	10/22/2018 20:44	WG1184727
1,1,2-Trichloroethane	U		0.00101	0.00285	1	10/24/2018 14:12	WG1185319
Trichloroethene	0.0285		0.000456	0.00114	1	10/22/2018 20:44	WG1184727
Trichlorofluoromethane	U		0.000569	0.00285	1	10/22/2018 20:44	WG1184727
1,2,3-Trichloropropane	U		0.00581	0.0142	1	10/22/2018 20:44	WG1184727
1,2,4-Trimethylbenzene	U		0.00132	0.00569	1	10/22/2018 20:44	WG1184727
1,2,3-Trimethylbenzene	U		0.00131	0.00569	1	10/22/2018 20:44	WG1184727
1,3,5-Trimethylbenzene	U		0.00123	0.00569	1	10/22/2018 20:44	WG1184727
Vinyl acetate	U		0.00401	0.0142	1	10/22/2018 20:44	WG1184727
Vinyl chloride	U		0.000778	0.00285	1	10/22/2018 20:44	WG1184727
Xylenes, Total	U		0.00544	0.00740	1	10/22/2018 20:44	WG1184727
(S) Toluene-d8	*121*			*75.0-131*		*10/22/2018 20:44*	WG1184727
(S) Toluene-d8	*100*			*75.0-131*		*10/24/2018 14:12*	WG1185319
(S) Dibromofluoromethane	*92.8*			*65.0-129*		*10/22/2018 20:44*	WG1184727
(S) Dibromofluoromethane	*113*			*65.0-129*		*10/24/2018 14:12*	WG1185319
(S) 4-Bromofluorobenzene	*89.8*			*67.0-138*		*10/22/2018 20:44*	WG1184727
(S) 4-Bromofluorobenzene	*118*			*67.0-138*		*10/24/2018 14:12*	WG1185319

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	88.8		1	10/24/2018 13:36	WG1185670

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0617	0.113	4	10/24/2018 17:12	WG1185319
Acrylonitrile	U		0.00214	0.0141	1	10/22/2018 21:04	WG1184727
Benzene	U		0.000451	0.00113	1	10/22/2018 21:04	WG1184727
Bromobenzene	U		0.00118	0.0141	1	10/22/2018 21:04	WG1184727
Bromodichloromethane	U		0.000887	0.00282	1	10/22/2018 21:04	WG1184727
Bromochloromethane	U		0.00127	0.00563	1	10/22/2018 21:04	WG1184727
Bromoform	U		0.00673	0.0282	1	10/22/2018 21:04	WG1184727
Bromomethane	U		0.00417	0.0141	1	10/22/2018 21:04	WG1184727
n-Butylbenzene	U		0.00432	0.0141	1	10/22/2018 21:04	WG1184727
sec-Butylbenzene	U		0.00285	0.0141	1	10/22/2018 21:04	WG1184727
tert-Butylbenzene	U		0.00175	0.00563	1	10/22/2018 21:04	WG1184727
Carbon disulfide	U		0.00457	0.0141	1	10/22/2018 21:04	WG1184727
Carbon tetrachloride	U		0.00122	0.00563	1	10/22/2018 21:04	WG1184727
Chlorobenzene	U		0.000645	0.00282	1	10/22/2018 21:04	WG1184727
Chlorodibromomethane	U		0.000507	0.00282	1	10/22/2018 21:04	WG1184727
Chloroethane	U		0.00122	0.00563	1	10/22/2018 21:04	WG1184727
Chloroform	0.00162	B J	0.000467	0.00282	1	10/22/2018 21:04	WG1184727
Chloromethane	U		0.00157	0.0141	1	10/22/2018 21:04	WG1184727
2-Chlorotoluene	U		0.00104	0.00282	1	10/22/2018 21:04	WG1184727
4-Chlorotoluene	U		0.00127	0.00563	1	10/22/2018 21:04	WG1184727
1,2-Dibromo-3-Chloropropane	U		0.00574	0.0282	1	10/22/2018 21:04	WG1184727
1,2-Dibromoethane	U		0.000591	0.00282	1	10/22/2018 21:04	WG1184727
Dibromomethane	U		0.00113	0.00563	1	10/22/2018 21:04	WG1184727
1,2-Dichlorobenzene	U		0.00163	0.00563	1	10/22/2018 21:04	WG1184727
1,3-Dichlorobenzene	U		0.00191	0.00563	1	10/22/2018 21:04	WG1184727
1,4-Dichlorobenzene	U		0.00222	0.00563	1	10/22/2018 21:04	WG1184727
Dichlorodifluoromethane	U		0.000921	0.00282	1	10/22/2018 21:04	WG1184727
1,1-Dichloroethane	U		0.000648	0.00282	1	10/22/2018 21:04	WG1184727
1,2-Dichloroethane	U		0.000535	0.00282	1	10/22/2018 21:04	WG1184727
1,1-Dichloroethene	U		0.000563	0.00282	1	10/22/2018 21:04	WG1184727
cis-1,2-Dichloroethene	0.00584		0.000777	0.00282	1	10/22/2018 21:04	WG1184727
trans-1,2-Dichloroethene	U		0.00161	0.00563	1	10/22/2018 21:04	WG1184727
1,2-Dichloropropane	U		0.00572	0.0225	4	10/24/2018 17:12	WG1185319
1,1-Dichloropropene	U		0.000788	0.00282	1	10/22/2018 21:04	WG1184727
1,3-Dichloropropane	U		0.00197	0.00563	1	10/22/2018 21:04	WG1184727
cis-1,3-Dichloropropene	U		0.000764	0.00282	1	10/22/2018 21:04	WG1184727
trans-1,3-Dichloropropene	U		0.00172	0.00563	1	10/22/2018 21:04	WG1184727
trans-1,4-Dichloro-2-butene	U		0.00158	0.00563	1	10/22/2018 21:04	WG1184727
2,2-Dichloropropane	U		0.000893	0.00282	1	10/22/2018 21:04	WG1184727
Di-isopropyl ether	U		0.000394	0.00113	1	10/22/2018 21:04	WG1184727
Ethylbenzene	U		0.000597	0.00282	1	10/22/2018 21:04	WG1184727
Hexachloro-1,3-butadiene	U		0.0143	0.0282	1	10/22/2018 21:04	WG1184727
2-Hexanone	U		0.0113	0.0282	1	10/22/2018 21:04	WG1184727
n-Hexane	U		0.00478	0.0225	4	10/24/2018 17:12	WG1185319
Iodomethane	U		0.00681	0.0141	1	10/22/2018 21:04	WG1184727
Isopropylbenzene	U		0.000972	0.00282	1	10/22/2018 21:04	WG1184727
p-Isopropyltoluene	U		0.00262	0.00563	1	10/22/2018 21:04	WG1184727
2-Butanone (MEK)	U		0.0563	0.113	4	10/24/2018 17:12	WG1185319
Methylene Chloride	U		0.00748	0.0282	1	10/22/2018 21:04	WG1184727
4-Methyl-2-pentanone (MIBK)	U		0.0113	0.0282	1	10/22/2018 21:04	WG1184727

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000332	0.00113	1	10/22/2018 21:04	WG1184727
Naphthalene	U		0.00351	0.0141	1	10/22/2018 21:04	WG1184727
n-Propylbenzene	U		0.00133	0.00563	1	10/22/2018 21:04	WG1184727
Styrene	U		0.00307	0.0141	1	10/22/2018 21:04	WG1184727
1,1,1,2-Tetrachloroethane	U		0.000563	0.00282	1	10/22/2018 21:04	WG1184727
1,1,2,2-Tetrachloroethane	U		0.000439	0.00282	1	10/22/2018 21:04	WG1184727
1,1,2-Trichlorotrifluoroethane	U		0.000760	0.00282	1	10/22/2018 21:04	WG1184727
Tetrachloroethene	0.917	J0	0.00315	0.0113	4	10/24/2018 17:12	WG1185319
Toluene	0.00193	J	0.00141	0.00563	1	10/22/2018 21:04	WG1184727
1,2,3-Trichlorobenzene	U		0.000704	0.00282	1	10/22/2018 21:04	WG1184727
1,2,4-Trichlorobenzene	U		0.00543	0.0141	1	10/22/2018 21:04	WG1184727
1,1,1-Trichloroethane	U		0.000310	0.00282	1	10/22/2018 21:04	WG1184727
1,1,2-Trichloroethane	U		0.00398	0.0113	4	10/24/2018 17:12	WG1185319
Trichloroethene	0.00621		0.000451	0.00113	1	10/22/2018 21:04	WG1184727
Trichlorofluoromethane	U		0.000563	0.00282	1	10/22/2018 21:04	WG1184727
1,2,3-Trichloropropane	U		0.00574	0.0141	1	10/22/2018 21:04	WG1184727
1,2,4-Trimethylbenzene	U		0.00131	0.00563	1	10/22/2018 21:04	WG1184727
1,2,3-Trimethylbenzene	U		0.00130	0.00563	1	10/22/2018 21:04	WG1184727
1,3,5-Trimethylbenzene	U		0.00122	0.00563	1	10/22/2018 21:04	WG1184727
Vinyl acetate	U		0.00396	0.0141	1	10/22/2018 21:04	WG1184727
Vinyl chloride	U		0.000769	0.00282	1	10/22/2018 21:04	WG1184727
Xylenes, Total	U		0.00538	0.00732	1	10/22/2018 21:04	WG1184727
(S) Toluene-d8	*128*			*75.0-131*		*10/22/2018 21:04*	WG1184727
(S) Toluene-d8	*98.3*			*75.0-131*		*10/24/2018 17:12*	WG1185319
(S) Dibromofluoromethane	*84.8*			*65.0-129*		*10/22/2018 21:04*	WG1184727
(S) Dibromofluoromethane	*118*			*65.0-129*		*10/24/2018 17:12*	WG1185319
(S) 4-Bromofluorobenzene	*77.3*			*67.0-138*		*10/22/2018 21:04*	WG1184727
(S) 4-Bromofluorobenzene	*124*			*67.0-138*		*10/24/2018 17:12*	WG1185319

Sample Narrative:

L1036473-19 WG1185319, WG1184727: Cannot be reanalyzed at a lower dilution due to high levels of target analytes.

L1036473-19 WG1185319, WG1184727: Not all compounds reportable at lower dilution.

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	91.3		1	10/24/2018 13:36	WG1185670

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.150	0.274	10	10/24/2018 17:32	WG1185319
Acrylonitrile	U		0.00208	0.0137	1	10/22/2018 21:25	WG1184727
Benzene	U		0.000438	0.00110	1	10/22/2018 21:25	WG1184727
Bromobenzene	U		0.00115	0.0137	1	10/22/2018 21:25	WG1184727
Bromodichloromethane	U		0.000863	0.00274	1	10/22/2018 21:25	WG1184727
Bromochloromethane	U		0.00124	0.00548	1	10/22/2018 21:25	WG1184727
Bromoform	U		0.00655	0.0274	1	10/22/2018 21:25	WG1184727
Bromomethane	U		0.00405	0.0137	1	10/22/2018 21:25	WG1184727
n-Butylbenzene	U		0.00421	0.0137	1	10/22/2018 21:25	WG1184727
sec-Butylbenzene	U		0.00277	0.0137	1	10/22/2018 21:25	WG1184727
tert-Butylbenzene	U		0.00170	0.00548	1	10/22/2018 21:25	WG1184727
Carbon disulfide	U		0.00445	0.0137	1	10/22/2018 21:25	WG1184727
Carbon tetrachloride	U		0.00118	0.00548	1	10/22/2018 21:25	WG1184727
Chlorobenzene	U		0.000628	0.00274	1	10/22/2018 21:25	WG1184727
Chlorodibromomethane	U		0.000493	0.00274	1	10/22/2018 21:25	WG1184727
Chloroethane	U		0.00118	0.00548	1	10/22/2018 21:25	WG1184727
Chloroform	0.00127	B J	0.000455	0.00274	1	10/22/2018 21:25	WG1184727
Chloromethane	U		0.00152	0.0137	1	10/22/2018 21:25	WG1184727
2-Chlorotoluene	U		0.00101	0.00274	1	10/22/2018 21:25	WG1184727
4-Chlorotoluene	U		0.00124	0.00548	1	10/22/2018 21:25	WG1184727
1,2-Dibromo-3-Chloropropane	U		0.00559	0.0274	1	10/22/2018 21:25	WG1184727
1,2-Dibromoethane	U		0.000575	0.00274	1	10/22/2018 21:25	WG1184727
Dibromomethane	U		0.00110	0.00548	1	10/22/2018 21:25	WG1184727
1,2-Dichlorobenzene	U		0.00159	0.00548	1	10/22/2018 21:25	WG1184727
1,3-Dichlorobenzene	U		0.00186	0.00548	1	10/22/2018 21:25	WG1184727
1,4-Dichlorobenzene	U		0.00216	0.00548	1	10/22/2018 21:25	WG1184727
Dichlorodifluoromethane	U		0.000896	0.00274	1	10/22/2018 21:25	WG1184727
1,1-Dichloroethane	U		0.000630	0.00274	1	10/22/2018 21:25	WG1184727
1,2-Dichloroethane	U		0.000520	0.00274	1	10/22/2018 21:25	WG1184727
1,1-Dichloroethene	U		0.000548	0.00274	1	10/22/2018 21:25	WG1184727
cis-1,2-Dichloroethene	0.00458		0.000756	0.00274	1	10/22/2018 21:25	WG1184727
trans-1,2-Dichloroethene	U		0.00157	0.00548	1	10/22/2018 21:25	WG1184727
1,2-Dichloropropane	U		0.0139	0.0548	10	10/24/2018 17:32	WG1185319
1,1-Dichloropropene	U		0.000767	0.00274	1	10/22/2018 21:25	WG1184727
1,3-Dichloropropane	U		0.00192	0.00548	1	10/22/2018 21:25	WG1184727
cis-1,3-Dichloropropene	U		0.000743	0.00274	1	10/22/2018 21:25	WG1184727
trans-1,3-Dichloropropene	U		0.00168	0.00548	1	10/22/2018 21:25	WG1184727
trans-1,4-Dichloro-2-butene	U		0.00153	0.00548	1	10/22/2018 21:25	WG1184727
2,2-Dichloropropane	U		0.000869	0.00274	1	10/22/2018 21:25	WG1184727
Di-isopropyl ether	U		0.000383	0.00110	1	10/22/2018 21:25	WG1184727
Ethylbenzene	U		0.000581	0.00274	1	10/22/2018 21:25	WG1184727
Hexachloro-1,3-butadiene	U		0.0139	0.0274	1	10/22/2018 21:25	WG1184727
2-Hexanone	U		0.0110	0.0274	1	10/22/2018 21:25	WG1184727
n-Hexane	U		0.0116	0.0548	10	10/24/2018 17:32	WG1185319
Iodomethane	U		0.00663	0.0137	1	10/22/2018 21:25	WG1184727
Isopropylbenzene	U		0.000945	0.00274	1	10/22/2018 21:25	WG1184727
p-Isopropyltoluene	U		0.00255	0.00548	1	10/22/2018 21:25	WG1184727
2-Butanone (MEK)	U		0.137	0.274	10	10/24/2018 17:32	WG1185319
Methylene Chloride	U		0.00727	0.0274	1	10/22/2018 21:25	WG1184727
4-Methyl-2-pentanone (MIBK)	U		0.0110	0.0274	1	10/22/2018 21:25	WG1184727

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000323	0.00110	1	10/22/2018 21:25	WG1184727
Naphthalene	U		0.00342	0.0137	1	10/22/2018 21:25	WG1184727
n-Propylbenzene	U		0.00129	0.00548	1	10/22/2018 21:25	WG1184727
Styrene	U		0.00299	0.0137	1	10/22/2018 21:25	WG1184727
1,1,1,2-Tetrachloroethane	U		0.000548	0.00274	1	10/22/2018 21:25	WG1184727
1,1,2,2-Tetrachloroethane	U		0.000427	0.00274	1	10/22/2018 21:25	WG1184727
1,1,2-Trichlorotrifluoroethane	U		0.000739	0.00274	1	10/22/2018 21:25	WG1184727
Tetrachloroethene	2.29	J0	0.00767	0.0274	10	10/24/2018 17:32	WG1185319
Toluene	U		0.00137	0.00548	1	10/22/2018 21:25	WG1184727
1,2,3-Trichlorobenzene	U		0.000685	0.00274	1	10/22/2018 21:25	WG1184727
1,2,4-Trichlorobenzene	U		0.00528	0.0137	1	10/22/2018 21:25	WG1184727
1,1,1-Trichloroethane	U		0.000301	0.00274	1	10/22/2018 21:25	WG1184727
1,1,2-Trichloroethane	U		0.00967	0.0274	10	10/24/2018 17:32	WG1185319
Trichloroethene	0.00740		0.000438	0.00110	1	10/22/2018 21:25	WG1184727
Trichlorofluoromethane	U		0.000548	0.00274	1	10/22/2018 21:25	WG1184727
1,2,3-Trichloropropane	U		0.00559	0.0137	1	10/22/2018 21:25	WG1184727
1,2,4-Trimethylbenzene	U		0.00127	0.00548	1	10/22/2018 21:25	WG1184727
1,2,3-Trimethylbenzene	U		0.00126	0.00548	1	10/22/2018 21:25	WG1184727
1,3,5-Trimethylbenzene	U		0.00118	0.00548	1	10/22/2018 21:25	WG1184727
Vinyl acetate	U		0.00386	0.0137	1	10/22/2018 21:25	WG1184727
Vinyl chloride	U		0.000748	0.00274	1	10/22/2018 21:25	WG1184727
Xylenes, Total	U		0.00524	0.00712	1	10/22/2018 21:25	WG1184727
(S) Toluene-d8	*129*			*75.0-131*		*10/22/2018 21:25*	WG1184727
(S) Toluene-d8	*96.5*			*75.0-131*		*10/24/2018 17:32*	WG1185319
(S) Dibromofluoromethane	*84.8*			*65.0-129*		*10/22/2018 21:25*	WG1184727
(S) Dibromofluoromethane	*117*			*65.0-129*		*10/24/2018 17:32*	WG1185319
(S) 4-Bromofluorobenzene	*81.5*			*67.0-138*		*10/22/2018 21:25*	WG1184727
(S) 4-Bromofluorobenzene	*128*			*67.0-138*		*10/24/2018 17:32*	WG1185319

Sample Narrative:

L1036473-20 WG1185319, WG1184727: Cannot be reanalyzed at a lower dilution due to high levels of target analytes.

L1036473-20 WG1185319, WG1184727: Not all compounds reportable at lower dilution.

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	89.1		1	10/24/2018 13:36	WG1185670

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		1.24	2.25	80	10/24/2018 19:32	WG1185319
Acrylonitrile	U		0.00213	0.0140	1	10/22/2018 21:45	WG1184727
Benzene	U		0.000449	0.00112	1	10/22/2018 21:45	WG1184727
Bromobenzene	U		0.00118	0.0140	1	10/22/2018 21:45	WG1184727
Bromodichloromethane	U		0.0707	0.225	80	10/24/2018 19:32	WG1185319
Bromochloromethane	U		0.00127	0.00561	1	10/22/2018 21:45	WG1184727
Bromoform	U		0.00671	0.0281	1	10/22/2018 21:45	WG1184727
Bromomethane	U		0.00415	0.0140	1	10/22/2018 21:45	WG1184727
n-Butylbenzene	U		0.00431	0.0140	1	10/22/2018 21:45	WG1184727
sec-Butylbenzene	U		0.00284	0.0140	1	10/22/2018 21:45	WG1184727
tert-Butylbenzene	U		0.00174	0.00561	1	10/22/2018 21:45	WG1184727
Carbon disulfide	U		0.00456	0.0140	1	10/22/2018 21:45	WG1184727
Carbon tetrachloride	U		0.00121	0.00561	1	10/22/2018 21:45	WG1184727
Chlorobenzene	U		0.000643	0.00281	1	10/22/2018 21:45	WG1184727
Chlorodibromomethane	U		0.000505	0.00281	1	10/22/2018 21:45	WG1184727
Chloroethane	U		0.00121	0.00561	1	10/22/2018 21:45	WG1184727
Chloroform	0.00111	B J	0.000466	0.00281	1	10/22/2018 21:45	WG1184727
Chloromethane	U		0.00156	0.0140	1	10/22/2018 21:45	WG1184727
2-Chlorotoluene	U		0.00103	0.00281	1	10/22/2018 21:45	WG1184727
4-Chlorotoluene	U		0.00127	0.00561	1	10/22/2018 21:45	WG1184727
1,2-Dibromo-3-Chloropropane	U		0.00573	0.0281	1	10/22/2018 21:45	WG1184727
1,2-Dibromoethane	U		0.000590	0.00281	1	10/22/2018 21:45	WG1184727
Dibromomethane	U		0.00112	0.00561	1	10/22/2018 21:45	WG1184727
1,2-Dichlorobenzene	U		0.00163	0.00561	1	10/22/2018 21:45	WG1184727
1,3-Dichlorobenzene	U		0.00191	0.00561	1	10/22/2018 21:45	WG1184727
1,4-Dichlorobenzene	U		0.00221	0.00561	1	10/22/2018 21:45	WG1184727
Dichlorodifluoromethane	U		0.000919	0.00281	1	10/22/2018 21:45	WG1184727
1,1-Dichloroethane	U		0.000646	0.00281	1	10/22/2018 21:45	WG1184727
1,2-Dichloroethane	U		0.000533	0.00281	1	10/22/2018 21:45	WG1184727
1,1-Dichloroethene	U		0.000561	0.00281	1	10/22/2018 21:45	WG1184727
cis-1,2-Dichloroethene	0.00229	J	0.000775	0.00281	1	10/22/2018 21:45	WG1184727
trans-1,2-Dichloroethene	U		0.00161	0.00561	1	10/22/2018 21:45	WG1184727
1,2-Dichloropropane	U		0.00143	0.00561	1	10/22/2018 21:45	WG1184727
1,1-Dichloropropene	U		0.000786	0.00281	1	10/22/2018 21:45	WG1184727
1,3-Dichloropropane	U		0.00197	0.00561	1	10/22/2018 21:45	WG1184727
cis-1,3-Dichloropropene	U		0.000761	0.00281	1	10/22/2018 21:45	WG1184727
trans-1,3-Dichloropropene	U		0.00172	0.00561	1	10/22/2018 21:45	WG1184727
trans-1,4-Dichloro-2-butene	U		0.00157	0.00561	1	10/22/2018 21:45	WG1184727
2,2-Dichloropropane	U		0.000890	0.00281	1	10/22/2018 21:45	WG1184727
Di-isopropyl ether	U		0.000393	0.00112	1	10/22/2018 21:45	WG1184727
Ethylbenzene	U		0.000595	0.00281	1	10/22/2018 21:45	WG1184727
Hexachloro-1,3-butadiene	U		0.0143	0.0281	1	10/22/2018 21:45	WG1184727
2-Hexanone	U		0.0112	0.0281	1	10/22/2018 21:45	WG1184727
n-Hexane	U		0.0952	0.449	80	10/24/2018 19:32	WG1185319
Iodomethane	U		0.00679	0.0140	1	10/22/2018 21:45	WG1184727
Isopropylbenzene	U		0.000969	0.00281	1	10/22/2018 21:45	WG1184727
p-Isopropyltoluene	U		0.00262	0.00561	1	10/22/2018 21:45	WG1184727
2-Butanone (MEK)	U		1.12	2.25	80	10/24/2018 19:32	WG1185319
Methylene Chloride	U		0.00746	0.0281	1	10/22/2018 21:45	WG1184727
4-Methyl-2-pentanone (MIBK)	U		0.0112	0.0281	1	10/22/2018 21:45	WG1184727

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

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000331	0.00112	1	10/22/2018 21:45	WG1184727
Naphthalene	U		0.00350	0.0140	1	10/22/2018 21:45	WG1184727
n-Propylbenzene	U		0.00132	0.00561	1	10/22/2018 21:45	WG1184727
Styrene	U		0.00307	0.0140	1	10/22/2018 21:45	WG1184727
1,1,1,2-Tetrachloroethane	U		0.000561	0.00281	1	10/22/2018 21:45	WG1184727
1,1,2,2-Tetrachloroethane	U		0.000438	0.00281	1	10/22/2018 21:45	WG1184727
1,1,2-Trichlorotrifluoroethane	U		0.000758	0.00281	1	10/22/2018 21:45	WG1184727
Tetrachloroethene	15.7	J0	0.0629	0.225	80	10/24/2018 19:32	WG1185319
Toluene	0.00193	J	0.00140	0.00561	1	10/22/2018 21:45	WG1184727
1,2,3-Trichlorobenzene	U		0.000702	0.00281	1	10/22/2018 21:45	WG1184727
1,2,4-Trichlorobenzene	U		0.00541	0.0140	1	10/22/2018 21:45	WG1184727
1,1,1-Trichloroethane	U		0.000309	0.00281	1	10/22/2018 21:45	WG1184727
1,1,2-Trichloroethane	U		0.0793	0.225	80	10/24/2018 19:32	WG1185319
Trichloroethene	0.0186		0.000449	0.00112	1	10/22/2018 21:45	WG1184727
Trichlorofluoromethane	U		0.000561	0.00281	1	10/22/2018 21:45	WG1184727
1,2,3-Trichloropropane	U		0.00573	0.0140	1	10/22/2018 21:45	WG1184727
1,2,4-Trimethylbenzene	0.00139	J	0.00130	0.00561	1	10/22/2018 21:45	WG1184727
1,2,3-Trimethylbenzene	U		0.00129	0.00561	1	10/22/2018 21:45	WG1184727
1,3,5-Trimethylbenzene	U		0.00121	0.00561	1	10/22/2018 21:45	WG1184727
Vinyl acetate	U		0.00395	0.0140	1	10/22/2018 21:45	WG1184727
Vinyl chloride	U		0.000767	0.00281	1	10/22/2018 21:45	WG1184727
Xylenes, Total	U		0.00537	0.00730	1	10/22/2018 21:45	WG1184727
(S) Toluene-d8	*132*	J1		*75.0-131*		*10/22/2018 21:45*	WG1184727
(S) Toluene-d8	*97.8*			*75.0-131*		*10/24/2018 19:32*	WG1185319
(S) Dibromofluoromethane	*87.2*			*65.0-129*		*10/22/2018 21:45*	WG1184727
(S) Dibromofluoromethane	*119*			*65.0-129*		*10/24/2018 19:32*	WG1185319
(S) 4-Bromofluorobenzene	*80.8*			*67.0-138*		*10/22/2018 21:45*	WG1184727
(S) 4-Bromofluorobenzene	*123*			*67.0-138*		*10/24/2018 19:32*	WG1185319

Sample Narrative:

L1036473-21 WG1185319, WG1184727: Cannot be reanalyzed at a lower dilution due to high levels of target analytes.

L1036473-21 WG1185319, WG1184727: Not all compounds reportable at lower dilution.

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	90.8		1	10/24/2018 13:36	WG1185670

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0604	0.110	4	10/24/2018 17:52	WG1185319
Acrylonitrile	U		0.00209	0.0138	1	10/22/2018 22:05	WG1184727
Benzene	U		0.000441	0.00110	1	10/22/2018 22:05	WG1184727
Bromobenzene	U		0.00116	0.0138	1	10/22/2018 22:05	WG1184727
Bromodichloromethane	U		0.000868	0.00275	1	10/22/2018 22:05	WG1184727
Bromochloromethane	U		0.00124	0.00551	1	10/22/2018 22:05	WG1184727
Bromoform	U		0.00659	0.0275	1	10/22/2018 22:05	WG1184727
Bromomethane	U		0.00408	0.0138	1	10/22/2018 22:05	WG1184727
n-Butylbenzene	U		0.00423	0.0138	1	10/22/2018 22:05	WG1184727
sec-Butylbenzene	U		0.00279	0.0138	1	10/22/2018 22:05	WG1184727
tert-Butylbenzene	U		0.00171	0.00551	1	10/22/2018 22:05	WG1184727
Carbon disulfide	U		0.00447	0.0138	1	10/22/2018 22:05	WG1184727
Carbon tetrachloride	U		0.00119	0.00551	1	10/22/2018 22:05	WG1184727
Chlorobenzene	U		0.000631	0.00275	1	10/22/2018 22:05	WG1184727
Chlorodibromomethane	U		0.000496	0.00275	1	10/22/2018 22:05	WG1184727
Chloroethane	U		0.00119	0.00551	1	10/22/2018 22:05	WG1184727
Chloroform	0.00118	B J	0.000457	0.00275	1	10/22/2018 22:05	WG1184727
Chloromethane	U		0.00153	0.0138	1	10/22/2018 22:05	WG1184727
2-Chlorotoluene	U		0.00101	0.00275	1	10/22/2018 22:05	WG1184727
4-Chlorotoluene	U		0.00124	0.00551	1	10/22/2018 22:05	WG1184727
1,2-Dibromo-3-Chloropropane	U		0.00562	0.0275	1	10/22/2018 22:05	WG1184727
1,2-Dibromoethane	U		0.000578	0.00275	1	10/22/2018 22:05	WG1184727
Dibromomethane	U		0.00110	0.00551	1	10/22/2018 22:05	WG1184727
1,2-Dichlorobenzene	U		0.00160	0.00551	1	10/22/2018 22:05	WG1184727
1,3-Dichlorobenzene	U		0.00187	0.00551	1	10/22/2018 22:05	WG1184727
1,4-Dichlorobenzene	U		0.00217	0.00551	1	10/22/2018 22:05	WG1184727
Dichlorodifluoromethane	U		0.000901	0.00275	1	10/22/2018 22:05	WG1184727
1,1-Dichloroethane	U		0.000633	0.00275	1	10/22/2018 22:05	WG1184727
1,2-Dichloroethane	U		0.000523	0.00275	1	10/22/2018 22:05	WG1184727
1,1-Dichloroethene	U		0.000551	0.00275	1	10/22/2018 22:05	WG1184727
cis-1,2-Dichloroethene	U		0.000760	0.00275	1	10/22/2018 22:05	WG1184727
trans-1,2-Dichloroethene	U		0.00158	0.00551	1	10/22/2018 22:05	WG1184727
1,2-Dichloropropane	U		0.00560	0.0220	4	10/24/2018 17:52	WG1185319
1,1-Dichloropropene	U		0.000771	0.00275	1	10/22/2018 22:05	WG1184727
1,3-Dichloropropane	U		0.00193	0.00551	1	10/22/2018 22:05	WG1184727
cis-1,3-Dichloropropene	U		0.000747	0.00275	1	10/22/2018 22:05	WG1184727
trans-1,3-Dichloropropene	U		0.00169	0.00551	1	10/22/2018 22:05	WG1184727
trans-1,4-Dichloro-2-butene	U		0.00154	0.00551	1	10/22/2018 22:05	WG1184727
2,2-Dichloropropane	U		0.000873	0.00275	1	10/22/2018 22:05	WG1184727
Di-isopropyl ether	U		0.000386	0.00110	1	10/22/2018 22:05	WG1184727
Ethylbenzene	U		0.000584	0.00275	1	10/22/2018 22:05	WG1184727
Hexachloro-1,3-butadiene	U		0.0140	0.0275	1	10/22/2018 22:05	WG1184727
2-Hexanone	U		0.0110	0.0275	1	10/22/2018 22:05	WG1184727
n-Hexane	U		0.00467	0.0220	4	10/24/2018 17:52	WG1185319
Iodomethane	U		0.00666	0.0138	1	10/22/2018 22:05	WG1184727
Isopropylbenzene	U		0.000951	0.00275	1	10/22/2018 22:05	WG1184727
p-Isopropyltoluene	U		0.00257	0.00551	1	10/22/2018 22:05	WG1184727
2-Butanone (MEK)	U		0.0551	0.110	4	10/24/2018 17:52	WG1185319
Methylene Chloride	U		0.00731	0.0275	1	10/22/2018 22:05	WG1184727
4-Methyl-2-pentanone (MIBK)	U		0.0110	0.0275	1	10/22/2018 22:05	WG1184727

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000325	0.00110	1	10/22/2018 22:05	WG1184727
Naphthalene	U		0.00344	0.0138	1	10/22/2018 22:05	WG1184727
n-Propylbenzene	U		0.00130	0.00551	1	10/22/2018 22:05	WG1184727
Styrene	U		0.00301	0.0138	1	10/22/2018 22:05	WG1184727
1,1,1,2-Tetrachloroethane	U		0.000551	0.00275	1	10/22/2018 22:05	WG1184727
1,1,2,2-Tetrachloroethane	U		0.000430	0.00275	1	10/22/2018 22:05	WG1184727
1,1,2-Trichlorotrifluoroethane	U		0.000743	0.00275	1	10/22/2018 22:05	WG1184727
Tetrachloroethene	0.868	J0	0.00308	0.0110	4	10/24/2018 17:52	WG1185319
Toluene	U		0.00138	0.00551	1	10/22/2018 22:05	WG1184727
1,2,3-Trichlorobenzene	U		0.000688	0.00275	1	10/22/2018 22:05	WG1184727
1,2,4-Trichlorobenzene	U		0.00531	0.0138	1	10/22/2018 22:05	WG1184727
1,1,1-Trichloroethane	U		0.000303	0.00275	1	10/22/2018 22:05	WG1184727
1,1,2-Trichloroethane	U		0.00389	0.0110	4	10/24/2018 17:52	WG1185319
Trichloroethene	0.00529		0.000441	0.00110	1	10/22/2018 22:05	WG1184727
Trichlorofluoromethane	U		0.000551	0.00275	1	10/22/2018 22:05	WG1184727
1,2,3-Trichloropropane	U		0.00562	0.0138	1	10/22/2018 22:05	WG1184727
1,2,4-Trimethylbenzene	U		0.00128	0.00551	1	10/22/2018 22:05	WG1184727
1,2,3-Trimethylbenzene	U		0.00127	0.00551	1	10/22/2018 22:05	WG1184727
1,3,5-Trimethylbenzene	U		0.00119	0.00551	1	10/22/2018 22:05	WG1184727
Vinyl acetate	U		0.00388	0.0138	1	10/22/2018 22:05	WG1184727
Vinyl chloride	U		0.000752	0.00275	1	10/22/2018 22:05	WG1184727
Xylenes, Total	U		0.00526	0.00716	1	10/22/2018 22:05	WG1184727
(S) Toluene-d8	*127*			*75.0-131*		*10/22/2018 22:05*	WG1184727
(S) Toluene-d8	*98.2*			*75.0-131*		*10/24/2018 17:52*	WG1185319
(S) Dibromofluoromethane	*93.5*			*65.0-129*		*10/22/2018 22:05*	WG1184727
(S) Dibromofluoromethane	*119*			*65.0-129*		*10/24/2018 17:52*	WG1185319
(S) 4-Bromofluorobenzene	*89.2*			*67.0-138*		*10/22/2018 22:05*	WG1184727
(S) 4-Bromofluorobenzene	*122*			*67.0-138*		*10/24/2018 17:52*	WG1185319

Sample Narrative:

L1036473-22 WG1185319, WG1184727: Cannot be reanalyzed at a lower dilution due to high levels of target analytes.

L1036473-22 WG1185319, WG1184727: Not all compounds reportable at lower dilution.

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	82.1		1	10/24/2018 13:36	WG1185670

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	0.0288	J	0.0167	0.0305	1	10/24/2018 14:32	WG1185319
Acrylonitrile	U		0.00232	0.0152	1	10/22/2018 22:26	WG1184727
Benzene	U		0.000487	0.00122	1	10/22/2018 22:26	WG1184727
Bromobenzene	U		0.00128	0.0152	1	10/22/2018 22:26	WG1184727
Bromodichloromethane	U		0.000960	0.00305	1	10/22/2018 22:26	WG1184727
Bromochloromethane	U		0.00138	0.00609	1	10/22/2018 22:26	WG1184727
Bromoform	U		0.00729	0.0305	1	10/22/2018 22:26	WG1184727
Bromomethane	U		0.00451	0.0152	1	10/22/2018 22:26	WG1184727
n-Butylbenzene	U		0.00468	0.0152	1	10/22/2018 22:26	WG1184727
sec-Butylbenzene	U		0.00308	0.0152	1	10/22/2018 22:26	WG1184727
tert-Butylbenzene	U		0.00189	0.00609	1	10/22/2018 22:26	WG1184727
Carbon disulfide	U		0.00495	0.0152	1	10/22/2018 22:26	WG1184727
Carbon tetrachloride	U		0.00132	0.00609	1	10/22/2018 22:26	WG1184727
Chlorobenzene	U		0.000698	0.00305	1	10/22/2018 22:26	WG1184727
Chlorodibromomethane	U		0.000548	0.00305	1	10/22/2018 22:26	WG1184727
Chloroethane	U		0.00132	0.00609	1	10/22/2018 22:26	WG1184727
Chloroform	0.00119	B J	0.000506	0.00305	1	10/22/2018 22:26	WG1184727
Chloromethane	U		0.00169	0.0152	1	10/22/2018 22:26	WG1184727
2-Chlorotoluene	U		0.00112	0.00305	1	10/22/2018 22:26	WG1184727
4-Chlorotoluene	U		0.00138	0.00609	1	10/22/2018 22:26	WG1184727
1,2-Dibromo-3-Chloropropane	U		0.00621	0.0305	1	10/22/2018 22:26	WG1184727
1,2-Dibromoethane	U		0.000640	0.00305	1	10/22/2018 22:26	WG1184727
Dibromomethane	U		0.00122	0.00609	1	10/22/2018 22:26	WG1184727
1,2-Dichlorobenzene	U		0.00177	0.00609	1	10/22/2018 22:26	WG1184727
1,3-Dichlorobenzene	U		0.00207	0.00609	1	10/22/2018 22:26	WG1184727
1,4-Dichlorobenzene	U		0.00240	0.00609	1	10/22/2018 22:26	WG1184727
Dichlorodifluoromethane	U		0.000997	0.00305	1	10/22/2018 22:26	WG1184727
1,1-Dichloroethane	U		0.000701	0.00305	1	10/22/2018 22:26	WG1184727
1,2-Dichloroethane	U		0.000579	0.00305	1	10/22/2018 22:26	WG1184727
1,1-Dichloroethene	U		0.000609	0.00305	1	10/22/2018 22:26	WG1184727
cis-1,2-Dichloroethene	0.00515		0.000841	0.00305	1	10/22/2018 22:26	WG1184727
trans-1,2-Dichloroethene	U		0.00174	0.00609	1	10/22/2018 22:26	WG1184727
1,2-Dichloropropane	U		0.00155	0.00609	1	10/24/2018 14:32	WG1185319
1,1-Dichloropropene	U		0.000853	0.00305	1	10/22/2018 22:26	WG1184727
1,3-Dichloropropane	U		0.00213	0.00609	1	10/22/2018 22:26	WG1184727
cis-1,3-Dichloropropene	U		0.000826	0.00305	1	10/22/2018 22:26	WG1184727
trans-1,3-Dichloropropene	U		0.00186	0.00609	1	10/22/2018 22:26	WG1184727
trans-1,4-Dichloro-2-butene	U		0.00171	0.00609	1	10/22/2018 22:26	WG1184727
2,2-Dichloropropane	U		0.000966	0.00305	1	10/22/2018 22:26	WG1184727
Di-isopropyl ether	U		0.000426	0.00122	1	10/22/2018 22:26	WG1184727
Ethylbenzene	U		0.000646	0.00305	1	10/22/2018 22:26	WG1184727
Hexachloro-1,3-butadiene	U		0.0155	0.0305	1	10/22/2018 22:26	WG1184727
2-Hexanone	U		0.0122	0.0305	1	10/22/2018 22:26	WG1184727
n-Hexane	0.00663		0.00129	0.00609	1	10/24/2018 14:32	WG1185319
Iodomethane	U		0.00737	0.0152	1	10/22/2018 22:26	WG1184727
Isopropylbenzene	U		0.00105	0.00305	1	10/22/2018 22:26	WG1184727
p-Isopropyltoluene	U		0.00284	0.00609	1	10/22/2018 22:26	WG1184727
2-Butanone (MEK)	U		0.0152	0.0305	1	10/24/2018 14:32	WG1185319
Methylene Chloride	U		0.00809	0.0305	1	10/22/2018 22:26	WG1184727
4-Methyl-2-pentanone (MIBK)	U		0.0122	0.0305	1	10/22/2018 22:26	WG1184727

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000359	0.00122	1	10/22/2018 22:26	WG1184727
Naphthalene	U		0.00380	0.0152	1	10/22/2018 22:26	WG1184727
n-Propylbenzene	U		0.00144	0.00609	1	10/22/2018 22:26	WG1184727
Styrene	U		0.00333	0.0152	1	10/22/2018 22:26	WG1184727
1,1,1,2-Tetrachloroethane	U		0.000609	0.00305	1	10/22/2018 22:26	WG1184727
1,1,2,2-Tetrachloroethane	U		0.000475	0.00305	1	10/22/2018 22:26	WG1184727
1,1,2-Trichlorotrifluoroethane	U		0.000823	0.00305	1	10/22/2018 22:26	WG1184727
Tetrachloroethene	0.0153	J0	0.000853	0.00305	1	10/24/2018 14:32	WG1185319
Toluene	0.00546	J	0.00152	0.00609	1	10/22/2018 22:26	WG1184727
1,2,3-Trichlorobenzene	U		0.000762	0.00305	1	10/22/2018 22:26	WG1184727
1,2,4-Trichlorobenzene	U		0.00587	0.0152	1	10/22/2018 22:26	WG1184727
1,1,1-Trichloroethane	U		0.000335	0.00305	1	10/22/2018 22:26	WG1184727
1,1,2-Trichloroethane	U		0.00108	0.00305	1	10/24/2018 14:32	WG1185319
Trichloroethene	0.00639		0.000487	0.00122	1	10/22/2018 22:26	WG1184727
Trichlorofluoromethane	U		0.000609	0.00305	1	10/22/2018 22:26	WG1184727
1,2,3-Trichloropropane	U		0.00621	0.0152	1	10/22/2018 22:26	WG1184727
1,2,4-Trimethylbenzene	U		0.00141	0.00609	1	10/22/2018 22:26	WG1184727
1,2,3-Trimethylbenzene	U		0.00140	0.00609	1	10/22/2018 22:26	WG1184727
1,3,5-Trimethylbenzene	U		0.00132	0.00609	1	10/22/2018 22:26	WG1184727
Vinyl acetate	U		0.00429	0.0152	1	10/22/2018 22:26	WG1184727
Vinyl chloride	U		0.000832	0.00305	1	10/22/2018 22:26	WG1184727
Xylenes, Total	U		0.00582	0.00792	1	10/22/2018 22:26	WG1184727
(S) Toluene-d8	*127*			*75.0-131*		*10/22/2018 22:26*	WG1184727
(S) Toluene-d8	*98.5*			*75.0-131*		*10/24/2018 14:32*	WG1185319
(S) Dibromofluoromethane	*94.8*			*65.0-129*		*10/22/2018 22:26*	WG1184727
(S) Dibromofluoromethane	*116*			*65.0-129*		*10/24/2018 14:32*	WG1185319
(S) 4-Bromofluorobenzene	*88.2*			*67.0-138*		*10/22/2018 22:26*	WG1184727
(S) 4-Bromofluorobenzene	*122*			*67.0-138*		*10/24/2018 14:32*	WG1185319

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	83.3		1	10/24/2018 13:36	WG1185670

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0173	0.0315	1.05	10/24/2018 14:52	WG1185319
Acrylonitrile	U		0.00241	0.0159	1.06	10/22/2018 22:46	WG1184727
Benzene	U		0.000509	0.00127	1.06	10/22/2018 22:46	WG1184727
Bromobenzene	U		0.00133	0.0159	1.06	10/22/2018 22:46	WG1184727
Bromodichloromethane	U		0.00100	0.00318	1.06	10/22/2018 22:46	WG1184727
Bromochloromethane	U		0.00144	0.00636	1.06	10/22/2018 22:46	WG1184727
Bromoform	U		0.00761	0.0318	1.06	10/22/2018 22:46	WG1184727
Bromomethane	U		0.00471	0.0159	1.06	10/22/2018 22:46	WG1184727
n-Butylbenzene	U		0.00489	0.0159	1.06	10/22/2018 22:46	WG1184727
sec-Butylbenzene	U		0.00322	0.0159	1.06	10/22/2018 22:46	WG1184727
tert-Butylbenzene	U		0.00197	0.00636	1.06	10/22/2018 22:46	WG1184727
Carbon disulfide	U		0.00516	0.0159	1.06	10/22/2018 22:46	WG1184727
Carbon tetrachloride	U		0.00137	0.00636	1.06	10/22/2018 22:46	WG1184727
Chlorobenzene	U		0.000729	0.00318	1.06	10/22/2018 22:46	WG1184727
Chlorodibromomethane	U		0.000573	0.00318	1.06	10/22/2018 22:46	WG1184727
Chloroethane	U		0.00137	0.00636	1.06	10/22/2018 22:46	WG1184727
Chloroform	0.00156	B J	0.000528	0.00318	1.06	10/22/2018 22:46	WG1184727
Chloromethane	U		0.00176	0.0159	1.06	10/22/2018 22:46	WG1184727
2-Chlorotoluene	U		0.00117	0.00318	1.06	10/22/2018 22:46	WG1184727
4-Chlorotoluene	U		0.00144	0.00636	1.06	10/22/2018 22:46	WG1184727
1,2-Dibromo-3-Chloropropane	U		0.00649	0.0318	1.06	10/22/2018 22:46	WG1184727
1,2-Dibromoethane	U		0.000667	0.00318	1.06	10/22/2018 22:46	WG1184727
Dibromomethane	U		0.00127	0.00636	1.06	10/22/2018 22:46	WG1184727
1,2-Dichlorobenzene	U		0.00185	0.00636	1.06	10/22/2018 22:46	WG1184727
1,3-Dichlorobenzene	U		0.00216	0.00636	1.06	10/22/2018 22:46	WG1184727
1,4-Dichlorobenzene	U		0.00251	0.00636	1.06	10/22/2018 22:46	WG1184727
Dichlorodifluoromethane	U		0.00104	0.00318	1.06	10/22/2018 22:46	WG1184727
1,1-Dichloroethane	U		0.000732	0.00318	1.06	10/22/2018 22:46	WG1184727
1,2-Dichloroethane	U		0.000605	0.00318	1.06	10/22/2018 22:46	WG1184727
1,1-Dichloroethene	U		0.000636	0.00318	1.06	10/22/2018 22:46	WG1184727
cis-1,2-Dichloroethene	0.00854		0.000877	0.00318	1.06	10/22/2018 22:46	WG1184727
trans-1,2-Dichloroethene	U		0.00182	0.00636	1.06	10/22/2018 22:46	WG1184727
1,2-Dichloropropane	U		0.00160	0.00630	1.05	10/24/2018 14:52	WG1185319
1,1-Dichloropropene	U		0.000891	0.00318	1.06	10/22/2018 22:46	WG1184727
1,3-Dichloropropane	U		0.00223	0.00636	1.06	10/22/2018 22:46	WG1184727
cis-1,3-Dichloropropene	U		0.000863	0.00318	1.06	10/22/2018 22:46	WG1184727
trans-1,3-Dichloropropene	U		0.00194	0.00636	1.06	10/22/2018 22:46	WG1184727
trans-1,4-Dichloro-2-butene	U		0.00178	0.00636	1.06	10/22/2018 22:46	WG1184727
2,2-Dichloropropane	U		0.00101	0.00318	1.06	10/22/2018 22:46	WG1184727
Di-isopropyl ether	U		0.000445	0.00127	1.06	10/22/2018 22:46	WG1184727
Ethylbenzene	U		0.000675	0.00318	1.06	10/22/2018 22:46	WG1184727
Hexachloro-1,3-butadiene	U		0.0162	0.0318	1.06	10/22/2018 22:46	WG1184727
2-Hexanone	U		0.0127	0.0318	1.06	10/22/2018 22:46	WG1184727
n-Hexane	U		0.00133	0.00630	1.05	10/24/2018 14:52	WG1185319
Iodomethane	U		0.00769	0.0159	1.06	10/22/2018 22:46	WG1184727
Isopropylbenzene	U		0.00110	0.00318	1.06	10/22/2018 22:46	WG1184727
p-Isopropyltoluene	U		0.00296	0.00636	1.06	10/22/2018 22:46	WG1184727
2-Butanone (MEK)	U		0.0157	0.0315	1.05	10/24/2018 14:52	WG1185319
Methylene Chloride	U		0.00845	0.0318	1.06	10/22/2018 22:46	WG1184727
4-Methyl-2-pentanone (MIBK)	U		0.0127	0.0318	1.06	10/22/2018 22:46	WG1184727

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000376	0.00127	1.06	10/22/2018 22:46	WG1184727
Naphthalene	U		0.00397	0.0159	1.06	10/22/2018 22:46	WG1184727
n-Propylbenzene	U		0.00150	0.00636	1.06	10/22/2018 22:46	WG1184727
Styrene	U		0.00347	0.0159	1.06	10/22/2018 22:46	WG1184727
1,1,1,2-Tetrachloroethane	U		0.000636	0.00318	1.06	10/22/2018 22:46	WG1184727
1,1,2,2-Tetrachloroethane	U		0.000496	0.00318	1.06	10/22/2018 22:46	WG1184727
1,1,2-Trichlorotrifluoroethane	U		0.000859	0.00318	1.06	10/22/2018 22:46	WG1184727
Tetrachloroethene	0.00703	J0	0.000882	0.00315	1.05	10/24/2018 14:52	WG1185319
Toluene	0.00302	J	0.00158	0.00636	1.06	10/22/2018 22:46	WG1184727
1,2,3-Trichlorobenzene	U		0.000795	0.00318	1.06	10/22/2018 22:46	WG1184727
1,2,4-Trichlorobenzene	U		0.00613	0.0159	1.06	10/22/2018 22:46	WG1184727
1,1,1-Trichloroethane	U		0.000350	0.00318	1.06	10/22/2018 22:46	WG1184727
1,1,2-Trichloroethane	U		0.00111	0.00315	1.05	10/24/2018 14:52	WG1185319
Trichloroethene	0.00919		0.000509	0.00127	1.06	10/22/2018 22:46	WG1184727
Trichlorofluoromethane	U		0.000636	0.00318	1.06	10/22/2018 22:46	WG1184727
1,2,3-Trichloropropane	U		0.00649	0.0159	1.06	10/22/2018 22:46	WG1184727
1,2,4-Trimethylbenzene	U		0.00148	0.00636	1.06	10/22/2018 22:46	WG1184727
1,2,3-Trimethylbenzene	U		0.00146	0.00636	1.06	10/22/2018 22:46	WG1184727
1,3,5-Trimethylbenzene	U		0.00137	0.00636	1.06	10/22/2018 22:46	WG1184727
Vinyl acetate	U		0.00448	0.0159	1.06	10/22/2018 22:46	WG1184727
Vinyl chloride	U		0.000869	0.00318	1.06	10/22/2018 22:46	WG1184727
Xylenes, Total	U		0.00609	0.00827	1.06	10/22/2018 22:46	WG1184727
(S) Toluene-d8	*124*			*75.0-131*		*10/22/2018 22:46*	WG1184727
(S) Toluene-d8	*98.9*			*75.0-131*		*10/24/2018 14:52*	WG1185319
(S) Dibromofluoromethane	*85.6*			*65.0-129*		*10/22/2018 22:46*	WG1184727
(S) Dibromofluoromethane	*116*			*65.0-129*		*10/24/2018 14:52*	WG1185319
(S) 4-Bromofluorobenzene	*88.2*			*67.0-138*		*10/22/2018 22:46*	WG1184727
(S) 4-Bromofluorobenzene	*120*			*67.0-138*		*10/24/2018 14:52*	WG1185319

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	87.6		1	10/24/2018 14:00	WG1185671

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0220	0.0402	1.41	10/24/2018 15:12	WG1185319
Acrylonitrile	U		0.00306	0.0201	1.41	10/22/2018 23:06	WG1184727
Benzene	U		0.000644	0.00161	1.41	10/22/2018 23:06	WG1184727
Bromobenzene	U		0.00169	0.0201	1.41	10/22/2018 23:06	WG1184727
Bromodichloromethane	U		0.00127	0.00402	1.41	10/22/2018 23:06	WG1184727
Bromochloromethane	U		0.00181	0.00805	1.41	10/22/2018 23:06	WG1184727
Bromoform	U		0.00962	0.0402	1.41	10/22/2018 23:06	WG1184727
Bromomethane	U		0.00596	0.0201	1.41	10/22/2018 23:06	WG1184727
n-Butylbenzene	U		0.00617	0.0201	1.41	10/22/2018 23:06	WG1184727
sec-Butylbenzene	U		0.00407	0.0201	1.41	10/22/2018 23:06	WG1184727
tert-Butylbenzene	U		0.00249	0.00805	1.41	10/22/2018 23:06	WG1184727
Carbon disulfide	U		0.00653	0.0201	1.41	10/22/2018 23:06	WG1184727
Carbon tetrachloride	U		0.00173	0.00805	1.41	10/22/2018 23:06	WG1184727
Chlorobenzene	U		0.000922	0.00402	1.41	10/22/2018 23:06	WG1184727
Chlorodibromomethane	U		0.000724	0.00402	1.41	10/22/2018 23:06	WG1184727
Chloroethane	U		0.00173	0.00805	1.41	10/22/2018 23:06	WG1184727
Chloroform	0.00180	B J	0.000668	0.00402	1.41	10/22/2018 23:06	WG1184727
Chloromethane	U		0.00224	0.0201	1.41	10/22/2018 23:06	WG1184727
2-Chlorotoluene	U		0.00148	0.00402	1.41	10/22/2018 23:06	WG1184727
4-Chlorotoluene	U		0.00181	0.00805	1.41	10/22/2018 23:06	WG1184727
1,2-Dibromo-3-Chloropropane	U		0.00821	0.0402	1.41	10/22/2018 23:06	WG1184727
1,2-Dibromoethane	U		0.000845	0.00402	1.41	10/22/2018 23:06	WG1184727
Dibromomethane	U		0.00161	0.00805	1.41	10/22/2018 23:06	WG1184727
1,2-Dichlorobenzene	U		0.00233	0.00805	1.41	10/22/2018 23:06	WG1184727
1,3-Dichlorobenzene	U		0.00274	0.00805	1.41	10/22/2018 23:06	WG1184727
1,4-Dichlorobenzene	U		0.00317	0.00805	1.41	10/22/2018 23:06	WG1184727
Dichlorodifluoromethane	U		0.00131	0.00402	1.41	10/22/2018 23:06	WG1184727
1,1-Dichloroethane	U		0.000926	0.00402	1.41	10/22/2018 23:06	WG1184727
1,2-Dichloroethane	U		0.000765	0.00402	1.41	10/22/2018 23:06	WG1184727
1,1-Dichloroethene	U		0.000805	0.00402	1.41	10/22/2018 23:06	WG1184727
cis-1,2-Dichloroethene	0.00620		0.00111	0.00402	1.41	10/22/2018 23:06	WG1184727
trans-1,2-Dichloroethene	U		0.00231	0.00805	1.41	10/22/2018 23:06	WG1184727
1,2-Dichloropropane	U		0.00204	0.00805	1.41	10/24/2018 15:12	WG1185319
1,1-Dichloropropene	U		0.00113	0.00402	1.41	10/22/2018 23:06	WG1184727
1,3-Dichloropropane	U		0.00282	0.00805	1.41	10/22/2018 23:06	WG1184727
cis-1,3-Dichloropropene	U		0.00109	0.00402	1.41	10/22/2018 23:06	WG1184727
trans-1,3-Dichloropropene	U		0.00247	0.00805	1.41	10/22/2018 23:06	WG1184727
trans-1,4-Dichloro-2-butene	U		0.00225	0.00805	1.41	10/22/2018 23:06	WG1184727
2,2-Dichloropropane	U		0.00128	0.00402	1.41	10/22/2018 23:06	WG1184727
Di-isopropyl ether	U		0.000564	0.00161	1.41	10/22/2018 23:06	WG1184727
Ethylbenzene	U		0.000853	0.00402	1.41	10/22/2018 23:06	WG1184727
Hexachloro-1,3-butadiene	U		0.0204	0.0402	1.41	10/22/2018 23:06	WG1184727
2-Hexanone	U		0.0161	0.0402	1.41	10/22/2018 23:06	WG1184727
n-Hexane	U		0.00170	0.00805	1.41	10/24/2018 15:12	WG1185319
Iodomethane	U		0.00974	0.0201	1.41	10/22/2018 23:06	WG1184727
Isopropylbenzene	U		0.00139	0.00402	1.41	10/22/2018 23:06	WG1184727
p-Isopropyltoluene	U		0.00374	0.00805	1.41	10/22/2018 23:06	WG1184727
2-Butanone (MEK)	U		0.0201	0.0402	1.41	10/24/2018 15:12	WG1185319
Methylene Chloride	U		0.0107	0.0402	1.41	10/22/2018 23:06	WG1184727
4-Methyl-2-pentanone (MIBK)	U		0.0161	0.0402	1.41	10/22/2018 23:06	WG1184727

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

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000475	0.00161	1.41	10/22/2018 23:06	WG1184727
Naphthalene	U		0.00502	0.0201	1.41	10/22/2018 23:06	WG1184727
n-Propylbenzene	U		0.00189	0.00805	1.41	10/22/2018 23:06	WG1184727
Styrene	U		0.00439	0.0201	1.41	10/22/2018 23:06	WG1184727
1,1,1,2-Tetrachloroethane	U		0.000805	0.00402	1.41	10/22/2018 23:06	WG1184727
1,1,2,2-Tetrachloroethane	U		0.000628	0.00402	1.41	10/22/2018 23:06	WG1184727
1,1,2-Trichlorotrifluoroethane	U		0.00109	0.00402	1.41	10/22/2018 23:06	WG1184727
Tetrachloroethene	0.00843	J0	0.00113	0.00402	1.41	10/24/2018 15:12	WG1185319
Toluene	U		0.00201	0.00805	1.41	10/22/2018 23:06	WG1184727
1,2,3-Trichlorobenzene	U		0.00101	0.00402	1.41	10/22/2018 23:06	WG1184727
1,2,4-Trichlorobenzene	U		0.00776	0.0201	1.41	10/22/2018 23:06	WG1184727
1,1,1-Trichloroethane	U		0.000443	0.00402	1.41	10/22/2018 23:06	WG1184727
1,1,2-Trichloroethane	U		0.00142	0.00402	1.41	10/24/2018 15:12	WG1185319
Trichloroethene	0.00315		0.000644	0.00161	1.41	10/22/2018 23:06	WG1184727
Trichlorofluoromethane	U		0.000805	0.00402	1.41	10/22/2018 23:06	WG1184727
1,2,3-Trichloropropane	U		0.00821	0.0201	1.41	10/22/2018 23:06	WG1184727
1,2,4-Trimethylbenzene	U		0.00187	0.00805	1.41	10/22/2018 23:06	WG1184727
1,2,3-Trimethylbenzene	U		0.00185	0.00805	1.41	10/22/2018 23:06	WG1184727
1,3,5-Trimethylbenzene	U		0.00173	0.00805	1.41	10/22/2018 23:06	WG1184727
Vinyl acetate	U		0.00566	0.0201	1.41	10/22/2018 23:06	WG1184727
Vinyl chloride	U		0.00110	0.00402	1.41	10/22/2018 23:06	WG1184727
Xylenes, Total	U		0.00769	0.0105	1.41	10/22/2018 23:06	WG1184727
(S) Toluene-d8	*125*			*75.0-131*		*10/22/2018 23:06*	WG1184727
(S) Toluene-d8	*99.7*			*75.0-131*		*10/24/2018 15:12*	WG1185319
(S) Dibromofluoromethane	*94.3*			*65.0-129*		*10/22/2018 23:06*	WG1184727
(S) Dibromofluoromethane	*115*			*65.0-129*		*10/24/2018 15:12*	WG1185319
(S) 4-Bromofluorobenzene	*90.6*			*67.0-138*		*10/22/2018 23:06*	WG1184727
(S) 4-Bromofluorobenzene	*121*			*67.0-138*		*10/24/2018 15:12*	WG1185319

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	87.0		1	10/24/2018 14:00	WG1185671

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.183	0.333	11.6	10/24/2018 18:12	WG1185319
Acrylonitrile	U		0.00253	0.0167	1.16	10/22/2018 23:27	WG1184727
Benzene	U		0.000534	0.00133	1.16	10/22/2018 23:27	WG1184727
Bromobenzene	U		0.00140	0.0167	1.16	10/22/2018 23:27	WG1184727
Bromodichloromethane	U		0.00105	0.00333	1.16	10/22/2018 23:27	WG1184727
Bromochloromethane	U		0.00151	0.00667	1.16	10/22/2018 23:27	WG1184727
Bromoform	U		0.00798	0.0333	1.16	10/22/2018 23:27	WG1184727
Bromomethane	U		0.00493	0.0167	1.16	10/22/2018 23:27	WG1184727
n-Butylbenzene	U		0.00512	0.0167	1.16	10/22/2018 23:27	WG1184727
sec-Butylbenzene	U		0.00337	0.0167	1.16	10/22/2018 23:27	WG1184727
tert-Butylbenzene	U		0.00207	0.00667	1.16	10/22/2018 23:27	WG1184727
Carbon disulfide	U		0.00542	0.0167	1.16	10/22/2018 23:27	WG1184727
Carbon tetrachloride	U		0.00144	0.00667	1.16	10/22/2018 23:27	WG1184727
Chlorobenzene	U		0.000765	0.00333	1.16	10/22/2018 23:27	WG1184727
Chlorodibromomethane	U		0.000600	0.00333	1.16	10/22/2018 23:27	WG1184727
Chloroethane	U		0.00144	0.00667	1.16	10/22/2018 23:27	WG1184727
Chloroform	0.00182	B J	0.000553	0.00333	1.16	10/22/2018 23:27	WG1184727
Chloromethane	U		0.00185	0.0167	1.16	10/22/2018 23:27	WG1184727
2-Chlorotoluene	U		0.00123	0.00333	1.16	10/22/2018 23:27	WG1184727
4-Chlorotoluene	U		0.00151	0.00667	1.16	10/22/2018 23:27	WG1184727
1,2-Dibromo-3-Chloropropane	U		0.00681	0.0333	1.16	10/22/2018 23:27	WG1184727
1,2-Dibromoethane	U		0.000700	0.00333	1.16	10/22/2018 23:27	WG1184727
Dibromomethane	U		0.00133	0.00667	1.16	10/22/2018 23:27	WG1184727
1,2-Dichlorobenzene	U		0.00193	0.00667	1.16	10/22/2018 23:27	WG1184727
1,3-Dichlorobenzene	U		0.00227	0.00667	1.16	10/22/2018 23:27	WG1184727
1,4-Dichlorobenzene	U		0.00262	0.00667	1.16	10/22/2018 23:27	WG1184727
Dichlorodifluoromethane	U		0.00109	0.00333	1.16	10/22/2018 23:27	WG1184727
1,1-Dichloroethane	U		0.000767	0.00333	1.16	10/22/2018 23:27	WG1184727
1,2-Dichloroethane	U		0.000634	0.00333	1.16	10/22/2018 23:27	WG1184727
1,1-Dichloroethene	U		0.000667	0.00333	1.16	10/22/2018 23:27	WG1184727
cis-1,2-Dichloroethene	U		0.000920	0.00333	1.16	10/22/2018 23:27	WG1184727
trans-1,2-Dichloroethene	U		0.00191	0.00667	1.16	10/22/2018 23:27	WG1184727
1,2-Dichloropropane	U		0.0169	0.0667	11.6	10/24/2018 18:12	WG1185319
1,1-Dichloropropene	U		0.000934	0.00333	1.16	10/22/2018 23:27	WG1184727
1,3-Dichloropropane	U		0.00233	0.00667	1.16	10/22/2018 23:27	WG1184727
cis-1,3-Dichloropropene	U		0.000904	0.00333	1.16	10/22/2018 23:27	WG1184727
trans-1,3-Dichloropropene	U		0.00204	0.00667	1.16	10/22/2018 23:27	WG1184727
trans-1,4-Dichloro-2-butene	U		0.00186	0.00667	1.16	10/22/2018 23:27	WG1184727
2,2-Dichloropropane	U		0.00106	0.00333	1.16	10/22/2018 23:27	WG1184727
Di-isopropyl ether	U		0.000467	0.00133	1.16	10/22/2018 23:27	WG1184727
Ethylbenzene	U		0.000707	0.00333	1.16	10/22/2018 23:27	WG1184727
Hexachloro-1,3-butadiene	U		0.0169	0.0333	1.16	10/22/2018 23:27	WG1184727
2-Hexanone	U		0.0133	0.0333	1.16	10/22/2018 23:27	WG1184727
n-Hexane	U		0.0141	0.0667	11.6	10/24/2018 18:12	WG1185319
Iodomethane	U		0.00807	0.0167	1.16	10/22/2018 23:27	WG1184727
Isopropylbenzene	U		0.00115	0.00333	1.16	10/22/2018 23:27	WG1184727
p-Isopropyltoluene	U		0.00310	0.00667	1.16	10/22/2018 23:27	WG1184727
2-Butanone (MEK)	U		0.167	0.333	11.6	10/24/2018 18:12	WG1185319
Methylene Chloride	U		0.00885	0.0333	1.16	10/22/2018 23:27	WG1184727
4-Methyl-2-pentanone (MIBK)	U		0.0133	0.0333	1.16	10/22/2018 23:27	WG1184727

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000393	0.00133	1.16	10/22/2018 23:27	WG1184727
Naphthalene	U		0.00416	0.0167	1.16	10/22/2018 23:27	WG1184727
n-Propylbenzene	U		0.00158	0.00667	1.16	10/22/2018 23:27	WG1184727
Styrene	U		0.00365	0.0167	1.16	10/22/2018 23:27	WG1184727
1,1,1,2-Tetrachloroethane	U		0.000667	0.00333	1.16	10/22/2018 23:27	WG1184727
1,1,2,2-Tetrachloroethane	U		0.000520	0.00333	1.16	10/22/2018 23:27	WG1184727
1,1,2-Trichlorotrifluoroethane	U		0.000900	0.00333	1.16	10/22/2018 23:27	WG1184727
Tetrachloroethene	1.79	J0	0.00934	0.0333	11.6	10/24/2018 18:12	WG1185319
Toluene	0.00296	J	0.00167	0.00667	1.16	10/22/2018 23:27	WG1184727
1,2,3-Trichlorobenzene	U		0.000834	0.00333	1.16	10/22/2018 23:27	WG1184727
1,2,4-Trichlorobenzene	U		0.00643	0.0167	1.16	10/22/2018 23:27	WG1184727
1,1,1-Trichloroethane	U		0.000367	0.00333	1.16	10/22/2018 23:27	WG1184727
1,1,2-Trichloroethane	U		0.0117	0.0333	11.6	10/24/2018 18:12	WG1185319
Trichloroethene	0.00212		0.000534	0.00133	1.16	10/22/2018 23:27	WG1184727
Trichlorofluoromethane	U		0.000667	0.00333	1.16	10/22/2018 23:27	WG1184727
1,2,3-Trichloropropane	U		0.00681	0.0167	1.16	10/22/2018 23:27	WG1184727
1,2,4-Trimethylbenzene	U		0.00154	0.00667	1.16	10/22/2018 23:27	WG1184727
1,2,3-Trimethylbenzene	U		0.00153	0.00667	1.16	10/22/2018 23:27	WG1184727
1,3,5-Trimethylbenzene	U		0.00144	0.00667	1.16	10/22/2018 23:27	WG1184727
Vinyl acetate	U		0.00469	0.0167	1.16	10/22/2018 23:27	WG1184727
Vinyl chloride	U		0.000911	0.00333	1.16	10/22/2018 23:27	WG1184727
Xylenes, Total	U		0.00637	0.00867	1.16	10/22/2018 23:27	WG1184727
(S) Toluene-d8	*122*			*75.0-131*		*10/22/2018 23:27*	WG1184727
(S) Toluene-d8	*97.5*			*75.0-131*		*10/24/2018 18:12*	WG1185319
(S) Dibromofluoromethane	*86.2*			*65.0-129*		*10/22/2018 23:27*	WG1184727
(S) Dibromofluoromethane	*119*			*65.0-129*		*10/24/2018 18:12*	WG1185319
(S) 4-Bromofluorobenzene	*91.1*			*67.0-138*		*10/22/2018 23:27*	WG1184727
(S) 4-Bromofluorobenzene	*123*			*67.0-138*		*10/24/2018 18:12*	WG1185319

Sample Narrative:

L1036473-26 WG1185319, WG1184727: Cannot be reanalyzed at a lower dilution due to high levels of target analytes.

L1036473-26 WG1185319, WG1184727: Not all compounds reportable at lower dilution.

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	89.7		1	10/24/2018 14:00	WG1185671

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.611	1.11	40	10/24/2018 19:12	WG1185319
Acrylonitrile	U		0.00212	0.0139	1	10/22/2018 23:47	WG1184727
Benzene	U		0.000446	0.00111	1	10/22/2018 23:47	WG1184727
Bromobenzene	U		0.00117	0.0139	1	10/22/2018 23:47	WG1184727
Bromodichloromethane	U		0.000878	0.00279	1	10/22/2018 23:47	WG1184727
Bromochloromethane	U		0.00126	0.00557	1	10/22/2018 23:47	WG1184727
Bromoform	U		0.00667	0.0279	1	10/22/2018 23:47	WG1184727
Bromomethane	U		0.00412	0.0139	1	10/22/2018 23:47	WG1184727
n-Butylbenzene	U		0.00428	0.0139	1	10/22/2018 23:47	WG1184727
sec-Butylbenzene	U		0.00282	0.0139	1	10/22/2018 23:47	WG1184727
tert-Butylbenzene	U		0.00173	0.00557	1	10/22/2018 23:47	WG1184727
Carbon disulfide	U		0.00453	0.0139	1	10/22/2018 23:47	WG1184727
Carbon tetrachloride	U		0.00120	0.00557	1	10/22/2018 23:47	WG1184727
Chlorobenzene	U		0.000639	0.00279	1	10/22/2018 23:47	WG1184727
Chlorodibromomethane	U		0.000502	0.00279	1	10/22/2018 23:47	WG1184727
Chloroethane	U		0.00120	0.00557	1	10/22/2018 23:47	WG1184727
Chloroform	0.00109	B J	0.000463	0.00279	1	10/22/2018 23:47	WG1184727
Chloromethane	U		0.00155	0.0139	1	10/22/2018 23:47	WG1184727
2-Chlorotoluene	U		0.00103	0.00279	1	10/22/2018 23:47	WG1184727
4-Chlorotoluene	U		0.00126	0.00557	1	10/22/2018 23:47	WG1184727
1,2-Dibromo-3-Chloropropane	U		0.00568	0.0279	1	10/22/2018 23:47	WG1184727
1,2-Dibromoethane	U		0.000585	0.00279	1	10/22/2018 23:47	WG1184727
Dibromomethane	U		0.00111	0.00557	1	10/22/2018 23:47	WG1184727
1,2-Dichlorobenzene	U		0.00162	0.00557	1	10/22/2018 23:47	WG1184727
1,3-Dichlorobenzene	U		0.00189	0.00557	1	10/22/2018 23:47	WG1184727
1,4-Dichlorobenzene	U		0.00220	0.00557	1	10/22/2018 23:47	WG1184727
Dichlorodifluoromethane	U		0.000912	0.00279	1	10/22/2018 23:47	WG1184727
1,1-Dichloroethane	U		0.000641	0.00279	1	10/22/2018 23:47	WG1184727
1,2-Dichloroethane	U		0.000529	0.00279	1	10/22/2018 23:47	WG1184727
1,1-Dichloroethene	U		0.000557	0.00279	1	10/22/2018 23:47	WG1184727
cis-1,2-Dichloroethene	0.0195		0.000769	0.00279	1	10/22/2018 23:47	WG1184727
trans-1,2-Dichloroethene	U		0.00159	0.00557	1	10/22/2018 23:47	WG1184727
1,2-Dichloropropane	U		0.0566	0.223	40	10/24/2018 19:12	WG1185319
1,1-Dichloropropene	U		0.000780	0.00279	1	10/22/2018 23:47	WG1184727
1,3-Dichloropropane	U		0.00195	0.00557	1	10/22/2018 23:47	WG1184727
cis-1,3-Dichloropropene	U		0.000756	0.00279	1	10/22/2018 23:47	WG1184727
trans-1,3-Dichloropropene	U		0.00171	0.00557	1	10/22/2018 23:47	WG1184727
trans-1,4-Dichloro-2-butene	U		0.00156	0.00557	1	10/22/2018 23:47	WG1184727
2,2-Dichloropropane	U		0.000884	0.00279	1	10/22/2018 23:47	WG1184727
Di-isopropyl ether	U		0.000390	0.00111	1	10/22/2018 23:47	WG1184727
Ethylbenzene	U		0.000591	0.00279	1	10/22/2018 23:47	WG1184727
Hexachloro-1,3-butadiene	U		0.0142	0.0279	1	10/22/2018 23:47	WG1184727
2-Hexanone	U		0.0111	0.0279	1	10/22/2018 23:47	WG1184727
n-Hexane	U		0.0473	0.223	40	10/24/2018 19:12	WG1185319
Iodomethane	U		0.00674	0.0139	1	10/22/2018 23:47	WG1184727
Isopropylbenzene	U		0.000962	0.00279	1	10/22/2018 23:47	WG1184727
p-Isopropyltoluene	U		0.00260	0.00557	1	10/22/2018 23:47	WG1184727
2-Butanone (MEK)	U		0.557	1.11	40	10/24/2018 19:12	WG1185319
Methylene Chloride	U		0.00740	0.0279	1	10/22/2018 23:47	WG1184727
4-Methyl-2-pentanone (MIBK)	U		0.0111	0.0279	1	10/22/2018 23:47	WG1184727

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000329	0.00111	1	10/22/2018 23:47	WG1184727
Naphthalene	U		0.00348	0.0139	1	10/22/2018 23:47	WG1184727
n-Propylbenzene	U		0.00132	0.00557	1	10/22/2018 23:47	WG1184727
Styrene	U		0.00304	0.0139	1	10/22/2018 23:47	WG1184727
1,1,1,2-Tetrachloroethane	U		0.000557	0.00279	1	10/22/2018 23:47	WG1184727
1,1,2,2-Tetrachloroethane	U		0.000435	0.00279	1	10/22/2018 23:47	WG1184727
1,1,2-Trichlorotrifluoroethane	U		0.000752	0.00279	1	10/22/2018 23:47	WG1184727
Tetrachloroethene	5.70	J0	0.0312	0.111	40	10/24/2018 19:12	WG1185319
Toluene	0.00330	J	0.00139	0.00557	1	10/22/2018 23:47	WG1184727
1,2,3-Trichlorobenzene	U		0.000697	0.00279	1	10/22/2018 23:47	WG1184727
1,2,4-Trichlorobenzene	U		0.00537	0.0139	1	10/22/2018 23:47	WG1184727
1,1,1-Trichloroethane	U		0.000307	0.00279	1	10/22/2018 23:47	WG1184727
1,1,2-Trichloroethane	U		0.0393	0.111	40	10/24/2018 19:12	WG1185319
Trichloroethene	0.111		0.000446	0.00111	1	10/22/2018 23:47	WG1184727
Trichlorofluoromethane	U		0.000557	0.00279	1	10/22/2018 23:47	WG1184727
1,2,3-Trichloropropane	U		0.00568	0.0139	1	10/22/2018 23:47	WG1184727
1,2,4-Trimethylbenzene	U		0.00129	0.00557	1	10/22/2018 23:47	WG1184727
1,2,3-Trimethylbenzene	U		0.00128	0.00557	1	10/22/2018 23:47	WG1184727
1,3,5-Trimethylbenzene	U		0.00120	0.00557	1	10/22/2018 23:47	WG1184727
Vinyl acetate	U		0.00392	0.0139	1	10/22/2018 23:47	WG1184727
Vinyl chloride	U		0.000761	0.00279	1	10/22/2018 23:47	WG1184727
Xylenes, Total	U		0.00533	0.00725	1	10/22/2018 23:47	WG1184727
(S) Toluene-d8	*123*			*75.0-131*		*10/22/2018 23:47*	WG1184727
(S) Toluene-d8	*98.5*			*75.0-131*		*10/24/2018 19:12*	WG1185319
(S) Dibromofluoromethane	*92.9*			*65.0-129*		*10/22/2018 23:47*	WG1184727
(S) Dibromofluoromethane	*119*			*65.0-129*		*10/24/2018 19:12*	WG1185319
(S) 4-Bromofluorobenzene	*89.5*			*67.0-138*		*10/22/2018 23:47*	WG1184727
(S) 4-Bromofluorobenzene	*124*			*67.0-138*		*10/24/2018 19:12*	WG1185319

Sample Narrative:

L1036473-27 WG1185319, WG1184727: Cannot be reanalyzed at a lower dilution due to high levels of target analytes.

L1036473-27 WG1185319, WG1184727: Not all compounds reportable at lower dilution.

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	83.2		1	10/24/2018 14:00	WG1185671

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0165	0.0300	1	10/24/2018 15:32	WG1185319
Acrylonitrile	U		0.00228	0.0150	1	10/23/2018 00:07	WG1184727
Benzene	U		0.000481	0.00120	1	10/23/2018 00:07	WG1184727
Bromobenzene	U		0.00126	0.0150	1	10/23/2018 00:07	WG1184727
Bromodichloromethane	U		0.000947	0.00300	1	10/23/2018 00:07	WG1184727
Bromochloromethane	U		0.00136	0.00601	1	10/23/2018 00:07	WG1184727
Bromoform	U		0.00719	0.0300	1	10/23/2018 00:07	WG1184727
Bromomethane	U		0.00445	0.0150	1	10/23/2018 00:07	WG1184727
n-Butylbenzene	U		0.00462	0.0150	1	10/23/2018 00:07	WG1184727
sec-Butylbenzene	U		0.00304	0.0150	1	10/23/2018 00:07	WG1184727
tert-Butylbenzene	U		0.00186	0.00601	1	10/23/2018 00:07	WG1184727
Carbon disulfide	U		0.00488	0.0150	1	10/23/2018 00:07	WG1184727
Carbon tetrachloride	U		0.00130	0.00601	1	10/23/2018 00:07	WG1184727
Chlorobenzene	U		0.000689	0.00300	1	10/23/2018 00:07	WG1184727
Chlorodibromomethane	U		0.000541	0.00300	1	10/23/2018 00:07	WG1184727
Chloroethane	U		0.00130	0.00601	1	10/23/2018 00:07	WG1184727
Chloroform	0.00132	B J	0.000499	0.00300	1	10/23/2018 00:07	WG1184727
Chloromethane	U		0.00167	0.0150	1	10/23/2018 00:07	WG1184727
2-Chlorotoluene	U		0.00111	0.00300	1	10/23/2018 00:07	WG1184727
4-Chlorotoluene	U		0.00136	0.00601	1	10/23/2018 00:07	WG1184727
1,2-Dibromo-3-Chloropropane	U		0.00613	0.0300	1	10/23/2018 00:07	WG1184727
1,2-Dibromoethane	U		0.000631	0.00300	1	10/23/2018 00:07	WG1184727
Dibromomethane	U		0.00120	0.00601	1	10/23/2018 00:07	WG1184727
1,2-Dichlorobenzene	U		0.00174	0.00601	1	10/23/2018 00:07	WG1184727
1,3-Dichlorobenzene	U		0.00204	0.00601	1	10/23/2018 00:07	WG1184727
1,4-Dichlorobenzene	U		0.00237	0.00601	1	10/23/2018 00:07	WG1184727
Dichlorodifluoromethane	U		0.000983	0.00300	1	10/23/2018 00:07	WG1184727
1,1-Dichloroethane	U		0.000691	0.00300	1	10/23/2018 00:07	WG1184727
1,2-Dichloroethane	U		0.000571	0.00300	1	10/23/2018 00:07	WG1184727
1,1-Dichloroethene	U		0.000601	0.00300	1	10/23/2018 00:07	WG1184727
cis-1,2-Dichloroethene	U		0.000829	0.00300	1	10/23/2018 00:07	WG1184727
trans-1,2-Dichloroethene	U		0.00172	0.00601	1	10/23/2018 00:07	WG1184727
1,2-Dichloropropane	U		0.00153	0.00601	1	10/24/2018 15:32	WG1185319
1,1-Dichloropropene	U		0.000841	0.00300	1	10/23/2018 00:07	WG1184727
1,3-Dichloropropane	U		0.00210	0.00601	1	10/23/2018 00:07	WG1184727
cis-1,3-Dichloropropene	U		0.000815	0.00300	1	10/23/2018 00:07	WG1184727
trans-1,3-Dichloropropene	U		0.00184	0.00601	1	10/23/2018 00:07	WG1184727
trans-1,4-Dichloro-2-butene	U		0.00168	0.00601	1	10/23/2018 00:07	WG1184727
2,2-Dichloropropane	U		0.000953	0.00300	1	10/23/2018 00:07	WG1184727
Di-isopropyl ether	U		0.000421	0.00120	1	10/23/2018 00:07	WG1184727
Ethylbenzene	U		0.000637	0.00300	1	10/23/2018 00:07	WG1184727
Hexachloro-1,3-butadiene	U		0.0153	0.0300	1	10/23/2018 00:07	WG1184727
2-Hexanone	U		0.0120	0.0300	1	10/23/2018 00:07	WG1184727
n-Hexane	U		0.00127	0.00601	1	10/24/2018 15:32	WG1185319
Iodomethane	U		0.00727	0.0150	1	10/23/2018 00:07	WG1184727
Isopropylbenzene	U		0.00104	0.00300	1	10/23/2018 00:07	WG1184727
p-Isopropyltoluene	U		0.00280	0.00601	1	10/23/2018 00:07	WG1184727
2-Butanone (MEK)	U		0.0150	0.0300	1	10/24/2018 15:32	WG1185319
Methylene Chloride	U		0.00798	0.0300	1	10/23/2018 00:07	WG1184727
4-Methyl-2-pentanone (MIBK)	U		0.0120	0.0300	1	10/23/2018 00:07	WG1184727

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000355	0.00120	1	10/23/2018 00:07	WG1184727
Naphthalene	U		0.00375	0.0150	1	10/23/2018 00:07	WG1184727
n-Propylbenzene	U		0.00142	0.00601	1	10/23/2018 00:07	WG1184727
Styrene	U		0.00328	0.0150	1	10/23/2018 00:07	WG1184727
1,1,1,2-Tetrachloroethane	U		0.000601	0.00300	1	10/23/2018 00:07	WG1184727
1,1,2,2-Tetrachloroethane	U		0.000469	0.00300	1	10/23/2018 00:07	WG1184727
1,1,2-Trichlorotrifluoroethane	U		0.000811	0.00300	1	10/23/2018 00:07	WG1184727
Tetrachloroethene	0.00171	J J0	0.000841	0.00300	1	10/24/2018 15:32	WG1185319
Toluene	U		0.00150	0.00601	1	10/23/2018 00:07	WG1184727
1,2,3-Trichlorobenzene	U		0.000751	0.00300	1	10/23/2018 00:07	WG1184727
1,2,4-Trichlorobenzene	U		0.00579	0.0150	1	10/23/2018 00:07	WG1184727
1,1,1-Trichloroethane	U		0.000331	0.00300	1	10/23/2018 00:07	WG1184727
1,1,2-Trichloroethane	U		0.00106	0.00300	1	10/24/2018 15:32	WG1185319
Trichloroethene	U		0.000481	0.00120	1	10/23/2018 00:07	WG1184727
Trichlorofluoromethane	U		0.000601	0.00300	1	10/23/2018 00:07	WG1184727
1,2,3-Trichloropropane	U		0.00613	0.0150	1	10/23/2018 00:07	WG1184727
1,2,4-Trimethylbenzene	U		0.00139	0.00601	1	10/23/2018 00:07	WG1184727
1,2,3-Trimethylbenzene	U		0.00138	0.00601	1	10/23/2018 00:07	WG1184727
1,3,5-Trimethylbenzene	U		0.00130	0.00601	1	10/23/2018 00:07	WG1184727
Vinyl acetate	U		0.00423	0.0150	1	10/23/2018 00:07	WG1184727
Vinyl chloride	U		0.000821	0.00300	1	10/23/2018 00:07	WG1184727
Xylenes, Total	U		0.00574	0.00781	1	10/23/2018 00:07	WG1184727
(S) Toluene-d8	*123*			*75.0-131*		*10/23/2018 00:07*	WG1184727
(S) Toluene-d8	*98.6*			*75.0-131*		*10/24/2018 15:32*	WG1185319
(S) Dibromofluoromethane	*91.8*			*65.0-129*		*10/23/2018 00:07*	WG1184727
(S) Dibromofluoromethane	*116*			*65.0-129*		*10/24/2018 15:32*	WG1185319
(S) 4-Bromofluorobenzene	*89.5*			*67.0-138*		*10/23/2018 00:07*	WG1184727
(S) 4-Bromofluorobenzene	*122*			*67.0-138*		*10/24/2018 15:32*	WG1185319

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	91.7		1	10/24/2018 14:00	WG1185671

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0149	0.0273	1	10/24/2018 15:52	WG1185319
Acrylonitrile	U		0.00207	0.0136	1	10/23/2018 00:28	WG1184727
Benzene	U		0.000436	0.00109	1	10/23/2018 00:28	WG1184727
Bromobenzene	U		0.00115	0.0136	1	10/23/2018 00:28	WG1184727
Bromodichloromethane	U		0.000859	0.00273	1	10/23/2018 00:28	WG1184727
Bromochloromethane	U		0.00123	0.00545	1	10/23/2018 00:28	WG1184727
Bromoform	U		0.00652	0.0273	1	10/23/2018 00:28	WG1184727
Bromomethane	U		0.00404	0.0136	1	10/23/2018 00:28	WG1184727
n-Butylbenzene	U		0.00419	0.0136	1	10/23/2018 00:28	WG1184727
sec-Butylbenzene	U		0.00276	0.0136	1	10/23/2018 00:28	WG1184727
tert-Butylbenzene	U		0.00169	0.00545	1	10/23/2018 00:28	WG1184727
Carbon disulfide	U		0.00443	0.0136	1	10/23/2018 00:28	WG1184727
Carbon tetrachloride	U		0.00118	0.00545	1	10/23/2018 00:28	WG1184727
Chlorobenzene	U		0.000625	0.00273	1	10/23/2018 00:28	WG1184727
Chlorodibromomethane	U		0.000491	0.00273	1	10/23/2018 00:28	WG1184727
Chloroethane	U		0.00118	0.00545	1	10/23/2018 00:28	WG1184727
Chloroform	0.00101	B J	0.000453	0.00273	1	10/23/2018 00:28	WG1184727
Chloromethane	U		0.00152	0.0136	1	10/23/2018 00:28	WG1184727
2-Chlorotoluene	U		0.00100	0.00273	1	10/23/2018 00:28	WG1184727
4-Chlorotoluene	U		0.00123	0.00545	1	10/23/2018 00:28	WG1184727
1,2-Dibromo-3-Chloropropane	U		0.00556	0.0273	1	10/23/2018 00:28	WG1184727
1,2-Dibromoethane	U		0.000573	0.00273	1	10/23/2018 00:28	WG1184727
Dibromomethane	U		0.00109	0.00545	1	10/23/2018 00:28	WG1184727
1,2-Dichlorobenzene	U		0.00158	0.00545	1	10/23/2018 00:28	WG1184727
1,3-Dichlorobenzene	U		0.00185	0.00545	1	10/23/2018 00:28	WG1184727
1,4-Dichlorobenzene	U		0.00215	0.00545	1	10/23/2018 00:28	WG1184727
Dichlorodifluoromethane	U		0.000892	0.00273	1	10/23/2018 00:28	WG1184727
1,1-Dichloroethane	U		0.000627	0.00273	1	10/23/2018 00:28	WG1184727
1,2-Dichloroethane	U		0.000518	0.00273	1	10/23/2018 00:28	WG1184727
1,1-Dichloroethene	U		0.000545	0.00273	1	10/23/2018 00:28	WG1184727
cis-1,2-Dichloroethene	U		0.000753	0.00273	1	10/23/2018 00:28	WG1184727
trans-1,2-Dichloroethene	U		0.00156	0.00545	1	10/23/2018 00:28	WG1184727
1,2-Dichloropropane	U		0.00139	0.00545	1	10/24/2018 15:52	WG1185319
1,1-Dichloropropene	U		0.000764	0.00273	1	10/23/2018 00:28	WG1184727
1,3-Dichloropropane	U		0.00191	0.00545	1	10/23/2018 00:28	WG1184727
cis-1,3-Dichloropropene	U		0.000740	0.00273	1	10/23/2018 00:28	WG1184727
trans-1,3-Dichloropropene	U		0.00167	0.00545	1	10/23/2018 00:28	WG1184727
trans-1,4-Dichloro-2-butene	U		0.00153	0.00545	1	10/23/2018 00:28	WG1184727
2,2-Dichloropropane	U		0.000865	0.00273	1	10/23/2018 00:28	WG1184727
Di-isopropyl ether	U		0.000382	0.00109	1	10/23/2018 00:28	WG1184727
Ethylbenzene	U		0.000578	0.00273	1	10/23/2018 00:28	WG1184727
Hexachloro-1,3-butadiene	U		0.0139	0.0273	1	10/23/2018 00:28	WG1184727
2-Hexanone	U		0.0109	0.0273	1	10/23/2018 00:28	WG1184727
n-Hexane	U		0.00116	0.00545	1	10/24/2018 15:52	WG1185319
Iodomethane	U		0.00660	0.0136	1	10/23/2018 00:28	WG1184727
Isopropylbenzene	U		0.000941	0.00273	1	10/23/2018 00:28	WG1184727
p-Isopropyltoluene	U		0.00254	0.00545	1	10/23/2018 00:28	WG1184727
2-Butanone (MEK)	U		0.0136	0.0273	1	10/24/2018 15:52	WG1185319
Methylene Chloride	U		0.00724	0.0273	1	10/23/2018 00:28	WG1184727
4-Methyl-2-pentanone (MIBK)	U		0.0109	0.0273	1	10/23/2018 00:28	WG1184727

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000322	0.00109	1	10/23/2018 00:28	WG1184727
Naphthalene	U		0.00340	0.0136	1	10/23/2018 00:28	WG1184727
n-Propylbenzene	U		0.00129	0.00545	1	10/23/2018 00:28	WG1184727
Styrene	U		0.00298	0.0136	1	10/23/2018 00:28	WG1184727
1,1,1,2-Tetrachloroethane	U		0.000545	0.00273	1	10/23/2018 00:28	WG1184727
1,1,2,2-Tetrachloroethane	U		0.000425	0.00273	1	10/23/2018 00:28	WG1184727
1,1,2-Trichlorotrifluoroethane	U		0.000736	0.00273	1	10/23/2018 00:28	WG1184727
Tetrachloroethene	0.138		0.000764	0.00273	1	10/23/2018 00:28	WG1184727
Toluene	0.00570		0.00136	0.00545	1	10/23/2018 00:28	WG1184727
1,2,3-Trichlorobenzene	U		0.000682	0.00273	1	10/23/2018 00:28	WG1184727
1,2,4-Trichlorobenzene	U		0.00526	0.0136	1	10/23/2018 00:28	WG1184727
1,1,1-Trichloroethane	U		0.000300	0.00273	1	10/23/2018 00:28	WG1184727
1,1,2-Trichloroethane	U		0.000963	0.00273	1	10/24/2018 15:52	WG1185319
Trichloroethene	0.000945	J	0.000436	0.00109	1	10/23/2018 00:28	WG1184727
Trichlorofluoromethane	U		0.000545	0.00273	1	10/23/2018 00:28	WG1184727
1,2,3-Trichloropropane	U		0.00556	0.0136	1	10/23/2018 00:28	WG1184727
1,2,4-Trimethylbenzene	U		0.00127	0.00545	1	10/23/2018 00:28	WG1184727
1,2,3-Trimethylbenzene	U		0.00125	0.00545	1	10/23/2018 00:28	WG1184727
1,3,5-Trimethylbenzene	U		0.00118	0.00545	1	10/23/2018 00:28	WG1184727
Vinyl acetate	U		0.00384	0.0136	1	10/23/2018 00:28	WG1184727
Vinyl chloride	U		0.000745	0.00273	1	10/23/2018 00:28	WG1184727
Xylenes, Total	U		0.00521	0.00709	1	10/23/2018 00:28	WG1184727
(S) Toluene-d8	*121*			*75.0-131*		*10/23/2018 00:28*	WG1184727
(S) Toluene-d8	*99.9*			*75.0-131*		*10/24/2018 15:52*	WG1185319
(S) Dibromofluoromethane	*75.8*			*65.0-129*		*10/23/2018 00:28*	WG1184727
(S) Dibromofluoromethane	*113*			*65.0-129*		*10/24/2018 15:52*	WG1185319
(S) 4-Bromofluorobenzene	*89.1*			*67.0-138*		*10/23/2018 00:28*	WG1184727
(S) 4-Bromofluorobenzene	*119*			*67.0-138*		*10/24/2018 15:52*	WG1185319

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	83.8		1	10/24/2018 14:00	WG1185671

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0654	0.119	4	10/24/2018 18:32	WG1185319
Acrylonitrile	U		0.00227	0.0149	1	10/23/2018 00:48	WG1184727
Benzene	U		0.000477	0.00119	1	10/23/2018 00:48	WG1184727
Bromobenzene	U		0.00125	0.0149	1	10/23/2018 00:48	WG1184727
Bromodichloromethane	U		0.000940	0.00298	1	10/23/2018 00:48	WG1184727
Bromochloromethane	U		0.00135	0.00597	1	10/23/2018 00:48	WG1184727
Bromoform	U		0.00713	0.0298	1	10/23/2018 00:48	WG1184727
Bromomethane	U		0.00441	0.0149	1	10/23/2018 00:48	WG1184727
n-Butylbenzene	U		0.00458	0.0149	1	10/23/2018 00:48	WG1184727
sec-Butylbenzene	U		0.00302	0.0149	1	10/23/2018 00:48	WG1184727
tert-Butylbenzene	U		0.00185	0.00597	1	10/23/2018 00:48	WG1184727
Carbon disulfide	U		0.00484	0.0149	1	10/23/2018 00:48	WG1184727
Carbon tetrachloride	U		0.00129	0.00597	1	10/23/2018 00:48	WG1184727
Chlorobenzene	U		0.000684	0.00298	1	10/23/2018 00:48	WG1184727
Chlorodibromomethane	U		0.000537	0.00298	1	10/23/2018 00:48	WG1184727
Chloroethane	U		0.00129	0.00597	1	10/23/2018 00:48	WG1184727
Chloroform	0.00112	B J	0.000495	0.00298	1	10/23/2018 00:48	WG1184727
Chloromethane	U		0.00166	0.0149	1	10/23/2018 00:48	WG1184727
2-Chlorotoluene	U		0.00110	0.00298	1	10/23/2018 00:48	WG1184727
4-Chlorotoluene	U		0.00135	0.00597	1	10/23/2018 00:48	WG1184727
1,2-Dibromo-3-Chloropropane	U		0.00608	0.0298	1	10/23/2018 00:48	WG1184727
1,2-Dibromoethane	U		0.000626	0.00298	1	10/23/2018 00:48	WG1184727
Dibromomethane	U		0.00119	0.00597	1	10/23/2018 00:48	WG1184727
1,2-Dichlorobenzene	U		0.00173	0.00597	1	10/23/2018 00:48	WG1184727
1,3-Dichlorobenzene	U		0.00203	0.00597	1	10/23/2018 00:48	WG1184727
1,4-Dichlorobenzene	U		0.00235	0.00597	1	10/23/2018 00:48	WG1184727
Dichlorodifluoromethane	U		0.000976	0.00298	1	10/23/2018 00:48	WG1184727
1,1-Dichloroethane	U		0.000686	0.00298	1	10/23/2018 00:48	WG1184727
1,2-Dichloroethane	U		0.000567	0.00298	1	10/23/2018 00:48	WG1184727
1,1-Dichloroethene	U		0.000597	0.00298	1	10/23/2018 00:48	WG1184727
cis-1,2-Dichloroethene	U		0.000823	0.00298	1	10/23/2018 00:48	WG1184727
trans-1,2-Dichloroethene	U		0.00171	0.00597	1	10/23/2018 00:48	WG1184727
1,2-Dichloropropane	U		0.00606	0.0239	4	10/24/2018 18:32	WG1185319
1,1-Dichloropropene	U		0.000835	0.00298	1	10/23/2018 00:48	WG1184727
1,3-Dichloropropane	U		0.00209	0.00597	1	10/23/2018 00:48	WG1184727
cis-1,3-Dichloropropene	U		0.000809	0.00298	1	10/23/2018 00:48	WG1184727
trans-1,3-Dichloropropene	U		0.00183	0.00597	1	10/23/2018 00:48	WG1184727
trans-1,4-Dichloro-2-butene	U		0.00167	0.00597	1	10/23/2018 00:48	WG1184727
2,2-Dichloropropane	U		0.000946	0.00298	1	10/23/2018 00:48	WG1184727
Di-isopropyl ether	U		0.000418	0.00119	1	10/23/2018 00:48	WG1184727
Ethylbenzene	U		0.000632	0.00298	1	10/23/2018 00:48	WG1184727
Hexachloro-1,3-butadiene	U		0.0152	0.0298	1	10/23/2018 00:48	WG1184727
2-Hexanone	U		0.0119	0.0298	1	10/23/2018 00:48	WG1184727
n-Hexane	U		0.00506	0.0239	4	10/24/2018 18:32	WG1185319
Iodomethane	U		0.00722	0.0149	1	10/23/2018 00:48	WG1184727
Isopropylbenzene	U		0.00103	0.00298	1	10/23/2018 00:48	WG1184727
p-Isopropyltoluene	U		0.00278	0.00597	1	10/23/2018 00:48	WG1184727
2-Butanone (MEK)	U		0.0597	0.119	4	10/24/2018 18:32	WG1185319
Methylene Chloride	U		0.00792	0.0298	1	10/23/2018 00:48	WG1184727
4-Methyl-2-pentanone (MIBK)	U		0.0119	0.0298	1	10/23/2018 00:48	WG1184727

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000352	0.00119	1	10/23/2018 00:48	WG1184727
Naphthalene	U		0.00372	0.0149	1	10/23/2018 00:48	WG1184727
n-Propylbenzene	U		0.00141	0.00597	1	10/23/2018 00:48	WG1184727
Styrene	U		0.00326	0.0149	1	10/23/2018 00:48	WG1184727
1,1,1,2-Tetrachloroethane	U		0.000597	0.00298	1	10/23/2018 00:48	WG1184727
1,1,2,2-Tetrachloroethane	U		0.000465	0.00298	1	10/23/2018 00:48	WG1184727
1,1,2-Trichlorotrifluoroethane	U		0.000805	0.00298	1	10/23/2018 00:48	WG1184727
Tetrachloroethene	0.604	J0	0.00334	0.0119	4	10/24/2018 18:32	WG1185319
Toluene	U		0.00149	0.00597	1	10/23/2018 00:48	WG1184727
1,2,3-Trichlorobenzene	U		0.000746	0.00298	1	10/23/2018 00:48	WG1184727
1,2,4-Trichlorobenzene	U		0.00575	0.0149	1	10/23/2018 00:48	WG1184727
1,1,1-Trichloroethane	U		0.000328	0.00298	1	10/23/2018 00:48	WG1184727
1,1,2-Trichloroethane	U		0.00421	0.0119	4	10/24/2018 18:32	WG1185319
Trichloroethene	0.00123		0.000477	0.00119	1	10/23/2018 00:48	WG1184727
Trichlorofluoromethane	U		0.000597	0.00298	1	10/23/2018 00:48	WG1184727
1,2,3-Trichloropropane	U		0.00608	0.0149	1	10/23/2018 00:48	WG1184727
1,2,4-Trimethylbenzene	U		0.00138	0.00597	1	10/23/2018 00:48	WG1184727
1,2,3-Trimethylbenzene	U		0.00137	0.00597	1	10/23/2018 00:48	WG1184727
1,3,5-Trimethylbenzene	U		0.00129	0.00597	1	10/23/2018 00:48	WG1184727
Vinyl acetate	U		0.00420	0.0149	1	10/23/2018 00:48	WG1184727
Vinyl chloride	U		0.000815	0.00298	1	10/23/2018 00:48	WG1184727
Xylenes, Total	U		0.00570	0.00775	1	10/23/2018 00:48	WG1184727
(S) Toluene-d8	*123*			*75.0-131*		*10/23/2018 00:48*	WG1184727
(S) Toluene-d8	*99.0*			*75.0-131*		*10/24/2018 18:32*	WG1185319
(S) Dibromofluoromethane	*98.6*			*65.0-129*		*10/23/2018 00:48*	WG1184727
(S) Dibromofluoromethane	*119*			*65.0-129*		*10/24/2018 18:32*	WG1185319
(S) 4-Bromofluorobenzene	*85.6*			*67.0-138*		*10/23/2018 00:48*	WG1184727
(S) 4-Bromofluorobenzene	*122*			*67.0-138*		*10/24/2018 18:32*	WG1185319

Sample Narrative:

L1036473-30 WG1185319, WG1184727: Cannot be reanalyzed at a lower dilution due to high levels of target analytes.

L1036473-30 WG1185319, WG1184727: Not all compounds reportable at lower dilution.

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	88.5		1	10/24/2018 14:00	WG1185671

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0619	0.113	4	10/24/2018 18:52	WG1185319
Acrylonitrile	U		0.00215	0.0141	1	10/23/2018 01:08	WG1184727
Benzene	U		0.000452	0.00113	1	10/23/2018 01:08	WG1184727
Bromobenzene	U		0.00119	0.0141	1	10/23/2018 01:08	WG1184727
Bromodichloromethane	U		0.000891	0.00283	1	10/23/2018 01:08	WG1184727
Bromochloromethane	U		0.00128	0.00565	1	10/23/2018 01:08	WG1184727
Bromoform	U		0.00676	0.0283	1	10/23/2018 01:08	WG1184727
Bromomethane	U		0.00418	0.0141	1	10/23/2018 01:08	WG1184727
n-Butylbenzene	U		0.00434	0.0141	1	10/23/2018 01:08	WG1184727
sec-Butylbenzene	U		0.00286	0.0141	1	10/23/2018 01:08	WG1184727
tert-Butylbenzene	U		0.00175	0.00565	1	10/23/2018 01:08	WG1184727
Carbon disulfide	U		0.00459	0.0141	1	10/23/2018 01:08	WG1184727
Carbon tetrachloride	U		0.00122	0.00565	1	10/23/2018 01:08	WG1184727
Chlorobenzene	U		0.000648	0.00283	1	10/23/2018 01:08	WG1184727
Chlorodibromomethane	U		0.000509	0.00283	1	10/23/2018 01:08	WG1184727
Chloroethane	U		0.00122	0.00565	1	10/23/2018 01:08	WG1184727
Chloroform	0.00153	B J	0.000469	0.00283	1	10/23/2018 01:08	WG1184727
Chloromethane	U		0.00157	0.0141	1	10/23/2018 01:08	WG1184727
2-Chlorotoluene	U		0.00104	0.00283	1	10/23/2018 01:08	WG1184727
4-Chlorotoluene	U		0.00128	0.00565	1	10/23/2018 01:08	WG1184727
1,2-Dibromo-3-Chloropropane	U		0.00576	0.0283	1	10/23/2018 01:08	WG1184727
1,2-Dibromoethane	U		0.000593	0.00283	1	10/23/2018 01:08	WG1184727
Dibromomethane	U		0.00113	0.00565	1	10/23/2018 01:08	WG1184727
1,2-Dichlorobenzene	U		0.00164	0.00565	1	10/23/2018 01:08	WG1184727
1,3-Dichlorobenzene	U		0.00192	0.00565	1	10/23/2018 01:08	WG1184727
1,4-Dichlorobenzene	U		0.00223	0.00565	1	10/23/2018 01:08	WG1184727
Dichlorodifluoromethane	U		0.000925	0.00283	1	10/23/2018 01:08	WG1184727
1,1-Dichloroethane	U		0.000650	0.00283	1	10/23/2018 01:08	WG1184727
1,2-Dichloroethane	U		0.000537	0.00283	1	10/23/2018 01:08	WG1184727
1,1-Dichloroethene	U		0.000565	0.00283	1	10/23/2018 01:08	WG1184727
cis-1,2-Dichloroethene	U		0.000780	0.00283	1	10/23/2018 01:08	WG1184727
trans-1,2-Dichloroethene	U		0.00162	0.00565	1	10/23/2018 01:08	WG1184727
1,2-Dichloropropane	U		0.00574	0.0226	4	10/24/2018 18:52	WG1185319
1,1-Dichloropropene	U		0.000791	0.00283	1	10/23/2018 01:08	WG1184727
1,3-Dichloropropane	U		0.00198	0.00565	1	10/23/2018 01:08	WG1184727
cis-1,3-Dichloropropene	U		0.000766	0.00283	1	10/23/2018 01:08	WG1184727
trans-1,3-Dichloropropene	U		0.00173	0.00565	1	10/23/2018 01:08	WG1184727
trans-1,4-Dichloro-2-butene	U		0.00158	0.00565	1	10/23/2018 01:08	WG1184727
2,2-Dichloropropane	U		0.000896	0.00283	1	10/23/2018 01:08	WG1184727
Di-isopropyl ether	U		0.000396	0.00113	1	10/23/2018 01:08	WG1184727
Ethylbenzene	U		0.000599	0.00283	1	10/23/2018 01:08	WG1184727
Hexachloro-1,3-butadiene	U		0.0144	0.0283	1	10/23/2018 01:08	WG1184727
2-Hexanone	U		0.0113	0.0283	1	10/23/2018 01:08	WG1184727
n-Hexane	U		0.00479	0.0226	4	10/24/2018 18:52	WG1185319
Iodomethane	U		0.00684	0.0141	1	10/23/2018 01:08	WG1184727
Isopropylbenzene	U		0.000975	0.00283	1	10/23/2018 01:08	WG1184727
p-Isopropyltoluene	U		0.00263	0.00565	1	10/23/2018 01:08	WG1184727
2-Butanone (MEK)	U		0.0565	0.113	4	10/24/2018 18:52	WG1185319
Methylene Chloride	U		0.00750	0.0283	1	10/23/2018 01:08	WG1184727
4-Methyl-2-pentanone (MIBK)	U		0.0113	0.0283	1	10/23/2018 01:08	WG1184727

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000333	0.00113	1	10/23/2018 01:08	WG1184727
Naphthalene	U		0.00353	0.0141	1	10/23/2018 01:08	WG1184727
n-Propylbenzene	U		0.00133	0.00565	1	10/23/2018 01:08	WG1184727
Styrene	U		0.00309	0.0141	1	10/23/2018 01:08	WG1184727
1,1,1,2-Tetrachloroethane	U		0.000565	0.00283	1	10/23/2018 01:08	WG1184727
1,1,2,2-Tetrachloroethane	U		0.000441	0.00283	1	10/23/2018 01:08	WG1184727
1,1,2-Trichlorotrifluoroethane	U		0.000763	0.00283	1	10/23/2018 01:08	WG1184727
Tetrachloroethene	0.517	J0	0.00316	0.0113	4	10/24/2018 18:52	WG1185319
Toluene	0.00188	J	0.00141	0.00565	1	10/23/2018 01:08	WG1184727
1,2,3-Trichlorobenzene	U		0.000706	0.00283	1	10/23/2018 01:08	WG1184727
1,2,4-Trichlorobenzene	U		0.00545	0.0141	1	10/23/2018 01:08	WG1184727
1,1,1-Trichloroethane	U	J3	0.000311	0.00283	1	10/23/2018 01:08	WG1184727
1,1,2-Trichloroethane	U		0.00399	0.0113	4	10/24/2018 18:52	WG1185319
Trichloroethene	0.00270		0.000452	0.00113	1	10/23/2018 01:08	WG1184727
Trichlorofluoromethane	U		0.000565	0.00283	1	10/23/2018 01:08	WG1184727
1,2,3-Trichloropropane	U		0.00576	0.0141	1	10/23/2018 01:08	WG1184727
1,2,4-Trimethylbenzene	U		0.00131	0.00565	1	10/23/2018 01:08	WG1184727
1,2,3-Trimethylbenzene	U		0.00130	0.00565	1	10/23/2018 01:08	WG1184727
1,3,5-Trimethylbenzene	U		0.00122	0.00565	1	10/23/2018 01:08	WG1184727
Vinyl acetate	U		0.00398	0.0141	1	10/23/2018 01:08	WG1184727
Vinyl chloride	U		0.000772	0.00283	1	10/23/2018 01:08	WG1184727
Xylenes, Total	U		0.00540	0.00735	1	10/23/2018 01:08	WG1184727
(S) Toluene-d8	*126*			*75.0-131*		*10/23/2018 01:08*	WG1184727
(S) Toluene-d8	*99.3*			*75.0-131*		*10/24/2018 18:52*	WG1185319
(S) Dibromofluoromethane	*95.3*			*65.0-129*		*10/23/2018 01:08*	WG1184727
(S) Dibromofluoromethane	*118*			*65.0-129*		*10/24/2018 18:52*	WG1185319
(S) 4-Bromofluorobenzene	*86.4*			*67.0-138*		*10/23/2018 01:08*	WG1184727
(S) 4-Bromofluorobenzene	*124*			*67.0-138*		*10/24/2018 18:52*	WG1185319

Sample Narrative:

L1036473-31 WG1185319, WG1184727: Cannot be reanalyzed at a lower dilution due to high levels of target analytes.

L1036473-31 WG1185319, WG1184727: Not all compounds reportable at lower dilution.

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	89.5		1	10/24/2018 14:00	WG1185671

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.306	0.559	20	10/26/2018 05:16	WG1186559
Acrylonitrile	U		0.0425	0.279	20	10/26/2018 05:16	WG1186559
Benzene	U		0.00894	0.0224	20	10/26/2018 05:16	WG1186559
Bromobenzene	U		0.0235	0.279	20	10/26/2018 05:16	WG1186559
Bromodichloromethane	U		0.0177	0.0559	20	10/26/2018 05:16	WG1186559
Bromochloromethane	U		0.0253	0.112	20	10/26/2018 05:16	WG1186559
Bromoform	U		0.134	0.559	20	10/26/2018 05:16	WG1186559
Bromomethane	U		0.0827	0.279	20	10/26/2018 05:16	WG1186559
n-Butylbenzene	U		0.0858	0.279	20	10/26/2018 05:16	WG1186559
sec-Butylbenzene	U		0.0566	0.279	20	10/26/2018 05:16	WG1186559
tert-Butylbenzene	U		0.0347	0.112	20	10/26/2018 05:16	WG1186559
Carbon disulfide	U		0.0908	0.279	20	10/26/2018 05:16	WG1186559
Carbon tetrachloride	U		0.0241	0.112	20	10/26/2018 05:16	WG1186559
Chlorobenzene	U		0.0129	0.0559	20	10/26/2018 05:16	WG1186559
Chlorodibromomethane	U		0.0101	0.0559	20	10/26/2018 05:16	WG1186559
Chloroethane	U		0.0241	0.112	20	10/26/2018 05:16	WG1186559
Chloroform	U		0.00928	0.0559	20	10/26/2018 05:16	WG1186559
Chloromethane	U		0.0311	0.279	20	10/26/2018 05:16	WG1186559
2-Chlorotoluene	U		0.0206	0.0559	20	10/26/2018 05:16	WG1186559
4-Chlorotoluene	U		0.0253	0.112	20	10/26/2018 05:16	WG1186559
1,2-Dibromo-3-Chloropropane	U		0.114	0.559	20	10/26/2018 05:16	WG1186559
1,2-Dibromoethane	U		0.0117	0.0559	20	10/26/2018 05:16	WG1186559
Dibromomethane	U		0.0224	0.112	20	10/26/2018 05:16	WG1186559
1,2-Dichlorobenzene	U		0.0324	0.112	20	10/26/2018 05:16	WG1186559
1,3-Dichlorobenzene	U		0.0380	0.112	20	10/26/2018 05:16	WG1186559
1,4-Dichlorobenzene	U		0.0440	0.112	20	10/26/2018 05:16	WG1186559
Dichlorodifluoromethane	U		0.0183	0.0559	20	10/26/2018 05:16	WG1186559
1,1-Dichloroethane	U		0.0129	0.0559	20	10/26/2018 05:16	WG1186559
1,2-Dichloroethane	U		0.0106	0.0559	20	10/26/2018 05:16	WG1186559
1,1-Dichloroethene	U		0.0112	0.0559	20	10/26/2018 05:16	WG1186559
cis-1,2-Dichloroethene	U		0.0154	0.0559	20	10/26/2018 05:16	WG1186559
trans-1,2-Dichloroethene	U		0.0320	0.112	20	10/26/2018 05:16	WG1186559
1,2-Dichloropropane	U		0.0284	0.112	20	10/26/2018 05:16	WG1186559
1,1-Dichloropropene	U		0.0156	0.0559	20	10/26/2018 05:16	WG1186559
1,3-Dichloropropane	U		0.0391	0.112	20	10/26/2018 05:16	WG1186559
cis-1,3-Dichloropropene	U		0.0152	0.0559	20	10/26/2018 05:16	WG1186559
trans-1,3-Dichloropropene	U		0.0342	0.112	20	10/26/2018 05:16	WG1186559
trans-1,4-Dichloro-2-butene	U		0.0313	0.112	20	10/26/2018 05:16	WG1186559
2,2-Dichloropropane	U		0.0178	0.0559	20	10/26/2018 05:16	WG1186559
Di-isopropyl ether	U		0.00782	0.0224	20	10/26/2018 05:16	WG1186559
Ethylbenzene	U		0.0118	0.0559	20	10/26/2018 05:16	WG1186559
Hexachloro-1,3-butadiene	U		0.284	0.559	20	10/26/2018 05:16	WG1186559
2-Hexanone	U		0.224	0.559	20	10/26/2018 05:16	WG1186559
n-Hexane	U		0.0237	0.112	20	10/26/2018 05:16	WG1186559
Iodomethane	U		0.135	0.279	20	10/26/2018 05:16	WG1186559
Isopropylbenzene	U		0.0193	0.0559	20	10/26/2018 05:16	WG1186559
p-Isopropyltoluene	U		0.0521	0.112	20	10/26/2018 05:16	WG1186559
2-Butanone (MEK)	U		0.279	0.559	20	10/26/2018 05:16	WG1186559
Methylene Chloride	U		0.149	0.559	20	10/26/2018 05:16	WG1186559
4-Methyl-2-pentanone (MIBK)	U		0.224	0.559	20	10/26/2018 05:16	WG1186559

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.00659	0.0224	20	10/26/2018 05:16	WG1186559
Naphthalene	U		0.0697	0.279	20	10/26/2018 05:16	WG1186559
n-Propylbenzene	U		0.0264	0.112	20	10/26/2018 05:16	WG1186559
Styrene	U		0.0610	0.279	20	10/26/2018 05:16	WG1186559
1,1,1,2-Tetrachloroethane	U		0.0112	0.0559	20	10/26/2018 05:16	WG1186559
1,1,2,2-Tetrachloroethane	U		0.00872	0.0559	20	10/26/2018 05:16	WG1186559
1,1,2-Trichlorotrifluoroethane	U		0.0151	0.0559	20	10/26/2018 05:16	WG1186559
Tetrachloroethene	7.72		0.0156	0.0559	20	10/26/2018 05:16	WG1186559
Toluene	U		0.0279	0.112	20	10/26/2018 05:16	WG1186559
1,2,3-Trichlorobenzene	U		0.0140	0.0559	20	10/26/2018 05:16	WG1186559
1,2,4-Trichlorobenzene	U		0.108	0.279	20	10/26/2018 05:16	WG1186559
1,1,1-Trichloroethane	U		0.00615	0.0559	20	10/26/2018 05:16	WG1186559
1,1,2-Trichloroethane	U		0.0198	0.0559	20	10/26/2018 05:16	WG1186559
Trichloroethene	0.0853		0.00894	0.0224	20	10/26/2018 05:16	WG1186559
Trichlorofluoromethane	U		0.0112	0.0559	20	10/26/2018 05:16	WG1186559
1,2,3-Trichloropropane	U		0.114	0.279	20	10/26/2018 05:16	WG1186559
1,2,4-Trimethylbenzene	U		0.0259	0.112	20	10/26/2018 05:16	WG1186559
1,2,3-Trimethylbenzene	U		0.0257	0.112	20	10/26/2018 05:16	WG1186559
1,3,5-Trimethylbenzene	U		0.0241	0.112	20	10/26/2018 05:16	WG1186559
Vinyl acetate	U		0.0787	0.279	20	10/26/2018 05:16	WG1186559
Vinyl chloride	U		0.0153	0.0559	20	10/26/2018 05:16	WG1186559
Xylenes, Total	U		0.107	0.145	20	10/26/2018 05:16	WG1186559
(S) Toluene-d8	*104*			*75.0-131*		*10/26/2018 05:16*	WG1186559
(S) Dibromofluoromethane	*98.2*			*65.0-129*		*10/26/2018 05:16*	WG1186559
(S) 4-Bromofluorobenzene	*106*			*67.0-138*		*10/26/2018 05:16*	WG1186559

Sample Narrative:

L1036473-32 WG1186559: Diluted due to high levels of target analytes.

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	87.7		1	10/24/2018 14:00	WG1185671

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.341	0.621	21.8	10/26/2018 05:35	WG1186559
Acrylonitrile	U		0.0472	0.311	21.8	10/26/2018 05:35	WG1186559
Benzene	U		0.00994	0.0248	21.8	10/26/2018 05:35	WG1186559
Bromobenzene	U		0.0261	0.311	21.8	10/26/2018 05:35	WG1186559
Bromodichloromethane	U		0.0196	0.0621	21.8	10/26/2018 05:35	WG1186559
Bromochloromethane	U		0.0280	0.124	21.8	10/26/2018 05:35	WG1186559
Bromoform	U		0.148	0.621	21.8	10/26/2018 05:35	WG1186559
Bromomethane	U		0.0920	0.311	21.8	10/26/2018 05:35	WG1186559
n-Butylbenzene	U		0.0954	0.311	21.8	10/26/2018 05:35	WG1186559
sec-Butylbenzene	U		0.0629	0.311	21.8	10/26/2018 05:35	WG1186559
tert-Butylbenzene	U		0.0385	0.124	21.8	10/26/2018 05:35	WG1186559
Carbon disulfide	U		0.101	0.311	21.8	10/26/2018 05:35	WG1186559
Carbon tetrachloride	U		0.0268	0.124	21.8	10/26/2018 05:35	WG1186559
Chlorobenzene	U		0.0142	0.0621	21.8	10/26/2018 05:35	WG1186559
Chlorodibromomethane	U		0.0112	0.0621	21.8	10/26/2018 05:35	WG1186559
Chloroethane	U		0.0268	0.124	21.8	10/26/2018 05:35	WG1186559
Chloroform	U		0.0103	0.0621	21.8	10/26/2018 05:35	WG1186559
Chloromethane	U		0.0345	0.311	21.8	10/26/2018 05:35	WG1186559
2-Chlorotoluene	U		0.0228	0.0621	21.8	10/26/2018 05:35	WG1186559
4-Chlorotoluene	U		0.0280	0.124	21.8	10/26/2018 05:35	WG1186559
1,2-Dibromo-3-Chloropropane	U		0.127	0.621	21.8	10/26/2018 05:35	WG1186559
1,2-Dibromoethane	U		0.0130	0.0621	21.8	10/26/2018 05:35	WG1186559
Dibromomethane	U		0.0248	0.124	21.8	10/26/2018 05:35	WG1186559
1,2-Dichlorobenzene	U		0.0360	0.124	21.8	10/26/2018 05:35	WG1186559
1,3-Dichlorobenzene	U		0.0423	0.124	21.8	10/26/2018 05:35	WG1186559
1,4-Dichlorobenzene	U		0.0489	0.124	21.8	10/26/2018 05:35	WG1186559
Dichlorodifluoromethane	U		0.0203	0.0621	21.8	10/26/2018 05:35	WG1186559
1,1-Dichloroethane	U		0.0142	0.0621	21.8	10/26/2018 05:35	WG1186559
1,2-Dichloroethane	U		0.0119	0.0621	21.8	10/26/2018 05:35	WG1186559
1,1-Dichloroethene	U		0.0124	0.0621	21.8	10/26/2018 05:35	WG1186559
cis-1,2-Dichloroethene	U		0.0171	0.0621	21.8	10/26/2018 05:35	WG1186559
trans-1,2-Dichloroethene	U		0.0356	0.124	21.8	10/26/2018 05:35	WG1186559
1,2-Dichloropropane	U		0.0316	0.124	21.8	10/26/2018 05:35	WG1186559
1,1-Dichloropropene	U		0.0174	0.0621	21.8	10/26/2018 05:35	WG1186559
1,3-Dichloropropane	U		0.0435	0.124	21.8	10/26/2018 05:35	WG1186559
cis-1,3-Dichloropropene	U		0.0169	0.0621	21.8	10/26/2018 05:35	WG1186559
trans-1,3-Dichloropropene	U		0.0381	0.124	21.8	10/26/2018 05:35	WG1186559
trans-1,4-Dichloro-2-butene	U		0.0348	0.124	21.8	10/26/2018 05:35	WG1186559
2,2-Dichloropropane	U		0.0197	0.0621	21.8	10/26/2018 05:35	WG1186559
Di-isopropyl ether	U		0.00870	0.0248	21.8	10/26/2018 05:35	WG1186559
Ethylbenzene	U		0.0132	0.0621	21.8	10/26/2018 05:35	WG1186559
Hexachloro-1,3-butadiene	U		0.316	0.621	21.8	10/26/2018 05:35	WG1186559
2-Hexanone	U		0.248	0.621	21.8	10/26/2018 05:35	WG1186559
n-Hexane	U		0.0263	0.124	21.8	10/26/2018 05:35	WG1186559
Iodomethane	U		0.150	0.311	21.8	10/26/2018 05:35	WG1186559
Isopropylbenzene	U		0.0214	0.0621	21.8	10/26/2018 05:35	WG1186559
p-Isopropyltoluene	U		0.0579	0.124	21.8	10/26/2018 05:35	WG1186559
2-Butanone (MEK)	U		0.310	0.621	21.8	10/26/2018 05:35	WG1186559
Methylene Chloride	U		0.165	0.621	21.8	10/26/2018 05:35	WG1186559
4-Methyl-2-pentanone (MIBK)	U		0.248	0.621	21.8	10/26/2018 05:35	WG1186559

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.00733	0.0248	21.8	10/26/2018 05:35	WG1186559
Naphthalene	U		0.0775	0.311	21.8	10/26/2018 05:35	WG1186559
n-Propylbenzene	U		0.0293	0.124	21.8	10/26/2018 05:35	WG1186559
Styrene	U		0.0678	0.311	21.8	10/26/2018 05:35	WG1186559
1,1,1,2-Tetrachloroethane	U		0.0124	0.0621	21.8	10/26/2018 05:35	WG1186559
1,1,2,2-Tetrachloroethane	U		0.00969	0.0621	21.8	10/26/2018 05:35	WG1186559
1,1,2-Trichlorotrifluoroethane	U		0.0168	0.0621	21.8	10/26/2018 05:35	WG1186559
Tetrachloroethene	8.01		0.0174	0.0621	21.8	10/26/2018 05:35	WG1186559
Toluene	U		0.0310	0.124	21.8	10/26/2018 05:35	WG1186559
1,2,3-Trichlorobenzene	U		0.0155	0.0621	21.8	10/26/2018 05:35	WG1186559
1,2,4-Trichlorobenzene	U		0.120	0.311	21.8	10/26/2018 05:35	WG1186559
1,1,1-Trichloroethane	U		0.00684	0.0621	21.8	10/26/2018 05:35	WG1186559
1,1,2-Trichloroethane	U		0.0219	0.0621	21.8	10/26/2018 05:35	WG1186559
Trichloroethene	0.102		0.00994	0.0248	21.8	10/26/2018 05:35	WG1186559
Trichlorofluoromethane	U		0.0124	0.0621	21.8	10/26/2018 05:35	WG1186559
1,2,3-Trichloropropane	U		0.127	0.311	21.8	10/26/2018 05:35	WG1186559
1,2,4-Trimethylbenzene	U		0.0288	0.124	21.8	10/26/2018 05:35	WG1186559
1,2,3-Trimethylbenzene	U		0.0286	0.124	21.8	10/26/2018 05:35	WG1186559
1,3,5-Trimethylbenzene	U		0.0268	0.124	21.8	10/26/2018 05:35	WG1186559
Vinyl acetate	U		0.0874	0.311	21.8	10/26/2018 05:35	WG1186559
Vinyl chloride	U		0.0170	0.0621	21.8	10/26/2018 05:35	WG1186559
Xylenes, Total	U		0.119	0.162	21.8	10/26/2018 05:35	WG1186559
(S) Toluene-d8	*108*			*75.0-131*		*10/26/2018 05:35*	WG1186559
(S) Dibromofluoromethane	*98.8*			*65.0-129*		*10/26/2018 05:35*	WG1186559
(S) 4-Bromofluorobenzene	*103*			*67.0-138*		*10/26/2018 05:35*	WG1186559

Sample Narrative:

L1036473-33 WG1186559: Diluted due to high levels of target analytes.

Method Blank (MB)

(MB) R3353699-1 10/24/18 12:49

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.00100			

L1036472-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1036472-04 10/24/18 12:49 • (DUP) R3353699-3 10/24/18 12:49

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	86.7	88.4	1	1.93		10

Laboratory Control Sample (LCS)

(LCS) R3353699-2 10/24/18 12:49

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85.0-115	

Method Blank (MB)

(MB) R3353711-1 10/24/18 13:49

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.00100			

L1036473-12 Original Sample (OS) • Duplicate (DUP)

(OS) L1036473-12 10/24/18 13:49 • (DUP) R3353711-3 10/24/18 13:49

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	89.1	89.2	1	0.174		10

Laboratory Control Sample (LCS)

(LCS) R3353711-2 10/24/18 13:49

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85.0-115	

Method Blank (MB)

(MB) R3353710-1 10/24/18 13:36

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.000			

L1036473-23 Original Sample (OS) • Duplicate (DUP)

(OS) L1036473-23 10/24/18 13:36 • (DUP) R3353710-3 10/24/18 13:36

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	82.1	80.5	1	1.92		10

Laboratory Control Sample (LCS)

(LCS) R3353710-2 10/24/18 13:36

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85.0-115	

Method Blank (MB)

(MB) R3353714-1 10/24/18 14:00

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.00100			

L1036473-29 Original Sample (OS) • Duplicate (DUP)

(OS) L1036473-29 10/24/18 14:00 • (DUP) R3353714-3 10/24/18 14:00

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	91.7	93.4	1	1.86		10

Laboratory Control Sample (LCS)

(LCS) R3353714-2 10/24/18 14:00

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85.0-115	

Method Blank (MB)

(MB) R3353171-2 10/22/18 11:26

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acrylonitrile	U		0.00190	0.0125
Benzene	U		0.000400	0.00100
Bromobenzene	U		0.00105	0.0125
Bromodichloromethane	U		0.000788	0.00250
Bromochloromethane	U		0.00113	0.00500
Bromoform	U		0.00598	0.0250
Bromomethane	U		0.00370	0.0125
n-Butylbenzene	U		0.00384	0.0125
sec-Butylbenzene	U		0.00253	0.0125
tert-Butylbenzene	U		0.00155	0.00500
Carbon disulfide	U		0.00406	0.0125
Carbon tetrachloride	U		0.00108	0.00500
Chlorobenzene	U		0.000573	0.00250
Chlorodibromomethane	U		0.000450	0.00250
Chloroethane	U		0.00108	0.00500
Chloroform	0.00131	J	0.000415	0.00250
Chloromethane	U		0.00139	0.0125
2-Chlorotoluene	U		0.000920	0.00250
4-Chlorotoluene	U		0.00113	0.00500
1,2-Dibromo-3-Chloropropane	U		0.00510	0.0250
1,2-Dibromoethane	U		0.000525	0.00250
Dibromomethane	U		0.00100	0.00500
1,2-Dichlorobenzene	U		0.00145	0.00500
1,3-Dichlorobenzene	U		0.00170	0.00500
1,4-Dichlorobenzene	U		0.00197	0.00500
trans-1,4-Dichloro-2-butene	U		0.00140	0.00500
1,1-Dichloroethane	U		0.000575	0.00250
1,2-Dichloroethane	U		0.000475	0.00250
1,1-Dichloroethene	U		0.000500	0.00250
cis-1,2-Dichloroethene	U		0.000690	0.00250
trans-1,2-Dichloroethene	U		0.00143	0.00500
1,2-Dichloropropane	U		0.00127	0.00500
1,1-Dichloropropene	U		0.000700	0.00250
1,3-Dichloropropane	U		0.00175	0.00500
cis-1,3-Dichloropropene	U		0.000678	0.00250
trans-1,3-Dichloropropene	U		0.00153	0.00500
2,2-Dichloropropane	U		0.000793	0.00250
Di-isopropyl ether	U		0.000350	0.00100
Ethylbenzene	U		0.000530	0.00250
Hexachloro-1,3-butadiene	U		0.0127	0.0250

Method Blank (MB)

(MB) R3353171-2 10/22/18 11:26

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
n-Hexane	U		0.00106	0.00500
2-Hexanone	U		0.0100	0.0250
Iodomethane	U		0.00605	0.0125
Isopropylbenzene	U		0.000863	0.00250
p-Isopropyltoluene	U		0.00233	0.00500
2-Butanone (MEK)	U		0.0125	0.0250
Methylene Chloride	U		0.00664	0.0250
4-Methyl-2-pentanone (MIBK)	U		0.0100	0.0250
Methyl tert-butyl ether	U		0.000295	0.00100
Naphthalene	U		0.00312	0.0125
n-Propylbenzene	U		0.00118	0.00500
Styrene	U		0.00273	0.0125
1,1,1,2-Tetrachloroethane	U		0.000500	0.00250
Tetrachloroethene	U		0.000700	0.00250
Toluene	U		0.00125	0.00500
1,1,2-Trichlorotrifluoroethane	U		0.000675	0.00250
1,2,4-Trichlorobenzene	U		0.00482	0.0125
1,1,1-Trichloroethane	U		0.000275	0.00250
1,1,2-Trichloroethane	U		0.000883	0.00250
Trichloroethene	U		0.000400	0.00100
Trichlorofluoromethane	U		0.000500	0.00250
1,2,3-Trichloropropane	U		0.00510	0.0125
1,2,3-Trimethylbenzene	U		0.00115	0.00500
1,2,4-Trimethylbenzene	U		0.00116	0.00500
1,3,5-Trimethylbenzene	U		0.00108	0.00500
Vinyl acetate	U		0.00352	0.0125
Vinyl chloride	U		0.000683	0.00250
Xylenes, Total	U		0.00478	0.00650
(S) Toluene-d8	*106*			*75.0-131*
(S) Dibromofluoromethane	*91.7*			*65.0-129*
(S) 4-Bromofluorobenzene	*95.5*			*67.0-138*

Laboratory Control Sample (LCS)

(LCS) R3353171-1 10/22/18 10:17

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acrylonitrile	0.625	0.571	91.3	45.0-153	
Benzene	0.125	0.126	101	70.0-123	

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

Laboratory Control Sample (LCS)

(LCS) R3353171-1 10/22/18 10:17

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Bromobenzene	0.125	0.111	88.8	73.0-121	
Bromodichloromethane	0.125	0.124	99.5	73.0-121	
Bromochloromethane	0.125	0.101	80.9	77.0-128	
Bromoform	0.125	0.107	85.3	64.0-132	
Bromomethane	0.125	0.109	87.1	56.0-147	
n-Butylbenzene	0.125	0.0907	72.6	68.0-135	
sec-Butylbenzene	0.125	0.0972	77.8	74.0-130	
tert-Butylbenzene	0.125	0.107	85.4	75.0-127	
Carbon disulfide	0.125	0.101	81.1	56.0-133	
Carbon tetrachloride	0.125	0.112	89.6	66.0-128	
Chlorobenzene	0.125	0.107	85.3	76.0-128	
Chlorodibromomethane	0.125	0.135	108	74.0-127	
Chloroethane	0.125	0.101	80.6	61.0-134	
Chloroform	0.125	0.109	87.2	72.0-123	
Chloromethane	0.125	0.115	91.6	51.0-138	
2-Chlorotoluene	0.125	0.119	94.9	75.0-124	
4-Chlorotoluene	0.125	0.112	89.6	75.0-124	
1,2-Dibromo-3-Chloropropane	0.125	0.111	88.6	59.0-130	
1,2-Dibromoethane	0.125	0.116	92.4	74.0-128	
Dibromomethane	0.125	0.130	104	75.0-122	
1,2-Dichlorobenzene	0.125	0.127	102	76.0-124	
1,3-Dichlorobenzene	0.125	0.106	85.1	76.0-125	
1,4-Dichlorobenzene	0.125	0.112	89.9	77.0-121	
trans-1,4-Dichloro-2-butene	0.125	0.139	111	45.0-143	
1,1-Dichloroethane	0.125	0.125	100	70.0-127	
1,2-Dichloroethane	0.125	0.127	101	65.0-131	
1,1-Dichloroethene	0.125	0.119	95.1	65.0-131	
cis-1,2-Dichloroethene	0.125	0.138	111	73.0-125	
trans-1,2-Dichloroethene	0.125	0.105	83.8	71.0-125	
1,2-Dichloropropane	0.125	0.114	91.1	74.0-125	
1,1-Dichloropropene	0.125	0.128	102	73.0-125	
1,3-Dichloropropane	0.125	0.106	84.7	80.0-125	
cis-1,3-Dichloropropene	0.125	0.129	104	76.0-127	
trans-1,3-Dichloropropene	0.125	0.186	149	73.0-127	J4
2,2-Dichloropropane	0.125	0.137	110	59.0-135	
Di-isopropyl ether	0.125	0.115	92.4	60.0-136	
Ethylbenzene	0.125	0.111	88.5	74.0-126	
Hexachloro-1,3-butadiene	0.125	0.182	146	57.0-150	
2-Hexanone	0.625	0.633	101	54.0-147	
n-Hexane	0.125	0.164	131	55.0-137	

Laboratory Control Sample (LCS)

(LCS) R3353171-1 10/22/18 10:17

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Iodomethane	0.625	0.657	105	74.0-134	
Isopropylbenzene	0.125	0.110	88.1	72.0-127	
p-Isopropyltoluene	0.125	0.0984	78.8	72.0-133	
2-Butanone (MEK)	0.625	0.692	111	30.0-160	
Methylene Chloride	0.125	0.0916	73.3	68.0-123	
4-Methyl-2-pentanone (MIBK)	0.625	0.706	113	56.0-143	
Methyl tert-butyl ether	0.125	0.119	94.8	66.0-132	
Naphthalene	0.125	0.109	87.5	59.0-130	
n-Propylbenzene	0.125	0.123	98.1	74.0-126	
Styrene	0.125	0.111	89.1	72.0-127	
1,1,1,2-Tetrachloroethane	0.125	0.165	132	74.0-129	J4
Tetrachloroethene	0.125	0.145	116	70.0-136	
Toluene	0.125	0.115	92.1	75.0-121	
1,1,2-Trichlorotrifluoroethane	0.125	0.0912	73.0	61.0-139	
1,2,4-Trichlorobenzene	0.125	0.128	103	62.0-137	
1,1,1-Trichloroethane	0.125	0.138	111	69.0-126	
1,1,2-Trichloroethane	0.125	0.118	94.4	78.0-123	
Trichloroethene	0.125	0.127	101	76.0-126	
Trichlorofluoromethane	0.125	0.120	95.7	61.0-142	
1,2,3-Trichloropropane	0.125	0.120	96.1	67.0-129	
1,2,3-Trimethylbenzene	0.125	0.126	101	74.0-124	
1,2,4-Trimethylbenzene	0.125	0.111	88.7	70.0-126	
1,3,5-Trimethylbenzene	0.125	0.116	92.9	73.0-127	
Vinyl acetate	0.625	0.530	84.7	43.0-159	
Vinyl chloride	0.125	0.125	99.7	63.0-134	
Xylenes, Total	0.375	0.361	96.3	72.0-127	
(S) Toluene-d8			*104*	*75.0-131*	
(S) Dibromofluoromethane			*90.5*	*65.0-129*	
(S) 4-Bromofluorobenzene			*88.9*	*67.0-138*	

Method Blank (MB)

(MB) R3353249-2 10/22/18 16:59

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acrylonitrile	U		0.00190	0.0125
Benzene	U		0.000400	0.00100
Bromobenzene	U		0.00105	0.0125
Bromodichloromethane	U		0.000788	0.00250
Bromochloromethane	U		0.00113	0.00500
Bromoform	U		0.00598	0.0250
Bromomethane	U		0.00370	0.0125
n-Butylbenzene	U		0.00384	0.0125
sec-Butylbenzene	U		0.00253	0.0125
tert-Butylbenzene	U		0.00155	0.00500
Carbon disulfide	U		0.00406	0.0125
Carbon tetrachloride	U		0.00108	0.00500
Chlorobenzene	U		0.000573	0.00250
Chlorodibromomethane	U		0.000450	0.00250
Chloroethane	U		0.00108	0.00500
Chloroform	0.000950	J	0.000415	0.00250
Chloromethane	U		0.00139	0.0125
2-Chlorotoluene	U		0.000920	0.00250
4-Chlorotoluene	U		0.00113	0.00500
1,2-Dibromo-3-Chloropropane	U		0.00510	0.0250
1,2-Dibromoethane	U		0.000525	0.00250
Dibromomethane	U		0.00100	0.00500
1,2-Dichlorobenzene	U		0.00145	0.00500
1,3-Dichlorobenzene	U		0.00170	0.00500
1,4-Dichlorobenzene	U		0.00197	0.00500
trans-1,4-Dichloro-2-butene	U		0.00140	0.00500
Dichlorodifluoromethane	U		0.000818	0.00250
1,1-Dichloroethane	U		0.000575	0.00250
1,2-Dichloroethane	U		0.000475	0.00250
1,1-Dichloroethene	U		0.000500	0.00250
cis-1,2-Dichloroethene	U		0.000690	0.00250
trans-1,2-Dichloroethene	U		0.00143	0.00500
1,2-Dichloropropane	U		0.00127	0.00500
1,1-Dichloropropene	U		0.000700	0.00250
1,3-Dichloropropane	U		0.00175	0.00500
cis-1,3-Dichloropropene	U		0.000678	0.00250
trans-1,3-Dichloropropene	U		0.00153	0.00500
2,2-Dichloropropane	U		0.000793	0.00250
Di-isopropyl ether	U		0.000350	0.00100
Ethylbenzene	U		0.000530	0.00250

Method Blank (MB)

(MB) R3353249-2 10/22/18 16:59

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Hexachloro-1,3-butadiene	U		0.0127	0.0250
2-Hexanone	U		0.0100	0.0250
Iodomethane	U		0.00605	0.0125
Isopropylbenzene	U		0.000863	0.00250
p-Isopropyltoluene	U		0.00233	0.00500
Methylene Chloride	U		0.00664	0.0250
4-Methyl-2-pentanone (MIBK)	U		0.0100	0.0250
Methyl tert-butyl ether	U		0.000295	0.00100
Naphthalene	U		0.00312	0.0125
n-Propylbenzene	U		0.00118	0.00500
Styrene	U		0.00273	0.0125
1,1,1,2-Tetrachloroethane	U		0.000500	0.00250
1,1,2,2-Tetrachloroethane	U		0.000390	0.00250
Tetrachloroethene	U		0.000700	0.00250
Toluene	U		0.00125	0.00500
1,1,2-Trichlorotrifluoroethane	U		0.000675	0.00250
1,2,3-Trichlorobenzene	U		0.000625	0.00250
1,2,4-Trichlorobenzene	U		0.00482	0.0125
1,1,1-Trichloroethane	U		0.000275	0.00250
Trichloroethene	U		0.000400	0.00100
Trichlorofluoromethane	U		0.000500	0.00250
1,2,3-Trichloropropane	U		0.00510	0.0125
1,2,3-Trimethylbenzene	U		0.00115	0.00500
1,2,4-Trimethylbenzene	U		0.00116	0.00500
1,3,5-Trimethylbenzene	U		0.00108	0.00500
Vinyl acetate	U		0.00352	0.0125
Vinyl chloride	U		0.000683	0.00250
Xylenes, Total	U		0.00478	0.00650
(S) Toluene-d8	*127*			*75.0-131*
(S) Dibromofluoromethane	*87.1*			*65.0-129*
(S) 4-Bromofluorobenzene	*93.4*			*67.0-138*

Laboratory Control Sample (LCS)

(LCS) R3353249-1 10/22/18 15:59

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acrylonitrile	0.625	0.701	112	45.0-153	
Benzene	0.125	0.129	103	70.0-123	

Laboratory Control Sample (LCS)

(LCS) R3353249-1 10/22/18 15:59

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Bromobenzene	0.125	0.131	105	73.0-121	
Bromodichloromethane	0.125	0.135	108	73.0-121	
Bromochloromethane	0.125	0.133	106	77.0-128	
Bromoform	0.125	0.111	88.9	64.0-132	
Bromomethane	0.125	0.112	89.6	56.0-147	
n-Butylbenzene	0.125	0.135	108	68.0-135	
sec-Butylbenzene	0.125	0.137	110	74.0-130	
tert-Butylbenzene	0.125	0.132	106	75.0-127	
Carbon disulfide	0.125	0.103	82.6	56.0-133	
Carbon tetrachloride	0.125	0.109	87.0	66.0-128	
Chlorobenzene	0.125	0.121	96.5	76.0-128	
Chlorodibromomethane	0.125	0.118	94.8	74.0-127	
Chloroethane	0.125	0.121	97.2	61.0-134	
Chloroform	0.125	0.135	108	72.0-123	
Chloromethane	0.125	0.106	84.5	51.0-138	
2-Chlorotoluene	0.125	0.127	102	75.0-124	
4-Chlorotoluene	0.125	0.136	109	75.0-124	
1,2-Dibromo-3-Chloropropane	0.125	0.129	103	59.0-130	
1,2-Dibromoethane	0.125	0.127	101	74.0-128	
Dibromomethane	0.125	0.125	100	75.0-122	
1,2-Dichlorobenzene	0.125	0.142	114	76.0-124	
1,3-Dichlorobenzene	0.125	0.134	107	76.0-125	
1,4-Dichlorobenzene	0.125	0.130	104	77.0-121	
trans-1,4-Dichloro-2-butene	0.125	0.123	98.5	45.0-143	
Dichlorodifluoromethane	0.125	0.126	101	43.0-156	
1,1-Dichloroethane	0.125	0.143	114	70.0-127	
1,2-Dichloroethane	0.125	0.142	113	65.0-131	
1,1-Dichloroethene	0.125	0.128	102	65.0-131	
cis-1,2-Dichloroethene	0.125	0.129	103	73.0-125	
trans-1,2-Dichloroethene	0.125	0.123	98.4	71.0-125	
1,2-Dichloropropane	0.125	0.134	107	74.0-125	
1,1-Dichloropropene	0.125	0.127	101	73.0-125	
1,3-Dichloropropane	0.125	0.136	109	80.0-125	
cis-1,3-Dichloropropene	0.125	0.124	98.8	76.0-127	
trans-1,3-Dichloropropene	0.125	0.116	92.9	73.0-127	
2,2-Dichloropropane	0.125	0.108	86.6	59.0-135	
Di-isopropyl ether	0.125	0.128	102	60.0-136	
Ethylbenzene	0.125	0.137	110	74.0-126	
Hexachloro-1,3-butadiene	0.125	0.130	104	57.0-150	
2-Hexanone	0.625	0.746	119	54.0-147	

Laboratory Control Sample (LCS)

(LCS) R3353249-1 10/22/18 15:59

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Iodomethane	0.625	0.646	103	74.0-134	
Isopropylbenzene	0.125	0.129	103	72.0-127	
p-Isopropyltoluene	0.125	0.136	109	72.0-133	
Methylene Chloride	0.125	0.118	94.2	68.0-123	
4-Methyl-2-pentanone (MIBK)	0.625	0.717	115	56.0-143	
Methyl tert-butyl ether	0.125	0.134	108	66.0-132	
Naphthalene	0.125	0.137	110	59.0-130	
n-Propylbenzene	0.125	0.130	104	74.0-126	
Styrene	0.125	0.113	90.4	72.0-127	
1,1,1,2-Tetrachloroethane	0.125	0.132	106	74.0-129	
1,1,2,2-Tetrachloroethane	0.125	0.128	102	68.0-128	
Tetrachloroethene	0.125	0.147	118	70.0-136	
Toluene	0.125	0.145	116	75.0-121	
1,1,2-Trichlorotrifluoroethane	0.125	0.123	98.2	61.0-139	
1,2,3-Trichlorobenzene	0.125	0.154	123	59.0-139	
1,2,4-Trichlorobenzene	0.125	0.132	105	62.0-137	
1,1,1-Trichloroethane	0.125	0.114	91.4	69.0-126	
Trichloroethene	0.125	0.110	87.9	76.0-126	
Trichlorofluoromethane	0.125	0.126	101	61.0-142	
1,2,3-Trichloropropane	0.125	0.135	108	67.0-129	
1,2,3-Trimethylbenzene	0.125	0.137	109	74.0-124	
1,2,4-Trimethylbenzene	0.125	0.129	103	70.0-126	
1,3,5-Trimethylbenzene	0.125	0.128	102	73.0-127	
Vinyl acetate	0.625	0.673	108	43.0-159	
Vinyl chloride	0.125	0.106	84.5	63.0-134	
Xylenes, Total	0.375	0.366	97.6	72.0-127	
(S) Toluene-d8			*113*	*75.0-131*	
(S) Dibromofluoromethane			*108*	*65.0-129*	
(S) 4-Bromofluorobenzene			*97.8*	*67.0-138*	

L1036473-31 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1036473-31 10/23/18 01:08 • (MS) R3353249-3 10/23/18 01:29 • (MSD) R3353249-4 10/23/18 01:49

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acrylonitrile	0.706	U	0.591	0.560	83.6	79.2	1	10.0-160			5.39	40
Benzene	0.141	U	0.124	0.105	88.1	74.5	1	10.0-149			16.7	37
Bromobenzene	0.141	U	0.114	0.119	81.0	84.4	1	10.0-156			4.06	38
Bromodichloromethane	0.141	U	0.116	0.114	81.8	80.4	1	10.0-143			1.64	37

L1036473-31 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1036473-31 10/23/18 01:08 • (MS) R3353249-3 10/23/18 01:29 • (MSD) R3353249-4 10/23/18 01:49

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Bromochloromethane	0.141	U	0.124	0.111	87.8	78.5	1	10.0-155			11.2	33
Bromoform	0.141	U	0.0812	0.0836	57.5	59.2	1	10.0-146			2.88	36
Bromomethane	0.141	U	0.0749	0.0844	53.0	59.7	1	10.0-149			12.0	38
n-Butylbenzene	0.141	U	0.129	0.127	91.3	89.9	1	10.0-160			1.48	40
sec-Butylbenzene	0.141	U	0.127	0.128	90.2	90.3	1	10.0-159			0.194	39
tert-Butylbenzene	0.141	U	0.119	0.122	83.9	86.0	1	10.0-156			2.48	39
Carbon disulfide	0.141	U	0.0998	0.0876	70.7	62.0	1	10.0-145			13.1	39
Carbon tetrachloride	0.141	U	0.107	0.105	75.7	74.2	1	10.0-145			2.00	37
Chlorobenzene	0.141	U	0.119	0.166	84.4	118	1	10.0-152			32.9	39
Chlorodibromomethane	0.141	U	0.0992	0.111	70.2	78.9	1	10.0-146			11.6	37
Chloroethane	0.141	U	0.0817	0.0848	57.8	60.0	1	10.0-146			3.76	40
Chloroform	0.141	0.00153	0.127	0.112	88.7	78.4	1	10.0-146			12.1	37
Chloromethane	0.141	U	0.101	0.113	71.2	79.8	1	10.0-159			11.3	37
2-Chlorotoluene	0.141	U	0.117	0.118	82.7	83.8	1	10.0-159			1.42	38
4-Chlorotoluene	0.141	U	0.123	0.123	87.1	86.8	1	10.0-155			0.314	39
1,2-Dibromo-3-Chloropropane	0.141	U	0.0980	0.103	69.4	73.2	1	10.0-151			5.32	39
1,2-Dibromoethane	0.141	U	0.121	0.129	85.5	91.2	1	10.0-148			6.36	34
Dibromomethane	0.141	U	0.108	0.122	76.2	86.3	1	10.0-147			12.4	35
1,2-Dichlorobenzene	0.141	U	0.125	0.127	88.7	89.7	1	10.0-155			1.13	37
1,3-Dichlorobenzene	0.141	U	0.120	0.119	85.1	84.5	1	10.0-153			0.711	38
1,4-Dichlorobenzene	0.141	U	0.116	0.117	82.4	82.7	1	10.0-151			0.390	38
trans-1,4-Dichloro-2-butene	0.141	U	0.116	0.114	82.0	80.8	1	10.0-152			1.49	36
Dichlorodifluoromethane	0.141	U	0.168	0.206	119	146	1	10.0-160			20.7	35
1,1-Dichloroethane	0.141	U	0.139	0.117	98.5	82.6	1	10.0-147			17.5	37
1,2-Dichloroethane	0.141	U	0.132	0.116	93.3	81.8	1	10.0-148			13.1	35
1,1-Dichloroethene	0.141	U	0.132	0.114	93.7	80.8	1	10.0-155			14.7	37
cis-1,2-Dichloroethene	0.141	U	0.122	0.105	86.4	74.5	1	10.0-149			14.8	37
trans-1,2-Dichloroethene	0.141	U	0.119	0.105	84.5	74.1	1	10.0-150			13.2	37
1,2-Dichloropropane	0.141	U	0.119	0.113	83.9	79.8	1	10.0-148			4.97	37
1,1-Dichloropropene	0.141	U	0.132	0.116	93.6	81.8	1	10.0-153			13.4	35
1,3-Dichloropropane	0.141	U	0.138	0.124	97.6	88.0	1	10.0-154			10.4	35
cis-1,3-Dichloropropene	0.141	U	0.115	0.108	81.3	76.3	1	10.0-151			6.33	37
trans-1,3-Dichloropropene	0.141	U	0.107	0.103	75.8	72.7	1	10.0-148			4.21	37
2,2-Dichloropropane	0.141	U	0.112	0.104	79.5	73.5	1	10.0-138			7.82	36
Di-isopropyl ether	0.141	U	0.123	0.113	86.9	79.9	1	10.0-147			8.31	36
Ethylbenzene	0.141	U	0.134	0.195	95.1	138	1	10.0-160			36.8	38
Hexachloro-1,3-butadiene	0.141	U	0.118	0.123	83.3	87.2	1	10.0-160			4.64	40
2-Hexanone	0.706	U	0.690	0.745	97.7	105	1	10.0-160			7.70	36
Iodomethane	0.706	U	0.613	0.598	86.8	84.7	1	10.0-160			2.51	38

L1036473-31 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1036473-31 10/23/18 01:08 • (MS) R3353249-3 10/23/18 01:29 • (MSD) R3353249-4 10/23/18 01:49

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Isopropylbenzene	0.141	U	0.118	0.120	83.8	85.0	1	10.0-155			1.34	38
p-Isopropyltoluene	0.141	U	0.129	0.130	91.0	91.7	1	10.0-160			0.724	40
Methylene Chloride	0.141	U	0.123	0.103	87.2	72.6	1	10.0-141			18.3	37
4-Methyl-2-pentanone (MIBK)	0.706	U	0.703	0.675	99.6	95.5	1	10.0-160			4.14	35
Methyl tert-butyl ether	0.141	U	0.125	0.108	88.5	76.3	1	11.0-147			14.9	35
Naphthalene	0.141	U	0.116	0.117	81.8	82.9	1	10.0-160			1.22	36
n-Propylbenzene	0.141	U	0.122	0.123	86.0	87.4	1	10.0-158			1.54	38
Styrene	0.141	U	0.0978	0.0953	69.2	67.5	1	10.0-160			2.58	40
1,1,1,2-Tetrachloroethane	0.141	U	0.122	0.176	86.4	125	1	10.0-149			36.4	39
1,1,2,2-Tetrachloroethane	0.141	U	0.109	0.111	77.4	78.3	1	10.0-160			1.25	35
Tetrachloroethene	0.141	0.950	0.684	0.707	0.000	0.000	1	10.0-156	V	V	3.19	39
Toluene	0.141	0.00188	0.144	0.142	101	99.0	1	10.0-156			1.58	38
1,1,2-Trichlorotrifluoroethane	0.141	U	0.130	0.114	92.0	80.6	1	10.0-160			13.3	36
1,2,3-Trichlorobenzene	0.141	U	0.133	0.130	94.3	91.8	1	10.0-160			2.70	40
1,2,4-Trichlorobenzene	0.141	U	0.119	0.115	84.2	81.2	1	10.0-160			3.69	40
1,1,1-Trichloroethane	0.141	U	0.110	0.0368	78.0	26.1	1	10.0-144		J3	99.8	35
Trichloroethene	0.141	0.00270	0.102	0.113	70.3	77.8	1	10.0-156			9.87	38
Trichlorofluoromethane	0.141	U	0.137	0.122	96.7	86.1	1	10.0-160			11.6	40
1,2,3-Trichloropropane	0.141	U	0.112	0.118	79.6	83.7	1	10.0-156			5.04	35
1,2,3-Trimethylbenzene	0.141	U	0.125	0.124	88.7	88.0	1	10.0-160			0.794	36
1,2,4-Trimethylbenzene	0.141	U	0.116	0.114	82.0	80.9	1	10.0-160			1.36	36
1,3,5-Trimethylbenzene	0.141	U	0.115	0.118	81.5	83.7	1	10.0-160			2.69	38
Vinyl acetate	0.706	U	0.583	0.547	82.6	77.4	1	10.0-128			6.42	40
Vinyl chloride	0.141	U	0.0756	0.0858	53.5	60.7	1	10.0-160			12.6	37
Xylenes, Total	0.424	U	0.373	0.526	88.0	124	1	10.0-160			34.0	38
(S) Toluene-d8					*118*	*116*		*75.0-131*				
(S) Dibromofluoromethane					*94.6*	*96.1*		*65.0-129*				
(S) 4-Bromofluorobenzene					*93.6*	*95.4*		*67.0-138*				

Sample Narrative:

OS: Not all compounds reportable at lower dilution.

Method Blank (MB)

(MB) R3353491-2 10/23/18 10:28

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acetone	U		0.0137	0.0250
Dichlorodifluoromethane	U		0.000818	0.00250
cis-1,2-Dichloroethene	U		0.000690	0.00250
n-Hexane	0.00153	J	0.00106	0.00500
1,1,2,2-Tetrachloroethane	U		0.000390	0.00250
1,2,3-Trichlorobenzene	U		0.000625	0.00250
(S) Toluene-d8	*97.2*			*75.0-131*
(S) Dibromofluoromethane	*116*			*65.0-129*
(S) 4-Bromofluorobenzene	*121*			*67.0-138*

Laboratory Control Sample (LCS)

(LCS) R3353491-1 10/23/18 09:28

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acetone	0.625	0.680	109	10.0-160	
Dichlorodifluoromethane	0.125	0.142	114	43.0-156	
cis-1,2-Dichloroethene	0.125	0.141	113	73.0-125	
n-Hexane	0.125	0.124	98.9	55.0-137	
1,1,2,2-Tetrachloroethane	0.125	0.137	110	68.0-128	
1,2,3-Trichlorobenzene	0.125	0.116	92.7	59.0-139	
(S) Toluene-d8			*98.4*	*75.0-131*	
(S) Dibromofluoromethane			*118*	*65.0-129*	
(S) 4-Bromofluorobenzene			*120*	*67.0-138*	

Method Blank (MB)

(MB) R3353962-2 10/24/18 11:52

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acetone	U		0.0137	0.0250
Bromodichloromethane	U		0.000788	0.00250
1,2-Dichloropropane	U		0.00127	0.00500
n-Hexane	U		0.00106	0.00500
2-Butanone (MEK)	U		0.0125	0.0250
Tetrachloroethene	U		0.000700	0.00250
1,1,2-Trichloroethane	U		0.000883	0.00250
(S) Toluene-d8	*99.2*			*75.0-131*
(S) Dibromofluoromethane	*116*			*65.0-129*
(S) 4-Bromofluorobenzene	*122*			*67.0-138*

Laboratory Control Sample (LCS)

(LCS) R3353962-1 10/24/18 10:52

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acetone	0.625	0.604	96.7	10.0-160	
Bromodichloromethane	0.125	0.129	103	73.0-121	
1,2-Dichloropropane	0.125	0.129	103	74.0-125	
n-Hexane	0.125	0.140	112	55.0-137	
2-Butanone (MEK)	0.625	0.800	128	30.0-160	
Tetrachloroethene	0.125	0.0935	74.8	70.0-136	
1,1,2-Trichloroethane	0.125	0.111	89.2	78.0-123	
(S) Toluene-d8			*95.0*	*75.0-131*	
(S) Dibromofluoromethane			*118*	*65.0-129*	
(S) 4-Bromofluorobenzene			*125*	*67.0-138*	

Method Blank (MB)

(MB) R3353736-3 10/24/18 16:53

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Tetrachloroethene	U		0.000700	0.00250
(S) Toluene-d8	*107*			*75.0-131*
(S) Dibromofluoromethane	*96.9*			*65.0-129*
(S) 4-Bromofluorobenzene	*103*			*67.0-138*

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

(LCS) R3353736-1 10/24/18 14:59 • (LCSD) R3353736-2 10/24/18 15:18

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Tetrachloroethene	0.125	0.145	0.143	116	114	70.0-136			1.41	20
(S) Toluene-d8				*105*	*105*	*75.0-131*				
(S) Dibromofluoromethane				*104*	*99.9*	*65.0-129*				
(S) 4-Bromofluorobenzene				*104*	*104*	*67.0-138*				

Method Blank (MB)

(MB) R3354173-2 10/26/18 00:13

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acetone	U		0.0137	0.0250
Acrylonitrile	U		0.00190	0.0125
Benzene	U		0.000400	0.00100
Bromobenzene	U		0.00105	0.0125
Bromodichloromethane	U		0.000788	0.00250
Bromochloromethane	U		0.00113	0.00500
Bromoform	U		0.00598	0.0250
Bromomethane	U		0.00370	0.0125
n-Butylbenzene	U		0.00384	0.0125
sec-Butylbenzene	U		0.00253	0.0125
tert-Butylbenzene	U		0.00155	0.00500
Carbon disulfide	U		0.00406	0.0125
Carbon tetrachloride	U		0.00108	0.00500
Chlorobenzene	U		0.000573	0.00250
Chlorodibromomethane	U		0.000450	0.00250
Chloroethane	U		0.00108	0.00500
Chloroform	U		0.000415	0.00250
Chloromethane	U		0.00139	0.0125
2-Chlorotoluene	U		0.000920	0.00250
4-Chlorotoluene	U		0.00113	0.00500
1,2-Dibromo-3-Chloropropane	U		0.00510	0.0250
1,2-Dibromoethane	U		0.000525	0.00250
Dibromomethane	U		0.00100	0.00500
1,2-Dichlorobenzene	U		0.00145	0.00500
1,3-Dichlorobenzene	U		0.00170	0.00500
1,4-Dichlorobenzene	U		0.00197	0.00500
trans-1,4-Dichloro-2-butene	U		0.00140	0.00500
Dichlorodifluoromethane	U		0.000818	0.00250
1,1-Dichloroethane	U		0.000575	0.00250
1,2-Dichloroethane	U		0.000475	0.00250
1,1-Dichloroethene	U		0.000500	0.00250
cis-1,2-Dichloroethene	U		0.000690	0.00250
trans-1,2-Dichloroethene	U		0.00143	0.00500
1,2-Dichloropropane	U		0.00127	0.00500
1,1-Dichloropropene	U		0.000700	0.00250
1,3-Dichloropropane	U		0.00175	0.00500
cis-1,3-Dichloropropene	U		0.000678	0.00250
trans-1,3-Dichloropropene	U		0.00153	0.00500
2,2-Dichloropropane	U		0.000793	0.00250
Di-isopropyl ether	U		0.000350	0.00100

Method Blank (MB)

(MB) R3354173-2 10/26/18 00:13

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Ethylbenzene	U		0.000530	0.00250
Hexachloro-1,3-butadiene	U		0.0127	0.0250
n-Hexane	U		0.00106	0.00500
2-Hexanone	U		0.0100	0.0250
Iodomethane	U		0.00605	0.0125
Isopropylbenzene	U		0.000863	0.00250
p-Isopropyltoluene	U		0.00233	0.00500
2-Butanone (MEK)	U		0.0125	0.0250
Methylene Chloride	0.00736	J	0.00664	0.0250
4-Methyl-2-pentanone (MIBK)	U		0.0100	0.0250
Methyl tert-butyl ether	U		0.000295	0.00100
Naphthalene	U		0.00312	0.0125
n-Propylbenzene	U		0.00118	0.00500
Styrene	U		0.00273	0.0125
1,1,1,2-Tetrachloroethane	U		0.000500	0.00250
1,1,2,2-Tetrachloroethane	U		0.000390	0.00250
Tetrachloroethene	U		0.000700	0.00250
Toluene	U		0.00125	0.00500
1,1,2-Trichlorotrifluoroethane	U		0.000675	0.00250
1,2,3-Trichlorobenzene	U		0.000625	0.00250
1,2,4-Trichlorobenzene	U		0.00482	0.0125
1,1,1-Trichloroethane	U		0.000275	0.00250
1,1,2-Trichloroethane	U		0.000883	0.00250
Trichloroethene	U		0.000400	0.00100
Trichlorofluoromethane	U		0.000500	0.00250
1,2,3-Trichloropropane	U		0.00510	0.0125
1,2,3-Trimethylbenzene	U		0.00115	0.00500
1,2,4-Trimethylbenzene	U		0.00116	0.00500
1,3,5-Trimethylbenzene	U		0.00108	0.00500
Vinyl acetate	U		0.00352	0.0125
Vinyl chloride	U		0.000683	0.00250
Xylenes, Total	U		0.00478	0.00650
(S) Toluene-d8	*108*			*75.0-131*
(S) Dibromofluoromethane	*94.3*			*65.0-129*
(S) 4-Bromofluorobenzene	*102*			*67.0-138*

Laboratory Control Sample (LCS)

(LCS) R3354173-1 10/25/18 22:28

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acetone	0.625	0.689	110	10.0-160	
Acrylonitrile	0.625	0.549	87.9	45.0-153	
Benzene	0.125	0.126	101	70.0-123	
Bromobenzene	0.125	0.118	94.4	73.0-121	
Bromodichloromethane	0.125	0.100	80.2	73.0-121	
Bromochloromethane	0.125	0.122	97.6	77.0-128	
Bromoform	0.125	0.116	93.2	64.0-132	
Bromomethane	0.125	0.128	102	56.0-147	
n-Butylbenzene	0.125	0.119	95.1	68.0-135	
sec-Butylbenzene	0.125	0.125	99.8	74.0-130	
tert-Butylbenzene	0.125	0.127	102	75.0-127	
Carbon disulfide	0.125	0.133	106	56.0-133	
Carbon tetrachloride	0.125	0.136	109	66.0-128	
Chlorobenzene	0.125	0.132	105	76.0-128	
Chlorodibromomethane	0.125	0.128	103	74.0-127	
Chloroethane	0.125	0.130	104	61.0-134	
Chloroform	0.125	0.130	104	72.0-123	
Chloromethane	0.125	0.132	105	51.0-138	
2-Chlorotoluene	0.125	0.140	112	75.0-124	
4-Chlorotoluene	0.125	0.128	102	75.0-124	
1,2-Dibromo-3-Chloropropane	0.125	0.106	85.1	59.0-130	
1,2-Dibromoethane	0.125	0.127	101	74.0-128	
Dibromomethane	0.125	0.133	107	75.0-122	
1,2-Dichlorobenzene	0.125	0.127	102	76.0-124	
1,3-Dichlorobenzene	0.125	0.123	98.5	76.0-125	
1,4-Dichlorobenzene	0.125	0.117	93.2	77.0-121	
trans-1,4-Dichloro-2-butene	0.125	0.116	93.1	45.0-143	
Dichlorodifluoromethane	0.125	0.126	100	43.0-156	
1,1-Dichloroethane	0.125	0.127	101	70.0-127	
1,2-Dichloroethane	0.125	0.124	99.2	65.0-131	
1,1-Dichloroethene	0.125	0.133	106	65.0-131	
cis-1,2-Dichloroethene	0.125	0.131	105	73.0-125	
trans-1,2-Dichloroethene	0.125	0.122	97.9	71.0-125	
1,2-Dichloropropane	0.125	0.128	103	74.0-125	
1,1-Dichloropropene	0.125	0.130	104	73.0-125	
1,3-Dichloropropane	0.125	0.121	97.0	80.0-125	
cis-1,3-Dichloropropene	0.125	0.119	94.9	76.0-127	
trans-1,3-Dichloropropene	0.125	0.126	101	73.0-127	
2,2-Dichloropropane	0.125	0.169	135	59.0-135	
Di-isopropyl ether	0.125	0.117	93.8	60.0-136	

Laboratory Control Sample (LCS)

(LCS) R3354173-1 10/25/18 22:28

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Ethylbenzene	0.125	0.136	109	74.0-126	
Hexachloro-1,3-butadiene	0.125	0.125	100	57.0-150	
2-Hexanone	0.625	0.653	104	54.0-147	
n-Hexane	0.125	0.151	121	55.0-137	
Iodomethane	0.625	0.607	97.1	74.0-134	
Isopropylbenzene	0.125	0.129	103	72.0-127	
p-Isopropyltoluene	0.125	0.131	105	72.0-133	
2-Butanone (MEK)	0.625	0.618	98.8	30.0-160	
Methylene Chloride	0.125	0.130	104	68.0-123	
4-Methyl-2-pentanone (MIBK)	0.625	0.699	112	56.0-143	
Methyl tert-butyl ether	0.125	0.131	105	66.0-132	
Naphthalene	0.125	0.113	90.7	59.0-130	
n-Propylbenzene	0.125	0.126	101	74.0-126	
Styrene	0.125	0.123	98.6	72.0-127	
1,1,1,2-Tetrachloroethane	0.125	0.127	102	74.0-129	
1,1,2,2-Tetrachloroethane	0.125	0.119	94.9	68.0-128	
Tetrachloroethene	0.125	0.150	120	70.0-136	
Toluene	0.125	0.128	102	75.0-121	
1,1,2-Trichlorotrifluoroethane	0.125	0.118	94.0	61.0-139	
1,2,3-Trichlorobenzene	0.125	0.0973	77.8	59.0-139	
1,2,4-Trichlorobenzene	0.125	0.112	89.5	62.0-137	
1,1,1-Trichloroethane	0.125	0.147	117	69.0-126	
1,1,2-Trichloroethane	0.125	0.116	93.2	78.0-123	
Trichloroethene	0.125	0.136	109	76.0-126	
Trichlorofluoromethane	0.125	0.138	111	61.0-142	
1,2,3-Trichloropropane	0.125	0.129	103	67.0-129	
1,2,3-Trimethylbenzene	0.125	0.124	98.8	74.0-124	
1,2,4-Trimethylbenzene	0.125	0.121	97.0	70.0-126	
1,3,5-Trimethylbenzene	0.125	0.130	104	73.0-127	
Vinyl acetate	0.625	0.660	106	43.0-159	
Vinyl chloride	0.125	0.128	103	63.0-134	
Xylenes, Total	0.375	0.406	108	72.0-127	
(S) Toluene-d8			*102*	*75.0-131*	
(S) Dibromofluoromethane			*100*	*65.0-129*	
(S) 4-Bromofluorobenzene			*103*	*67.0-138*	

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Abbreviations and Definitions

(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
MDL	Method Detection Limit.
MDL (dry)	Method Detection Limit.
RDL	Reported Detection Limit.
RDL (dry)	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(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.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
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.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.
J0	J0: Calibration verification outside of acceptance limits. Result is estimated.
J1	Surrogate recovery limits have been exceeded; values are outside upper control limits.
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.
V	The sample concentration is too high to evaluate accurate spike recoveries.

Pace National 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.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T 104704245-17-14
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

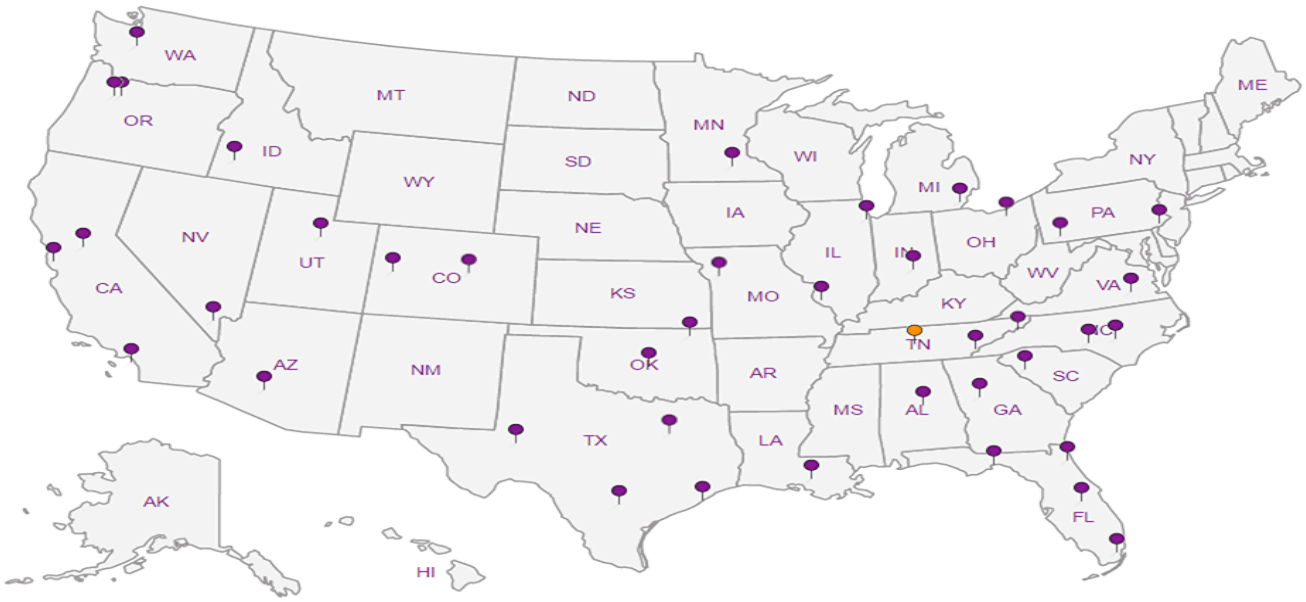
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

Our Locations

Pace National 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. Pace National performs all testing at our central laboratory.



PES Environmental, Inc.- WA

1215 Fourth Ave., Suite 1350
Seattle, WA 98161

Billing Information:
Attn: Accounts Payable
1215 Fourth Ave., Ste. 1350
Seattle, WA 98161

Pres Chk

Report to: Brian O'Neal/Bill Haldeman

Email To: boneal@pesenv.com; bhaldeman@pesenv.com

Project Description: American Linen

City/State Collected: Seattle WA

Phone: 206-529-3980
Fax: 206-529-3985

Client Project # 1413.001.05

Lab Project # PESENVSWA-ALP

Collected by (print): R. McLaughlin / S. McKernan

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day X Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

No. of Cntrs

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOCs V8260C 40mlAmb/MeOH5ml/Syr	dry weight 2ozClr-NoPres	trip VOCs V8260LLC 40mlAmb-HCl-Blk	Remarks	Sample # (lab only)
B-263-3	Grab	SS	3	10/18/18	0804	2	X	X			-01
B-263-5		SS	5		0805		X				02
B-263-8		SS	8		0806		X				03
B-263-10		SS	10		0807		X				04
B-263-15		SS	15		0815		X				05
B-263-18		SS	18		0824		X				06
B-264-3		SS	3		0920		X				07
B-264-5		SS	5		0921		X				08
B-264-8		SS	8		0925		X				09
B-264-10	↓	SS	10	↓	0926	↓	X	↓			10

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

RAD SCREEN: <0.5 mR/hr

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking # 4196 3258 7989

Relinquished by: (Signature) — Date: 10/18/18 — Time: 1620 — Received by: (Signature)

Relinquished by: (Signature) — Date: — Time: — Received by: (Signature)

Relinquished by: (Signature) — Date: — Time: — Received for lab by: (Signature) — Date: 10/19/18 — Time: 8:45

Trip Blank Received: Yes / No
HCL / MeoH
TBR

Temp: 3.5 °C — Bottles Received: 72

If preservation required by Login: Date/Time

Condition: NCF / OK

Chain of Custody Page 1 of 4

Pace Analytical®
National Center for Testing & Innovation

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

L# L1036473

E065

Acctnum: PESENVSWA
Template: T141621
Prelogin: P676248
TSR: 110 - Brian Ford
PB:

Shipped Via:

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

10-148

PES Environmental, Inc.- WA

1215 Fourth Ave., Suite 1350
Seattle, WA 98161

Billing Information:
Attn: Accounts Payable
1215 Fourth Ave., Ste. 1350
Seattle, WA 98161

Pres Chk

Report to: Brian O'Neal/Bill Haldeman

Email To: boneal@pesenv.com; bhaldeman@pesenv.com

Project Description: American Linen

City/State Collected: Seattle WA

Phone: 206-529-3980
Fax: 206-529-3985

Client Project # 1413.001.05

Lab Project # PESENVSWA-ALP

Collected by (print): R. McLaughlin / S. McKernan

Site/Facility ID #

P.O. #

Collected by (Signature): RM / SM

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day X Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOCs V8260C 40mlAmb/MeOHSml/Syr	dry weight 2ozClr-NoPres	trip VOCs V8260LLC 40mlAmb-HCl-Blk	Remarks	Sample # (lab only)
B-264-14	Grab	SS	14	10/18/18	0944	2				HOLD	
B-264-15		SS	15		0942		X	Y			-11
B-264-16		SS	16		0958		X	X			12
B-265-3		SS	3		1038		X	X			13
B-265-5		SS	5		1040		X	X			14
B-265-8		SS	8		1047		X	X			15
B-265-10		SS	10		1050		X	X			16
B-265-15		SS	15		1101					HOLD	
B-265-17.5		SS	17.5		1102		X	X			17
B-253A-5		SS	5		1234		X	X			18

Chain of Custody Page 2 of 4

Pace Analytical
National Center for Testing & Innovation

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

L# L1036473

Table #

Acctnum: PESENVSWA

Template: T141621

Prelogin: P676248

TSR: 110 - Brian Ford

PB:

Shipped Via:

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

RAD SCREEN: <0.5 mR/hr

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier __ _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP __Y __N
COC Signed/Accurate: __Y __N
Bottles arrive intact: __Y __N
Correct bottles used: __Y __N
Sufficient volume sent: __Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)
	10/18/18	1620	
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)

Trip Blank Received: Yes / No
HCL / MeoH
TBR

Temp: 3.5 °C (corr 3.6) Bottles Received: 72

Date: 10/19/18 Time: 8:45

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

PES Environmental, Inc.- WA

1215 Fourth Ave., Suite 1350
Seattle, WA 98161

Billing Information:
Attn: Accounts Payable
1215 Fourth Ave., Ste. 1350
Seattle, WA 98161

Pres Chk

Report to: Brian O'Neal/Bill Haldeman

Email To: boneal@pesenv.com; bhaldeman@pesenv.com

Project Description: American Linen

City/State Collected: Seattle WA

Phone: 206-529-3980
Fax: 206-529-3985

Client Project # 1413.001.05

Lab Project # PESENVSWA-ALP

Collected by (print): R. McLaughlin / S. McKernan

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day X Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

Chain of Custody Page 3 of 4

Pace Analytical
National Center for Testing & Innovation

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

L# L1036473

Table #

Acctnum: PESENVSWA
Template: T141621
Prelogin: P676248
TSR: 110 - Brian Ford
PB:

Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOCs V8260C 40mlAmb/MeOH5ml/Syr	dry weight 2ozClr-NoPres	trip VOCs V8260LLC 40mlAmb-HCl-Blk	Remarks	Sample # (lab only)
B-253A-8	Grab	SS	8	10/18/18	1238	2	X	X			-19
B-253A-10		SS	10		1240		X	X			20
B-253A-15		SS	15		1244		X	X			21
B-253A-20		SS	20		1305		X	X			22
B-266-3		SS	3		1334					HOLD	
B-266-5		SS	5		1335		X	X			23
B-266-8		SS	8		1338		X	X			24
B-266-10		SS	10		1339		X	X			25
B-266-15		SS	15		1348		X	X			26
B-266-20		SS	20		1353		X	X			27

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

RAD SCREEN: <0.5 mR/hr

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
R. McLaughlin	10/18/18	1620	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)

Trip Blank Received: Yes / No
HCl / MeOH
TBR

Temp: 3.5 / 7.1 / 3.6 °C Bottles Received: 22

Date: 10/19/18 Time: 8:45

If preservation required by Login: Date/Time

Hold: Condition: NCF / OK

Page 4 of 4

PES Environmental, Inc.- WA

1215 Fourth Ave., Suite 1350
Seattle, WA 98161

Billing Information:
Attn: Accounts Payable
1215 Fourth Ave., Ste. 1350
Seattle, WA 98161

Pres Chk

Report to: **Brian O'Neal/Bill Haldeman**

Email To: **boneal@pesenv.com; bhaldeman@pesenv.com**

Project Description: **American Linen**

City/State Collected: Seattle WA

Phone: **206-529-3980**
Fax: **206-529-3985**

Client Project # **1413.001.05**

Lab Project # **PESENVSWA-ALP**

Collected by (print): R. McLaughlin / S. McKernan

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day X Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOCs V8260C 40mlAmb/MeOH5ml/Syr	dry weight 2ozClr-NoPres	trip VOCs V8260LLC 40mlAmb-HCl-Blk								Remarks	Sample # (lab only)
B-267-2.5	Grab	SS	2.5	10/18/18	1443	2	X	X										28
B-267-5		SS	5		1444													29
B-267-8		SS	8		1449													30
B-267-10		SS	10		1450													31
B-267-15		SS	15		1455		X	X										32
B-267-20	X	SS	20		1517		X	X										33
		SS																
		SS																
		SS			R McLaughlin 10/18/18													
		SS																

Chain of Custody

Pace Analytical
National Center for Testing & Innovation

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

L# L1036473

Table #

Acctnum: **PESENVSWA**
Template: **T141621**
Prelogin: **P676248**
TSR: **110 - Brian Ford**
PB:

Shipped Via:

* Matrix:
SS - Soil **AIR** - Air **F** - Filter
GW - Groundwater **B** - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

RAD SCREEN: <0.5 mR/hr

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier __ _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP X Y __N
COC Signed/Accurate: X Y __N
Bottles arrive intact: X Y __N
Correct bottles used: X Y __N
Sufficient volume sent: X Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
R McLaughlin	10/18/18	1620	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)

Trip Blank Received: Yes / No
HCL / MeoH
TBR

Temp: 3.5 °C Bottles Received: 72

Date: 10/19/18 Time: 8:45

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

October 30, 2018

PES Environmental, Inc.- WA

Sample Delivery Group:	L1036740
Samples Received:	10/20/2018
Project Number:	1413.001.05
Description:	American Linen
Report To:	Brian O'Neal/Bill Haldeman
	1215 Fourth Ave., Suite 1350
	Seattle, WA 98161

Entire Report Reviewed By:

Brian Ford

Project Manager

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 Pace National is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

TABLE OF CONTENTS

Cp: Cover Page 1

Tc: Table of Contents 2

Ss: Sample Summary 3

Cn: Case Narrative 4

Sr: Sample Results 5

- B-254A-27 L1036740-01 5
- B-254A-30 L1036740-02 7
- B-254A-35 L1036740-03 9

Qc: Quality Control Summary 11

- Total Solids by Method 2540 G-2011 11
- Volatile Organic Compounds (GC/MS) by Method 8260C 12

Gl: Glossary of Terms 25

Al: Accreditations & Locations 26

Sc: Sample Chain of Custody 27

B-254A-27 L1036740-01 Solid

Collected by	Collected date/time	Received date/time
RM/SM	10/19/18 08:05	10/20/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1186450	1	10/26/18 11:10	10/26/18 11:19	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1186927	1.01	10/19/18 08:05	10/26/18 13:05	JHH
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1187558	1.01	10/19/18 08:05	10/28/18 14:08	JAH

B-254A-30 L1036740-02 Solid

Collected by	Collected date/time	Received date/time
RM/SM	10/19/18 08:32	10/20/18 08:45

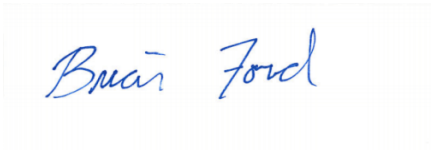
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1186450	1	10/26/18 11:10	10/26/18 11:19	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1186927	1	10/19/18 08:32	10/26/18 13:24	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1187558	10	10/19/18 08:32	10/28/18 14:27	JAH

B-254A-35 L1036740-03 Solid

Collected by	Collected date/time	Received date/time
RM/SM	10/19/18 08:35	10/20/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1186450	1	10/26/18 11:10	10/26/18 11:19	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1188021	1	10/19/18 08:35	10/29/18 14:59	JAH
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1188097	1	10/19/18 08:35	10/30/18 08:48	JHH
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1188332	1	10/30/18 08:37	10/30/18 10:28	DWR

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, 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.



Brian Ford
Project Manager

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	92.5		1	10/26/2018 11:19	WG1186450

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0149	0.0273	1.01	10/28/2018 14:08	WG1187558
Acrylonitrile	U		0.00208	0.0137	1.01	10/26/2018 13:05	WG1186927
Benzene	U		0.000437	0.00109	1.01	10/26/2018 13:05	WG1186927
Bromobenzene	U		0.00115	0.0137	1.01	10/26/2018 13:05	WG1186927
Bromodichloromethane	U		0.000861	0.00273	1.01	10/26/2018 13:05	WG1186927
Bromochloromethane	U		0.00123	0.00546	1.01	10/26/2018 13:05	WG1186927
Bromoform	U		0.00653	0.0273	1.01	10/26/2018 13:05	WG1186927
Bromomethane	U		0.00404	0.0137	1.01	10/26/2018 13:05	WG1186927
n-Butylbenzene	U		0.00420	0.0137	1.01	10/26/2018 13:05	WG1186927
sec-Butylbenzene	U		0.00277	0.0137	1.01	10/26/2018 13:05	WG1186927
tert-Butylbenzene	U		0.00169	0.00546	1.01	10/26/2018 13:05	WG1186927
Carbon disulfide	0.00592	J	0.00443	0.0137	1.01	10/26/2018 13:05	WG1186927
Carbon tetrachloride	U		0.00118	0.00546	1.01	10/26/2018 13:05	WG1186927
Chlorobenzene	U		0.000626	0.00273	1.01	10/26/2018 13:05	WG1186927
Chlorodibromomethane	U		0.000491	0.00273	1.01	10/26/2018 13:05	WG1186927
Chloroethane	U		0.00118	0.00546	1.01	10/26/2018 13:05	WG1186927
Chloroform	U		0.000453	0.00273	1.01	10/26/2018 13:05	WG1186927
Chloromethane	U		0.00151	0.0137	1.01	10/26/2018 13:05	WG1186927
2-Chlorotoluene	U		0.00100	0.00273	1.01	10/26/2018 13:05	WG1186927
4-Chlorotoluene	U		0.00123	0.00546	1.01	10/26/2018 13:05	WG1186927
1,2-Dibromo-3-Chloropropane	U		0.00557	0.0273	1.01	10/26/2018 13:05	WG1186927
1,2-Dibromoethane	U		0.000573	0.00273	1.01	10/26/2018 13:05	WG1186927
Dibromomethane	U		0.00109	0.00546	1.01	10/26/2018 13:05	WG1186927
1,2-Dichlorobenzene	U		0.00158	0.00546	1.01	10/26/2018 13:05	WG1186927
1,3-Dichlorobenzene	U		0.00186	0.00546	1.01	10/26/2018 13:05	WG1186927
1,4-Dichlorobenzene	U		0.00215	0.00546	1.01	10/26/2018 13:05	WG1186927
Dichlorodifluoromethane	U		0.000893	0.00273	1.01	10/26/2018 13:05	WG1186927
1,1-Dichloroethane	U		0.000628	0.00273	1.01	10/26/2018 13:05	WG1186927
1,2-Dichloroethane	U		0.000519	0.00273	1.01	10/26/2018 13:05	WG1186927
1,1-Dichloroethene	U		0.000546	0.00273	1.01	10/26/2018 13:05	WG1186927
cis-1,2-Dichloroethene	0.165		0.000754	0.00273	1.01	10/26/2018 13:05	WG1186927
trans-1,2-Dichloroethene	U		0.00156	0.00546	1.01	10/26/2018 13:05	WG1186927
1,2-Dichloropropane	U		0.00138	0.00546	1.01	10/26/2018 13:05	WG1186927
1,1-Dichloropropene	U	J4	0.000764	0.00273	1.01	10/26/2018 13:05	WG1186927
1,3-Dichloropropane	U		0.00191	0.00546	1.01	10/26/2018 13:05	WG1186927
cis-1,3-Dichloropropene	U		0.000741	0.00273	1.01	10/26/2018 13:05	WG1186927
trans-1,3-Dichloropropene	U		0.00167	0.00546	1.01	10/26/2018 13:05	WG1186927
trans-1,4-Dichloro-2-butene	U		0.00152	0.00546	1.01	10/26/2018 13:05	WG1186927
2,2-Dichloropropane	U		0.000866	0.00273	1.01	10/26/2018 13:05	WG1186927
Di-isopropyl ether	U		0.000383	0.00109	1.01	10/26/2018 13:05	WG1186927
Ethylbenzene	U		0.000578	0.00273	1.01	10/26/2018 13:05	WG1186927
Hexachloro-1,3-butadiene	U		0.0138	0.0273	1.01	10/26/2018 13:05	WG1186927
2-Hexanone	U		0.0109	0.0273	1.01	10/26/2018 13:05	WG1186927
n-Hexane	U		0.00116	0.00546	1.01	10/26/2018 13:05	WG1186927
Iodomethane	U		0.00661	0.0137	1.01	10/26/2018 13:05	WG1186927
Isopropylbenzene	U		0.000943	0.00273	1.01	10/26/2018 13:05	WG1186927
p-Isopropyltoluene	U		0.00254	0.00546	1.01	10/26/2018 13:05	WG1186927
2-Butanone (MEK)	0.0430	J0	0.0136	0.0273	1.01	10/26/2018 13:05	WG1186927
Methylene Chloride	U		0.00726	0.0273	1.01	10/26/2018 13:05	WG1186927
4-Methyl-2-pentanone (MIBK)	U		0.0109	0.0273	1.01	10/26/2018 13:05	WG1186927

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000322	0.00109	1.01	10/26/2018 13:05	WG1186927
Naphthalene	U		0.00341	0.0137	1.01	10/26/2018 13:05	WG1186927
n-Propylbenzene	U		0.00129	0.00546	1.01	10/26/2018 13:05	WG1186927
Styrene	U		0.00298	0.0137	1.01	10/26/2018 13:05	WG1186927
1,1,1,2-Tetrachloroethane	U		0.000546	0.00273	1.01	10/26/2018 13:05	WG1186927
1,1,2,2-Tetrachloroethane	U		0.000426	0.00273	1.01	10/26/2018 13:05	WG1186927
1,1,2-Trichlorotrifluoroethane	U		0.000737	0.00273	1.01	10/26/2018 13:05	WG1186927
Tetrachloroethene	0.0954		0.000764	0.00273	1.01	10/26/2018 13:05	WG1186927
Toluene	0.00161	J	0.00136	0.00546	1.01	10/26/2018 13:05	WG1186927
1,2,3-Trichlorobenzene	U		0.000682	0.00273	1.01	10/26/2018 13:05	WG1186927
1,2,4-Trichlorobenzene	U		0.00527	0.0137	1.01	10/26/2018 13:05	WG1186927
1,1,1-Trichloroethane	U		0.000301	0.00273	1.01	10/26/2018 13:05	WG1186927
1,1,2-Trichloroethane	U		0.000965	0.00273	1.01	10/26/2018 13:05	WG1186927
Trichloroethene	0.0118		0.000437	0.00109	1.01	10/26/2018 13:05	WG1186927
Trichlorofluoromethane	U		0.000546	0.00273	1.01	10/26/2018 13:05	WG1186927
1,2,3-Trichloropropane	U		0.00557	0.0137	1.01	10/26/2018 13:05	WG1186927
1,2,4-Trimethylbenzene	0.00139	J	0.00127	0.00546	1.01	10/26/2018 13:05	WG1186927
1,2,3-Trimethylbenzene	U		0.00125	0.00546	1.01	10/26/2018 13:05	WG1186927
1,3,5-Trimethylbenzene	U		0.00118	0.00546	1.01	10/26/2018 13:05	WG1186927
Vinyl acetate	U		0.00385	0.0137	1.01	10/26/2018 13:05	WG1186927
Vinyl chloride	0.0508		0.000746	0.00273	1.01	10/26/2018 13:05	WG1186927
Xylenes, Total	U		0.00522	0.00710	1.01	10/26/2018 13:05	WG1186927
(S) Toluene-d8	*92.4*			*75.0-131*		*10/26/2018 13:05*	WG1186927
(S) Toluene-d8	*82.1*			*75.0-131*		*10/28/2018 14:08*	WG1187558
(S) Dibromofluoromethane	*107*			*65.0-129*		*10/26/2018 13:05*	WG1186927
(S) Dibromofluoromethane	*86.2*			*65.0-129*		*10/28/2018 14:08*	WG1187558
(S) 4-Bromofluorobenzene	*108*			*67.0-138*		*10/26/2018 13:05*	WG1186927
(S) 4-Bromofluorobenzene	*104*			*67.0-138*		*10/28/2018 14:08*	WG1187558

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	92.9		1	10/26/2018 11:19	WG1186450

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.147	0.269	10	10/28/2018 14:27	WG1187558
Acrylonitrile	U		0.00204	0.0135	1	10/26/2018 13:24	WG1186927
Benzene	U		0.000430	0.00108	1	10/26/2018 13:24	WG1186927
Bromobenzene	U		0.00113	0.0135	1	10/26/2018 13:24	WG1186927
Bromodichloromethane	U		0.000848	0.00269	1	10/26/2018 13:24	WG1186927
Bromochloromethane	U		0.00122	0.00538	1	10/26/2018 13:24	WG1186927
Bromoform	U		0.00644	0.0269	1	10/26/2018 13:24	WG1186927
Bromomethane	U		0.00398	0.0135	1	10/26/2018 13:24	WG1186927
n-Butylbenzene	U		0.00413	0.0135	1	10/26/2018 13:24	WG1186927
sec-Butylbenzene	U		0.00272	0.0135	1	10/26/2018 13:24	WG1186927
tert-Butylbenzene	U		0.00167	0.00538	1	10/26/2018 13:24	WG1186927
Carbon disulfide	0.00619	J	0.00437	0.0135	1	10/26/2018 13:24	WG1186927
Carbon tetrachloride	U		0.00116	0.00538	1	10/26/2018 13:24	WG1186927
Chlorobenzene	U		0.000617	0.00269	1	10/26/2018 13:24	WG1186927
Chlorodibromomethane	U		0.000484	0.00269	1	10/26/2018 13:24	WG1186927
Chloroethane	U		0.00116	0.00538	1	10/26/2018 13:24	WG1186927
Chloroform	U		0.000447	0.00269	1	10/26/2018 13:24	WG1186927
Chloromethane	U		0.00150	0.0135	1	10/26/2018 13:24	WG1186927
2-Chlorotoluene	U		0.000990	0.00269	1	10/26/2018 13:24	WG1186927
4-Chlorotoluene	U		0.00122	0.00538	1	10/26/2018 13:24	WG1186927
1,2-Dibromo-3-Chloropropane	U		0.00549	0.0269	1	10/26/2018 13:24	WG1186927
1,2-Dibromoethane	U		0.000565	0.00269	1	10/26/2018 13:24	WG1186927
Dibromomethane	U		0.00108	0.00538	1	10/26/2018 13:24	WG1186927
1,2-Dichlorobenzene	U		0.00156	0.00538	1	10/26/2018 13:24	WG1186927
1,3-Dichlorobenzene	U		0.00183	0.00538	1	10/26/2018 13:24	WG1186927
1,4-Dichlorobenzene	U		0.00212	0.00538	1	10/26/2018 13:24	WG1186927
Dichlorodifluoromethane	U		0.000880	0.00269	1	10/26/2018 13:24	WG1186927
1,1-Dichloroethane	U		0.000619	0.00269	1	10/26/2018 13:24	WG1186927
1,2-Dichloroethane	U		0.000511	0.00269	1	10/26/2018 13:24	WG1186927
1,1-Dichloroethene	U		0.000538	0.00269	1	10/26/2018 13:24	WG1186927
cis-1,2-Dichloroethene	0.0964		0.000743	0.00269	1	10/26/2018 13:24	WG1186927
trans-1,2-Dichloroethene	U		0.00154	0.00538	1	10/26/2018 13:24	WG1186927
1,2-Dichloropropane	U		0.00137	0.00538	1	10/26/2018 13:24	WG1186927
1,1-Dichloropropene	U	J4	0.000753	0.00269	1	10/26/2018 13:24	WG1186927
1,3-Dichloropropane	U		0.00188	0.00538	1	10/26/2018 13:24	WG1186927
cis-1,3-Dichloropropene	U		0.000730	0.00269	1	10/26/2018 13:24	WG1186927
trans-1,3-Dichloropropene	U		0.00165	0.00538	1	10/26/2018 13:24	WG1186927
trans-1,4-Dichloro-2-butene	U		0.00151	0.00538	1	10/26/2018 13:24	WG1186927
2,2-Dichloropropane	U		0.000853	0.00269	1	10/26/2018 13:24	WG1186927
Di-isopropyl ether	U		0.000377	0.00108	1	10/26/2018 13:24	WG1186927
Ethylbenzene	U		0.000570	0.00269	1	10/26/2018 13:24	WG1186927
Hexachloro-1,3-butadiene	U		0.0137	0.0269	1	10/26/2018 13:24	WG1186927
2-Hexanone	U		0.0108	0.0269	1	10/26/2018 13:24	WG1186927
n-Hexane	0.00540		0.00114	0.00538	1	10/26/2018 13:24	WG1186927
Iodomethane	U		0.00651	0.0135	1	10/26/2018 13:24	WG1186927
Isopropylbenzene	U		0.000929	0.00269	1	10/26/2018 13:24	WG1186927
p-Isopropyltoluene	U		0.00251	0.00538	1	10/26/2018 13:24	WG1186927
2-Butanone (MEK)	U		0.0135	0.0269	1	10/26/2018 13:24	WG1186927
Methylene Chloride	U		0.00715	0.0269	1	10/26/2018 13:24	WG1186927
4-Methyl-2-pentanone (MIBK)	U		0.0108	0.0269	1	10/26/2018 13:24	WG1186927

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000317	0.00108	1	10/26/2018 13:24	WG1186927
Naphthalene	U		0.00336	0.0135	1	10/26/2018 13:24	WG1186927
n-Propylbenzene	U		0.00127	0.00538	1	10/26/2018 13:24	WG1186927
Styrene	U		0.00294	0.0135	1	10/26/2018 13:24	WG1186927
1,1,1,2-Tetrachloroethane	U		0.000538	0.00269	1	10/26/2018 13:24	WG1186927
1,1,2,2-Tetrachloroethane	U		0.000420	0.00269	1	10/26/2018 13:24	WG1186927
1,1,2-Trichlorotrifluoroethane	U		0.000726	0.00269	1	10/26/2018 13:24	WG1186927
Tetrachloroethene	6.24		0.00753	0.0269	10	10/28/2018 14:27	WG1187558
Toluene	0.00166	J	0.00135	0.00538	1	10/26/2018 13:24	WG1186927
1,2,3-Trichlorobenzene	U		0.000673	0.00269	1	10/26/2018 13:24	WG1186927
1,2,4-Trichlorobenzene	U		0.00519	0.0135	1	10/26/2018 13:24	WG1186927
1,1,1-Trichloroethane	U		0.000296	0.00269	1	10/26/2018 13:24	WG1186927
1,1,2-Trichloroethane	U		0.000950	0.00269	1	10/26/2018 13:24	WG1186927
Trichloroethene	0.143		0.000430	0.00108	1	10/26/2018 13:24	WG1186927
Trichlorofluoromethane	U		0.000538	0.00269	1	10/26/2018 13:24	WG1186927
1,2,3-Trichloropropane	U		0.00549	0.0135	1	10/26/2018 13:24	WG1186927
1,2,4-Trimethylbenzene	0.00210	J	0.00125	0.00538	1	10/26/2018 13:24	WG1186927
1,2,3-Trimethylbenzene	U		0.00124	0.00538	1	10/26/2018 13:24	WG1186927
1,3,5-Trimethylbenzene	U		0.00116	0.00538	1	10/26/2018 13:24	WG1186927
Vinyl acetate	U		0.00379	0.0135	1	10/26/2018 13:24	WG1186927
Vinyl chloride	U		0.000735	0.00269	1	10/26/2018 13:24	WG1186927
Xylenes, Total	U		0.00514	0.00700	1	10/26/2018 13:24	WG1186927
(S) Toluene-d8	*102*			*75.0-131*		*10/26/2018 13:24*	WG1186927
(S) Toluene-d8	*97.8*			*75.0-131*		*10/28/2018 14:27*	WG1187558
(S) Dibromofluoromethane	*109*			*65.0-129*		*10/26/2018 13:24*	WG1186927
(S) Dibromofluoromethane	*94.7*			*65.0-129*		*10/28/2018 14:27*	WG1187558
(S) 4-Bromofluorobenzene	*106*			*67.0-138*		*10/26/2018 13:24*	WG1186927
(S) 4-Bromofluorobenzene	*103*			*67.0-138*		*10/28/2018 14:27*	WG1187558

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	94.9		1	10/26/2018 11:19	WG1186450

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0144	0.0263	1	10/30/2018 08:48	WG1188097
Acrylonitrile	U		0.00200	0.0132	1	10/29/2018 14:59	WG1188021
Benzene	U		0.000421	0.00105	1	10/29/2018 14:59	WG1188021
Bromobenzene	U		0.00111	0.0132	1	10/29/2018 14:59	WG1188021
Bromodichloromethane	U		0.000830	0.00263	1	10/29/2018 14:59	WG1188021
Bromochloromethane	U		0.00119	0.00527	1	10/29/2018 14:59	WG1188021
Bromoform	U		0.00630	0.0263	1	10/29/2018 14:59	WG1188021
Bromomethane	U		0.00390	0.0132	1	10/29/2018 14:59	WG1188021
n-Butylbenzene	U		0.00405	0.0132	1	10/29/2018 14:59	WG1188021
sec-Butylbenzene	U		0.00267	0.0132	1	10/29/2018 14:59	WG1188021
tert-Butylbenzene	U		0.00163	0.00527	1	10/29/2018 14:59	WG1188021
Carbon disulfide	U		0.00428	0.0132	1	10/29/2018 14:59	WG1188021
Carbon tetrachloride	U		0.00114	0.00527	1	10/29/2018 14:59	WG1188021
Chlorobenzene	U		0.000604	0.00263	1	10/29/2018 14:59	WG1188021
Chlorodibromomethane	U		0.000474	0.00263	1	10/29/2018 14:59	WG1188021
Chloroethane	U		0.00114	0.00527	1	10/29/2018 14:59	WG1188021
Chloroform	0.000575	J	0.000437	0.00263	1	10/29/2018 14:59	WG1188021
Chloromethane	U		0.00146	0.0132	1	10/29/2018 14:59	WG1188021
2-Chlorotoluene	U		0.000969	0.00263	1	10/29/2018 14:59	WG1188021
4-Chlorotoluene	U		0.00119	0.00527	1	10/29/2018 14:59	WG1188021
1,2-Dibromo-3-Chloropropane	U		0.00537	0.0263	1	10/29/2018 14:59	WG1188021
1,2-Dibromoethane	U		0.000553	0.00263	1	10/29/2018 14:59	WG1188021
Dibromomethane	U		0.00105	0.00527	1	10/29/2018 14:59	WG1188021
1,2-Dichlorobenzene	U		0.00153	0.00527	1	10/29/2018 14:59	WG1188021
1,3-Dichlorobenzene	U		0.00179	0.00527	1	10/29/2018 14:59	WG1188021
1,4-Dichlorobenzene	U		0.00208	0.00527	1	10/29/2018 14:59	WG1188021
Dichlorodifluoromethane	U		0.000862	0.00263	1	10/30/2018 10:28	WG1188332
1,1-Dichloroethane	U		0.000606	0.00263	1	10/29/2018 14:59	WG1188021
1,2-Dichloroethane	U		0.000500	0.00263	1	10/29/2018 14:59	WG1188021
1,1-Dichloroethene	U		0.000527	0.00263	1	10/29/2018 14:59	WG1188021
cis-1,2-Dichloroethene	0.143		0.000727	0.00263	1	10/29/2018 14:59	WG1188021
trans-1,2-Dichloroethene	U		0.00151	0.00527	1	10/29/2018 14:59	WG1188021
1,2-Dichloropropane	U		0.00134	0.00527	1	10/30/2018 10:28	WG1188332
1,1-Dichloropropene	U		0.000737	0.00263	1	10/29/2018 14:59	WG1188021
1,3-Dichloropropane	U		0.00184	0.00527	1	10/29/2018 14:59	WG1188021
cis-1,3-Dichloropropene	U		0.000714	0.00263	1	10/29/2018 14:59	WG1188021
trans-1,3-Dichloropropene	U		0.00161	0.00527	1	10/29/2018 14:59	WG1188021
trans-1,4-Dichloro-2-butene	U		0.00147	0.00527	1	10/29/2018 14:59	WG1188021
2,2-Dichloropropane	U	J4	0.000835	0.00263	1	10/29/2018 14:59	WG1188021
Di-isopropyl ether	U		0.000369	0.00105	1	10/29/2018 14:59	WG1188021
Ethylbenzene	U		0.000558	0.00263	1	10/29/2018 14:59	WG1188021
Hexachloro-1,3-butadiene	U		0.0134	0.0263	1	10/29/2018 14:59	WG1188021
2-Hexanone	U		0.0105	0.0263	1	10/29/2018 14:59	WG1188021
n-Hexane	U		0.00112	0.00527	1	10/29/2018 14:59	WG1188021
Iodomethane	U		0.00637	0.0132	1	10/29/2018 14:59	WG1188021
Isopropylbenzene	U		0.000909	0.00263	1	10/29/2018 14:59	WG1188021
p-Isopropyltoluene	U		0.00245	0.00527	1	10/29/2018 14:59	WG1188021
2-Butanone (MEK)	0.0250	B J	0.0132	0.0263	1	10/29/2018 14:59	WG1188021
Methylene Chloride	U		0.00699	0.0263	1	10/29/2018 14:59	WG1188021
4-Methyl-2-pentanone (MIBK)	U		0.0105	0.0263	1	10/29/2018 14:59	WG1188021

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

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000311	0.00105	1	10/29/2018 14:59	WG1188021
Naphthalene	U		0.00329	0.0132	1	10/29/2018 14:59	WG1188021
n-Propylbenzene	U		0.00124	0.00527	1	10/29/2018 14:59	WG1188021
Styrene	U		0.00288	0.0132	1	10/29/2018 14:59	WG1188021
1,1,1,2-Tetrachloroethane	U		0.000527	0.00263	1	10/30/2018 10:28	WG1188332
1,1,2,2-Tetrachloroethane	U		0.000411	0.00263	1	10/29/2018 14:59	WG1188021
1,1,2-Trichlorotrifluoroethane	U		0.000711	0.00263	1	10/30/2018 10:28	WG1188332
Tetrachloroethene	0.0584		0.000737	0.00263	1	10/29/2018 14:59	WG1188021
Toluene	U		0.00132	0.00527	1	10/29/2018 14:59	WG1188021
1,2,3-Trichlorobenzene	U		0.000658	0.00263	1	10/29/2018 14:59	WG1188021
1,2,4-Trichlorobenzene	U		0.00508	0.0132	1	10/29/2018 14:59	WG1188021
1,1,1-Trichloroethane	U		0.000290	0.00263	1	10/29/2018 14:59	WG1188021
1,1,2-Trichloroethane	U		0.000930	0.00263	1	10/29/2018 14:59	WG1188021
Trichloroethene	0.000679	J	0.000421	0.00105	1	10/30/2018 10:28	WG1188332
Trichlorofluoromethane	U		0.000527	0.00263	1	10/29/2018 14:59	WG1188021
1,2,3-Trichloropropane	U		0.00537	0.0132	1	10/29/2018 14:59	WG1188021
1,2,4-Trimethylbenzene	0.00195	J	0.00122	0.00527	1	10/29/2018 14:59	WG1188021
1,2,3-Trimethylbenzene	0.00126	J	0.00121	0.00527	1	10/29/2018 14:59	WG1188021
1,3,5-Trimethylbenzene	U		0.00114	0.00527	1	10/29/2018 14:59	WG1188021
Vinyl acetate	U		0.00371	0.0132	1	10/29/2018 14:59	WG1188021
Vinyl chloride	0.0326		0.000719	0.00263	1	10/29/2018 14:59	WG1188021
Xylenes, Total	U		0.00504	0.00685	1	10/29/2018 14:59	WG1188021
(S) Toluene-d8	*55.8*	J2		*75.0-131*		*10/29/2018 14:59*	WG1188021
(S) Toluene-d8	*114*			*75.0-131*		*10/30/2018 08:48*	WG1188097
(S) Toluene-d8	*98.7*			*75.0-131*		*10/30/2018 10:28*	WG1188332
(S) Dibromofluoromethane	*98.7*			*65.0-129*		*10/29/2018 14:59*	WG1188021
(S) Dibromofluoromethane	*90.2*			*65.0-129*		*10/30/2018 08:48*	WG1188097
(S) Dibromofluoromethane	*118*			*65.0-129*		*10/30/2018 10:28*	WG1188332
(S) 4-Bromofluorobenzene	*103*			*67.0-138*		*10/29/2018 14:59*	WG1188021
(S) 4-Bromofluorobenzene	*107*			*67.0-138*		*10/30/2018 08:48*	WG1188097
(S) 4-Bromofluorobenzene	*103*			*67.0-138*		*10/30/2018 10:28*	WG1188332

Method Blank (MB)

(MB) R3354416-1 10/26/18 11:19

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	%		%	%
Total Solids	0.00200			

L1036741-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1036741-02 10/26/18 11:19 • (DUP) R3354416-3 10/26/18 11:19

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	%	%		%		%
Total Solids	82.2	82.0	1	0.242		10

Laboratory Control Sample (LCS)

(LCS) R3354416-2 10/26/18 11:19

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	%	%	%	%	
Total Solids	50.0	50.0	100	85.0-115	

Method Blank (MB)

(MB) R3354494-2 10/26/18 11:10

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acrylonitrile	U		0.00190	0.0125
Benzene	U		0.000400	0.00100
Bromobenzene	U		0.00105	0.0125
Bromodichloromethane	U		0.000788	0.00250
Bromochloromethane	U		0.00113	0.00500
Bromoform	U		0.00598	0.0250
Bromomethane	U		0.00370	0.0125
n-Butylbenzene	U		0.00384	0.0125
sec-Butylbenzene	U		0.00253	0.0125
tert-Butylbenzene	U		0.00155	0.00500
Carbon disulfide	U		0.00406	0.0125
Carbon tetrachloride	U		0.00108	0.00500
Chlorobenzene	U		0.000573	0.00250
Chlorodibromomethane	U		0.000450	0.00250
Chloroethane	U		0.00108	0.00500
Chloroform	U		0.000415	0.00250
Chloromethane	U		0.00139	0.0125
2-Chlorotoluene	U		0.000920	0.00250
4-Chlorotoluene	U		0.00113	0.00500
1,2-Dibromo-3-Chloropropane	U		0.00510	0.0250
1,2-Dibromoethane	U		0.000525	0.00250
Dibromomethane	U		0.00100	0.00500
1,2-Dichlorobenzene	U		0.00145	0.00500
1,3-Dichlorobenzene	U		0.00170	0.00500
1,4-Dichlorobenzene	U		0.00197	0.00500
trans-1,4-Dichloro-2-butene	U		0.00140	0.00500
Dichlorodifluoromethane	U		0.000818	0.00250
1,1-Dichloroethane	U		0.000575	0.00250
1,2-Dichloroethane	U		0.000475	0.00250
1,1-Dichloroethene	U		0.000500	0.00250
cis-1,2-Dichloroethene	U		0.000690	0.00250
trans-1,2-Dichloroethene	U		0.00143	0.00500
1,2-Dichloropropane	U		0.00127	0.00500
1,1-Dichloropropene	U		0.000700	0.00250
1,3-Dichloropropane	U		0.00175	0.00500
cis-1,3-Dichloropropene	U		0.000678	0.00250
trans-1,3-Dichloropropene	U		0.00153	0.00500
2,2-Dichloropropane	U		0.000793	0.00250
Di-isopropyl ether	U		0.000350	0.00100
Ethylbenzene	U		0.000530	0.00250

Method Blank (MB)

(MB) R3354494-2 10/26/18 11:10

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Hexachloro-1,3-butadiene	U		0.0127	0.0250
n-Hexane	U		0.00106	0.00500
2-Hexanone	U		0.0100	0.0250
Iodomethane	U		0.00605	0.0125
Isopropylbenzene	U		0.000863	0.00250
p-Isopropyltoluene	U		0.00233	0.00500
2-Butanone (MEK)	U		0.0125	0.0250
Methylene Chloride	U		0.00664	0.0250
4-Methyl-2-pentanone (MIBK)	U		0.0100	0.0250
Methyl tert-butyl ether	U		0.000295	0.00100
Naphthalene	U		0.00312	0.0125
n-Propylbenzene	U		0.00118	0.00500
Styrene	U		0.00273	0.0125
1,1,1,2-Tetrachloroethane	U		0.000500	0.00250
1,1,2,2-Tetrachloroethane	U		0.000390	0.00250
Tetrachloroethene	U		0.000700	0.00250
Toluene	U		0.00125	0.00500
1,1,2-Trichlorotrifluoroethane	U		0.000675	0.00250
1,2,3-Trichlorobenzene	U		0.000625	0.00250
1,2,4-Trichlorobenzene	U		0.00482	0.0125
1,1,1-Trichloroethane	U		0.000275	0.00250
1,1,2-Trichloroethane	U		0.000883	0.00250
Trichloroethene	U		0.000400	0.00100
Trichlorofluoromethane	U		0.000500	0.00250
1,2,3-Trichloropropane	U		0.00510	0.0125
1,2,3-Trimethylbenzene	U		0.00115	0.00500
1,2,4-Trimethylbenzene	U		0.00116	0.00500
1,3,5-Trimethylbenzene	U		0.00108	0.00500
Vinyl acetate	U		0.00352	0.0125
Vinyl chloride	U		0.000683	0.00250
Xylenes, Total	U		0.00478	0.00650
(S) Toluene-d8	*100*			*75.0-131*
(S) Dibromofluoromethane	*111*			*65.0-129*
(S) 4-Bromofluorobenzene	*107*			*67.0-138*

Laboratory Control Sample (LCS)

(LCS) R3354494-1 10/26/18 10:14

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acrylonitrile	0.625	0.639	102	45.0-153	
Benzene	0.125	0.131	105	70.0-123	
Bromobenzene	0.125	0.135	108	73.0-121	
Bromodichloromethane	0.125	0.110	88.0	73.0-121	
Bromochloromethane	0.125	0.158	126	77.0-128	
Bromoform	0.125	0.131	104	64.0-132	
Bromomethane	0.125	0.124	99.3	56.0-147	
n-Butylbenzene	0.125	0.131	105	68.0-135	
sec-Butylbenzene	0.125	0.137	110	74.0-130	
tert-Butylbenzene	0.125	0.121	97.1	75.0-127	
Carbon disulfide	0.125	0.157	126	56.0-133	
Carbon tetrachloride	0.125	0.122	97.8	66.0-128	
Chlorobenzene	0.125	0.128	102	76.0-128	
Chlorodibromomethane	0.125	0.131	105	74.0-127	
Chloroethane	0.125	0.151	121	61.0-134	
Chloroform	0.125	0.148	118	72.0-123	
Chloromethane	0.125	0.137	110	51.0-138	
2-Chlorotoluene	0.125	0.145	116	75.0-124	
4-Chlorotoluene	0.125	0.139	111	75.0-124	
1,2-Dibromo-3-Chloropropane	0.125	0.145	116	59.0-130	
1,2-Dibromoethane	0.125	0.126	101	74.0-128	
Dibromomethane	0.125	0.135	108	75.0-122	
1,2-Dichlorobenzene	0.125	0.127	102	76.0-124	
1,3-Dichlorobenzene	0.125	0.133	106	76.0-125	
1,4-Dichlorobenzene	0.125	0.122	97.8	77.0-121	
trans-1,4-Dichloro-2-butene	0.125	0.132	105	45.0-143	
Dichlorodifluoromethane	0.125	0.151	121	43.0-156	
1,1-Dichloroethane	0.125	0.158	127	70.0-127	
1,2-Dichloroethane	0.125	0.130	104	65.0-131	
1,1-Dichloroethene	0.125	0.144	115	65.0-131	
cis-1,2-Dichloroethene	0.125	0.140	112	73.0-125	
trans-1,2-Dichloroethene	0.125	0.128	102	71.0-125	
1,2-Dichloropropane	0.125	0.146	117	74.0-125	
1,1-Dichloropropene	0.125	0.172	137	73.0-125	J4
1,3-Dichloropropane	0.125	0.123	98.5	80.0-125	
cis-1,3-Dichloropropene	0.125	0.120	96.2	76.0-127	
trans-1,3-Dichloropropene	0.125	0.147	118	73.0-127	
2,2-Dichloropropane	0.125	0.168	135	59.0-135	
Di-isopropyl ether	0.125	0.154	123	60.0-136	
Ethylbenzene	0.125	0.131	105	74.0-126	

Laboratory Control Sample (LCS)

(LCS) R3354494-1 10/26/18 10:14

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Hexachloro-1,3-butadiene	0.125	0.120	96.0	57.0-150	
2-Hexanone	0.625	0.911	146	54.0-147	
n-Hexane	0.125	0.125	100	55.0-137	
Iodomethane	0.625	0.771	123	74.0-134	
Isopropylbenzene	0.125	0.126	101	72.0-127	
p-Isopropyltoluene	0.125	0.137	110	72.0-133	
2-Butanone (MEK)	0.625	0.827	132	30.0-160	
Methylene Chloride	0.125	0.0987	79.0	68.0-123	
4-Methyl-2-pentanone (MIBK)	0.625	0.836	134	56.0-143	
Methyl tert-butyl ether	0.125	0.148	118	66.0-132	
Naphthalene	0.125	0.143	114	59.0-130	
n-Propylbenzene	0.125	0.132	106	74.0-126	
Styrene	0.125	0.146	117	72.0-127	
1,1,1,2-Tetrachloroethane	0.125	0.128	103	74.0-129	
1,1,2,2-Tetrachloroethane	0.125	0.149	119	68.0-128	
Tetrachloroethene	0.125	0.118	94.7	70.0-136	
Toluene	0.125	0.124	99.3	75.0-121	
1,1,2-Trichlorotrifluoroethane	0.125	0.159	127	61.0-139	
1,2,3-Trichlorobenzene	0.125	0.112	89.4	59.0-139	
1,2,4-Trichlorobenzene	0.125	0.132	106	62.0-137	
1,1,1-Trichloroethane	0.125	0.156	125	69.0-126	
1,1,2-Trichloroethane	0.125	0.137	110	78.0-123	
Trichloroethene	0.125	0.120	96.1	76.0-126	
Trichlorofluoromethane	0.125	0.158	126	61.0-142	
1,2,3-Trichloropropane	0.125	0.148	118	67.0-129	
1,2,3-Trimethylbenzene	0.125	0.131	104	74.0-124	
1,2,4-Trimethylbenzene	0.125	0.140	112	70.0-126	
1,3,5-Trimethylbenzene	0.125	0.132	106	73.0-127	
Vinyl acetate	0.625	0.906	145	43.0-159	
Vinyl chloride	0.125	0.124	99.2	63.0-134	
Xylenes, Total	0.375	0.400	107	72.0-127	
(S) Toluene-d8			*98.0*	*75.0-131*	
(S) Dibromofluoromethane			*112*	*65.0-129*	
(S) 4-Bromofluorobenzene			*103*	*67.0-138*	

L1037317-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1037317-01 10/26/18 14:57 • (MS) R3354494-3 10/26/18 18:39 • (MSD) R3354494-4 10/26/18 18:57

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry)	MSD Result (dry)	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acrylonitrile	0.625	U			109	124	1.06	10.0-160			13.3	40
Benzene	0.125	0.00536			52.3	99.3	1.06	10.0-149		J3	59.2	37
Bromobenzene	0.125	U			76.8	107	1.06	10.0-156			33.1	38
Bromodichloromethane	0.125	U			64.3	89.5	1.06	10.0-143			32.8	37
Bromochloromethane	0.125	U			89.0	115	1.06	10.0-155			25.5	33
Bromoform	0.125	U			83.3	97.3	1.06	10.0-146			15.5	36
Bromomethane	0.125	U			35.5	73.0	1.06	10.0-149		J3	69.1	38
n-Butylbenzene	0.125	0.0141			41.5	102	1.06	10.0-160		J3	74.0	40
sec-Butylbenzene	0.125	U			49.0	116	1.06	10.0-159		J3	80.9	39
tert-Butylbenzene	0.125	U			47.0	104	1.06	10.0-156		J3	75.8	39
Carbon disulfide	0.125	U			39.3	108	1.06	10.0-145		J3	93.5	39
Carbon tetrachloride	0.125	U			30.7	90.4	1.06	10.0-145		J3	98.6	37
Chlorobenzene	0.125	U			65.8	107	1.06	10.0-152		J3	47.5	39
Chlorodibromomethane	0.125	U			84.9	102	1.06	10.0-146			18.7	37
Chloroethane	0.125	U			27.1	79.9	1.06	10.0-146		J3	98.5	40
Chloroform	0.125	U			65.1	111	1.06	10.0-146		J3	52.0	37
Chloromethane	0.125	U			44.7	114	1.06	10.0-159		J3	87.5	37
2-Chlorotoluene	0.125	U			71.1	118	1.06	10.0-159		J3	49.3	38
4-Chlorotoluene	0.125	U			63.5	108	1.06	10.0-155		J3	52.0	39
1,2-Dibromo-3-Chloropropane	0.125	U			70.7	79.3	1.06	10.0-151			11.5	39
1,2-Dibromoethane	0.125	U			86.1	96.9	1.06	10.0-148			11.8	34
Dibromomethane	0.125	U			81.2	96.9	1.06	10.0-147			17.7	35
1,2-Dichlorobenzene	0.125	U			77.9	97.9	1.06	10.0-155			22.8	37
1,3-Dichlorobenzene	0.125	U			74.7	105	1.06	10.0-153			33.4	38
1,4-Dichlorobenzene	0.125	U			71.4	97.7	1.06	10.0-151			31.1	38
trans-1,4-Dichloro-2-butene	0.125	U			85.0	85.2	1.06	10.0-152			0.256	36
Dichlorodifluoromethane	0.125	U			28.9	143	1.06	10.0-160		J3	133	35
1,1-Dichloroethane	0.125	U			62.8	121	1.06	10.0-147		J3	63.0	37
1,2-Dichloroethane	0.125	U			78.2	94.0	1.06	10.0-148			18.4	35
1,1-Dichloroethene	0.125	U			35.0	109	1.06	10.0-155		J3	103	37
cis-1,2-Dichloroethene	0.125	U			59.0	105	1.06	10.0-149		J3	55.8	37
trans-1,2-Dichloroethene	0.125	U			41.1	90.7	1.06	10.0-150		J3	75.3	37
1,2-Dichloropropane	0.125	U			78.0	120	1.06	10.0-148		J3	42.7	37
1,1-Dichloropropene	0.125	U			44.9	128	1.06	10.0-153		J3	95.8	35
1,3-Dichloropropane	0.125	U			83.8	99.1	1.06	10.0-154			16.7	35
cis-1,3-Dichloropropene	0.125	U			68.7	92.8	1.06	10.0-151			29.9	37
trans-1,3-Dichloropropene	0.125	U			85.4	108	1.06	10.0-148			23.5	37
2,2-Dichloropropane	0.125	U			35.0	86.4	1.06	10.0-138		J3	84.6	36
Di-isopropyl ether	0.125	U			80.6	114	1.06	10.0-147			34.7	36

L1037317-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1037317-01 10/26/18 14:57 • (MS) R3354494-3 10/26/18 18:39 • (MSD) R3354494-4 10/26/18 18:57

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry)	MSD Result (dry)	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Ethylbenzene	0.125	0.0843			0.000	51.1	1.06	10.0-160	J6	J3	65.7	38
Hexachloro-1,3-butadiene	0.125	U			45.3	97.1	1.06	10.0-160		J3	72.8	40
2-Hexanone	0.625	U			90.7	101	1.06	10.0-160			10.8	36
n-Hexane	0.125	0.00986			23.0	94.9	1.06	10.0-157		J3	109	37
Iodomethane	0.625	U			56.9	111	1.06	10.0-160		J3	64.8	38
Isopropylbenzene	0.125	0.0167			36.8	91.0	1.06	10.0-155		J3	72.1	38
p-Isopropyltoluene	0.125	U			52.4	108	1.06	10.0-160		J3	69.7	40
2-Butanone (MEK)	0.625	U			131	44.6	1.06	10.0-160		J3	98.1	40
Methylene Chloride	0.125	U			75.0	109	1.06	10.0-141			36.6	37
4-Methyl-2-pentanone (MIBK)	0.625	U			93.0	104	1.06	10.0-160			10.9	35
Methyl tert-butyl ether	0.125	U			81.3	91.7	1.06	11.0-147			12.0	35
Naphthalene	0.125	0.123			4.53	13.1	1.06	10.0-160	J6		9.31	36
n-Propylbenzene	0.125	0.0813			0.000	49.9	1.06	10.0-158	J6	J3	72.6	38
Styrene	0.125	U			83.0	124	1.06	10.0-160			39.8	40
1,1,1,2-Tetrachloroethane	0.125	U			70.8	101	1.06	10.0-149			35.6	39
1,1,2,2-Tetrachloroethane	0.125	U			103	109	1.06	10.0-160			6.11	35
Tetrachloroethene	0.125	U			35.5	96.9	1.06	10.0-156		J3	92.8	39
Toluene	0.125	0.127			0.000	46.7	1.06	10.0-156	J6	J3	46.5	38
1,1,2-Trichlorotrifluoroethane	0.125	U			27.2	111	1.06	10.0-160		J3	121	36
1,2,3-Trichlorobenzene	0.125	U			73.0	88.5	1.06	10.0-160			19.1	40
1,2,4-Trichlorobenzene	0.125	U			84.0	104	1.06	10.0-160			21.2	40
1,1,1-Trichloroethane	0.125	U			44.1	117	1.06	10.0-144		J3	90.4	35
1,1,2-Trichloroethane	0.125	U			93.5	113	1.06	10.0-160			18.8	35
Trichloroethene	0.125	U			41.6	93.3	1.06	10.0-156		J3	76.6	38
Trichlorofluoromethane	0.125	U			80.0	321	1.06	10.0-160		J3 J5	120	40
1,2,3-Trichloropropane	0.125	U			94.2	94.9	1.06	10.0-156			0.713	35
1,2,3-Trimethylbenzene	0.125	0.143			0.000	0.476	1.06	10.0-160	J6	J6	35.6	36
1,2,4-Trimethylbenzene	0.125	0.612			0.000	0.000	1.06	10.0-160	V	J3 V	48.2	36
1,3,5-Trimethylbenzene	0.125	0.146			0.000	8.92	1.06	10.0-160	J6	J3 J6	60.5	38
Vinyl acetate	0.625	U			109	124	1.06	10.0-128			12.2	40
Vinyl chloride	0.125	U			37.7	125	1.06	10.0-160		J3	107	37
Xylenes, Total	0.375	0.573			0.000	0.000	1.06	10.0-160	J6	J3 J6	57.5	38
(S) Toluene-d8					*99.8*	*102*		*75.0-131*				
(S) Dibromofluoromethane					*109*	*105*		*65.0-129*				
(S) 4-Bromofluorobenzene					*107*	*106*		*67.0-138*				

Method Blank (MB)

(MB) R3354686-3 10/28/18 08:37

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acetone	U		0.0137	0.0250
Tetrachloroethene	U		0.000700	0.00250
(S) Toluene-d8	*104*			*75.0-131*
(S) Dibromofluoromethane	*89.4*			*65.0-129*
(S) 4-Bromofluorobenzene	*102*			*67.0-138*

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

(LCS) R3354686-1 10/28/18 07:17 • (LCSD) R3354686-2 10/28/18 07:37

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	0.625	0.479	0.492	76.6	78.8	10.0-160			2.75	31
Tetrachloroethene	0.125	0.108	0.0987	86.3	78.9	70.0-136			8.93	20
(S) Toluene-d8				*98.1*	*98.0*	*75.0-131*				
(S) Dibromofluoromethane				*102*	*102*	*65.0-129*				
(S) 4-Bromofluorobenzene				*103*	*102*	*67.0-138*				

Method Blank (MB)

(MB) R3354821-3 10/29/18 11:21

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acrylonitrile	U		0.00190	0.0125
Benzene	U		0.000400	0.00100
Bromobenzene	U		0.00105	0.0125
Bromodichloromethane	U		0.000788	0.00250
Bromochloromethane	U		0.00113	0.00500
Bromoform	U		0.00598	0.0250
Bromomethane	U		0.00370	0.0125
n-Butylbenzene	U		0.00384	0.0125
sec-Butylbenzene	U		0.00253	0.0125
tert-Butylbenzene	U		0.00155	0.00500
Carbon disulfide	U		0.00406	0.0125
Carbon tetrachloride	U		0.00108	0.00500
Chlorobenzene	U		0.000573	0.00250
Chlorodibromomethane	U		0.000450	0.00250
Chloroethane	U		0.00108	0.00500
Chloroform	U		0.000415	0.00250
Chloromethane	U		0.00139	0.0125
2-Chlorotoluene	U		0.000920	0.00250
4-Chlorotoluene	U		0.00113	0.00500
1,2-Dibromo-3-Chloropropane	U		0.00510	0.0250
1,2-Dibromoethane	U		0.000525	0.00250
Dibromomethane	U		0.00100	0.00500
1,2-Dichlorobenzene	U		0.00145	0.00500
1,3-Dichlorobenzene	U		0.00170	0.00500
1,4-Dichlorobenzene	U		0.00197	0.00500
trans-1,4-Dichloro-2-butene	U		0.00140	0.00500
1,1-Dichloroethane	U		0.000575	0.00250
1,2-Dichloroethane	U		0.000475	0.00250
1,1-Dichloroethene	U		0.000500	0.00250
cis-1,2-Dichloroethene	U		0.000690	0.00250
trans-1,2-Dichloroethene	U		0.00143	0.00500
1,1-Dichloropropene	U		0.000700	0.00250
1,3-Dichloropropane	U		0.00175	0.00500
cis-1,3-Dichloropropene	U		0.000678	0.00250
trans-1,3-Dichloropropene	U		0.00153	0.00500
2,2-Dichloropropane	U		0.000793	0.00250
Di-isopropyl ether	U		0.000350	0.00100
Ethylbenzene	U		0.000530	0.00250
Hexachloro-1,3-butadiene	U		0.0127	0.0250
n-Hexane	U		0.00106	0.00500

Method Blank (MB)

(MB) R3354821-3 10/29/18 11:21

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
2-Hexanone	U		0.0100	0.0250
Iodomethane	U		0.00605	0.0125
Isopropylbenzene	U		0.000863	0.00250
p-Isopropyltoluene	U		0.00233	0.00500
2-Butanone (MEK)	0.0145	J	0.0125	0.0250
Methylene Chloride	U		0.00664	0.0250
4-Methyl-2-pentanone (MIBK)	U		0.0100	0.0250
Methyl tert-butyl ether	U		0.000295	0.00100
Naphthalene	U		0.00312	0.0125
n-Propylbenzene	U		0.00118	0.00500
Styrene	U		0.00273	0.0125
1,1,2,2-Tetrachloroethane	U		0.000390	0.00250
Tetrachloroethene	U		0.000700	0.00250
Toluene	U		0.00125	0.00500
1,2,3-Trichlorobenzene	U		0.000625	0.00250
1,2,4-Trichlorobenzene	U		0.00482	0.0125
1,1,1-Trichloroethane	U		0.000275	0.00250
1,1,2-Trichloroethane	U		0.000883	0.00250
Trichlorofluoromethane	U		0.000500	0.00250
1,2,3-Trichloropropane	U		0.00510	0.0125
1,2,3-Trimethylbenzene	U		0.00115	0.00500
1,2,4-Trimethylbenzene	U		0.00116	0.00500
1,3,5-Trimethylbenzene	U		0.00108	0.00500
Vinyl acetate	U		0.00352	0.0125
Vinyl chloride	U		0.000683	0.00250
Xylenes, Total	U		0.00478	0.00650
(S) Toluene-d8	*106*			*75.0-131*
(S) Dibromofluoromethane	*93.6*			*65.0-129*
(S) 4-Bromofluorobenzene	*103*			*67.0-138*

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

(LCS) R3354821-1 10/29/18 10:06 • (LCSD) R3354821-2 10/29/18 10:24

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acrylonitrile	0.625	0.500	0.489	80.1	78.2	45.0-153			2.33	22
Benzene	0.125	0.118	0.121	94.4	96.5	70.0-123			2.19	20
Bromobenzene	0.125	0.126	0.126	101	101	73.0-121			0.392	20
Bromodichloromethane	0.125	0.101	0.0948	80.8	75.8	73.0-121			6.36	20

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

(LCS) R3354821-1 10/29/18 10:06 • (LCSD) R3354821-2 10/29/18 10:24

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Bromochloromethane	0.125	0.114	0.117	91.4	93.7	77.0-128			2.43	20
Bromoform	0.125	0.125	0.126	100	101	64.0-132			0.268	20
Bromomethane	0.125	0.118	0.109	94.1	87.0	56.0-147			7.84	20
n-Butylbenzene	0.125	0.129	0.126	103	101	68.0-135			2.00	20
sec-Butylbenzene	0.125	0.133	0.128	107	103	74.0-130			3.56	20
tert-Butylbenzene	0.125	0.134	0.136	107	109	75.0-127			1.65	20
Carbon disulfide	0.125	0.119	0.122	95.5	97.4	56.0-133			1.96	20
Carbon tetrachloride	0.125	0.129	0.125	103	100	66.0-128			2.93	20
Chlorobenzene	0.125	0.129	0.129	103	103	76.0-128			0.137	20
Chlorodibromomethane	0.125	0.124	0.127	99.3	102	74.0-127			2.45	20
Chloroethane	0.125	0.112	0.114	89.7	90.9	61.0-134			1.31	20
Chloroform	0.125	0.114	0.117	91.3	93.6	72.0-123			2.52	20
Chloromethane	0.125	0.125	0.126	100	101	51.0-138			0.890	20
2-Chlorotoluene	0.125	0.147	0.147	118	118	75.0-124			0.249	20
4-Chlorotoluene	0.125	0.131	0.131	105	105	75.0-124			0.459	20
1,2-Dibromo-3-Chloropropane	0.125	0.123	0.126	98.4	101	59.0-130			2.70	20
1,2-Dibromoethane	0.125	0.122	0.122	97.9	97.9	74.0-128			0.0155	20
Dibromomethane	0.125	0.132	0.126	106	101	75.0-122			4.85	20
1,2-Dichlorobenzene	0.125	0.127	0.126	102	101	76.0-124			0.925	20
1,3-Dichlorobenzene	0.125	0.129	0.126	104	101	76.0-125			2.57	20
1,4-Dichlorobenzene	0.125	0.122	0.121	97.6	96.9	77.0-121			0.703	20
trans-1,4-Dichloro-2-butene	0.125	0.132	0.135	106	108	45.0-143			2.33	20
1,1-Dichloroethane	0.125	0.113	0.115	90.0	92.4	70.0-127			2.55	20
1,2-Dichloroethane	0.125	0.116	0.117	92.7	93.3	65.0-131			0.638	20
1,1-Dichloroethene	0.125	0.121	0.126	96.7	101	65.0-131			4.53	20
cis-1,2-Dichloroethene	0.125	0.119	0.117	95.5	93.7	73.0-125			1.92	20
trans-1,2-Dichloroethene	0.125	0.114	0.118	91.1	94.2	71.0-125			3.33	20
1,1-Dichloropropene	0.125	0.117	0.116	93.8	92.6	73.0-125			1.30	20
1,3-Dichloropropane	0.125	0.124	0.125	98.9	100	80.0-125			1.08	20
cis-1,3-Dichloropropene	0.125	0.124	0.122	99.3	97.5	76.0-127			1.79	20
trans-1,3-Dichloropropene	0.125	0.130	0.130	104	104	73.0-127			0.179	20
2,2-Dichloropropane	0.125	0.175	0.168	140	135	59.0-135	J4		3.68	20
Di-isopropyl ether	0.125	0.112	0.111	89.8	88.8	60.0-136			1.14	20
Ethylbenzene	0.125	0.124	0.128	99.1	102	74.0-126			3.09	20
Hexachloro-1,3-butadiene	0.125	0.115	0.118	92.3	94.0	57.0-150			1.86	20
2-Hexanone	0.625	0.634	0.651	101	104	54.0-147			2.64	20
n-Hexane	0.125	0.135	0.163	108	131	55.0-137			18.5	20
Iodomethane	0.625	0.572	0.568	91.5	90.9	74.0-134			0.658	20
Isopropylbenzene	0.125	0.140	0.140	112	112	72.0-127			0.230	20
p-Isopropyltoluene	0.125	0.143	0.136	115	109	72.0-133			5.18	20

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

(LCS) R3354821-1 10/29/18 10:06 • (LCSD) R3354821-2 10/29/18 10:24

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
2-Butanone (MEK)	0.625	0.548	0.590	87.8	94.3	30.0-160			7.22	24
Methylene Chloride	0.125	0.115	0.121	92.1	96.5	68.0-123			4.69	20
4-Methyl-2-pentanone (MIBK)	0.625	0.721	0.721	115	115	56.0-143			0.0954	20
Methyl tert-butyl ether	0.125	0.105	0.113	83.8	90.4	66.0-132			7.58	20
Naphthalene	0.125	0.122	0.115	97.4	92.2	59.0-130			5.49	20
n-Propylbenzene	0.125	0.134	0.134	107	107	74.0-126			0.101	20
Styrene	0.125	0.132	0.131	106	105	72.0-127			0.665	20
1,1,2,2-Tetrachloroethane	0.125	0.130	0.132	104	105	68.0-128			1.77	20
Tetrachloroethene	0.125	0.146	0.146	117	117	70.0-136			0.342	20
Toluene	0.125	0.126	0.127	101	102	75.0-121			0.402	20
1,2,3-Trichlorobenzene	0.125	0.105	0.0978	83.7	78.2	59.0-139			6.81	20
1,2,4-Trichlorobenzene	0.125	0.113	0.109	90.8	86.8	62.0-137			4.45	20
1,1,1-Trichloroethane	0.125	0.132	0.131	106	105	69.0-126			1.11	20
1,1,2-Trichloroethane	0.125	0.118	0.122	94.1	97.3	78.0-123			3.34	20
Trichlorofluoromethane	0.125	0.121	0.129	97.0	103	61.0-142			6.29	20
1,2,3-Trichloropropane	0.125	0.136	0.146	108	117	67.0-129			7.14	20
1,2,3-Trimethylbenzene	0.125	0.132	0.129	105	103	74.0-124			1.77	20
1,2,4-Trimethylbenzene	0.125	0.130	0.127	104	102	70.0-126			2.54	20
1,3,5-Trimethylbenzene	0.125	0.136	0.139	109	111	73.0-127			2.36	20
Vinyl acetate	0.625	0.801	0.810	128	130	43.0-159			1.13	20
Vinyl chloride	0.125	0.114	0.109	91.1	87.1	63.0-134			4.50	20
Xylenes, Total	0.375	0.384	0.391	102	104	72.0-127			1.81	20
(S) Toluene-d8				*106*	*107*	*75.0-131*				
(S) Dibromofluoromethane				*94.6*	*95.8*	*65.0-129*				
(S) 4-Bromofluorobenzene				*107*	*108*	*67.0-138*				

Method Blank (MB)

(MB) R3355018-3 10/29/18 23:16

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acetone	U		0.0137	0.0250
(S) Toluene-d8	*108*			*75.0-131*
(S) Dibromofluoromethane	*95.2*			*65.0-129*
(S) 4-Bromofluorobenzene	*100*			*67.0-138*

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

(LCS) R3355018-1 10/29/18 21:59 • (LCSD) R3355018-2 10/29/18 22:18

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	0.625	0.486	0.519	77.8	83.1	10.0-160			6.57	31
(S) Toluene-d8				*105*	*105*	*75.0-131*				
(S) Dibromofluoromethane				*97.7*	*95.2*	*65.0-129*				
(S) 4-Bromofluorobenzene				*108*	*113*	*67.0-138*				

Method Blank (MB)

(MB) R3355100-3 10/30/18 09:59

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Dichlorodifluoromethane	U		0.000818	0.00250
1,2-Dichloropropane	U		0.00127	0.00500
1,1,1,2-Tetrachloroethane	U		0.000500	0.00250
1,1,2-Trichlorotrifluoroethane	U		0.000675	0.00250
Trichloroethene	U		0.000400	0.00100
(S) Toluene-d8	*98.7*			*75.0-131*
(S) Dibromofluoromethane	*115*			*65.0-129*
(S) 4-Bromofluorobenzene	*105*			*67.0-138*

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

(LCS) R3355100-1 10/30/18 08:45 • (LCSD) R3355100-2 10/30/18 09:03

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Dichlorodifluoromethane	0.125	0.154	0.151	123	121	43.0-156			1.71	20
1,2-Dichloropropane	0.125	0.145	0.149	116	119	74.0-125			2.88	20
1,1,1,2-Tetrachloroethane	0.125	0.131	0.132	105	106	74.0-129			1.28	20
1,1,2-Trichlorotrifluoroethane	0.125	0.158	0.161	126	129	61.0-139			1.90	20
Trichloroethene	0.125	0.113	0.116	90.7	92.7	76.0-126			2.18	20
(S) Toluene-d8				*98.7*	*98.9*	*75.0-131*				
(S) Dibromofluoromethane				*120*	*118*	*65.0-129*				
(S) 4-Bromofluorobenzene				*104*	*103*	*67.0-138*				

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Abbreviations and Definitions

(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
MDL	Method Detection Limit.
MDL (dry)	Method Detection Limit.
RDL	Reported Detection Limit.
RDL (dry)	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(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.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
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.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.
J0	J0: Calibration verification outside of acceptance limits. Result is estimated.
J2	Surrogate recovery limits have been exceeded; values are outside lower control limits.
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.
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high.
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.

Pace National 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.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T 104704245-17-14
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

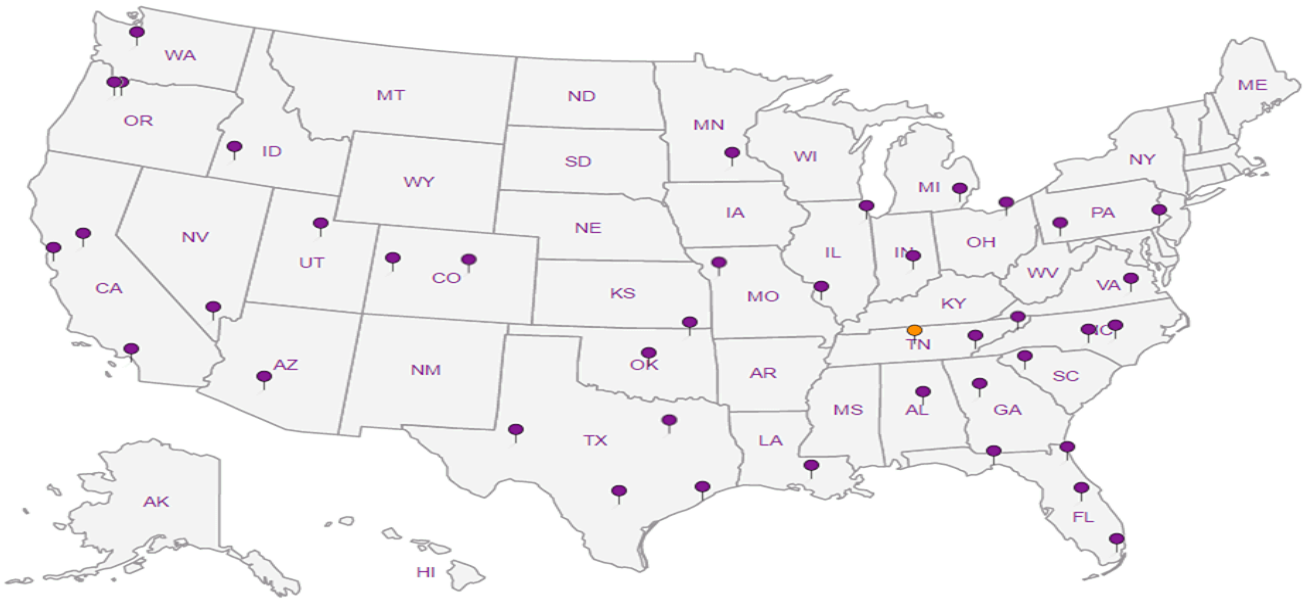
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

Our Locations

Pace National 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. Pace National performs all testing at our central laboratory.



Chain of Custody Page 1 of 1

PES Environmental, Inc.- WA

1215 Fourth Ave., Suite 1350
Seattle, WA 98161

Billing Information:
Attn: Accounts Payable
1215 Fourth Ave., Ste. 1350
Seattle, WA 98161

Pres Chk

Report to: Brian O'Neal/Bill Haldeman

Email To: boneal@pesenv.com; bhaldeman@pesenv.com

Project Description: American Linen

City/State Collected: Seattle WSA

Phone: 206-529-3980
Fax: 206-529-3985

Client Project # 1413.001.05

Lab Project # PESENVSWA-ALP

Collected by (print): R. McLaughlin / S. McKernan

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day X Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Date Results Needed

Quote #

Pace Analytical
National Center for Testing & Innovation

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

L# L1036740

B152

Acctnum: PESENVSWA
Template: T141621
Prelogin: P676248
TSR: 110 - Brian Ford
PB:

Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOCs V8260C 40mlAmb/MeOHSml/Syr	dry weight 2ozCir-NoPres	trip VOCs V8260LLC 40mlAmb-HCl-Blk	Remarks	Sample # (lab only)
B-254A-27	Grab	SS	27	10/19/18	805	2	X	X			-01
B-254A-30		SS	30		832		X	X			-02
B-254A-32		SS	32		840					HOLD	
B-254A-35	X	SS	35		835		X	X			-03
		SS									
		SS									
		SS		R. McLaughlin							
		SS		10/19/18							
		SS									
		SS									

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other

Remarks: RAD SCREEN: <0.5 mR/hr

pH ___ Temp ___
Flow ___ Other ___

Samples returned via: ___ UPS X FedEx ___ Courier

Tracking # 4196 3259 3024

Trip Blank Received: (Yes) / No
(HCl) / MeoH
TBR

Temp: 0.5(+1) 4.1C °C Bottles Received: 4 of 8

If preservation required by Login: Date/Time

Sample Receipt Checklist
COC Seal Present/Intact: NP X Y ___ N
COC Signed/Accurate: X Y ___ N
Bottles arrive intact: X Y ___ N
Correct bottles used: X Y ___ N
Sufficient volume sent: ___ Y ___ N
If Applicable
VOA Zero Headspace: X Y ___ N
Preservation Correct/Checked: ___ Y ___ N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
R. McLaughlin	10/19/18	1000	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)
			BK Faust

Date: 10/20/18 Time: 0845

10-160

Condition: NCF / OK

MEMORANDUM

TO: Project File **DATE:** October 25, 2018

FROM: Jessie Compeau

SUBJECT: Laboratory Data Validation Review

PROJECT: American Linen Data Validation

PROJECT #: 1413.001.05.304

TASK: August and September, 2018 – Soil Samples

LAB: Pace Sample Delivery Groups (SDGs): L1022679, L1024338, L1025469, L1026432, and L1029197

Thirty-six (36) soil samples including one field duplicate, and four (4) trip blanks were collected as part of a sampling event at the Former American Linen Supply Site, in Seattle, Washington. Samples were collected on August 31, September 4-7, 10-14, and 18-20, 2018. The samples were shipped and delivered to Pace Analytical (formerly ESC Lab Sciences (ESC)) of Mount Juliet, TN for laboratory analysis. Selected samples were analyzed for the following:

- Volatile organic compounds (VOCs) by United States Environmental Protection Agency (USEPA) Method 8260C; and
- Total Solids by Standard Methods 2540 G-2011.

Associated soil sample data are reported in five Pace SDGs (L1022679, L1024338, L1025469, L1026432, and L1029197). For the associated soil vapor samples refer to data validation review on Pace SDG L1030304. The quality assurance review of the sample data are summarized below.

DATA QUALIFICATIONS

Guidelines established by USEPA for a limited data validation review of analytical data along with Pace Analytical (Pace) control limit criteria were used to validate the data. The comments presented in this memorandum refer to the laboratory's performance in meeting the quality control criteria outlined in the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (USEPA, 2017).

DATA VALIDATION

Completeness

All samples were collected and analyzed as requested with the following discussion:

- Review of associated chain of custodies show that multiple soil samples were collected and placed on hold by PES. No action was taken other than to note this.

- SDG L1029197: Associated chain of custody form is difficult to read due to copy quality. Sample identifications and dates of collection appear to be listed correctly in the laboratory report.

Sample Collection and Preservation

Samples were collected in laboratory-supplied sample containers preserved as appropriate for the individual analyses conducted. The samples were packed on ice in coolers and delivered by courier to the analytical laboratory. The laboratory reported that the coolers were received at a cooler temperature less than the recommended temperature preservation less than 6°C. No data were qualified based upon the sample collection and preservation information.

Holding Times

USEPA Method 8260C:
All samples were analyzed for VOCs within the EPA recommended holding time of fourteen days for soils from the date of collection. All holding time criteria were met.

Total Solids by SM 2540 G 2011:
Samples were analyzed within the USEPA recommended holding time of seven days for total solids with the following exceptions:

- SDGs L1022679, L1024338, L1025469, L1026432, and L1029197: Multiple soil samples were analyzed slightly outside of the recommended hold. Sample results are not significantly impacted. No action is taken other than to note this.

Initial and Continuing Calibration

Calibration data for this project are not required for this deliverable however PACE's notes indicate the following:

- SDG L1024338 - *USEPA Method 8260C:* Continuing calibration verification (CCV) issues were noted by Pace for trans-1,2-dichloroethene, n-hexane, and vinyl acetate associated with analytical batch WG1164600 (analyzed on September 12, 2018). The compounds are qualified by the laboratory "J0" to indicate that percent difference CCVs are outside of laboratory acceptance criteria. **Associated results with laboratory qualified (J0) results are estimated and qualified (J/UJ).**

- SDG L1024338 - *USEPA Method 8260C:* Continuing calibration verification (CCV) issues were noted by Pace for bromomethane, trans-1,4-dichloro-2-butene, iodomethane, and vinyl acetate associated with analytical batch WG1164809 (analyzed on September 13, 2018). The compounds are qualified by the laboratory "J0" to indicate that percent difference CCVs are outside of laboratory acceptance criteria. **Associated trip blank results with laboratory qualified (J0) results are estimated and qualified (UJ).**

- SDG L1025469 - *USEPA Method 8260C:* Continuing calibration verification (CCV) issues were noted by Pace for styrene associated with analytical batch WG1168763 (analyzed on September 20, 2018). The compound is qualified by the laboratory "J0" to indicate that percent difference CCVs are outside of laboratory acceptance criteria. **Associated samples IW-24C-66 and IW-24C-75 results with laboratory qualified (J0) results are estimated and qualified (J/UJ).**

- SDG L1025469 - *USEPA Method 8260C:* Continuing calibration verification (CCV) issues were noted by Pace for 1,2-dibromo-3-chloropropane, trans-1,2-dichloroethene, trans-1,3-dichloropropene, trans-1,4-dichloro-2-butene, 2,2-dichloropropane, 1,1,1,2-tetrachloroethane, and vinyl acetate associated with analytical batch WG1168529 (analyzed on September 20, 2018). The compounds are qualified by the laboratory "J0" to indicate that percent difference CCVs are outside of laboratory acceptance criteria. **Associated results with laboratory qualified (J0) results are estimated and qualified (J/UJ).**

- SDG L1026432 - *USEPA Method 8260C:* Continuing calibration verification (CCV) issues were noted by Pace for 1,2-dibromo-3-chloropropane, trans-1,4-dichloro-2-butene, and vinyl acetate associated with analytical batch WG1169827 (analyzed on September 21, 2018). The compounds are qualified by the laboratory "J0" to indicate that percent difference CCVs are outside of laboratory acceptance criteria. **Associated results with laboratory qualified (J0) results are estimated and qualified (J/UJ).**

- SDG L1029197 - *USEPA Method 8260C:* Continuing calibration verification (CCV) issues were noted by Pace for n-hexane and vinyl acetate associated with analytical batch WG1173458 (analyzed on September 29, 2018). The compounds are qualified by the laboratory "J0" to indicate that percent difference CCVs are outside of laboratory acceptance criteria. **Associated results with laboratory qualified (J0) results are estimated and qualified (J/UJ).**

Method Blank Results

USEPA Method 8260C:
Laboratory method blanks were included with the analytical batches per method requirement. The target analytes were not detected in the method blanks at or above the reported detection limits (RDLs) with the following exceptions:

- SDG L1022679 - Analytical batch WG1161708: Low levels of naphthalene and 1,2,4-trimethylbenzene are detected in the method blank associated with the trip blank. No action was taken since naphthalene and 1,2,4-trimethylbenzene are not detected in the associated trip blank.

- SDG L1024338 - Analytical batch WG1164600: A low level of n-hexane was detected in the method blank associated with six samples (IW-23C-42, IW-54B-8, IW-54B-13, IW-54B-21, IW-54B-33, and IW-24C-48). No action was taken since n-hexane is not detected in the associated samples.

- SDG L1024338 - Analytical batch WG1166945: Low levels of carbon disulfide, n-hexane, methylene chloride, styrene, and 1,2,3-trichlorobenzene are detected in the method blank associated with sample IW-24C-55. **The carbon disulfide result in the sample IW-24C-55 is qualified as not detected (U) due to method blank contamination.** For the remaining compounds no action was necessary as these were not detected in the associated sample.

- SDG L1024338 - Analytical batch WG1164809: A low level of hexachloro-1,3-butadiene was detected in the method blank associated with the trip blank. No action was taken since hexachloro-1,3-butadiene is not detected in the associated trip blank.

- SDG L1025469 - Analytical batch WG1168763: Low levels of iodomethane and methylene chloride are detected in the method blank associated with samples IW-24C-66 and IW-24C-75. **The methylene chloride results in the sample IW-24C-66 and IW-24C-75 are qualified as not detected (U) due to method blank contamination.** For the remaining compound no action was necessary as it was not detected in the associated samples.

- SDG L1025469 - Analytical batch WG1168529: Low levels of methylene chloride and trichlorofluoromethane are detected in the method blank associated with samples IW-14D-45, IW-14D-65, IW-14D-75, IW-14D-95, and IW-15D-54. **The methylene chloride results in samples IW-14D-45, IW-14D-65, IW-14D-75, IW-14D-95, and IW-15D-54 are qualified as not detected (U) due to method blank contamination.** For the remaining compound no action was necessary as these are not detected in the associated samples.

- SDG L1026432 - Analytical batch WG1167535: Low levels of hexachloro-1,3-butadiene and 1,2,3-trichlorobenzene are detected in the method blank associated with the trip blank. No action was taken since these compounds are not detected in the associated trip blank.

Total Solids by SM 2540 G 2011:
Laboratory method blanks were included with the analytical batches per method requirement. The target analytes (% solids) were not detected at a significant level in the method blanks and sample results are not impacted.

Trip Blank Results

USEPA Method 8260C:
Four trip blanks were collected and analyzed. The target analytes were not detected in the trip blank at or above the RDLs with the following exceptions:

- SDG L1022679 - Analytical batch WG1161708: A low level of acetone is detected in the trip blank. A low level of acetone is detected in associated sample IW-22C-62. **The acetone detection in sample IW-22C-62 is qualified as not detected (U) due to trip blank contamination.**

- SDG L1024338 - Analytical batch WG1164809: A low level of acetone is detected in the trip blank. Low levels of acetone are detected in associated samples IW-23C-42 and IW-54B-13. **The acetone detections in samples IW-23C-42 and IW-54B-13 are qualified as not detected (U) due to trip blank contamination.**

- SDG L1026432 - Analytical batch WG1167535: A low level of acetone is detected in the trip blank (the trip blank is identified as Blank-091418). Low levels of acetone are detected in associated samples IW-55B-39 and IW-55B-61. **Acetone was detected above the RDL in sample IW-55B-39 qualified as estimated with high bias (J+) due to trip blank contamination. Acetone was detected below the RDL in sample IW-55B-61 and is qualified as not detected (U) due to trip blank contamination.**

Field, Rinsate, or Equipment Blank Results

Field, rinsate, or equipment blanks were not collected.

Field Duplicate Analyses

Field duplicate sample pairs are as follows:

- SDG L1026432: Samples IW-12D-42 and B-928-42

Field duplicate pairs were submitted and analyzed for VOCs and percent solids. Percent solids and VOC target analyte results are comparable and within a relative percent difference (RPD) of 30% ($\pm$ 2x RDL for soil results <5X the RDL) for the field duplicates.

Laboratory Duplicate Analyses

USEPA Method 8260C:
A laboratory duplicate sample was not analyzed. Refer to laboratory control sample/sample duplicate (LCS/LCSD) or matrix spike/matrix spike duplicates (MS/MSDs) results for precision data.

Total Solids by SM 2540 G 2011:
Laboratory duplicate sample analyses were performed on client and/or on non-client samples within the analytical batches. The primary/duplicate RPDs for total solids analyses are within the laboratory control limit of 5%.

Surrogate Recoveries

USEPA Method 8260C:
The surrogate recovery results for the samples, laboratory control samples, matrix spike samples, trip blanks, and the method blanks are within the laboratory surrogate control limits for all of the analyses.

Laboratory Control Samples

USEPA Method 8260C:

Laboratory control sample and laboratory control sample duplicate (LCS/LCSD) were analyzed by USEPA Method 8260C method. In some cases only LCS data are provided and no measure of precision is provided. No action is taken other than to note that a sufficient measure of precision was provided by the laboratory. The LCS or LCS/LCSD %Rs and RPDs for the all target compounds are within the laboratory control criteria for soils with the following discussions and exceptions:

- SDG L1022679 - Analytical batch WG1163811: LCS or LCSD recoveries for bromodichloromethane and carbon tetrachloride are slightly above control limit criteria and laboratory qualified (J4). These compounds are not detected in the associated samples. **Bromodichloromethane and carbon tetrachloride are considered not detected (U) in the associated samples due to the elevated LCS or LCSD recoveries.**

- SDG L1022679 - Analytical batch WG1163811: LCS/LCSD recoveries for vinyl acetate are within control limits but recovered wide with an elevated RPD and laboratory qualified (J3). No action is taken other than to note that recoveries are within control limit criteria.

- SDG L1022679 - Analytical batch WG1163971: Four compounds were reanalyzed in both samples at a dilution (42.4X and 40X) a few hours after the initial run. An LCSD is not provided with the quality control however an adequate measure of precision for these compounds is provided with the 1X dilution associated with analytical batch WG1163811.

- SDG L1024338 - Analytical batch WG1166945: LCS recoveries for 1,2-dibromoethane and 1,4-dichlorobenzene are recovered slightly below criteria and laboratory qualified (J4). **Sample IW-24C-55 results for 1,2-dibromoethane (ethylene dibromide) and 1,4-dichlorobenzene are estimated and qualified (UJ) due to low LCS recoveries.** Refer to matrix spike results for precision data.

- SDG L1024338 - Analytical batch WG1166945: LCS recoveries for n-hexane, 1,1,2,2-tetrachloroethane, and 1,1,1-trichloroethane are recovered above criteria and laboratory qualified (J4). No action was taken since these compounds are not detected in sample IW-24C-55. **These compounds are considered not detected (U) in sample IW-24C-55 due to the elevated LCS recoveries.** Refer to matrix spike results for precision data.

- SDG L1024338 - Analytical batch WG1167356: LCS recovery for iodomethane is recovered slightly below criteria and laboratory qualified (J4). **Sample IW-24C-55 result for iodomethane is estimated and qualified (UJ) due to a low LCS recovery.**

- SDG L1025469 - Analytical batch WG1168529: LCS recoveries for trans-1,3-dichloropropene, p-isopropyltoluene, and 1,1,1,2-tetrachloroethane are recovered slightly below criteria. **Associated sample results for trans-1,3-dichloropropene, p-isopropyltoluene, and 1,1,1,2-tetrachloroethane are estimated and qualified (J/UJ) due to low LCS recoveries.**

- SDG L1025469 - Analytical batch WG1168808: LCS recovery for styrene is recovered slightly below criteria and laboratory qualified (J4). **Associated sample results for styrene are estimated and qualified (J/UJ) due to low LCS recovery.**

- SDG L1025469 - Analytical batch WG1168808: LCS recovery for n-hexane is recovered above criteria and laboratory qualified (J4). This compound is not detected in the associated samples. **Hexane is considered not detected (U) in associated samples due to the elevated LCS recoveries.**

- SDG L1025469 - Analytical batch WG1168763: LCS recoveries for 1,4-dichlorobenzene, and styrene are recovered slightly below criteria and laboratory qualified (J4). **Associated sample results for 1,4-dichlorobenzene and styrene are estimated and qualified (J/UJ) due to low LCS recoveries.**

- SDG L1025469 - Analytical batch WG1168763: LCS recoveries for cis-1,3-dichloropropene, and 1,1,2,2-tetrachloroethane are above laboratory criteria. These compounds are not detected in the associated samples. **These compounds are considered not detected (U) in associated samples due to the elevated LCS recoveries.**

- SDG L1026432 - Analytical batch WG1169827: LCS recovery for iodomethane is above laboratory criteria. This compound is not detected in the associated samples. **Iodomethane is considered not detected (U) in associated samples due to the elevated LCS recoveries.**

- SDG L1029197 - Analytical batch WG1173458: LCS recovery for 1,2-dichloroethane is above laboratory criteria and laboratory qualified (J4). This compound is not detected in the associated samples. **1,2-Dichloroethane is considered not detected (U) in associated samples due to the elevated LCS recoveries.**

- SDG L1029197 - Analytical batch WG1173458: LCS recovery for vinyl acetate is below laboratory criteria and laboratory qualified (J4). **Associated sample results for vinyl acetate are estimated and qualified (J/UJ) due to low LCS recovery.**

Total Solids by SM 2540 G 2011:
The LCS %Rs for total solids are within the laboratory control criteria for soils.

Matrix Spike/Matrix Spike Duplicates

USEPA Method 8260C:
Matrix spike/matrix spike duplicate (MS/MSD) analyses were performed on a non-client sample. In cases where MS/MSDs were not performed refer to LCS/LCSDs for accuracy and precision data. MS/MSD % Rs and RPDs are acceptable with the following exceptions:

- SDG L1024338 - Analytical batch WG1164600: Spike analyses were performed on a client sample IW-24C-48. Acetone is recovered within control limits but recovered wide with an elevated RPD and laboratory qualified (J3). No action was taken on this basis

since recoveries are within. MS/MSD recoveries for cis-1,2-dichloroethene are not reported since the sample amount was far greater (>5X) than the spike amount. No action was taken other than to note this. MS/MSD recoveries for vinyl chloride are recovered low and laboratory qualified (J6). **Sample IW-24C-48 vinyl chloride result is estimated and qualified with low bias (J-) due to low spike recoveries.**

- SDG L1025469 - Analytical batch WG1168763: Soil MS/MSDs associated with the samples were performed on a non-client sample within the analytical batch. MS/MSD compounds for vinyl chloride and vinyl acetate are recovered low and laboratory qualified (J6). No action was taken since the spike was performed on a non-client sample. Refer to associated LCS results for accuracy data.

- SDG L1026432 - Analytical batch WG1169827: Spike analyses were performed on client sample IW-12D-60. MS/MSD recoveries for tetrachloroethene are not reported since the sample amount was far greater (>5X) than the spike amount. No action was taken other than to note this.

- SDG L1029197 - Analytical batch WG1173458: Soil MS/MSDs associated with the samples were performed on a non-client sample within the analytical batch. Multiple MS/MSD compounds on one of the spikes are recovered within control limits but recovered wide with elevated RPDs and are laboratory qualified (J3). Several MS/MSD recoveries were recovered less than 10% and laboratory qualified (J6). No action was taken other than to note that the spike was performed on a non-client sample. Refer to the LCS results for accuracy data.

Other Quality Control Issues

No laboratory quality control issues were identified in the laboratory reports with the following discussion:

- Electronic data deliverables (EDDs) for these SDGs were provided by the laboratory and data validator qualifiers were entered into the EDDs. In some cases different chemical synonyms are used between the EDD and the hardcopy however associated Chemical Abstracts Service (CAS) numbers are provided in the EDD to confirm chemical identifications. Additional information was requested from the laboratory to cross reference the EDD versus final laboratory data.

Quantitation Limits

The RDLs used for this sample group are acceptable for the project. Several samples were diluted due to elevated concentrations of various target analytes. PACE sample narrative notes indicate that for multiple soil samples the target compounds were too high to run the samples at a lower dilution. In some cases diluted target analytes are non-detects. No action was taken other than to note this.

Detections between the method detection limit (MDL) and RDL are estimated (J) by the laboratory and qualified (J) by the data validator to re-emphasize that the detection is estimated.

Data Assessment

The laboratory data reported for this project were reviewed based on the criteria outlined in:

- USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (USEPA, 2017).

Data qualifiers are assigned and laboratory report pages with qualifiers are attached. All data, including qualified data, are judged to be acceptable for their intended use.

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	92.7		1	09/10/2018 13:20	WG1163747

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch	
	mg/kg		mg/kg	mg/kg		date / time		
Acetone	0.0193 U	J	0.0158	0.0289	1.07	09/10/2018 12:18	WG1163811	
Acrylonitrile	U		0.00219	0.0144	1.07	09/10/2018 12:18	WG1163811	
Benzene	U		0.000462	0.00115	1.07	09/10/2018 12:18	WG1163811	
Bromobenzene	U		0.00121	0.0144	1.07	09/10/2018 12:18	WG1163811	
Bromodichloromethane	U	J4	0.000910	0.00289	1.07	09/10/2018 12:18	WG1163811	
Bromochloromethane	U		0.00131	0.00577	1.07	09/10/2018 12:18	WG1163811	
Bromoform	U		0.00691	0.0289	1.07	09/10/2018 12:18	WG1163811	
Bromomethane	U		0.00427	0.0144	1.07	09/10/2018 12:18	WG1163811	
n-Butylbenzene	U		0.00443	0.0144	1.07	09/10/2018 12:18	WG1163811	
sec-Butylbenzene	U		0.00292	0.0144	1.07	09/10/2018 12:18	WG1163811	
tert-Butylbenzene	U		0.00179	0.00577	1.07	09/10/2018 12:18	WG1163811	
Carbon disulfide	U		0.00468	0.0144	1.07	09/10/2018 12:18	WG1163811	
Carbon tetrachloride	U	J4	0.00125	0.00577	1.07	09/10/2018 12:18	WG1163811	
Chlorobenzene	U		0.000661	0.00289	1.07	09/10/2018 12:18	WG1163811	
Chlorodibromomethane	U		0.000520	0.00289	1.07	09/10/2018 12:18	WG1163811	
Chloroethane	U		0.00125	0.00577	1.07	09/10/2018 12:18	WG1163811	
Chloroform	U		0.000479	0.00289	1.07	09/10/2018 12:18	WG1163811	
Chloromethane	U		0.00161	0.0144	1.07	09/10/2018 12:18	WG1163811	
2-Chlorotoluene	U		0.00106	0.00289	1.07	09/10/2018 12:18	WG1163811	
4-Chlorotoluene	0.00193 J	J	0.00131	0.00577	1.07	09/10/2018 12:18	WG1163811	
1,2-Dibromo-3-Chloropropane	U		0.00589	0.0289	1.07	09/10/2018 12:18	WG1163811	
1,2-Dibromoethane	U		0.000606	0.00289	1.07	09/10/2018 12:18	WG1163811	
Dibromomethane	U		0.00115	0.00577	1.07	09/10/2018 12:18	WG1163811	
1,2-Dichlorobenzene	U		0.00167	0.00577	1.07	09/10/2018 12:18	WG1163811	
1,3-Dichlorobenzene	U		0.00196	0.00577	1.07	09/10/2018 12:18	WG1163811	
1,4-Dichlorobenzene	U		0.00228	0.00577	1.07	09/10/2018 12:18	WG1163811	
Dichlorodifluoromethane	U		0.000944	0.00289	1.07	09/10/2018 12:18	WG1163811	
1,1-Dichloroethane	U		0.000664	0.00289	1.07	09/10/2018 12:18	WG1163811	
1,2-Dichloroethane	U		0.000548	0.00289	1.07	09/10/2018 12:18	WG1163811	
1,1-Dichloroethene	0.00263 J	J	0.000577	0.00289	1.07	09/10/2018 12:18	WG1163811	
cis-1,2-Dichloroethene	0.305		0.000796	0.00289	1.07	09/10/2018 12:18	WG1163811	
trans-1,2-Dichloroethene	U		0.00165	0.00577	1.07	09/10/2018 12:18	WG1163811	
1,2-Dichloropropane	U		0.0581	0.229	42.4	09/10/2018 17:39	WG1163971	
1,1-Dichloropropene	U		0.000808	0.00289	1.07	09/10/2018 12:18	WG1163811	
1,3-Dichloropropane	U		0.00202	0.00577	1.07	09/10/2018 12:18	WG1163811	
cis-1,3-Dichloropropene	U		0.000782	0.00289	1.07	09/10/2018 12:18	WG1163811	
trans-1,3-Dichloropropene	U		0.00177	0.00577	1.07	09/10/2018 12:18	WG1163811	
trans-1,4-Dichloro-2-butene	U		0.00162	0.00577	1.07	09/10/2018 12:18	WG1163811	
2,2-Dichloropropane	U		0.000915	0.00289	1.07	09/10/2018 12:18	WG1163811	
Di-isopropyl ether	U		0.000404	0.00115	1.07	09/10/2018 12:18	WG1163811	
Ethylbenzene	0.00123 J	J	0.000612	0.00289	1.07	09/10/2018 12:18	WG1163811	
Hexachloro-1,3-butadiene	U		0.0147	0.0289	1.07	09/10/2018 12:18	WG1163811	
2-Hexanone	U		0.0115	0.0289	1.07	09/10/2018 12:18	WG1163811	
n-Hexane	U		0.00122	0.00577	1.07	09/10/2018 12:18	WG1163811	
Iodomethane	U		0.00698	0.0144	1.07	09/10/2018 12:18	WG1163811	
Isopropylbenzene	U		0.000996	0.00289	1.07	09/10/2018 12:18	WG1163811	
p-Isopropyltoluene	U		0.00269	0.00577	1.07	09/10/2018 12:18	WG1163811	
2-Butanone (MEK)	0.0342		0.0145	0.0289	1.07	09/10/2018 12:18	WG1163811	
Methylene Chloride	U		0.00766	0.0289	1.07	09/10/2018 12:18	WG1163811	
4-Methyl-2-pentanone (MIBK)	U		0.0115	0.0289	1.07	09/10/2018 12:18	WG1163811	JC 10/19/18

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

Analyte	Result (dry) mg/kg		Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U			0.000341	0.00115	1.07	09/10/2018 12:18	WG1163811
Naphthalene	U			0.00360	0.0144	1.07	09/10/2018 12:18	WG1163811
n-Propylbenzene	0.00179	J	J	0.00136	0.00577	1.07	09/10/2018 12:18	WG1163811
Styrene	U			0.00315	0.0144	1.07	09/10/2018 12:18	WG1163811
1,1,1,2-Tetrachloroethane	U			0.000577	0.00289	1.07	09/10/2018 12:18	WG1163811
1,1,2,2-Tetrachloroethane	U			0.000450	0.00289	1.07	09/10/2018 12:18	WG1163811
1,1,2-Trichlorotrifluoroethane	U			0.000779	0.00289	1.07	09/10/2018 12:18	WG1163811
Tetrachloroethene	14.5			0.0320	0.114	42.4	09/10/2018 17:39	WG1163971
Toluene	0.00954			0.00145	0.00577	1.07	09/10/2018 12:18	WG1163811
1,2,3-Trichlorobenzene	U			0.000722	0.00289	1.07	09/10/2018 12:18	WG1163811
1,2,4-Trichlorobenzene	U			0.00557	0.0144	1.07	09/10/2018 12:18	WG1163811
1,1,1-Trichloroethane	U			0.000317	0.00289	1.07	09/10/2018 12:18	WG1163811
1,1,2-Trichloroethane	U			0.00102	0.00289	1.07	09/10/2018 12:18	WG1163811
Trichloroethene	0.708			0.0183	0.0458	42.4	09/10/2018 17:39	WG1163971
Trichlorofluoromethane	U			0.000577	0.00289	1.07	09/10/2018 12:18	WG1163811
1,2,3-Trichloropropane	U			0.00589	0.0144	1.07	09/10/2018 12:18	WG1163811
1,2,4-Trimethylbenzene	0.0107			0.00134	0.00577	1.07	09/10/2018 12:18	WG1163811
1,2,3-Trimethylbenzene	0.00278	J	J	0.00133	0.00577	1.07	09/10/2018 12:18	WG1163811
1,3,5-Trimethylbenzene	0.00366	J	J	0.00125	0.00577	1.07	09/10/2018 12:18	WG1163811
Vinyl acetate	U		J3	0.00407	0.0144	1.07	09/10/2018 12:18	WG1163811
Vinyl chloride	U			0.000789	0.00289	1.07	09/10/2018 12:18	WG1163811
Xylenes, Total	U			0.219	0.297	42.4	09/10/2018 17:39	WG1163971
(S) Toluene-d8	*97.4*				*75.0-131*		*09/10/2018 12:18*	WG1163811
(S) Toluene-d8	*98.9*				*75.0-131*		*09/10/2018 17:39*	WG1163971
(S) Dibromofluoromethane	*93.0*				*65.0-129*		*09/10/2018 12:18*	WG1163811
(S) Dibromofluoromethane	*115*				*65.0-129*		*09/10/2018 17:39*	WG1163971
(S) 4-Bromofluorobenzene	*98.7*				*67.0-138*		*09/10/2018 12:18*	WG1163811
(S) 4-Bromofluorobenzene	*90.9*				*67.0-138*		*09/10/2018 17:39*	WG1163971

Sample Narrative:

L1022679-01 WG1163811, WG1163971: Not all compounds reportable from 1x dilution.

L1022679-01 WG1163811, WG1163971: Cannot be reanalyzed at a lower dilution due to high levels of target analytes.

JC 10/19/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	82.6		1	09/10/2018 13:20	WG1163747

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0166	0.0303	1	09/10/2018 12:37	WG1163811
Acrylonitrile	U		0.00230	0.0151	1	09/10/2018 12:37	WG1163811
Benzene	U		0.000484	0.00121	1	09/10/2018 12:37	WG1163811
Bromobenzene	U		0.00127	0.0151	1	09/10/2018 12:37	WG1163811
Bromodichloromethane	U	J4	0.000954	0.00303	1	09/10/2018 12:37	WG1163811
Bromochloromethane	U		0.00137	0.00606	1	09/10/2018 12:37	WG1163811
Bromoform	U		0.00724	0.0303	1	09/10/2018 12:37	WG1163811
Bromomethane	U		0.00448	0.0151	1	09/10/2018 12:37	WG1163811
n-Butylbenzene	U		0.00465	0.0151	1	09/10/2018 12:37	WG1163811
sec-Butylbenzene	U		0.00306	0.0151	1	09/10/2018 12:37	WG1163811
tert-Butylbenzene	U		0.00188	0.00606	1	09/10/2018 12:37	WG1163811
Carbon disulfide	0.00695 J	J	0.00492	0.0151	1	09/10/2018 12:37	WG1163811
Carbon tetrachloride	U	J4	0.00131	0.00606	1	09/10/2018 12:37	WG1163811
Chlorobenzene	U		0.000694	0.00303	1	09/10/2018 12:37	WG1163811
Chlorodibromomethane	U		0.000545	0.00303	1	09/10/2018 12:37	WG1163811
Chloroethane	U		0.00131	0.00606	1	09/10/2018 12:37	WG1163811
Chloroform	U		0.000503	0.00303	1	09/10/2018 12:37	WG1163811
Chloromethane	U		0.00168	0.0151	1	09/10/2018 12:37	WG1163811
2-Chlorotoluene	U		0.00111	0.00303	1	09/10/2018 12:37	WG1163811
4-Chlorotoluene	U		0.00137	0.00606	1	09/10/2018 12:37	WG1163811
1,2-Dibromo-3-Chloropropane	U		0.00618	0.0303	1	09/10/2018 12:37	WG1163811
1,2-Dibromoethane	U		0.000636	0.00303	1	09/10/2018 12:37	WG1163811
Dibromomethane	U		0.00121	0.00606	1	09/10/2018 12:37	WG1163811
1,2-Dichlorobenzene	U		0.00176	0.00606	1	09/10/2018 12:37	WG1163811
1,3-Dichlorobenzene	U		0.00206	0.00606	1	09/10/2018 12:37	WG1163811
1,4-Dichlorobenzene	U		0.00239	0.00606	1	09/10/2018 12:37	WG1163811
Dichlorodifluoromethane	U		0.000991	0.00303	1	09/10/2018 12:37	WG1163811
1,1-Dichloroethane	U		0.000696	0.00303	1	09/10/2018 12:37	WG1163811
1,2-Dichloroethane	U		0.000575	0.00303	1	09/10/2018 12:37	WG1163811
1,1-Dichloroethene	0.00765		0.000606	0.00303	1	09/10/2018 12:37	WG1163811
cis-1,2-Dichloroethene	0.975		0.000836	0.00303	1	09/10/2018 12:37	WG1163811
trans-1,2-Dichloroethene	U		0.00173	0.00606	1	09/10/2018 12:37	WG1163811
1,2-Dichloropropane	U		0.0615	0.242	40	09/10/2018 17:58	WG1163971
1,1-Dichloropropene	U		0.000848	0.00303	1	09/10/2018 12:37	WG1163811
1,3-Dichloropropane	U		0.00212	0.00606	1	09/10/2018 12:37	WG1163811
cis-1,3-Dichloropropene	U		0.000821	0.00303	1	09/10/2018 12:37	WG1163811
trans-1,3-Dichloropropene	U		0.00185	0.00606	1	09/10/2018 12:37	WG1163811
trans-1,4-Dichloro-2-butene	U		0.00170	0.00606	1	09/10/2018 12:37	WG1163811
2,2-Dichloropropane	U		0.000961	0.00303	1	09/10/2018 12:37	WG1163811
Di-isopropyl ether	U		0.000424	0.00121	1	09/10/2018 12:37	WG1163811
Ethylbenzene	U		0.000642	0.00303	1	09/10/2018 12:37	WG1163811
Hexachloro-1,3-butadiene	U		0.0154	0.0303	1	09/10/2018 12:37	WG1163811
2-Hexanone	U		0.0121	0.0303	1	09/10/2018 12:37	WG1163811
n-Hexane	U		0.00128	0.00606	1	09/10/2018 12:37	WG1163811
Iodomethane	U		0.00733	0.0151	1	09/10/2018 12:37	WG1163811
Isopropylbenzene	U		0.00105	0.00303	1	09/10/2018 12:37	WG1163811
p-Isopropyltoluene	U		0.00282	0.00606	1	09/10/2018 12:37	WG1163811
2-Butanone (MEK)	0.0382		0.0151	0.0303	1	09/10/2018 12:37	WG1163811
Methylene Chloride	U		0.00804	0.0303	1	09/10/2018 12:37	WG1163811
4-Methyl-2-pentanone (MIBK)	U		0.0121	0.0303	1	09/10/2018 12:37	WG1163811

JC 10/19/18

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

Analyte	Result (dry) mg/kg		Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U			0.000357	0.00121	1	09/10/2018 12:37	WG1163811
Naphthalene	U			0.00378	0.0151	1	09/10/2018 12:37	WG1163811
n-Propylbenzene	U			0.00143	0.00606	1	09/10/2018 12:37	WG1163811
Styrene	U			0.00331	0.0151	1	09/10/2018 12:37	WG1163811
1,1,1,2-Tetrachloroethane	U			0.000606	0.00303	1	09/10/2018 12:37	WG1163811
1,1,2,2-Tetrachloroethane	U			0.000472	0.00303	1	09/10/2018 12:37	WG1163811
1,1,2-Trichlorotrifluoroethane	U			0.000818	0.00303	1	09/10/2018 12:37	WG1163811
Tetrachloroethene	16.6			0.0339	0.121	40	09/10/2018 17:58	WG1163971
Toluene	0.00182	J	J	0.00151	0.00606	1	09/10/2018 12:37	WG1163811
1,2,3-Trichlorobenzene	U			0.000757	0.00303	1	09/10/2018 12:37	WG1163811
1,2,4-Trichlorobenzene	U			0.00584	0.0151	1	09/10/2018 12:37	WG1163811
1,1,1-Trichloroethane	U			0.000333	0.00303	1	09/10/2018 12:37	WG1163811
1,1,2-Trichloroethane	U			0.00107	0.00303	1	09/10/2018 12:37	WG1163811
Trichloroethene	0.915			0.0194	0.0484	40	09/10/2018 17:58	WG1163971
Trichlorofluoromethane	U			0.000606	0.00303	1	09/10/2018 12:37	WG1163811
1,2,3-Trichloropropane	U			0.00618	0.0151	1	09/10/2018 12:37	WG1163811
1,2,4-Trimethylbenzene	0.00241	J	J	0.00141	0.00606	1	09/10/2018 12:37	WG1163811
1,2,3-Trimethylbenzene	U			0.00139	0.00606	1	09/10/2018 12:37	WG1163811
1,3,5-Trimethylbenzene	U			0.00131	0.00606	1	09/10/2018 12:37	WG1163811
Vinyl acetate	U		J3	0.00426	0.0151	1	09/10/2018 12:37	WG1163811
Vinyl chloride	0.00698			0.000827	0.00303	1	09/10/2018 12:37	WG1163811
Xylenes, Total	U			0.231	0.315	40	09/10/2018 17:58	WG1163971
(S) Toluene-d8	*79.8*				*75.0-131*		*09/10/2018 12:37*	WG1163811
(S) Toluene-d8	*96.7*				*75.0-131*		*09/10/2018 17:58*	WG1163971
(S) Dibromofluoromethane	*94.4*				*65.0-129*		*09/10/2018 12:37*	WG1163811
(S) Dibromofluoromethane	*117*				*65.0-129*		*09/10/2018 17:58*	WG1163971
(S) 4-Bromofluorobenzene	*90.9*				*67.0-138*		*09/10/2018 12:37*	WG1163811
(S) 4-Bromofluorobenzene	*86.6*				*67.0-138*		*09/10/2018 17:58*	WG1163971

Sample Narrative:

L1022679-02 WG1163811, WG1163971: Not all compounds reportable from 1x dilution.

L1022679-02 WG1163811, WG1163971: Cannot be reanalyzed at a lower dilution due to high levels of target analytes.

JC 10/19/18

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	1.58	J	1.05	25.0	1	09/05/2018 16:43	WG1161708
Acrylonitrile	U		0.873	5.00	1	09/05/2018 16:43	WG1161708
Benzene	U		0.0896	0.500	1	09/05/2018 16:43	WG1161708
Bromobenzene	U		0.133	0.500	1	09/05/2018 16:43	WG1161708
Bromodichloromethane	U		0.0800	0.500	1	09/05/2018 16:43	WG1161708
Bromochloromethane	U		0.145	0.500	1	09/05/2018 16:43	WG1161708
Bromoform	U		0.186	0.500	1	09/05/2018 16:43	WG1161708
Bromomethane	U		0.157	2.50	1	09/05/2018 16:43	WG1161708
n-Butylbenzene	U		0.143	0.500	1	09/05/2018 16:43	WG1161708
sec-Butylbenzene	U		0.134	0.500	1	09/05/2018 16:43	WG1161708
tert-Butylbenzene	U		0.183	0.500	1	09/05/2018 16:43	WG1161708
Carbon disulfide	U		0.101	0.500	1	09/05/2018 16:43	WG1161708
Carbon tetrachloride	U		0.159	0.500	1	09/05/2018 16:43	WG1161708
Chlorobenzene	U		0.140	0.500	1	09/05/2018 16:43	WG1161708
Chlorodibromomethane	U		0.128	0.500	1	09/05/2018 16:43	WG1161708
Chloroethane	U		0.141	2.50	1	09/05/2018 16:43	WG1161708
Chloroform	U		0.0860	0.500	1	09/05/2018 16:43	WG1161708
Chloromethane	U		0.153	1.25	1	09/05/2018 16:43	WG1161708
2-Chlorotoluene	U		0.111	0.500	1	09/05/2018 16:43	WG1161708
4-Chlorotoluene	U		0.0972	0.500	1	09/05/2018 16:43	WG1161708
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	09/05/2018 16:43	WG1161708
1,2-Dibromoethane	U		0.193	0.500	1	09/05/2018 16:43	WG1161708
Dibromomethane	U		0.117	0.500	1	09/05/2018 16:43	WG1161708
1,2-Dichlorobenzene	U		0.101	0.500	1	09/05/2018 16:43	WG1161708
1,3-Dichlorobenzene	U		0.130	0.500	1	09/05/2018 16:43	WG1161708
1,4-Dichlorobenzene	U		0.121	0.500	1	09/05/2018 16:43	WG1161708
Dichlorodifluoromethane	U		0.127	2.50	1	09/05/2018 16:43	WG1161708
1,1-Dichloroethane	U		0.114	0.500	1	09/05/2018 16:43	WG1161708
1,2-Dichloroethane	U		0.108	0.500	1	09/05/2018 16:43	WG1161708
1,1-Dichloroethene	U		0.188	0.500	1	09/05/2018 16:43	WG1161708
cis-1,2-Dichloroethene	U		0.0933	0.500	1	09/06/2018 02:34	WG1162010
trans-1,2-Dichloroethene	U		0.152	0.500	1	09/05/2018 16:43	WG1161708
1,2-Dichloropropane	U		0.190	0.500	1	09/05/2018 16:43	WG1161708
1,1-Dichloropropene	U		0.128	0.500	1	09/05/2018 16:43	WG1161708
1,3-Dichloropropane	U		0.147	1.00	1	09/05/2018 16:43	WG1161708
cis-1,3-Dichloropropene	U		0.0976	0.500	1	09/05/2018 16:43	WG1161708
trans-1,3-Dichloropropene	U		0.222	0.500	1	09/05/2018 16:43	WG1161708
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	09/05/2018 16:43	WG1161708
2,2-Dichloropropane	U		0.0929	0.500	1	09/05/2018 16:43	WG1161708
Di-isopropyl ether	U		0.0924	0.500	1	09/05/2018 16:43	WG1161708
Ethylbenzene	U		0.158	0.500	1	09/05/2018 16:43	WG1161708
Hexachloro-1,3-butadiene	U		0.157	1.00	1	09/05/2018 16:43	WG1161708
2-Hexanone	U		0.757	5.00	1	09/05/2018 16:43	WG1161708
n-Hexane	U		0.305	5.00	1	09/05/2018 16:43	WG1161708
Iodomethane	U		0.377	10.0	1	09/06/2018 02:34	WG1162010
Isopropylbenzene	U		0.126	0.500	1	09/05/2018 16:43	WG1161708
p-Isopropyltoluene	U		0.138	0.500	1	09/05/2018 16:43	WG1161708
2-Butanone (MEK)	U		1.28	5.00	1	09/05/2018 16:43	WG1161708
Methylene Chloride	U		1.07	2.50	1	09/05/2018 16:43	WG1161708
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	09/05/2018 16:43	WG1161708
Methyl tert-butyl ether	U		0.102	0.500	1	09/05/2018 16:43	WG1161708
Naphthalene	U		0.174	2.50	1	09/05/2018 16:43	WG1161708
n-Propylbenzene	U		0.162	0.500	1	09/05/2018 16:43	WG1161708
Styrene	U		0.117	0.500	1	09/05/2018 16:43	WG1161708
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	09/05/2018 16:43	WG1161708
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	09/05/2018 16:43	WG1161708

JC 10/19/18

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	09/05/2018 16:43	WG1161708
Tetrachloroethene	U		0.199	0.500	1	09/05/2018 16:43	WG1161708
Toluene	U		0.412	0.500	1	09/05/2018 16:43	WG1161708
1,2,3-Trichlorobenzene	U		0.164	0.500	1	09/05/2018 16:43	WG1161708
1,2,4-Trichlorobenzene	U		0.355	0.500	1	09/05/2018 16:43	WG1161708
1,1,1-Trichloroethane	U		0.0940	0.500	1	09/05/2018 16:43	WG1161708
1,1,2-Trichloroethane	U		0.186	0.500	1	09/05/2018 16:43	WG1161708
Trichloroethene	U		0.153	0.500	1	09/05/2018 16:43	WG1161708
Trichlorofluoromethane	U		0.130	2.50	1	09/05/2018 16:43	WG1161708
1,2,3-Trichloropropane	U		0.247	2.50	1	09/05/2018 16:43	WG1161708
1,2,4-Trimethylbenzene	U		0.123	0.500	1	09/05/2018 16:43	WG1161708
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	09/05/2018 16:43	WG1161708
1,3,5-Trimethylbenzene	U		0.124	0.500	1	09/05/2018 16:43	WG1161708
Vinyl acetate	U		0.645	5.00	1	09/05/2018 16:43	WG1161708
Vinyl chloride	U		0.118	0.500	1	09/05/2018 16:43	WG1161708
Xylenes, Total	U		0.316	1.50	1	09/05/2018 16:43	WG1161708
(S) Toluene-d8	*102*			*80.0-120*		*09/05/2018 16:43*	WG1161708
(S) Toluene-d8	*102*			*80.0-120*		*09/06/2018 02:34*	WG1162010
(S) Dibromofluoromethane	*96.4*			*75.0-120*		*09/05/2018 16:43*	WG1161708
(S) Dibromofluoromethane	*105*			*75.0-120*		*09/06/2018 02:34*	WG1162010
(S) 4-Bromofluorobenzene	*108*			*77.0-126*		*09/05/2018 16:43*	WG1161708
(S) 4-Bromofluorobenzene	*99.9*			*77.0-126*		*09/06/2018 02:34*	WG1162010

JC 10/19/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	83.5		1	09/13/2018 12:19	WG1165172

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	0.0193 U	J	0.0164	0.0299	1	09/12/2018 04:30	WG1164600
Acrylonitrile	U		0.00227	0.0150	1	09/12/2018 04:30	WG1164600
Benzene	U		0.000479	0.00120	1	09/12/2018 04:30	WG1164600
Bromobenzene	U		0.00126	0.0150	1	09/12/2018 04:30	WG1164600
Bromodichloromethane	U		0.000943	0.00299	1	09/12/2018 04:30	WG1164600
Bromochloromethane	U		0.00135	0.00598	1	09/12/2018 04:30	WG1164600
Bromoform	U		0.00716	0.0299	1	09/12/2018 04:30	WG1164600
Bromomethane	U		0.00443	0.0150	1	09/12/2018 04:30	WG1164600
n-Butylbenzene	0.00802 J	J	0.00460	0.0150	1	09/12/2018 04:30	WG1164600
sec-Butylbenzene	0.00399 J	J	0.00303	0.0150	1	09/12/2018 04:30	WG1164600
tert-Butylbenzene	0.00248 J	J	0.00186	0.00598	1	09/12/2018 04:30	WG1164600
Carbon disulfide	U		0.00486	0.0150	1	09/12/2018 04:30	WG1164600
Carbon tetrachloride	U		0.00129	0.00598	1	09/12/2018 04:30	WG1164600
Chlorobenzene	U		0.000686	0.00299	1	09/12/2018 04:30	WG1164600
Chlorodibromomethane	U		0.000539	0.00299	1	09/12/2018 04:30	WG1164600
Chloroethane	U		0.00129	0.00598	1	09/12/2018 04:30	WG1164600
Chloroform	U		0.000497	0.00299	1	09/12/2018 04:30	WG1164600
Chloromethane	U		0.00166	0.0150	1	09/12/2018 04:30	WG1164600
2-Chlorotoluene	U		0.00110	0.00299	1	09/12/2018 04:30	WG1164600
4-Chlorotoluene	U		0.00135	0.00598	1	09/12/2018 04:30	WG1164600
1,2-Dibromo-3-Chloropropane	U		0.00610	0.0299	1	09/12/2018 04:30	WG1164600
1,2-Dibromoethane	U		0.000628	0.00299	1	09/12/2018 04:30	WG1164600
Dibromomethane	U		0.00120	0.00598	1	09/12/2018 04:30	WG1164600
1,2-Dichlorobenzene	U		0.00174	0.00598	1	09/12/2018 04:30	WG1164600
1,3-Dichlorobenzene	U		0.00203	0.00598	1	09/12/2018 04:30	WG1164600
1,4-Dichlorobenzene	U		0.00236	0.00598	1	09/12/2018 04:30	WG1164600
Dichlorodifluoromethane	U		0.000979	0.00299	1	09/12/2018 04:30	WG1164600
1,1-Dichloroethane	U		0.000688	0.00299	1	09/12/2018 04:30	WG1164600
1,2-Dichloroethane	U		0.000569	0.00299	1	09/12/2018 04:30	WG1164600
1,1-Dichloroethene	0.0116		0.000598	0.00299	1	09/12/2018 04:30	WG1164600
cis-1,2-Dichloroethene	8.86		0.330	1.20	400	09/13/2018 03:50	WG1165154
trans-1,2-Dichloroethene	0.0116 J	J0	0.00171	0.00598	1	09/12/2018 04:30	WG1164600
1,2-Dichloropropane	U		0.608	2.39	400	09/13/2018 03:50	WG1165154
1,1-Dichloropropene	U		0.000838	0.00299	1	09/12/2018 04:30	WG1164600
1,3-Dichloropropane	U		0.00209	0.00598	1	09/12/2018 04:30	WG1164600
cis-1,3-Dichloropropene	U		0.000812	0.00299	1	09/12/2018 04:30	WG1164600
trans-1,3-Dichloropropene	U		0.00183	0.00598	1	09/12/2018 04:30	WG1164600
trans-1,4-Dichloro-2-butene	U		0.00168	0.00598	1	09/12/2018 04:30	WG1164600
2,2-Dichloropropane	U		0.000949	0.00299	1	09/12/2018 04:30	WG1164600
Di-isopropyl ether	U		0.000419	0.00120	1	09/12/2018 04:30	WG1164600
Ethylbenzene	0.00266 J	J	0.000634	0.00299	1	09/12/2018 04:30	WG1164600
Hexachloro-1,3-butadiene	U		0.0152	0.0299	1	09/12/2018 04:30	WG1164600
2-Hexanone	U		0.0120	0.0299	1	09/12/2018 04:30	WG1164600
n-Hexane	U UJ	J0	0.00127	0.00598	1	09/12/2018 04:30	WG1164600
Iodomethane	U		0.00724	0.0150	1	09/12/2018 04:30	WG1164600
Isopropylbenzene	0.00186 J	J	0.00103	0.00299	1	09/12/2018 04:30	WG1164600
p-Isopropyltoluene	0.00450 J	J	0.00279	0.00598	1	09/12/2018 04:30	WG1164600
2-Butanone (MEK)	U		0.0150	0.0299	1	09/12/2018 04:30	WG1164600
Methylene Chloride	U		0.00795	0.0299	1	09/12/2018 04:30	WG1164600
4-Methyl-2-pentanone (MIBK)	U		0.0120	0.0299	1	09/12/2018 04:30	WG1164600

JC 10/19/18

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000353	0.00120	1	09/12/2018 04:30	WG1164600
Naphthalene	0.0229		0.00373	0.0150	1	09/12/2018 04:30	WG1164600
n-Propylbenzene	0.00809		0.00141	0.00598	1	09/12/2018 04:30	WG1164600
Styrene	U		0.00327	0.0150	1	09/12/2018 04:30	WG1164600
1,1,1,2-Tetrachloroethane	U		0.000598	0.00299	1	09/12/2018 04:30	WG1164600
1,1,2,2-Tetrachloroethane	U		0.000467	0.00299	1	09/12/2018 04:30	WG1164600
1,1,2-Trichlorotrifluoroethane	U		0.323	1.20	400	09/13/2018 03:50	WG1165154
Tetrachloroethene	308		0.335	1.20	400	09/13/2018 03:50	WG1165154
Toluene	0.00716		0.00150	0.00598	1	09/12/2018 04:30	WG1164600
1,2,3-Trichlorobenzene	U		0.000748	0.00299	1	09/12/2018 04:30	WG1164600
1,2,4-Trichlorobenzene	U		0.00577	0.0150	1	09/12/2018 04:30	WG1164600
1,1,1-Trichloroethane	U		0.000329	0.00299	1	09/12/2018 04:30	WG1164600
1,1,2-Trichloroethane	U		0.00106	0.00299	1	09/12/2018 04:30	WG1164600
Trichloroethene	0.929		0.192	0.479	400	09/13/2018 03:50	WG1165154
Trichlorofluoromethane	U		0.000598	0.00299	1	09/12/2018 04:30	WG1164600
1,2,3-Trichloropropane	U		0.00610	0.0150	1	09/12/2018 04:30	WG1164600
1,2,4-Trimethylbenzene	0.0811		0.00139	0.00598	1	09/12/2018 04:30	WG1164600
1,2,3-Trimethylbenzene	0.0380		0.00138	0.00598	1	09/12/2018 04:30	WG1164600
1,3,5-Trimethylbenzene	0.0240		0.00129	0.00598	1	09/12/2018 04:30	WG1164600
Vinyl acetate	U	UJ J0	0.00421	0.0150	1	09/12/2018 04:30	WG1164600
Vinyl chloride	0.532		0.000818	0.00299	1	09/12/2018 04:30	WG1164600
Xylenes, Total	U		2.29	3.11	400	09/13/2018 03:50	WG1165154
(S) Toluene-d8	*105*			*75.0-131*		*09/12/2018 04:30*	WG1164600
(S) Toluene-d8	*98.6*			*75.0-131*		*09/13/2018 03:50*	WG1165154
(S) Dibromofluoromethane	*90.9*			*65.0-129*		*09/12/2018 04:30*	WG1164600
(S) Dibromofluoromethane	*106*			*65.0-129*		*09/13/2018 03:50*	WG1165154
(S) 4-Bromofluorobenzene	*106*			*67.0-138*		*09/12/2018 04:30*	WG1164600
(S) 4-Bromofluorobenzene	*96.7*			*67.0-138*		*09/13/2018 03:50*	WG1165154

Sample Narrative:

L1024338-01 WG1164600, WG1165154: Not all analytes reportable at lower dilution.

L1024338-01 WG1164600, WG1165154: Cannot be re-analyzed at a lower dilution due to high levels of target analytes.

JC 10/19/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	91.7		1	09/13/2018 12:19	WG1165172

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0149	0.0273	1	09/12/2018 04:49	WG1164600
Acrylonitrile	U		0.00207	0.0136	1	09/12/2018 04:49	WG1164600
Benzene	U		0.000436	0.00109	1	09/12/2018 04:49	WG1164600
Bromobenzene	U		0.00115	0.0136	1	09/12/2018 04:49	WG1164600
Bromodichloromethane	U		0.000860	0.00273	1	09/12/2018 04:49	WG1164600
Bromochloromethane	U		0.00123	0.00545	1	09/12/2018 04:49	WG1164600
Bromoform	U		0.00652	0.0273	1	09/12/2018 04:49	WG1164600
Bromomethane	U		0.00404	0.0136	1	09/12/2018 04:49	WG1164600
n-Butylbenzene	U		0.00419	0.0136	1	09/12/2018 04:49	WG1164600
sec-Butylbenzene	U		0.00276	0.0136	1	09/12/2018 04:49	WG1164600
tert-Butylbenzene	U		0.00169	0.00545	1	09/12/2018 04:49	WG1164600
Carbon disulfide	U		0.00443	0.0136	1	09/12/2018 04:49	WG1164600
Carbon tetrachloride	U		0.00118	0.00545	1	09/12/2018 04:49	WG1164600
Chlorobenzene	U		0.000625	0.00273	1	09/12/2018 04:49	WG1164600
Chlorodibromomethane	U		0.000491	0.00273	1	09/12/2018 04:49	WG1164600
Chloroethane	U		0.00118	0.00545	1	09/12/2018 04:49	WG1164600
Chloroform	U		0.000453	0.00273	1	09/12/2018 04:49	WG1164600
Chloromethane	U		0.00152	0.0136	1	09/12/2018 04:49	WG1164600
2-Chlorotoluene	U		0.00100	0.00273	1	09/12/2018 04:49	WG1164600
4-Chlorotoluene	U		0.00123	0.00545	1	09/12/2018 04:49	WG1164600
1,2-Dibromo-3-Chloropropane	U		0.00556	0.0273	1	09/12/2018 04:49	WG1164600
1,2-Dibromoethane	U		0.000573	0.00273	1	09/12/2018 04:49	WG1164600
Dibromomethane	U		0.00109	0.00545	1	09/12/2018 04:49	WG1164600
1,2-Dichlorobenzene	U		0.00158	0.00545	1	09/12/2018 04:49	WG1164600
1,3-Dichlorobenzene	U		0.00185	0.00545	1	09/12/2018 04:49	WG1164600
1,4-Dichlorobenzene	U		0.00215	0.00545	1	09/12/2018 04:49	WG1164600
Dichlorodifluoromethane	U		0.000892	0.00273	1	09/12/2018 04:49	WG1164600
1,1-Dichloroethane	U		0.000627	0.00273	1	09/12/2018 04:49	WG1164600
1,2-Dichloroethane	U		0.000518	0.00273	1	09/12/2018 04:49	WG1164600
1,1-Dichloroethene	U		0.000545	0.00273	1	09/12/2018 04:49	WG1164600
cis-1,2-Dichloroethene	U		1.51	5.45	2000	09/13/2018 04:10	WG1165154
trans-1,2-Dichloroethene	U	UJ J0	0.00156	0.00545	1	09/12/2018 04:49	WG1164600
1,2-Dichloropropane	U		2.77	10.9	2000	09/13/2018 04:10	WG1165154
1,1-Dichloropropene	U		0.000764	0.00273	1	09/12/2018 04:49	WG1164600
1,3-Dichloropropane	U		0.00191	0.00545	1	09/12/2018 04:49	WG1164600
cis-1,3-Dichloropropene	U		0.000740	0.00273	1	09/12/2018 04:49	WG1164600
trans-1,3-Dichloropropene	U		0.00167	0.00545	1	09/12/2018 04:49	WG1164600
trans-1,4-Dichloro-2-butene	U		0.00153	0.00545	1	09/12/2018 04:49	WG1164600
2,2-Dichloropropane	U		0.000865	0.00273	1	09/12/2018 04:49	WG1164600
Di-isopropyl ether	U		0.000382	0.00109	1	09/12/2018 04:49	WG1164600
Ethylbenzene	0.00226	J J	0.000578	0.00273	1	09/12/2018 04:49	WG1164600
Hexachloro-1,3-butadiene	U		0.0139	0.0273	1	09/12/2018 04:49	WG1164600
2-Hexanone	U		0.0109	0.0273	1	09/12/2018 04:49	WG1164600
n-Hexane	U	UJ J0	0.00116	0.00545	1	09/12/2018 04:49	WG1164600
Iodomethane	U		0.00660	0.0136	1	09/12/2018 04:49	WG1164600
Isopropylbenzene	0.000956	J J	0.000941	0.00273	1	09/12/2018 04:49	WG1164600
p-Isopropyltoluene	U		0.00254	0.00545	1	09/12/2018 04:49	WG1164600
2-Butanone (MEK)	0.0224	J J	0.0136	0.0273	1	09/12/2018 04:49	WG1164600
Methylene Chloride	U		0.00724	0.0273	1	09/12/2018 04:49	WG1164600
4-Methyl-2-pentanone (MIBK)	U		0.0109	0.0273	1	09/12/2018 04:49	WG1164600

JC 10/19/18

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000322	0.00109	1	09/12/2018 04:49	WG1164600
Naphthalene	U		0.00340	0.0136	1	09/12/2018 04:49	WG1164600
n-Propylbenzene	0.00358 J	J	0.00129	0.00545	1	09/12/2018 04:49	WG1164600
Styrene	U		0.00298	0.0136	1	09/12/2018 04:49	WG1164600
1,1,1,2-Tetrachloroethane	U		0.000545	0.00273	1	09/12/2018 04:49	WG1164600
1,1,2,2-Tetrachloroethane	U		0.000425	0.00273	1	09/12/2018 04:49	WG1164600
1,1,2-Trichlorotrifluoroethane	U		1.47	5.45	2000	09/13/2018 04:10	WG1165154
Tetrachloroethene	937		15.3	54.5	20000	09/13/2018 16:17	WG1165578
Toluene	0.00476 J	J	0.00136	0.00545	1	09/12/2018 04:49	WG1164600
1,2,3-Trichlorobenzene	U		0.000682	0.00273	1	09/12/2018 04:49	WG1164600
1,2,4-Trichlorobenzene	U		0.00526	0.0136	1	09/12/2018 04:49	WG1164600
1,1,1-Trichloroethane	U		0.000300	0.00273	1	09/12/2018 04:49	WG1164600
1,1,2-Trichloroethane	U		0.000963	0.00273	1	09/12/2018 04:49	WG1164600
Trichloroethene	0.922 J	J	0.873	2.18	2000	09/13/2018 04:10	WG1165154
Trichlorofluoromethane	U		0.000545	0.00273	1	09/12/2018 04:49	WG1164600
1,2,3-Trichloropropane	U		0.00556	0.0136	1	09/12/2018 04:49	WG1164600
1,2,4-Trimethylbenzene	0.00891		0.00127	0.00545	1	09/12/2018 04:49	WG1164600
1,2,3-Trimethylbenzene	U		0.00125	0.00545	1	09/12/2018 04:49	WG1164600
1,3,5-Trimethylbenzene	0.00290 J	J	0.00118	0.00545	1	09/12/2018 04:49	WG1164600
Vinyl acetate	U UJ	J0	0.00384	0.0136	1	09/12/2018 04:49	WG1164600
Vinyl chloride	0.00293		0.000745	0.00273	1	09/12/2018 04:49	WG1164600
Xylenes, Total	U		10.4	14.2	2000	09/13/2018 04:10	WG1165154
(S) Toluene-d8	*124*			*75.0-131*		*09/12/2018 04:49*	WG1164600
(S) Toluene-d8	*99.3*			*75.0-131*		*09/13/2018 04:10*	WG1165154
(S) Toluene-d8	*99.7*			*75.0-131*		*09/13/2018 16:17*	WG1165578
(S) Dibromofluoromethane	*90.0*			*65.0-129*		*09/12/2018 04:49*	WG1164600
(S) Dibromofluoromethane	*107*			*65.0-129*		*09/13/2018 04:10*	WG1165154
(S) Dibromofluoromethane	*105*			*65.0-129*		*09/13/2018 16:17*	WG1165578
(S) 4-Bromofluorobenzene	*98.1*			*67.0-138*		*09/12/2018 04:49*	WG1164600
(S) 4-Bromofluorobenzene	*103*			*67.0-138*		*09/13/2018 04:10*	WG1165154
(S) 4-Bromofluorobenzene	*106*			*67.0-138*		*09/13/2018 16:17*	WG1165578

Sample Narrative:

L1024338-02 WG1164600, WG1165154: Not all analytes reportable at lower dilution.

L1024338-02 WG1164600, WG1165154: Cannot be re-analyzed at a lower dilution due to high levels of target analytes.

JC 10/19/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	90.2		1	09/13/2018 12:19	WG1165172

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	0.0186 U	J	0.0152	0.0277	1	09/12/2018 05:08	WG1164600
Acrylonitrile	U		0.00211	0.0139	1	09/12/2018 05:08	WG1164600
Benzene	U		0.000444	0.00111	1	09/12/2018 05:08	WG1164600
Bromobenzene	U		0.00116	0.0139	1	09/12/2018 05:08	WG1164600
Bromodichloromethane	U		0.000874	0.00277	1	09/12/2018 05:08	WG1164600
Bromochloromethane	U		0.00125	0.00555	1	09/12/2018 05:08	WG1164600
Bromoform	U		0.00663	0.0277	1	09/12/2018 05:08	WG1164600
Bromomethane	U		0.00410	0.0139	1	09/12/2018 05:08	WG1164600
n-Butylbenzene	U		0.00426	0.0139	1	09/12/2018 05:08	WG1164600
sec-Butylbenzene	U		0.00281	0.0139	1	09/12/2018 05:08	WG1164600
tert-Butylbenzene	U		0.00172	0.00555	1	09/12/2018 05:08	WG1164600
Carbon disulfide	U		0.00450	0.0139	1	09/12/2018 05:08	WG1164600
Carbon tetrachloride	U		0.00120	0.00555	1	09/12/2018 05:08	WG1164600
Chlorobenzene	U		0.000636	0.00277	1	09/12/2018 05:08	WG1164600
Chlorodibromomethane	U		0.000499	0.00277	1	09/12/2018 05:08	WG1164600
Chloroethane	U		0.00120	0.00555	1	09/12/2018 05:08	WG1164600
Chloroform	U		0.000460	0.00277	1	09/12/2018 05:08	WG1164600
Chloromethane	U		0.00154	0.0139	1	09/12/2018 05:08	WG1164600
2-Chlorotoluene	U		0.00102	0.00277	1	09/12/2018 05:08	WG1164600
4-Chlorotoluene	U		0.00125	0.00555	1	09/12/2018 05:08	WG1164600
1,2-Dibromo-3-Chloropropane	U		0.00566	0.0277	1	09/12/2018 05:08	WG1164600
1,2-Dibromoethane	U		0.000582	0.00277	1	09/12/2018 05:08	WG1164600
Dibromomethane	U		0.00111	0.00555	1	09/12/2018 05:08	WG1164600
1,2-Dichlorobenzene	U		0.00161	0.00555	1	09/12/2018 05:08	WG1164600
1,3-Dichlorobenzene	U		0.00189	0.00555	1	09/12/2018 05:08	WG1164600
1,4-Dichlorobenzene	U		0.00219	0.00555	1	09/12/2018 05:08	WG1164600
Dichlorodifluoromethane	U		0.000907	0.00277	1	09/12/2018 05:08	WG1164600
1,1-Dichloroethane	U		0.000638	0.00277	1	09/12/2018 05:08	WG1164600
1,2-Dichloroethane	U		0.000527	0.00277	1	09/12/2018 05:08	WG1164600
1,1-Dichloroethene	U		0.000555	0.00277	1	09/12/2018 05:08	WG1164600
cis-1,2-Dichloroethene	0.0349		0.00765	0.0277	10	09/13/2018 15:59	WG1165578
trans-1,2-Dichloroethene	U UJ	J0	0.00159	0.00555	1	09/12/2018 05:08	WG1164600
1,2-Dichloropropane	U		0.0141	0.0555	10	09/13/2018 15:59	WG1165578
1,1-Dichloropropene	U		0.000776	0.00277	1	09/12/2018 05:08	WG1164600
1,3-Dichloropropane	U		0.00194	0.00555	1	09/12/2018 05:08	WG1164600
cis-1,3-Dichloropropene	U		0.000752	0.00277	1	09/12/2018 05:08	WG1164600
trans-1,3-Dichloropropene	U		0.00170	0.00555	1	09/12/2018 05:08	WG1164600
trans-1,4-Dichloro-2-butene	U		0.00155	0.00555	1	09/12/2018 05:08	WG1164600
2,2-Dichloropropane	U		0.000880	0.00277	1	09/12/2018 05:08	WG1164600
Di-isopropyl ether	U		0.000388	0.00111	1	09/12/2018 05:08	WG1164600
Ethylbenzene	U		0.000588	0.00277	1	09/12/2018 05:08	WG1164600
Hexachloro-1,3-butadiene	U		0.0141	0.0277	1	09/12/2018 05:08	WG1164600
2-Hexanone	U		0.0111	0.0277	1	09/12/2018 05:08	WG1164600
n-Hexane	U UJ	J0	0.00118	0.00555	1	09/12/2018 05:08	WG1164600
Iodomethane	U		0.00671	0.0139	1	09/12/2018 05:08	WG1164600
Isopropylbenzene	U		0.000957	0.00277	1	09/12/2018 05:08	WG1164600
p-Isopropyltoluene	U		0.00258	0.00555	1	09/12/2018 05:08	WG1164600
2-Butanone (MEK)	U		0.0139	0.0277	1	09/12/2018 05:08	WG1164600
Methylene Chloride	U		0.00737	0.0277	1	09/12/2018 05:08	WG1164600
4-Methyl-2-pentanone (MIBK)	U		0.0111	0.0277	1	09/12/2018 05:08	WG1164600

JC 10/19/18

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000327	0.00111	1	09/12/2018 05:08	WG1164600
Naphthalene	U		0.00346	0.0139	1	09/12/2018 05:08	WG1164600
n-Propylbenzene	U		0.00131	0.00555	1	09/12/2018 05:08	WG1164600
Styrene	U		0.00303	0.0139	1	09/12/2018 05:08	WG1164600
1,1,1,2-Tetrachloroethane	U		0.000555	0.00277	1	09/12/2018 05:08	WG1164600
1,1,2,2-Tetrachloroethane	U		0.000433	0.00277	1	09/12/2018 05:08	WG1164600
1,1,2-Trichlorotrifluoroethane	U		0.00749	0.0277	10	09/13/2018 15:59	WG1165578
Tetrachloroethene	2.21		0.00776	0.0277	10	09/13/2018 15:59	WG1165578
Toluene	U		0.00139	0.00555	1	09/12/2018 05:08	WG1164600
1,2,3-Trichlorobenzene	U		0.000693	0.00277	1	09/12/2018 05:08	WG1164600
1,2,4-Trichlorobenzene	U		0.00535	0.0139	1	09/12/2018 05:08	WG1164600
1,1,1-Trichloroethane	U		0.000305	0.00277	1	09/12/2018 05:08	WG1164600
1,1,2-Trichloroethane	U		0.000979	0.00277	1	09/12/2018 05:08	WG1164600
Trichloroethene	0.0456		0.00444	0.0111	10	09/13/2018 15:59	WG1165578
Trichlorofluoromethane	U		0.000555	0.00277	1	09/12/2018 05:08	WG1164600
1,2,3-Trichloropropane	U		0.00566	0.0139	1	09/12/2018 05:08	WG1164600
1,2,4-Trimethylbenzene	U		0.00129	0.00555	1	09/12/2018 05:08	WG1164600
1,2,3-Trimethylbenzene	U		0.00128	0.00555	1	09/12/2018 05:08	WG1164600
1,3,5-Trimethylbenzene	U		0.00120	0.00555	1	09/12/2018 05:08	WG1164600
Vinyl acetate	U UJ	J0	0.00390	0.0139	1	09/12/2018 05:08	WG1164600
Vinyl chloride	U		0.000758	0.00277	1	09/12/2018 05:08	WG1164600
Xylenes, Total	U		0.0530	0.0721	10	09/13/2018 15:59	WG1165578
(S) Toluene-d8	*108*			*75.0-131*		*09/12/2018 05:08*	WG1164600
(S) Toluene-d8	*101*			*75.0-131*		*09/13/2018 15:59*	WG1165578
(S) Dibromofluoromethane	*91.7*			*65.0-129*		*09/12/2018 05:08*	WG1164600
(S) Dibromofluoromethane	*110*			*65.0-129*		*09/13/2018 15:59*	WG1165578
(S) 4-Bromofluorobenzene	*98.6*			*67.0-138*		*09/12/2018 05:08*	WG1164600
(S) 4-Bromofluorobenzene	*103*			*67.0-138*		*09/13/2018 15:59*	WG1165578

Sample Narrative:

L1024338-03 WG1164600, WG1165578: Not all analytes reportable at lower dilution.

L1024338-03 WG1164600, WG1165578: Cannot be re-analyzed at a lower dilution due to high levels of target analytes.

JC 10/19/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	91.6		1	09/13/2018 11:53	WG1165176

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0149	0.0273	1	09/12/2018 05:27	WG1164600
Acrylonitrile	U		0.00207	0.0136	1	09/12/2018 05:27	WG1164600
Benzene	U		0.000436	0.00109	1	09/12/2018 05:27	WG1164600
Bromobenzene	U		0.00115	0.0136	1	09/12/2018 05:27	WG1164600
Bromodichloromethane	U		0.000860	0.00273	1	09/12/2018 05:27	WG1164600
Bromochloromethane	U		0.00123	0.00546	1	09/12/2018 05:27	WG1164600
Bromoform	U		0.00652	0.0273	1	09/12/2018 05:27	WG1164600
Bromomethane	U		0.00404	0.0136	1	09/12/2018 05:27	WG1164600
n-Butylbenzene	U		0.00419	0.0136	1	09/12/2018 05:27	WG1164600
sec-Butylbenzene	U		0.00276	0.0136	1	09/12/2018 05:27	WG1164600
tert-Butylbenzene	U		0.00169	0.00546	1	09/12/2018 05:27	WG1164600
Carbon disulfide	U		0.00443	0.0136	1	09/12/2018 05:27	WG1164600
Carbon tetrachloride	U		0.00118	0.00546	1	09/12/2018 05:27	WG1164600
Chlorobenzene	U		0.000625	0.00273	1	09/12/2018 05:27	WG1164600
Chlorodibromomethane	U		0.000491	0.00273	1	09/12/2018 05:27	WG1164600
Chloroethane	U		0.00118	0.00546	1	09/12/2018 05:27	WG1164600
Chloroform	U		0.000453	0.00273	1	09/12/2018 05:27	WG1164600
Chloromethane	U		0.00152	0.0136	1	09/12/2018 05:27	WG1164600
2-Chlorotoluene	U		0.00100	0.00273	1	09/12/2018 05:27	WG1164600
4-Chlorotoluene	U		0.00123	0.00546	1	09/12/2018 05:27	WG1164600
1,2-Dibromo-3-Chloropropane	U		0.00556	0.0273	1	09/12/2018 05:27	WG1164600
1,2-Dibromoethane	U		0.000573	0.00273	1	09/12/2018 05:27	WG1164600
Dibromomethane	U		0.00109	0.00546	1	09/12/2018 05:27	WG1164600
1,2-Dichlorobenzene	U		0.00158	0.00546	1	09/12/2018 05:27	WG1164600
1,3-Dichlorobenzene	U		0.00185	0.00546	1	09/12/2018 05:27	WG1164600
1,4-Dichlorobenzene	U		0.00215	0.00546	1	09/12/2018 05:27	WG1164600
Dichlorodifluoromethane	U		0.000893	0.00273	1	09/12/2018 05:27	WG1164600
1,1-Dichloroethane	U		0.000627	0.00273	1	09/12/2018 05:27	WG1164600
1,2-Dichloroethane	U		0.000518	0.00273	1	09/12/2018 05:27	WG1164600
1,1-Dichloroethene	0.00669		0.000546	0.00273	1	09/12/2018 05:27	WG1164600
cis-1,2-Dichloroethene	1.90		0.000753	0.00273	1	09/12/2018 05:27	WG1164600
trans-1,2-Dichloroethene	0.00612	J	J0	0.00156	0.00546	1	09/12/2018 05:27	WG1164600
1,2-Dichloropropane	1.13		0.0277	0.109	20	09/13/2018 04:50	WG1165154
1,1-Dichloropropene	U		0.000764	0.00273	1	09/12/2018 05:27	WG1164600
1,3-Dichloropropane	U		0.00191	0.00546	1	09/12/2018 05:27	WG1164600
cis-1,3-Dichloropropene	U		0.000740	0.00273	1	09/12/2018 05:27	WG1164600
trans-1,3-Dichloropropene	U		0.00167	0.00546	1	09/12/2018 05:27	WG1164600
trans-1,4-Dichloro-2-butene	U		0.00153	0.00546	1	09/12/2018 05:27	WG1164600
2,2-Dichloropropane	U		0.000865	0.00273	1	09/12/2018 05:27	WG1164600
Di-isopropyl ether	U		0.000382	0.00109	1	09/12/2018 05:27	WG1164600
Ethylbenzene	U		0.000578	0.00273	1	09/12/2018 05:27	WG1164600
Hexachloro-1,3-butadiene	U		0.0139	0.0273	1	09/12/2018 05:27	WG1164600
2-Hexanone	U		0.0109	0.0273	1	09/12/2018 05:27	WG1164600
n-Hexane	U	UJ	J0	0.00116	0.00546	1	09/12/2018 05:27	WG1164600
Iodomethane	U		0.00660	0.0136	1	09/12/2018 05:27	WG1164600
Isopropylbenzene	U		0.000942	0.00273	1	09/12/2018 05:27	WG1164600
p-Isopropyltoluene	U		0.00254	0.00546	1	09/12/2018 05:27	WG1164600
2-Butanone (MEK)	0.0152	J	J	0.0136	0.0273	1	09/12/2018 05:27	WG1164600
Methylene Chloride	U		0.00724	0.0273	1	09/12/2018 05:27	WG1164600
4-Methyl-2-pentanone (MIBK)	U		0.0109	0.0273	1	09/12/2018 05:27	WG1164600

JC 10/19/18

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000322	0.00109	1	09/12/2018 05:27	WG1164600
Naphthalene	U		0.00340	0.0136	1	09/12/2018 05:27	WG1164600
n-Propylbenzene	U		0.00129	0.00546	1	09/12/2018 05:27	WG1164600
Styrene	U		0.00298	0.0136	1	09/12/2018 05:27	WG1164600
1,1,1,2-Tetrachloroethane	U		0.000546	0.00273	1	09/12/2018 05:27	WG1164600
1,1,2,2-Tetrachloroethane	U		0.000426	0.00273	1	09/12/2018 05:27	WG1164600
1,1,2-Trichlorotrifluoroethane	U		0.0147	0.0546	20	09/13/2018 04:50	WG1165154
Tetrachloroethene	11.0		0.0153	0.0546	20	09/13/2018 04:50	WG1165154
Toluene	0.00277 J	J	0.00136	0.00546	1	09/12/2018 05:27	WG1164600
1,2,3-Trichlorobenzene	U		0.000682	0.00273	1	09/12/2018 05:27	WG1164600
1,2,4-Trichlorobenzene	U		0.00526	0.0136	1	09/12/2018 05:27	WG1164600
1,1,1-Trichloroethane	U		0.000300	0.00273	1	09/12/2018 05:27	WG1164600
1,1,2-Trichloroethane	U		0.000963	0.00273	1	09/12/2018 05:27	WG1164600
Trichloroethene	4.48		0.00873	0.0218	20	09/13/2018 04:50	WG1165154
Trichlorofluoromethane	U		0.000546	0.00273	1	09/12/2018 05:27	WG1164600
1,2,3-Trichloropropane	U		0.00556	0.0136	1	09/12/2018 05:27	WG1164600
1,2,4-Trimethylbenzene	0.00251 J	J	0.00127	0.00546	1	09/12/2018 05:27	WG1164600
1,2,3-Trimethylbenzene	U		0.00125	0.00546	1	09/12/2018 05:27	WG1164600
1,3,5-Trimethylbenzene	U		0.00118	0.00546	1	09/12/2018 05:27	WG1164600
Vinyl acetate	U UJ	J0	0.00384	0.0136	1	09/12/2018 05:27	WG1164600
Vinyl chloride	U		0.000745	0.00273	1	09/12/2018 05:27	WG1164600
Xylenes, Total	U		0.104	0.142	20	09/13/2018 04:50	WG1165154
(S) Toluene-d8	*105*			*75.0-131*		*09/12/2018 05:27*	WG1164600
(S) Toluene-d8	*100*			*75.0-131*		*09/13/2018 04:50*	WG1165154
(S) Dibromofluoromethane	*93.5*			*65.0-129*		*09/12/2018 05:27*	WG1164600
(S) Dibromofluoromethane	*105*			*65.0-129*		*09/13/2018 04:50*	WG1165154
(S) 4-Bromofluorobenzene	*101*			*67.0-138*		*09/12/2018 05:27*	WG1164600
(S) 4-Bromofluorobenzene	*96.9*			*67.0-138*		*09/13/2018 04:50*	WG1165154

Sample Narrative:

L1024338-04 WG1164600, WG1165154: Not all analytes reportable at lower dilution.

L1024338-04 WG1164600, WG1165154: Cannot be re-analyzed at a lower dilution due to high levels of target analytes.

JC 10/19/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	84.8		1	09/13/2018 11:53	WG1165176

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0171	0.0313	1.06	09/12/2018 05:46	WG1164600
Acrylonitrile	U		0.00237	0.0156	1.06	09/12/2018 05:46	WG1164600
Benzene	0.000702	J J	0.000500	0.00125	1.06	09/12/2018 05:46	WG1164600
Bromobenzene	U		0.00131	0.0156	1.06	09/12/2018 05:46	WG1164600
Bromodichloromethane	U		0.000985	0.00313	1.06	09/12/2018 05:46	WG1164600
Bromochloromethane	U		0.00142	0.00625	1.06	09/12/2018 05:46	WG1164600
Bromoform	U		0.00748	0.0313	1.06	09/12/2018 05:46	WG1164600
Bromomethane	U		0.00462	0.0156	1.06	09/12/2018 05:46	WG1164600
n-Butylbenzene	U		0.00480	0.0156	1.06	09/12/2018 05:46	WG1164600
sec-Butylbenzene	U		0.00316	0.0156	1.06	09/12/2018 05:46	WG1164600
tert-Butylbenzene	U		0.00193	0.00625	1.06	09/12/2018 05:46	WG1164600
Carbon disulfide	U		0.00507	0.0156	1.06	09/12/2018 05:46	WG1164600
Carbon tetrachloride	U		0.00134	0.00625	1.06	09/12/2018 05:46	WG1164600
Chlorobenzene	U		0.000716	0.00313	1.06	09/12/2018 05:46	WG1164600
Chlorodibromomethane	U		0.000563	0.00313	1.06	09/12/2018 05:46	WG1164600
Chloroethane	U		0.00134	0.00625	1.06	09/12/2018 05:46	WG1164600
Chloroform	U		0.000519	0.00313	1.06	09/12/2018 05:46	WG1164600
Chloromethane	U		0.00173	0.0156	1.06	09/12/2018 05:46	WG1164600
2-Chlorotoluene	U		0.00115	0.00313	1.06	09/12/2018 05:46	WG1164600
4-Chlorotoluene	U		0.00142	0.00625	1.06	09/12/2018 05:46	WG1164600
1,2-Dibromo-3-Chloropropane	U		0.00638	0.0313	1.06	09/12/2018 05:46	WG1164600
1,2-Dibromoethane	U		0.000656	0.00313	1.06	09/12/2018 05:46	WG1164600
Dibromomethane	U		0.00125	0.00625	1.06	09/12/2018 05:46	WG1164600
1,2-Dichlorobenzene	U		0.00182	0.00625	1.06	09/12/2018 05:46	WG1164600
1,3-Dichlorobenzene	U		0.00212	0.00625	1.06	09/12/2018 05:46	WG1164600
1,4-Dichlorobenzene	U		0.00247	0.00625	1.06	09/12/2018 05:46	WG1164600
Dichlorodifluoromethane	U		0.00102	0.00313	1.06	09/12/2018 05:46	WG1164600
1,1-Dichloroethane	U		0.000720	0.00313	1.06	09/12/2018 05:46	WG1164600
1,2-Dichloroethane	U		0.000595	0.00313	1.06	09/12/2018 05:46	WG1164600
1,1-Dichloroethene	0.00379		0.000625	0.00313	1.06	09/12/2018 05:46	WG1164600
cis-1,2-Dichloroethene	1.02		0.000862	0.00313	1.06	09/12/2018 05:46	WG1164600
trans-1,2-Dichloroethene	U	UJ J0	0.00179	0.00625	1.06	09/12/2018 05:46	WG1164600
1,2-Dichloropropane	U		0.00157	0.00619	1.05	09/13/2018 03:30	WG1165154
1,1-Dichloropropene	U		0.000875	0.00313	1.06	09/12/2018 05:46	WG1164600
1,3-Dichloropropane	U		0.00219	0.00625	1.06	09/12/2018 05:46	WG1164600
cis-1,3-Dichloropropene	U		0.000848	0.00313	1.06	09/12/2018 05:46	WG1164600
trans-1,3-Dichloropropene	U		0.00191	0.00625	1.06	09/12/2018 05:46	WG1164600
trans-1,4-Dichloro-2-butene	U		0.00175	0.00625	1.06	09/12/2018 05:46	WG1164600
2,2-Dichloropropane	U		0.000991	0.00313	1.06	09/12/2018 05:46	WG1164600
Di-isopropyl ether	U		0.000438	0.00125	1.06	09/12/2018 05:46	WG1164600
Ethylbenzene	U		0.000663	0.00313	1.06	09/12/2018 05:46	WG1164600
Hexachloro-1,3-butadiene	U		0.0159	0.0313	1.06	09/12/2018 05:46	WG1164600
2-Hexanone	U		0.0125	0.0313	1.06	09/12/2018 05:46	WG1164600
n-Hexane	U	UJ J0	0.00132	0.00625	1.06	09/12/2018 05:46	WG1164600
Iodomethane	U		0.00756	0.0156	1.06	09/12/2018 05:46	WG1164600
Isopropylbenzene	U		0.00108	0.00313	1.06	09/12/2018 05:46	WG1164600
p-Isopropyltoluene	U		0.00291	0.00625	1.06	09/12/2018 05:46	WG1164600
2-Butanone (MEK)	0.0350		0.0156	0.0313	1.06	09/12/2018 05:46	WG1164600
Methylene Chloride	U		0.00830	0.0313	1.06	09/12/2018 05:46	WG1164600
4-Methyl-2-pentanone (MIBK)	U		0.0125	0.0313	1.06	09/12/2018 05:46	WG1164600

JC 10/19/18

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000369	0.00125	1.06	09/12/2018 05:46	WG1164600
Naphthalene	U		0.00390	0.0156	1.06	09/12/2018 05:46	WG1164600
n-Propylbenzene	U		0.00147	0.00625	1.06	09/12/2018 05:46	WG1164600
Styrene	U		0.00341	0.0156	1.06	09/12/2018 05:46	WG1164600
1,1,1,2-Tetrachloroethane	U		0.000625	0.00313	1.06	09/12/2018 05:46	WG1164600
1,1,2,2-Tetrachloroethane	U		0.000487	0.00313	1.06	09/12/2018 05:46	WG1164600
1,1,2-Trichlorotrifluoroethane	U		0.000836	0.00310	1.05	09/13/2018 03:30	WG1165154
Tetrachloroethene	0.0689		0.000867	0.00310	1.05	09/13/2018 03:30	WG1165154
Toluene	0.00246 J	J	0.00156	0.00625	1.06	09/12/2018 05:46	WG1164600
1,2,3-Trichlorobenzene	U		0.000781	0.00313	1.06	09/12/2018 05:46	WG1164600
1,2,4-Trichlorobenzene	U		0.00603	0.0156	1.06	09/12/2018 05:46	WG1164600
1,1,1-Trichloroethane	U		0.000344	0.00313	1.06	09/12/2018 05:46	WG1164600
1,1,2-Trichloroethane	U		0.00110	0.00313	1.06	09/12/2018 05:46	WG1164600
Trichloroethene	0.0349		0.000495	0.00124	1.05	09/13/2018 03:30	WG1165154
Trichlorofluoromethane	U		0.000625	0.00313	1.06	09/12/2018 05:46	WG1164600
1,2,3-Trichloropropane	U		0.00638	0.0156	1.06	09/12/2018 05:46	WG1164600
1,2,4-Trimethylbenzene	U		0.00145	0.00625	1.06	09/12/2018 05:46	WG1164600
1,2,3-Trimethylbenzene	U		0.00144	0.00625	1.06	09/12/2018 05:46	WG1164600
1,3,5-Trimethylbenzene	U		0.00134	0.00625	1.06	09/12/2018 05:46	WG1164600
Vinyl acetate	U UJ	J0	0.00440	0.0156	1.06	09/12/2018 05:46	WG1164600
Vinyl chloride	0.0927		0.000854	0.00313	1.06	09/12/2018 05:46	WG1164600
Xylenes, Total	U		0.00592	0.00805	1.05	09/13/2018 03:30	WG1165154
(S) Toluene-d8	*90.7*			*75.0-131*		*09/12/2018 05:46*	WG1164600
(S) Toluene-d8	*110*			*75.0-131*		*09/13/2018 03:30*	WG1165154
(S) Dibromofluoromethane	*98.7*			*65.0-129*		*09/12/2018 05:46*	WG1164600
(S) Dibromofluoromethane	*87.8*			*65.0-129*		*09/13/2018 03:30*	WG1165154
(S) 4-Bromofluorobenzene	*95.7*			*67.0-138*		*09/12/2018 05:46*	WG1164600
(S) 4-Bromofluorobenzene	*109*			*67.0-138*		*09/13/2018 03:30*	WG1165154

JC 10/19/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	88.5		1	09/13/2018 11:53	WG1165176

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U	J3	0.0155	0.0283	1	09/12/2018 06:05	WG1164600
Acrylonitrile	U		0.00215	0.0141	1	09/12/2018 06:05	WG1164600
Benzene	0.000635 J	J	0.000452	0.00113	1	09/12/2018 06:05	WG1164600
Bromobenzene	U		0.00119	0.0141	1	09/12/2018 06:05	WG1164600
Bromodichloromethane	U		0.000891	0.00283	1	09/12/2018 06:05	WG1164600
Bromochloromethane	U		0.00128	0.00565	1	09/12/2018 06:05	WG1164600
Bromoform	U		0.00676	0.0283	1	09/12/2018 06:05	WG1164600
Bromomethane	U		0.00418	0.0141	1	09/12/2018 06:05	WG1164600
n-Butylbenzene	U		0.00434	0.0141	1	09/12/2018 06:05	WG1164600
sec-Butylbenzene	U		0.00286	0.0141	1	09/12/2018 06:05	WG1164600
tert-Butylbenzene	U		0.00175	0.00565	1	09/12/2018 06:05	WG1164600
Carbon disulfide	U		0.00459	0.0141	1	09/12/2018 06:05	WG1164600
Carbon tetrachloride	U		0.00122	0.00565	1	09/12/2018 06:05	WG1164600
Chlorobenzene	U		0.000648	0.00283	1	09/12/2018 06:05	WG1164600
Chlorodibromomethane	U		0.000509	0.00283	1	09/12/2018 06:05	WG1164600
Chloroethane	U		0.00122	0.00565	1	09/12/2018 06:05	WG1164600
Chloroform	U		0.000469	0.00283	1	09/12/2018 06:05	WG1164600
Chloromethane	U		0.00157	0.0141	1	09/12/2018 06:05	WG1164600
2-Chlorotoluene	U		0.00104	0.00283	1	09/12/2018 06:05	WG1164600
4-Chlorotoluene	U		0.00128	0.00565	1	09/12/2018 06:05	WG1164600
1,2-Dibromo-3-Chloropropane	U		0.00576	0.0283	1	09/12/2018 06:05	WG1164600
1,2-Dibromoethane	U		0.000593	0.00283	1	09/12/2018 06:05	WG1164600
Dibromomethane	U		0.00113	0.00565	1	09/12/2018 06:05	WG1164600
1,2-Dichlorobenzene	U		0.00164	0.00565	1	09/12/2018 06:05	WG1164600
1,3-Dichlorobenzene	U		0.00192	0.00565	1	09/12/2018 06:05	WG1164600
1,4-Dichlorobenzene	U		0.00223	0.00565	1	09/12/2018 06:05	WG1164600
Dichlorodifluoromethane	U		0.000925	0.00283	1	09/12/2018 06:05	WG1164600
1,1-Dichloroethane	U		0.000650	0.00283	1	09/12/2018 06:05	WG1164600
1,2-Dichloroethane	U		0.000537	0.00283	1	09/12/2018 06:05	WG1164600
1,1-Dichloroethene	0.0124		0.000565	0.00283	1	09/12/2018 06:05	WG1164600
cis-1,2-Dichloroethene	3.74		0.00780	0.0283	10	09/13/2018 05:09	WG1165154
trans-1,2-Dichloroethene	0.0101 J	J0	0.00162	0.00565	1	09/12/2018 06:05	WG1164600
1,2-Dichloropropane	U		0.0144	0.0565	10	09/13/2018 05:09	WG1165154
1,1-Dichloropropene	U		0.000791	0.00283	1	09/12/2018 06:05	WG1164600
1,3-Dichloropropane	U		0.00198	0.00565	1	09/12/2018 06:05	WG1164600
cis-1,3-Dichloropropene	U		0.000766	0.00283	1	09/12/2018 06:05	WG1164600
trans-1,3-Dichloropropene	U		0.00173	0.00565	1	09/12/2018 06:05	WG1164600
trans-1,4-Dichloro-2-butene	U		0.00158	0.00565	1	09/12/2018 06:05	WG1164600
2,2-Dichloropropane	U		0.000896	0.00283	1	09/12/2018 06:05	WG1164600
Di-isopropyl ether	U		0.000396	0.00113	1	09/12/2018 06:05	WG1164600
Ethylbenzene	U		0.000599	0.00283	1	09/12/2018 06:05	WG1164600
Hexachloro-1,3-butadiene	U		0.0144	0.0283	1	09/12/2018 06:05	WG1164600
2-Hexanone	U		0.0113	0.0283	1	09/12/2018 06:05	WG1164600
n-Hexane	U UJ	J0	0.00120	0.00565	1	09/12/2018 06:05	WG1164600
Iodomethane	U		0.00684	0.0141	1	09/12/2018 06:05	WG1164600
Isopropylbenzene	U		0.000975	0.00283	1	09/12/2018 06:05	WG1164600
p-Isopropyltoluene	U		0.00263	0.00565	1	09/12/2018 06:05	WG1164600
2-Butanone (MEK)	U		0.0141	0.0283	1	09/12/2018 06:05	WG1164600
Methylene Chloride	U		0.00751	0.0283	1	09/12/2018 06:05	WG1164600
4-Methyl-2-pentanone (MIBK)	U		0.0113	0.0283	1	09/12/2018 06:05	WG1164600

JC 10/19/18

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000333	0.00113	1	09/12/2018 06:05	WG1164600
Naphthalene	U		0.00353	0.0141	1	09/12/2018 06:05	WG1164600
n-Propylbenzene	U		0.00133	0.00565	1	09/12/2018 06:05	WG1164600
Styrene	U		0.00309	0.0141	1	09/12/2018 06:05	WG1164600
1,1,1,2-Tetrachloroethane	U		0.000565	0.00283	1	09/12/2018 06:05	WG1164600
1,1,2,2-Tetrachloroethane	U		0.000441	0.00283	1	09/12/2018 06:05	WG1164600
1,1,2-Trichlorotrifluoroethane	U		0.00763	0.0283	10	09/13/2018 05:09	WG1165154
Tetrachloroethene	0.313		0.00791	0.0283	10	09/13/2018 05:09	WG1165154
Toluene	0.00380 J	J	0.00141	0.00565	1	09/12/2018 06:05	WG1164600
1,2,3-Trichlorobenzene	U		0.000706	0.00283	1	09/12/2018 06:05	WG1164600
1,2,4-Trichlorobenzene	U		0.00545	0.0141	1	09/12/2018 06:05	WG1164600
1,1,1-Trichloroethane	U		0.000311	0.00283	1	09/12/2018 06:05	WG1164600
1,1,2-Trichloroethane	U		0.000998	0.00283	1	09/12/2018 06:05	WG1164600
Trichloroethene	0.0257		0.00452	0.0113	10	09/13/2018 05:09	WG1165154
Trichlorofluoromethane	U		0.000565	0.00283	1	09/12/2018 06:05	WG1164600
1,2,3-Trichloropropane	U		0.00576	0.0141	1	09/12/2018 06:05	WG1164600
1,2,4-Trimethylbenzene	0.00191 J	J	0.00131	0.00565	1	09/12/2018 06:05	WG1164600
1,2,3-Trimethylbenzene	U		0.00130	0.00565	1	09/12/2018 06:05	WG1164600
1,3,5-Trimethylbenzene	U		0.00122	0.00565	1	09/12/2018 06:05	WG1164600
Vinyl acetate	U UJ	J0	0.00398	0.0141	1	09/12/2018 06:05	WG1164600
Vinyl chloride	0.176 J -	J6	0.000772	0.00283	1	09/12/2018 06:05	WG1164600
Xylenes, Total	U		0.0540	0.0735	10	09/13/2018 05:09	WG1165154
(S) Toluene-d8	*94.9*			*75.0-131*		*09/12/2018 06:05*	WG1164600
(S) Toluene-d8	*102*			*75.0-131*		*09/13/2018 05:09*	WG1165154
(S) Dibromofluoromethane	*94.5*			*65.0-129*		*09/12/2018 06:05*	WG1164600
(S) Dibromofluoromethane	*98.4*			*65.0-129*		*09/13/2018 05:09*	WG1165154
(S) 4-Bromofluorobenzene	*101*			*67.0-138*		*09/12/2018 06:05*	WG1164600
(S) 4-Bromofluorobenzene	*94.7*			*67.0-138*		*09/13/2018 05:09*	WG1165154

Sample Narrative:

L1024338-06 WG1164600, WG1165154: Not all analytes reportable at lower dilution.

L1024338-06 WG1164600, WG1165154: Cannot be re-analyzed at a lower dilution due to high levels of target analytes.

JC 10/19/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	87.3		1	09/13/2018 11:53	WG1165176

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0163	0.0298	1.04	09/17/2018 13:33	WG1166945
Acrylonitrile	U		0.00227	0.0149	1.04	09/17/2018 13:33	WG1166945
Benzene	0.000769 J	J	0.000476	0.00119	1.04	09/17/2018 13:33	WG1166945
Bromobenzene	U		0.00125	0.0149	1.04	09/17/2018 13:33	WG1166945
Bromodichloromethane	U		0.0939	0.298	104	09/17/2018 15:38	WG1167356
Bromochloromethane	U		0.00135	0.00595	1.04	09/17/2018 13:33	WG1166945
Bromoform	U		0.00712	0.0298	1.04	09/17/2018 13:33	WG1166945
Bromomethane	U		0.441	1.49	104	09/17/2018 15:38	WG1167356
n-Butylbenzene	0.00478 J	J	0.00457	0.0149	1.04	09/17/2018 13:33	WG1166945
sec-Butylbenzene	U		0.00301	0.0149	1.04	09/17/2018 13:33	WG1166945
tert-Butylbenzene	0.00213 J	J	0.00184	0.00595	1.04	09/17/2018 13:33	WG1166945
Carbon disulfide	0.00537 U	B J	0.00483	0.0149	1.04	09/17/2018 13:33	WG1166945
Carbon tetrachloride	U		0.00128	0.00595	1.04	09/17/2018 13:33	WG1166945
Chlorobenzene	U		0.000682	0.00298	1.04	09/17/2018 13:33	WG1166945
Chlorodibromomethane	U		0.000536	0.00298	1.04	09/17/2018 13:33	WG1166945
Chloroethane	U		0.00128	0.00595	1.04	09/17/2018 13:33	WG1166945
Chloroform	U		0.000495	0.00298	1.04	09/17/2018 13:33	WG1166945
Chloromethane	U		0.00165	0.0149	1.04	09/17/2018 13:33	WG1166945
2-Chlorotoluene	U		0.00110	0.00298	1.04	09/17/2018 13:33	WG1166945
4-Chlorotoluene	U		0.00135	0.00595	1.04	09/17/2018 13:33	WG1166945
1,2-Dibromo-3-Chloropropane	U		0.00607	0.0298	1.04	09/17/2018 13:33	WG1166945
1,2-Dibromoethane	U UJ	J4	0.000625	0.00298	1.04	09/17/2018 13:33	WG1166945
Dibromomethane	U		0.00119	0.00595	1.04	09/17/2018 13:33	WG1166945
1,2-Dichlorobenzene	U		0.00173	0.00595	1.04	09/17/2018 13:33	WG1166945
1,3-Dichlorobenzene	U		0.00203	0.00595	1.04	09/17/2018 13:33	WG1166945
1,4-Dichlorobenzene	U UJ	J4	0.00235	0.00595	1.04	09/17/2018 13:33	WG1166945
Dichlorodifluoromethane	U		0.000974	0.00298	1.04	09/17/2018 13:33	WG1166945
1,1-Dichloroethane	U		0.000685	0.00298	1.04	09/17/2018 13:33	WG1166945
1,2-Dichloroethane	U		0.000566	0.00298	1.04	09/17/2018 13:33	WG1166945
1,1-Dichloroethene	0.00857		0.000595	0.00298	1.04	09/17/2018 13:33	WG1166945
cis-1,2-Dichloroethene	0.980		0.000822	0.00298	1.04	09/17/2018 13:33	WG1166945
trans-1,2-Dichloroethene	0.0424		0.00171	0.00595	1.04	09/17/2018 13:33	WG1166945
1,2-Dichloropropane	U		0.00151	0.00595	1.04	09/17/2018 13:33	WG1166945
1,1-Dichloropropene	U		0.000834	0.00298	1.04	09/17/2018 13:33	WG1166945
1,3-Dichloropropane	U		0.00208	0.00595	1.04	09/17/2018 13:33	WG1166945
cis-1,3-Dichloropropene	U		0.000807	0.00298	1.04	09/17/2018 13:33	WG1166945
trans-1,3-Dichloropropene	U		0.00182	0.00595	1.04	09/17/2018 13:33	WG1166945
trans-1,4-Dichloro-2-butene	U		0.00167	0.00595	1.04	09/17/2018 13:33	WG1166945
2,2-Dichloropropane	U		0.000945	0.00298	1.04	09/17/2018 13:33	WG1166945
Di-isopropyl ether	U		0.000417	0.00119	1.04	09/17/2018 13:33	WG1166945
Ethylbenzene	0.00186 J	J	0.000631	0.00298	1.04	09/17/2018 13:33	WG1166945
Hexachloro-1,3-butadiene	U		0.0151	0.0298	1.04	09/17/2018 13:33	WG1166945
2-Hexanone	U		0.0119	0.0298	1.04	09/17/2018 13:33	WG1166945
n-Hexane	U	J4	0.00126	0.00595	1.04	09/17/2018 13:33	WG1166945
Iodomethane	U UJ	J4	0.720	1.49	104	09/17/2018 15:38	WG1167356
Isopropylbenzene	0.00133 J	J	0.00103	0.00298	1.04	09/17/2018 13:33	WG1166945
p-Isopropyltoluene	0.00285 J	J	0.00277	0.00595	1.04	09/17/2018 13:33	WG1166945
2-Butanone (MEK)	0.0508		0.0149	0.0298	1.04	09/17/2018 13:33	WG1166945
Methylene Chloride	U		0.00790	0.0298	1.04	09/17/2018 13:33	WG1166945
4-Methyl-2-pentanone (MIBK)	U		0.0119	0.0298	1.04	09/17/2018 13:33	WG1166945

JC 10/19/18

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

Analyte	Result (dry) mg/kg		Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U			0.000352	0.00119	1.04	09/17/2018 13:33	WG1166945
Naphthalene	0.00586	J	J	0.00371	0.0149	1.04	09/17/2018 13:33	WG1166945
n-Propylbenzene	0.00290	J	J	0.00141	0.00595	1.04	09/17/2018 13:33	WG1166945
Styrene	U			0.00325	0.0149	1.04	09/17/2018 13:33	WG1166945
1,1,1,2-Tetrachloroethane	U			0.000595	0.00298	1.04	09/17/2018 13:33	WG1166945
1,1,2,2-Tetrachloroethane	U		J4	0.000465	0.00298	1.04	09/17/2018 13:33	WG1166945
1,1,2-Trichlorotrifluoroethane	U			0.000804	0.00298	1.04	09/17/2018 13:33	WG1166945
Tetrachloroethene	140			0.0834	0.298	104	09/17/2018 15:38	WG1167356
Toluene	0.00382	J	J	0.00149	0.00595	1.04	09/17/2018 13:33	WG1166945
1,2,3-Trichlorobenzene	U			0.000744	0.00298	1.04	09/17/2018 13:33	WG1166945
1,2,4-Trichlorobenzene	U			0.00574	0.0149	1.04	09/17/2018 13:33	WG1166945
1,1,1-Trichloroethane	U		J4	0.000327	0.00298	1.04	09/17/2018 13:33	WG1166945
1,1,2-Trichloroethane	U			0.00105	0.00298	1.04	09/17/2018 13:33	WG1166945
Trichloroethene	0.882			0.000476	0.00119	1.04	09/17/2018 13:33	WG1166945
Trichlorofluoromethane	U			0.000595	0.00298	1.04	09/17/2018 13:33	WG1166945
1,2,3-Trichloropropane	U			0.00607	0.0149	1.04	09/17/2018 13:33	WG1166945
1,2,4-Trimethylbenzene	0.0250			0.00139	0.00595	1.04	09/17/2018 13:33	WG1166945
1,2,3-Trimethylbenzene	0.00905			0.00137	0.00595	1.04	09/17/2018 13:33	WG1166945
1,3,5-Trimethylbenzene	0.00869			0.00128	0.00595	1.04	09/17/2018 13:33	WG1166945
Vinyl acetate	U			0.00419	0.0149	1.04	09/17/2018 13:33	WG1166945
Vinyl chloride	U			0.000813	0.00298	1.04	09/17/2018 13:33	WG1166945
Xylenes, Total	0.00785			0.00569	0.00774	1.04	09/17/2018 13:33	WG1166945
(S) Toluene-d8	*107*				*75.0-131*		*09/17/2018 13:33*	WG1166945
(S) Toluene-d8	*111*				*75.0-131*		*09/17/2018 15:38*	WG1167356
(S) Dibromofluoromethane	*116*				*65.0-129*		*09/17/2018 13:33*	WG1166945
(S) Dibromofluoromethane	*102*				*65.0-129*		*09/17/2018 15:38*	WG1167356
(S) 4-Bromofluorobenzene	*101*				*67.0-138*		*09/17/2018 13:33*	WG1166945
(S) 4-Bromofluorobenzene	*106*				*67.0-138*		*09/17/2018 15:38*	WG1167356

Sample Narrative:

L1024338-07 WG1166945, WG1167356: Not all analytes reportable at lower dilution.

L1024338-07 WG1166945, WG1167356: Cannot be re-analyzed at a lower dilution due to high levels of target analytes.

JC 10/19/18

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

Analyte	Result	Qualifier		MDL	RDL	Dilution	Analysis	Batch
	ug/l			ug/l	ug/l		date / time	
Acetone	1.29		J	1.05	25.0	1	09/13/2018 01:50	WG1164809
Acrylonitrile	U			0.873	5.00	1	09/13/2018 01:50	WG1164809
Benzene	U			0.0896	0.500	1	09/13/2018 01:50	WG1164809
Bromobenzene	U			0.133	0.500	1	09/13/2018 01:50	WG1164809
Bromodichloromethane	U			0.0800	0.500	1	09/13/2018 01:50	WG1164809
Bromochloromethane	U			0.145	0.500	1	09/13/2018 01:50	WG1164809
Bromoform	U			0.186	0.500	1	09/13/2018 01:50	WG1164809
Bromomethane	U	UJ	J0	0.157	2.50	1	09/13/2018 01:50	WG1164809
n-Butylbenzene	U			0.143	0.500	1	09/13/2018 01:50	WG1164809
sec-Butylbenzene	U			0.134	0.500	1	09/13/2018 01:50	WG1164809
tert-Butylbenzene	U			0.183	0.500	1	09/13/2018 01:50	WG1164809
Carbon disulfide	U			0.101	0.500	1	09/13/2018 01:50	WG1164809
Carbon tetrachloride	U			0.159	0.500	1	09/13/2018 01:50	WG1164809
Chlorobenzene	U			0.140	0.500	1	09/13/2018 01:50	WG1164809
Chlorodibromomethane	U			0.128	0.500	1	09/13/2018 01:50	WG1164809
Chloroethane	U			0.141	2.50	1	09/13/2018 01:50	WG1164809
Chloroform	U			0.0860	0.500	1	09/13/2018 01:50	WG1164809
Chloromethane	U			0.153	1.25	1	09/13/2018 01:50	WG1164809
2-Chlorotoluene	U			0.111	0.500	1	09/13/2018 01:50	WG1164809
4-Chlorotoluene	U			0.0972	0.500	1	09/13/2018 01:50	WG1164809
1,2-Dibromo-3-Chloropropane	U			0.325	2.50	1	09/13/2018 01:50	WG1164809
1,2-Dibromoethane	U			0.193	0.500	1	09/13/2018 01:50	WG1164809
Dibromomethane	U			0.117	0.500	1	09/13/2018 01:50	WG1164809
1,2-Dichlorobenzene	U			0.101	0.500	1	09/13/2018 01:50	WG1164809
1,3-Dichlorobenzene	U			0.130	0.500	1	09/13/2018 01:50	WG1164809
1,4-Dichlorobenzene	U			0.121	0.500	1	09/13/2018 01:50	WG1164809
Dichlorodifluoromethane	U			0.127	2.50	1	09/13/2018 01:50	WG1164809
1,1-Dichloroethane	U			0.114	0.500	1	09/13/2018 01:50	WG1164809
1,2-Dichloroethane	U			0.108	0.500	1	09/13/2018 01:50	WG1164809
1,1-Dichloroethene	U			0.188	0.500	1	09/13/2018 01:50	WG1164809
cis-1,2-Dichloroethene	U			0.0933	0.500	1	09/13/2018 01:50	WG1164809
trans-1,2-Dichloroethene	U			0.152	0.500	1	09/13/2018 01:50	WG1164809
1,2-Dichloropropane	U			0.190	0.500	1	09/13/2018 01:50	WG1164809
1,1-Dichloropropene	U			0.128	0.500	1	09/13/2018 01:50	WG1164809
1,3-Dichloropropane	U			0.147	1.00	1	09/13/2018 01:50	WG1164809
cis-1,3-Dichloropropene	U			0.0976	0.500	1	09/13/2018 01:50	WG1164809
trans-1,3-Dichloropropene	U			0.222	0.500	1	09/13/2018 01:50	WG1164809
trans-1,4-Dichloro-2-butene	U	UJ	J0	0.257	5.00	1	09/13/2018 01:50	WG1164809
2,2-Dichloropropane	U			0.0929	0.500	1	09/13/2018 01:50	WG1164809
Di-isopropyl ether	U			0.0924	0.500	1	09/13/2018 01:50	WG1164809
Ethylbenzene	U			0.158	0.500	1	09/13/2018 01:50	WG1164809
Hexachloro-1,3-butadiene	U			0.157	1.00	1	09/13/2018 01:50	WG1164809
2-Hexanone	U			0.757	5.00	1	09/13/2018 01:50	WG1164809
n-Hexane	U			0.305	5.00	1	09/13/2018 01:50	WG1164809
Iodomethane	U	UJ	J0	0.377	10.0	1	09/13/2018 01:50	WG1164809
Isopropylbenzene	U			0.126	0.500	1	09/13/2018 01:50	WG1164809
p-Isopropyltoluene	U			0.138	0.500	1	09/13/2018 01:50	WG1164809
2-Butanone (MEK)	U			1.28	5.00	1	09/13/2018 01:50	WG1164809
Methylene Chloride	U			1.07	2.50	1	09/13/2018 01:50	WG1164809
4-Methyl-2-pentanone (MIBK)	U			0.823	5.00	1	09/13/2018 01:50	WG1164809
Methyl tert-butyl ether	U			0.102	0.500	1	09/13/2018 01:50	WG1164809
Naphthalene	U			0.174	2.50	1	09/13/2018 01:50	WG1164809
n-Propylbenzene	U			0.162	0.500	1	09/13/2018 01:50	WG1164809
Styrene	U			0.117	0.500	1	09/13/2018 01:50	WG1164809
1,1,1,2-Tetrachloroethane	U			0.120	0.500	1	09/13/2018 01:50	WG1164809
1,1,2,2-Tetrachloroethane	U			0.130	0.500	1	09/13/2018 01:50	WG1164809

JC 10/19/18

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	09/13/2018 01:50	WG1164809
Tetrachloroethene	U		0.199	0.500	1	09/13/2018 01:50	WG1164809
Toluene	U		0.412	0.500	1	09/13/2018 01:50	WG1164809
1,2,3-Trichlorobenzene	U		0.164	0.500	1	09/13/2018 01:50	WG1164809
1,2,4-Trichlorobenzene	U		0.355	0.500	1	09/13/2018 01:50	WG1164809
1,1,1-Trichloroethane	U		0.0940	0.500	1	09/13/2018 01:50	WG1164809
1,1,2-Trichloroethane	U		0.186	0.500	1	09/13/2018 01:50	WG1164809
Trichloroethene	U		0.153	0.500	1	09/13/2018 01:50	WG1164809
Trichlorofluoromethane	U		0.130	2.50	1	09/13/2018 01:50	WG1164809
1,2,3-Trichloropropane	U		0.247	2.50	1	09/13/2018 01:50	WG1164809
1,2,4-Trimethylbenzene	U		0.123	0.500	1	09/13/2018 01:50	WG1164809
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	09/13/2018 01:50	WG1164809
1,3,5-Trimethylbenzene	U		0.124	0.500	1	09/13/2018 01:50	WG1164809
Vinyl acetate	U	UJ J0	0.645	5.00	1	09/13/2018 01:50	WG1164809
Vinyl chloride	U		0.118	0.500	1	09/13/2018 01:50	WG1164809
Xylenes, Total	U		0.316	1.50	1	09/13/2018 01:50	WG1164809
(S) Toluene-d8	*107*			*80.0-120*		*09/13/2018 01:50*	WG1164809
(S) Dibromofluoromethane	*92.9*			*75.0-120*		*09/13/2018 01:50*	WG1164809
(S) 4-Bromofluorobenzene	*104*			*77.0-126*		*09/13/2018 01:50*	WG1164809

JC 10/19/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	80.9		1	09/18/2018 10:05	WG1166857

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0169	0.0309	1	09/20/2018 18:29	WG1168763
Acrylonitrile	U		0.00235	0.0155	1	09/20/2018 18:29	WG1168763
Benzene	U		0.000495	0.00124	1	09/20/2018 18:29	WG1168763
Bromobenzene	U		0.00130	0.0155	1	09/20/2018 18:29	WG1168763
Bromodichloromethane	U		0.390	1.24	400	09/21/2018 14:38	WG1169487
Bromochloromethane	U		0.00140	0.00618	1	09/20/2018 18:29	WG1168763
Bromoform	U		0.00740	0.0309	1	09/20/2018 18:29	WG1168763
Bromomethane	U		1.83	6.18	400	09/21/2018 14:38	WG1169487
n-Butylbenzene	0.00916 J	J	0.00475	0.0155	1	09/20/2018 18:29	WG1168763
sec-Butylbenzene	0.00315 J	J	0.00313	0.0155	1	09/20/2018 18:29	WG1168763
tert-Butylbenzene	U		0.00192	0.00618	1	09/20/2018 18:29	WG1168763
Carbon disulfide	U		0.00502	0.0155	1	09/20/2018 18:29	WG1168763
Carbon tetrachloride	U		0.00134	0.00618	1	09/20/2018 18:29	WG1168763
Chlorobenzene	U		0.000709	0.00309	1	09/20/2018 18:29	WG1168763
Chlorodibromomethane	U		0.000557	0.00309	1	09/20/2018 18:29	WG1168763
Chloroethane	U		0.00134	0.00618	1	09/20/2018 18:29	WG1168763
Chloroform	U		0.000513	0.00309	1	09/20/2018 18:29	WG1168763
Chloromethane	U		0.00172	0.0155	1	09/20/2018 18:29	WG1168763
2-Chlorotoluene	U		0.00114	0.00309	1	09/20/2018 18:29	WG1168763
4-Chlorotoluene	U		0.00140	0.00618	1	09/20/2018 18:29	WG1168763
1,2-Dibromo-3-Chloropropane	U		0.00631	0.0309	1	09/20/2018 18:29	WG1168763
1,2-Dibromoethane	U		0.000649	0.00309	1	09/20/2018 18:29	WG1168763
Dibromomethane	U		0.00124	0.00618	1	09/20/2018 18:29	WG1168763
1,2-Dichlorobenzene	U		0.00179	0.00618	1	09/20/2018 18:29	WG1168763
1,3-Dichlorobenzene	U		0.00210	0.00618	1	09/20/2018 18:29	WG1168763
1,4-Dichlorobenzene	U UJ	J4	0.00244	0.00618	1	09/20/2018 18:29	WG1168763
Dichlorodifluoromethane	U		0.00101	0.00309	1	09/20/2018 18:29	WG1168763
1,1-Dichloroethane	U		0.000711	0.00309	1	09/20/2018 18:29	WG1168763
1,2-Dichloroethane	U		0.000587	0.00309	1	09/20/2018 18:29	WG1168763
1,1-Dichloroethene	0.0130		0.000618	0.00309	1	09/20/2018 18:29	WG1168763
cis-1,2-Dichloroethene	2.18		0.341	1.24	400	09/21/2018 14:38	WG1169487
trans-1,2-Dichloroethene	0.0248		0.00177	0.00618	1	09/20/2018 18:29	WG1168763
1,2-Dichloropropane	U		0.00157	0.00618	1	09/20/2018 18:29	WG1168763
1,1-Dichloropropene	U		0.000866	0.00309	1	09/20/2018 18:29	WG1168763
1,3-Dichloropropane	U		0.00216	0.00618	1	09/20/2018 18:29	WG1168763
cis-1,3-Dichloropropene	U	J4	0.000839	0.00309	1	09/20/2018 18:29	WG1168763
trans-1,3-Dichloropropene	U		0.00189	0.00618	1	09/20/2018 18:29	WG1168763
trans-1,4-Dichloro-2-butene	U		0.00173	0.00618	1	09/20/2018 18:29	WG1168763
2,2-Dichloropropane	U		0.000981	0.00309	1	09/20/2018 18:29	WG1168763
Di-isopropyl ether	U		0.000433	0.00124	1	09/20/2018 18:29	WG1168763
Ethylbenzene	U		0.262	1.24	400	09/21/2018 14:38	WG1169487
Hexachloro-1,3-butadiene	U		0.0157	0.0309	1	09/20/2018 18:29	WG1168763
2-Hexanone	U		0.0124	0.0309	1	09/20/2018 18:29	WG1168763
n-Hexane	0.00438 J	J	0.00131	0.00618	1	09/20/2018 18:29	WG1168763
Iodomethane	U		0.00748	0.0155	1	09/20/2018 18:29	WG1168763
Isopropylbenzene	0.00161 J	J	0.00107	0.00309	1	09/20/2018 18:29	WG1168763
p-Isopropyltoluene	0.00325 J	J	0.00288	0.00618	1	09/20/2018 18:29	WG1168763
2-Butanone (MEK)	U		0.0155	0.0309	1	09/20/2018 18:29	WG1168763
Methylene Chloride	0.00907 U	B J	0.00821	0.0309	1	09/20/2018 18:29	WG1168763
4-Methyl-2-pentanone (MIBK)	U		0.0124	0.0309	1	09/20/2018 18:29	WG1168763

JC 10/19/18

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

Analyte	Result (dry) mg/kg		Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U			0.000365	0.00124	1	09/20/2018 18:29	WG1168763
Naphthalene	0.00746	J	J	0.00386	0.0155	1	09/20/2018 18:29	WG1168763
n-Propylbenzene	0.00663			0.00146	0.00618	1	09/20/2018 18:29	WG1168763
Styrene	U	UJ	J0 J4	0.00338	0.0155	1	09/20/2018 18:29	WG1168763
1,1,1,2-Tetrachloroethane	U			0.000618	0.00309	1	09/20/2018 18:29	WG1168763
1,1,2,2-Tetrachloroethane	U		J4	0.000482	0.00309	1	09/20/2018 18:29	WG1168763
1,1,2-Trichlorotrifluoroethane	U			0.000835	0.00309	1	09/20/2018 18:29	WG1168763
Tetrachloroethene	210			0.346	1.24	400	09/21/2018 14:38	WG1169487
Toluene	U			0.618	2.47	400	09/21/2018 14:38	WG1169487
1,2,3-Trichlorobenzene	U			0.000773	0.00309	1	09/20/2018 18:29	WG1168763
1,2,4-Trichlorobenzene	U			0.00596	0.0155	1	09/20/2018 18:29	WG1168763
1,1,1-Trichloroethane	U			0.000340	0.00309	1	09/20/2018 18:29	WG1168763
1,1,2-Trichloroethane	U			0.00109	0.00309	1	09/20/2018 18:29	WG1168763
Trichloroethene	1.54			0.198	0.495	400	09/21/2018 14:38	WG1169487
Trichlorofluoromethane	U			0.000618	0.00309	1	09/20/2018 18:29	WG1168763
1,2,3-Trichloropropane	U			0.00631	0.0155	1	09/20/2018 18:29	WG1168763
1,2,4-Trimethylbenzene	0.0427			0.00143	0.00618	1	09/20/2018 18:29	WG1168763
1,2,3-Trimethylbenzene	0.0149			0.00142	0.00618	1	09/20/2018 18:29	WG1168763
1,3,5-Trimethylbenzene	0.0148			0.00134	0.00618	1	09/20/2018 18:29	WG1168763
Vinyl acetate	U			0.00435	0.0155	1	09/20/2018 18:29	WG1168763
Vinyl chloride	U			0.000845	0.00309	1	09/20/2018 18:29	WG1168763
Xylenes, Total	0.0121			0.00591	0.00804	1	09/20/2018 18:29	WG1168763
(S) Toluene-d8	*114*				*75.0-131*		*09/20/2018 18:29*	WG1168763
(S) Toluene-d8	*101*				*75.0-131*		*09/21/2018 14:38*	WG1169487
(S) Dibromofluoromethane	*91.9*				*65.0-129*		*09/20/2018 18:29*	WG1168763
(S) Dibromofluoromethane	*103*				*65.0-129*		*09/21/2018 14:38*	WG1169487
(S) 4-Bromofluorobenzene	*100*				*67.0-138*		*09/20/2018 18:29*	WG1168763
(S) 4-Bromofluorobenzene	*109*				*67.0-138*		*09/21/2018 14:38*	WG1169487

Sample Narrative:

L1025469-01 WG1168763, WG1169487: Not all compounds reportable from 1x dilution.

L1025469-01 WG1168763, WG1169487: Cannot be re-analyzed at a lower dilution due to high levels of target analytes.

JC 10/19/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	90.4		1	09/18/2018 10:05	WG1166857

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0164	0.0299	1.08	09/20/2018 18:52	WG1168763
Acrylonitrile	U		0.00227	0.0149	1.08	09/20/2018 18:52	WG1168763
Benzene	U		0.000478	0.00120	1.08	09/20/2018 18:52	WG1168763
Bromobenzene	U		0.00125	0.0149	1.08	09/20/2018 18:52	WG1168763
Bromodichloromethane	U		0.376	1.20	432	09/21/2018 14:58	WG1169487
Bromochloromethane	U		0.00135	0.00598	1.08	09/20/2018 18:52	WG1168763
Bromoform	U		0.00715	0.0299	1.08	09/20/2018 18:52	WG1168763
Bromomethane	U		1.77	5.98	432	09/21/2018 14:58	WG1169487
n-Butylbenzene	0.00998 J	J	0.00459	0.0149	1.08	09/20/2018 18:52	WG1168763
sec-Butylbenzene	0.00336 J	J	0.00302	0.0149	1.08	09/20/2018 18:52	WG1168763
tert-Butylbenzene	U		0.00185	0.00598	1.08	09/20/2018 18:52	WG1168763
Carbon disulfide	U		0.00485	0.0149	1.08	09/20/2018 18:52	WG1168763
Carbon tetrachloride	U		0.00129	0.00598	1.08	09/20/2018 18:52	WG1168763
Chlorobenzene	U		0.000685	0.00299	1.08	09/20/2018 18:52	WG1168763
Chlorodibromomethane	U		0.000538	0.00299	1.08	09/20/2018 18:52	WG1168763
Chloroethane	U		0.00129	0.00598	1.08	09/20/2018 18:52	WG1168763
Chloroform	U		0.000496	0.00299	1.08	09/20/2018 18:52	WG1168763
Chloromethane	U		0.00166	0.0149	1.08	09/20/2018 18:52	WG1168763
2-Chlorotoluene	U		0.00110	0.00299	1.08	09/20/2018 18:52	WG1168763
4-Chlorotoluene	U		0.00135	0.00598	1.08	09/20/2018 18:52	WG1168763
1,2-Dibromo-3-Chloropropane	U		0.00610	0.0299	1.08	09/20/2018 18:52	WG1168763
1,2-Dibromoethane	U		0.000628	0.00299	1.08	09/20/2018 18:52	WG1168763
Dibromomethane	U		0.00120	0.00598	1.08	09/20/2018 18:52	WG1168763
1,2-Dichlorobenzene	U		0.00174	0.00598	1.08	09/20/2018 18:52	WG1168763
1,3-Dichlorobenzene	U		0.00204	0.00598	1.08	09/20/2018 18:52	WG1168763
1,4-Dichlorobenzene	U UJ	J4	0.00236	0.00598	1.08	09/20/2018 18:52	WG1168763
Dichlorodifluoromethane	U		0.000977	0.00299	1.08	09/20/2018 18:52	WG1168763
1,1-Dichloroethane	U		0.000687	0.00299	1.08	09/20/2018 18:52	WG1168763
1,2-Dichloroethane	U		0.000568	0.00299	1.08	09/20/2018 18:52	WG1168763
1,1-Dichloroethene	0.0198		0.000598	0.00299	1.08	09/20/2018 18:52	WG1168763
cis-1,2-Dichloroethene	2.62		0.330	1.20	432	09/21/2018 14:58	WG1169487
trans-1,2-Dichloroethene	0.0228		0.00170	0.00598	1.08	09/20/2018 18:52	WG1168763
1,2-Dichloropropane	U		0.00152	0.00598	1.08	09/20/2018 18:52	WG1168763
1,1-Dichloropropene	U		0.000837	0.00299	1.08	09/20/2018 18:52	WG1168763
1,3-Dichloropropane	U		0.00209	0.00598	1.08	09/20/2018 18:52	WG1168763
cis-1,3-Dichloropropene	U	J4	0.000810	0.00299	1.08	09/20/2018 18:52	WG1168763
trans-1,3-Dichloropropene	U		0.00183	0.00598	1.08	09/20/2018 18:52	WG1168763
trans-1,4-Dichloro-2-butene	U		0.00167	0.00598	1.08	09/20/2018 18:52	WG1168763
2,2-Dichloropropane	U		0.000947	0.00299	1.08	09/20/2018 18:52	WG1168763
Di-isopropyl ether	U		0.000418	0.00120	1.08	09/20/2018 18:52	WG1168763
Ethylbenzene	U		0.253	1.20	432	09/21/2018 14:58	WG1169487
Hexachloro-1,3-butadiene	U		0.0152	0.0299	1.08	09/20/2018 18:52	WG1168763
2-Hexanone	U		0.0120	0.0299	1.08	09/20/2018 18:52	WG1168763
n-Hexane	U		0.00126	0.00598	1.08	09/20/2018 18:52	WG1168763
Iodomethane	U		0.00723	0.0149	1.08	09/20/2018 18:52	WG1168763
Isopropylbenzene	0.00149 J	J	0.00103	0.00299	1.08	09/20/2018 18:52	WG1168763
p-Isopropyltoluene	U		0.00279	0.00598	1.08	09/20/2018 18:52	WG1168763
2-Butanone (MEK)	U		0.0149	0.0299	1.08	09/20/2018 18:52	WG1168763
Methylene Chloride	0.0112 U	B J	0.00794	0.0299	1.08	09/20/2018 18:52	WG1168763
4-Methyl-2-pentanone (MIBK)	U		0.0120	0.0299	1.08	09/20/2018 18:52	WG1168763

JC 10/19/18

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

Analyte	Result (dry) mg/kg		Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U			0.000353	0.00120	1.08	09/20/2018 18:52	WG1168763
Naphthalene	0.00881	J	J	0.00373	0.0149	1.08	09/20/2018 18:52	WG1168763
n-Propylbenzene	0.00761			0.00141	0.00598	1.08	09/20/2018 18:52	WG1168763
Styrene	U	UJ	J0 J4	0.00326	0.0149	1.08	09/20/2018 18:52	WG1168763
1,1,1,2-Tetrachloroethane	U			0.000598	0.00299	1.08	09/20/2018 18:52	WG1168763
1,1,2,2-Tetrachloroethane	U		J4	0.000466	0.00299	1.08	09/20/2018 18:52	WG1168763
1,1,2-Trichlorotrifluoroethane	U			0.000807	0.00299	1.08	09/20/2018 18:52	WG1168763
Tetrachloroethene	309			0.334	1.20	432	09/21/2018 14:58	WG1169487
Toluene	U			0.598	2.39	432	09/21/2018 14:58	WG1169487
1,2,3-Trichlorobenzene	U			0.000747	0.00299	1.08	09/20/2018 18:52	WG1168763
1,2,4-Trichlorobenzene	U			0.00576	0.0149	1.08	09/20/2018 18:52	WG1168763
1,1,1-Trichloroethane	U			0.000329	0.00299	1.08	09/20/2018 18:52	WG1168763
1,1,2-Trichloroethane	U			0.00106	0.00299	1.08	09/20/2018 18:52	WG1168763
Trichloroethene	2.12			0.191	0.478	432	09/21/2018 14:58	WG1169487
Trichlorofluoromethane	U			0.000598	0.00299	1.08	09/20/2018 18:52	WG1168763
1,2,3-Trichloropropane	U			0.00610	0.0149	1.08	09/20/2018 18:52	WG1168763
1,2,4-Trimethylbenzene	0.0481			0.00138	0.00598	1.08	09/20/2018 18:52	WG1168763
1,2,3-Trimethylbenzene	0.0159			0.00137	0.00598	1.08	09/20/2018 18:52	WG1168763
1,3,5-Trimethylbenzene	0.0170			0.00129	0.00598	1.08	09/20/2018 18:52	WG1168763
Vinyl acetate	U			0.00421	0.0149	1.08	09/20/2018 18:52	WG1168763
Vinyl chloride	U			0.000817	0.00299	1.08	09/20/2018 18:52	WG1168763
Xylenes, Total	0.0127			0.00571	0.00777	1.08	09/20/2018 18:52	WG1168763
(S) Toluene-d8	*114*				*75.0-131*		*09/20/2018 18:52*	WG1168763
(S) Toluene-d8	*109*				*75.0-131*		*09/21/2018 14:58*	WG1169487
(S) Dibromofluoromethane	*92.3*				*65.0-129*		*09/20/2018 18:52*	WG1168763
(S) Dibromofluoromethane	*103*				*65.0-129*		*09/21/2018 14:58*	WG1169487
(S) 4-Bromofluorobenzene	*102*				*67.0-138*		*09/20/2018 18:52*	WG1168763
(S) 4-Bromofluorobenzene	*103*				*67.0-138*		*09/21/2018 14:58*	WG1169487

Sample Narrative:

L1025469-02 WG1168763, WG1169487: Not all compounds reportable from 1x dilution.

L1025469-02 WG1168763, WG1169487: Cannot be re-analyzed at a lower dilution due to high levels of target analytes.

JC 10/19/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	90.4		1	09/18/2018 10:05	WG1166857

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0152	0.0277	1	09/20/2018 01:04	WG1168529
Acrylonitrile	U		0.00210	0.0138	1	09/20/2018 01:04	WG1168529
Benzene	U		0.000442	0.00111	1	09/20/2018 01:04	WG1168529
Bromobenzene	U		0.00116	0.0138	1	09/20/2018 01:04	WG1168529
Bromodichloromethane	U		0.000872	0.00277	1	09/20/2018 01:04	WG1168529
Bromochloromethane	U		0.00125	0.00553	1	09/20/2018 01:04	WG1168529
Bromoform	U		0.00661	0.0277	1	09/20/2018 01:04	WG1168529
Bromomethane	U		0.00409	0.0138	1	09/20/2018 01:04	WG1168529
n-Butylbenzene	U		0.00425	0.0138	1	09/20/2018 01:04	WG1168529
sec-Butylbenzene	U		0.00280	0.0138	1	09/20/2018 01:04	WG1168529
tert-Butylbenzene	U		0.00171	0.00553	1	09/20/2018 01:04	WG1168529
Carbon disulfide	U		0.00449	0.0138	1	09/20/2018 01:04	WG1168529
Carbon tetrachloride	U		0.00119	0.00553	1	09/20/2018 01:04	WG1168529
Chlorobenzene	U		0.000634	0.00277	1	09/20/2018 01:04	WG1168529
Chlorodibromomethane	0.000680 J	J	0.000498	0.00277	1	09/20/2018 01:04	WG1168529
Chloroethane	U		0.00119	0.00553	1	09/20/2018 01:04	WG1168529
Chloroform	U		0.000459	0.00277	1	09/20/2018 01:04	WG1168529
Chloromethane	U		0.00154	0.0138	1	09/20/2018 01:04	WG1168529
2-Chlorotoluene	U		0.00102	0.00277	1	09/20/2018 01:04	WG1168529
4-Chlorotoluene	U		0.00125	0.00553	1	09/20/2018 01:04	WG1168529
1,2-Dibromo-3-Chloropropane	U UJ	J0	0.00564	0.0277	1	09/20/2018 01:04	WG1168529
1,2-Dibromoethane	U		0.000581	0.00277	1	09/20/2018 01:04	WG1168529
Dibromomethane	U		0.00111	0.00553	1	09/20/2018 01:04	WG1168529
1,2-Dichlorobenzene	U		0.00160	0.00553	1	09/20/2018 01:04	WG1168529
1,3-Dichlorobenzene	U		0.00188	0.00553	1	09/20/2018 01:04	WG1168529
1,4-Dichlorobenzene	U		0.00218	0.00553	1	09/20/2018 01:04	WG1168529
Dichlorodifluoromethane	U		0.000905	0.00277	1	09/20/2018 01:04	WG1168529
1,1-Dichloroethane	U		0.000636	0.00277	1	09/20/2018 01:04	WG1168529
1,2-Dichloroethane	U		0.000525	0.00277	1	09/20/2018 01:04	WG1168529
1,1-Dichloroethene	U		0.000553	0.00277	1	09/20/2018 01:04	WG1168529
cis-1,2-Dichloroethene	0.699		0.000763	0.00277	1	09/20/2018 01:04	WG1168529
trans-1,2-Dichloroethene	0.00418 J	J J0	0.00158	0.00553	1	09/20/2018 01:04	WG1168529
1,2-Dichloropropane	U		0.0281	0.111	20	09/20/2018 17:33	WG1168808
1,1-Dichloropropene	U		0.000774	0.00277	1	09/20/2018 01:04	WG1168529
1,3-Dichloropropane	U		0.00194	0.00553	1	09/20/2018 01:04	WG1168529
cis-1,3-Dichloropropene	U		0.000750	0.00277	1	09/20/2018 01:04	WG1168529
trans-1,3-Dichloropropene	U UJ	J0 J4	0.00169	0.00553	1	09/20/2018 01:04	WG1168529
trans-1,4-Dichloro-2-butene	U UJ	J0	0.00155	0.00553	1	09/20/2018 01:04	WG1168529
2,2-Dichloropropane	0.00144 J	J J0	0.000877	0.00277	1	09/20/2018 01:04	WG1168529
Di-isopropyl ether	U		0.000387	0.00111	1	09/20/2018 01:04	WG1168529
Ethylbenzene	U		0.000586	0.00277	1	09/20/2018 01:04	WG1168529
Hexachloro-1,3-butadiene	U		0.0140	0.0277	1	09/20/2018 01:04	WG1168529
2-Hexanone	U		0.0111	0.0277	1	09/20/2018 01:04	WG1168529
n-Hexane	U	J4	0.0234	0.111	20	09/20/2018 17:33	WG1168808
Iodomethane	U		0.00669	0.0138	1	09/20/2018 01:04	WG1168529
Isopropylbenzene	U		0.000955	0.00277	1	09/20/2018 01:04	WG1168529
p-Isopropyltoluene	U UJ	J4	0.00258	0.00553	1	09/20/2018 01:04	WG1168529
2-Butanone (MEK)	U		0.277	0.553	20	09/20/2018 17:33	WG1168808
Methylene Chloride	U		0.00734	0.0277	1	09/20/2018 01:04	WG1168529
4-Methyl-2-pentanone (MIBK)	U		0.0111	0.0277	1	09/20/2018 01:04	WG1168529

JC 10/19/18

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000326	0.00111	1	09/20/2018 01:04	WG1168529
Naphthalene	U		0.00345	0.0138	1	09/20/2018 01:04	WG1168529
n-Propylbenzene	U		0.00131	0.00553	1	09/20/2018 01:04	WG1168529
Styrene	U	UJ J4	0.0604	0.277	20	09/20/2018 17:33	WG1168808
1,1,1,2-Tetrachloroethane	U	UJ J0 J4	0.000553	0.00277	1	09/20/2018 01:04	WG1168529
1,1,2,2-Tetrachloroethane	U		0.000431	0.00277	1	09/20/2018 01:04	WG1168529
1,1,2-Trichlorotrifluoroethane	U		0.000747	0.00277	1	09/20/2018 01:04	WG1168529
Tetrachloroethene	12.3		0.0155	0.0553	20	09/20/2018 17:33	WG1168808
Toluene	0.00148	J J	0.00138	0.00553	1	09/20/2018 01:04	WG1168529
1,2,3-Trichlorobenzene	U		0.000691	0.00277	1	09/20/2018 01:04	WG1168529
1,2,4-Trichlorobenzene	U		0.00533	0.0138	1	09/20/2018 01:04	WG1168529
1,1,1-Trichloroethane	U		0.000304	0.00277	1	09/20/2018 01:04	WG1168529
1,1,2-Trichloroethane	U		0.000977	0.00277	1	09/20/2018 01:04	WG1168529
Trichloroethene	0.128		0.000442	0.00111	1	09/20/2018 01:04	WG1168529
Trichlorofluoromethane	U		0.000553	0.00277	1	09/20/2018 01:04	WG1168529
1,2,3-Trichloropropane	U		0.00564	0.0138	1	09/20/2018 01:04	WG1168529
1,2,4-Trimethylbenzene	0.00194	J J	0.00128	0.00553	1	09/20/2018 01:04	WG1168529
1,2,3-Trimethylbenzene	U		0.00127	0.00553	1	09/20/2018 01:04	WG1168529
1,3,5-Trimethylbenzene	U		0.00119	0.00553	1	09/20/2018 01:04	WG1168529
Vinyl acetate	U	UJ J0	0.00389	0.0138	1	09/20/2018 01:04	WG1168529
Vinyl chloride	0.0312		0.000755	0.00277	1	09/20/2018 01:04	WG1168529
Xylenes, Total	U		0.00529	0.00719	1	09/20/2018 01:04	WG1168529
(S) Toluene-d8	*103*			*75.0-131*		*09/20/2018 01:04*	WG1168529
(S) Toluene-d8	*107*			*75.0-131*		*09/20/2018 17:33*	WG1168808
(S) Dibromofluoromethane	*105*			*65.0-129*		*09/20/2018 01:04*	WG1168529
(S) Dibromofluoromethane	*106*			*65.0-129*		*09/20/2018 17:33*	WG1168808
(S) 4-Bromofluorobenzene	*106*			*67.0-138*		*09/20/2018 01:04*	WG1168529
(S) 4-Bromofluorobenzene	*86.6*			*67.0-138*		*09/20/2018 17:33*	WG1168808

Sample Narrative:

L1025469-03 WG1168529, WG1168808: Not all compounds reportable from 1x dilution.

L1025469-03 WG1168529, WG1168808: Cannot be re-analyzed at a lower dilution due to high levels of target analytes.

JC 10/19/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	89.3		1	09/17/2018 15:11	WG1166858

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0153	0.0280	1	09/20/2018 01:24	WG1168529
Acrylonitrile	U		0.00213	0.0140	1	09/20/2018 01:24	WG1168529
Benzene	U		0.000448	0.00112	1	09/20/2018 01:24	WG1168529
Bromobenzene	U		0.00118	0.0140	1	09/20/2018 01:24	WG1168529
Bromodichloromethane	U		0.000882	0.00280	1	09/20/2018 01:24	WG1168529
Bromochloromethane	U		0.00126	0.00560	1	09/20/2018 01:24	WG1168529
Bromoform	U		0.00669	0.0280	1	09/20/2018 01:24	WG1168529
Bromomethane	U		0.00414	0.0140	1	09/20/2018 01:24	WG1168529
n-Butylbenzene	U		0.00430	0.0140	1	09/20/2018 01:24	WG1168529
sec-Butylbenzene	U		0.00283	0.0140	1	09/20/2018 01:24	WG1168529
tert-Butylbenzene	U		0.00173	0.00560	1	09/20/2018 01:24	WG1168529
Carbon disulfide	U		0.00454	0.0140	1	09/20/2018 01:24	WG1168529
Carbon tetrachloride	U		0.00121	0.00560	1	09/20/2018 01:24	WG1168529
Chlorobenzene	U		0.000641	0.00280	1	09/20/2018 01:24	WG1168529
Chlorodibromomethane	U		0.000504	0.00280	1	09/20/2018 01:24	WG1168529
Chloroethane	U		0.00121	0.00560	1	09/20/2018 01:24	WG1168529
Chloroform	U		0.000465	0.00280	1	09/20/2018 01:24	WG1168529
Chloromethane	U		0.00156	0.0140	1	09/20/2018 01:24	WG1168529
2-Chlorotoluene	U		0.00103	0.00280	1	09/20/2018 01:24	WG1168529
4-Chlorotoluene	U		0.00126	0.00560	1	09/20/2018 01:24	WG1168529
1,2-Dibromo-3-Chloropropane	U	UJ J0	0.00571	0.0280	1	09/20/2018 01:24	WG1168529
1,2-Dibromoethane	U		0.000588	0.00280	1	09/20/2018 01:24	WG1168529
Dibromomethane	U		0.00112	0.00560	1	09/20/2018 01:24	WG1168529
1,2-Dichlorobenzene	U		0.00162	0.00560	1	09/20/2018 01:24	WG1168529
1,3-Dichlorobenzene	U		0.00190	0.00560	1	09/20/2018 01:24	WG1168529
1,4-Dichlorobenzene	U		0.00221	0.00560	1	09/20/2018 01:24	WG1168529
Dichlorodifluoromethane	U		0.000916	0.00280	1	09/20/2018 01:24	WG1168529
1,1-Dichloroethane	U		0.000644	0.00280	1	09/20/2018 01:24	WG1168529
1,2-Dichloroethane	U		0.000532	0.00280	1	09/20/2018 01:24	WG1168529
1,1-Dichloroethene	U		0.000560	0.00280	1	09/20/2018 01:24	WG1168529
cis-1,2-Dichloroethene	0.282		0.000772	0.00280	1	09/20/2018 01:24	WG1168529
trans-1,2-Dichloroethene	0.00239	J J J0	0.00160	0.00560	1	09/20/2018 01:24	WG1168529
1,2-Dichloropropane	U		0.0284	0.112	20	09/20/2018 17:53	WG1168808
1,1-Dichloropropene	U		0.000784	0.00280	1	09/20/2018 01:24	WG1168529
1,3-Dichloropropane	U		0.00196	0.00560	1	09/20/2018 01:24	WG1168529
cis-1,3-Dichloropropene	U		0.000759	0.00280	1	09/20/2018 01:24	WG1168529
trans-1,3-Dichloropropene	U	UJ J0 J4	0.00171	0.00560	1	09/20/2018 01:24	WG1168529
trans-1,4-Dichloro-2-butene	U	UJ J0	0.00157	0.00560	1	09/20/2018 01:24	WG1168529
2,2-Dichloropropane	U	UJ J0	0.000888	0.00280	1	09/20/2018 01:24	WG1168529
Di-isopropyl ether	U		0.000392	0.00112	1	09/20/2018 01:24	WG1168529
Ethylbenzene	U		0.000593	0.00280	1	09/20/2018 01:24	WG1168529
Hexachloro-1,3-butadiene	U		0.0142	0.0280	1	09/20/2018 01:24	WG1168529
2-Hexanone	U		0.0112	0.0280	1	09/20/2018 01:24	WG1168529
n-Hexane	U	J4	0.0237	0.112	20	09/20/2018 17:53	WG1168808
Iodomethane	U		0.00677	0.0140	1	09/20/2018 01:24	WG1168529
Isopropylbenzene	U		0.000966	0.00280	1	09/20/2018 01:24	WG1168529
p-Isopropyltoluene	U	UJ J4	0.00261	0.00560	1	09/20/2018 01:24	WG1168529
2-Butanone (MEK)	U		0.280	0.560	20	09/20/2018 17:53	WG1168808
Methylene Chloride	U		0.00743	0.0280	1	09/20/2018 01:24	WG1168529
4-Methyl-2-pentanone (MIBK)	U		0.0112	0.0280	1	09/20/2018 01:24	WG1168529

JC 10/19/18

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

Analyte	Result (dry) mg/kg		Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U			0.000330	0.00112	1	09/20/2018 01:24	WG1168529
Naphthalene	U			0.00349	0.0140	1	09/20/2018 01:24	WG1168529
n-Propylbenzene	U			0.00132	0.00560	1	09/20/2018 01:24	WG1168529
Styrene	U	UJ	J4	0.0611	0.280	20	09/20/2018 17:53	WG1168808
1,1,1,2-Tetrachloroethane	U	UJ	J0 J4	0.000560	0.00280	1	09/20/2018 01:24	WG1168529
1,1,2,2-Tetrachloroethane	U			0.000437	0.00280	1	09/20/2018 01:24	WG1168529
1,1,2-Trichlorotrifluoroethane	U			0.000756	0.00280	1	09/20/2018 01:24	WG1168529
Tetrachloroethene	18.6			0.0157	0.0560	20	09/20/2018 17:53	WG1168808
Toluene	0.00223	J	J	0.00140	0.00560	1	09/20/2018 01:24	WG1168529
1,2,3-Trichlorobenzene	U			0.000700	0.00280	1	09/20/2018 01:24	WG1168529
1,2,4-Trichlorobenzene	U			0.00540	0.0140	1	09/20/2018 01:24	WG1168529
1,1,1-Trichloroethane	U			0.000308	0.00280	1	09/20/2018 01:24	WG1168529
1,1,2-Trichloroethane	U			0.000988	0.00280	1	09/20/2018 01:24	WG1168529
Trichloroethene	0.178			0.000448	0.00112	1	09/20/2018 01:24	WG1168529
Trichlorofluoromethane	U			0.000560	0.00280	1	09/20/2018 01:24	WG1168529
1,2,3-Trichloropropane	U			0.00571	0.0140	1	09/20/2018 01:24	WG1168529
1,2,4-Trimethylbenzene	0.00436	J	J	0.00130	0.00560	1	09/20/2018 01:24	WG1168529
1,2,3-Trimethylbenzene	U			0.00129	0.00560	1	09/20/2018 01:24	WG1168529
1,3,5-Trimethylbenzene	0.00144	J	J	0.00121	0.00560	1	09/20/2018 01:24	WG1168529
Vinyl acetate	U	UJ	J0	0.00394	0.0140	1	09/20/2018 01:24	WG1168529
Vinyl chloride	0.0297			0.000764	0.00280	1	09/20/2018 01:24	WG1168529
Xylenes, Total	U			0.00535	0.00728	1	09/20/2018 01:24	WG1168529
(S) Toluene-d8	*99.3*				*75.0-131*		*09/20/2018 01:24*	WG1168529
(S) Toluene-d8	*105*				*75.0-131*		*09/20/2018 17:53*	WG1168808
(S) Dibromofluoromethane	*103*				*65.0-129*		*09/20/2018 01:24*	WG1168529
(S) Dibromofluoromethane	*108*				*65.0-129*		*09/20/2018 17:53*	WG1168808
(S) 4-Bromofluorobenzene	*109*				*67.0-138*		*09/20/2018 01:24*	WG1168529
(S) 4-Bromofluorobenzene	*93.8*				*67.0-138*		*09/20/2018 17:53*	WG1168808

Sample Narrative:

L1025469-04 WG1168529, WG1168808: Not all compounds reportable from 1x dilution.

L1025469-04 WG1168529, WG1168808: Cannot be re-analyzed at a lower dilution due to high levels of target analytes.

JC 10/19/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	95.4		1	09/17/2018 15:11	WG1166858

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch	
	mg/kg		mg/kg	mg/kg		date / time		
Acetone	U		0.0144	0.0262	1	09/20/2018 01:44	WG1168529	
Acrylonitrile	U		0.00199	0.0131	1	09/20/2018 01:44	WG1168529	
Benzene	U		0.000419	0.00105	1	09/20/2018 01:44	WG1168529	
Bromobenzene	U		0.00110	0.0131	1	09/20/2018 01:44	WG1168529	
Bromodichloromethane	U		0.000826	0.00262	1	09/20/2018 01:44	WG1168529	
Bromochloromethane	U		0.00118	0.00524	1	09/20/2018 01:44	WG1168529	
Bromoform	U		0.00627	0.0262	1	09/20/2018 01:44	WG1168529	
Bromomethane	U		0.00388	0.0131	1	09/20/2018 01:44	WG1168529	
n-Butylbenzene	U		0.00402	0.0131	1	09/20/2018 01:44	WG1168529	
sec-Butylbenzene	U		0.00265	0.0131	1	09/20/2018 01:44	WG1168529	
tert-Butylbenzene	U		0.00162	0.00524	1	09/20/2018 01:44	WG1168529	
Carbon disulfide	U		0.00425	0.0131	1	09/20/2018 01:44	WG1168529	
Carbon tetrachloride	U		0.00113	0.00524	1	09/20/2018 01:44	WG1168529	
Chlorobenzene	U		0.000600	0.00262	1	09/20/2018 01:44	WG1168529	
Chlorodibromomethane	U		0.000471	0.00262	1	09/20/2018 01:44	WG1168529	
Chloroethane	0.0188		0.00113	0.00524	1	09/20/2018 01:44	WG1168529	
Chloroform	U		0.000435	0.00262	1	09/20/2018 01:44	WG1168529	
Chloromethane	U		0.00146	0.0131	1	09/20/2018 01:44	WG1168529	
2-Chlorotoluene	U		0.000964	0.00262	1	09/20/2018 01:44	WG1168529	
4-Chlorotoluene	U		0.00118	0.00524	1	09/20/2018 01:44	WG1168529	
1,2-Dibromo-3-Chloropropane	U	UJ J0	0.00534	0.0262	1	09/20/2018 01:44	WG1168529	
1,2-Dibromoethane	U		0.000550	0.00262	1	09/20/2018 01:44	WG1168529	
Dibromomethane	U		0.00105	0.00524	1	09/20/2018 01:44	WG1168529	
1,2-Dichlorobenzene	U		0.00152	0.00524	1	09/20/2018 01:44	WG1168529	
1,3-Dichlorobenzene	U		0.00178	0.00524	1	09/20/2018 01:44	WG1168529	
1,4-Dichlorobenzene	U		0.00206	0.00524	1	09/20/2018 01:44	WG1168529	
Dichlorodifluoromethane	U		0.000857	0.00262	1	09/20/2018 01:44	WG1168529	
1,1-Dichloroethane	U		0.000602	0.00262	1	09/20/2018 01:44	WG1168529	
1,2-Dichloroethane	U		0.000498	0.00262	1	09/20/2018 01:44	WG1168529	
1,1-Dichloroethene	U		0.000524	0.00262	1	09/20/2018 01:44	WG1168529	
cis-1,2-Dichloroethene	0.224		0.000723	0.00262	1	09/20/2018 01:44	WG1168529	
trans-1,2-Dichloroethene	0.00591	J J0	0.00150	0.00524	1	09/20/2018 01:44	WG1168529	
1,2-Dichloropropane	U		0.00266	0.0105	2	09/20/2018 16:16	WG1168808	
1,1-Dichloropropene	U		0.000733	0.00262	1	09/20/2018 01:44	WG1168529	
1,3-Dichloropropane	U		0.00183	0.00524	1	09/20/2018 01:44	WG1168529	
cis-1,3-Dichloropropene	U		0.000710	0.00262	1	09/20/2018 01:44	WG1168529	
trans-1,3-Dichloropropene	U	UJ J0 J4	0.00160	0.00524	1	09/20/2018 01:44	WG1168529	
trans-1,4-Dichloro-2-butene	U	UJ J0	0.00147	0.00524	1	09/20/2018 01:44	WG1168529	
2,2-Dichloropropane	0.000981	J J J0	0.000831	0.00262	1	09/20/2018 01:44	WG1168529	
Di-isopropyl ether	U		0.000367	0.00105	1	09/20/2018 01:44	WG1168529	
Ethylbenzene	U		0.000555	0.00262	1	09/20/2018 01:44	WG1168529	
Hexachloro-1,3-butadiene	U		0.0133	0.0262	1	09/20/2018 01:44	WG1168529	
2-Hexanone	U		0.0105	0.0262	1	09/20/2018 01:44	WG1168529	
n-Hexane	0.00489	J J J4	0.00222	0.0105	2	09/20/2018 16:16	WG1168808	
Iodomethane	U		0.00634	0.0131	1	09/20/2018 01:44	WG1168529	
Isopropylbenzene	U		0.000904	0.00262	1	09/20/2018 01:44	WG1168529	
p-Isopropyltoluene	U	UJ J4	0.00244	0.00524	1	09/20/2018 01:44	WG1168529	
2-Butanone (MEK)	U		0.0262	0.0524	2	09/20/2018 16:16	WG1168808	
Methylene Chloride	0.0112	U B J	0.00696	0.0262	1	09/20/2018 01:44	WG1168529	JC 10/19/18
4-Methyl-2-pentanone (MIBK)	U		0.0105	0.0262	1	09/20/2018 01:44	WG1168529	

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

Analyte	Result (dry) mg/kg		Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U			0.000309	0.00105	1	09/20/2018 01:44	WG1168529
Naphthalene	U			0.00327	0.0131	1	09/20/2018 01:44	WG1168529
n-Propylbenzene	U			0.00124	0.00524	1	09/20/2018 01:44	WG1168529
Styrene	U	UJ	J0 J4	0.00572	0.0262	2	09/20/2018 16:16	WG1168808
1,1,1,2-Tetrachloroethane	U	UJ	J0 J4	0.000524	0.00262	1	09/20/2018 01:44	WG1168529
1,1,2,2-Tetrachloroethane	U			0.000409	0.00262	1	09/20/2018 01:44	WG1168529
1,1,2-Trichlorotrifluoroethane	U			0.000707	0.00262	1	09/20/2018 01:44	WG1168529
Tetrachloroethene	0.712			0.00147	0.00524	2	09/20/2018 16:16	WG1168808
Toluene	U			0.00131	0.00524	1	09/20/2018 01:44	WG1168529
1,2,3-Trichlorobenzene	U			0.000655	0.00262	1	09/20/2018 01:44	WG1168529
1,2,4-Trichlorobenzene	U			0.00505	0.0131	1	09/20/2018 01:44	WG1168529
1,1,1-Trichloroethane	U			0.000288	0.00262	1	09/20/2018 01:44	WG1168529
1,1,2-Trichloroethane	U			0.000925	0.00262	1	09/20/2018 01:44	WG1168529
Trichloroethene	0.0173			0.000419	0.00105	1	09/20/2018 01:44	WG1168529
Trichlorofluoromethane	U			0.000524	0.00262	1	09/20/2018 01:44	WG1168529
1,2,3-Trichloropropane	U			0.00534	0.0131	1	09/20/2018 01:44	WG1168529
1,2,4-Trimethylbenzene	U			0.00122	0.00524	1	09/20/2018 01:44	WG1168529
1,2,3-Trimethylbenzene	U			0.00120	0.00524	1	09/20/2018 01:44	WG1168529
1,3,5-Trimethylbenzene	U			0.00113	0.00524	1	09/20/2018 01:44	WG1168529
Vinyl acetate	U	UJ	J0	0.00369	0.0131	1	09/20/2018 01:44	WG1168529
Vinyl chloride	0.0146			0.000716	0.00262	1	09/20/2018 01:44	WG1168529
Xylenes, Total	U			0.00501	0.00681	1	09/20/2018 01:44	WG1168529
(S) Toluene-d8	*105*				*75.0-131*		*09/20/2018 01:44*	WG1168529
(S) Toluene-d8	*117*				*75.0-131*		*09/20/2018 16:16*	WG1168808
(S) Dibromofluoromethane	*103*				*65.0-129*		*09/20/2018 01:44*	WG1168529
(S) Dibromofluoromethane	*93.4*				*65.0-129*		*09/20/2018 16:16*	WG1168808
(S) 4-Bromofluorobenzene	*106*				*67.0-138*		*09/20/2018 01:44*	WG1168529
(S) 4-Bromofluorobenzene	*86.9*				*67.0-138*		*09/20/2018 16:16*	WG1168808

JC 10/19/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	88.5		1	09/17/2018 15:11	WG1166858

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch	
	mg/kg		mg/kg	mg/kg		date / time		
Acetone	U		0.0155	0.0282	1	09/20/2018 02:04	WG1168529	
Acrylonitrile	U		0.00215	0.0141	1	09/20/2018 02:04	WG1168529	
Benzene	U		0.000452	0.00113	1	09/20/2018 02:04	WG1168529	
Bromobenzene	U		0.00119	0.0141	1	09/20/2018 02:04	WG1168529	
Bromodichloromethane	U		0.000890	0.00282	1	09/20/2018 02:04	WG1168529	
Bromochloromethane	U		0.00128	0.00565	1	09/20/2018 02:04	WG1168529	
Bromoform	U		0.00676	0.0282	1	09/20/2018 02:04	WG1168529	
Bromomethane	U		0.00418	0.0141	1	09/20/2018 02:04	WG1168529	
n-Butylbenzene	U		0.00434	0.0141	1	09/20/2018 02:04	WG1168529	
sec-Butylbenzene	U		0.00286	0.0141	1	09/20/2018 02:04	WG1168529	
tert-Butylbenzene	U		0.00175	0.00565	1	09/20/2018 02:04	WG1168529	
Carbon disulfide	U		0.00459	0.0141	1	09/20/2018 02:04	WG1168529	
Carbon tetrachloride	U		0.00122	0.00565	1	09/20/2018 02:04	WG1168529	
Chlorobenzene	U		0.000647	0.00282	1	09/20/2018 02:04	WG1168529	
Chlorodibromomethane	U		0.000508	0.00282	1	09/20/2018 02:04	WG1168529	
Chloroethane	0.0149		0.00122	0.00565	1	09/20/2018 02:04	WG1168529	
Chloroform	U		0.000469	0.00282	1	09/20/2018 02:04	WG1168529	
Chloromethane	U		0.00157	0.0141	1	09/20/2018 02:04	WG1168529	
2-Chlorotoluene	U		0.00104	0.00282	1	09/20/2018 02:04	WG1168529	
4-Chlorotoluene	U		0.00128	0.00565	1	09/20/2018 02:04	WG1168529	
1,2-Dibromo-3-Chloropropane	U	UJ J0	0.00576	0.0282	1	09/20/2018 02:04	WG1168529	
1,2-Dibromoethane	U		0.000593	0.00282	1	09/20/2018 02:04	WG1168529	
Dibromomethane	U		0.00113	0.00565	1	09/20/2018 02:04	WG1168529	
1,2-Dichlorobenzene	U		0.00164	0.00565	1	09/20/2018 02:04	WG1168529	
1,3-Dichlorobenzene	U		0.00192	0.00565	1	09/20/2018 02:04	WG1168529	
1,4-Dichlorobenzene	U		0.00223	0.00565	1	09/20/2018 02:04	WG1168529	
Dichlorodifluoromethane	U		0.000924	0.00282	1	09/20/2018 02:04	WG1168529	
1,1-Dichloroethane	U		0.000650	0.00282	1	09/20/2018 02:04	WG1168529	
1,2-Dichloroethane	U		0.000537	0.00282	1	09/20/2018 02:04	WG1168529	
1,1-Dichloroethene	0.0365		0.000565	0.00282	1	09/20/2018 02:04	WG1168529	
cis-1,2-Dichloroethene	3.90		0.0312	0.113	40	09/20/2018 18:12	WG1168808	
trans-1,2-Dichloroethene	0.0111	UJ J0	0.00162	0.00565	1	09/20/2018 02:04	WG1168529	
1,2-Dichloropropane	U		0.0574	0.226	40	09/20/2018 18:12	WG1168808	
1,1-Dichloropropene	U		0.000791	0.00282	1	09/20/2018 02:04	WG1168529	
1,3-Dichloropropane	U		0.00198	0.00565	1	09/20/2018 02:04	WG1168529	
cis-1,3-Dichloropropene	U		0.000766	0.00282	1	09/20/2018 02:04	WG1168529	
trans-1,3-Dichloropropene	U	UJ J0 J4	0.00173	0.00565	1	09/20/2018 02:04	WG1168529	
trans-1,4-Dichloro-2-butene	U	UJ J0	0.00158	0.00565	1	09/20/2018 02:04	WG1168529	
2,2-Dichloropropane	U	UJ J0	0.000896	0.00282	1	09/20/2018 02:04	WG1168529	
Di-isopropyl ether	U		0.000395	0.00113	1	09/20/2018 02:04	WG1168529	
Ethylbenzene	0.000834	J J	0.000599	0.00282	1	09/20/2018 02:04	WG1168529	
Hexachloro-1,3-butadiene	U		0.0143	0.0282	1	09/20/2018 02:04	WG1168529	
2-Hexanone	U		0.0113	0.0282	1	09/20/2018 02:04	WG1168529	
n-Hexane	U	J4	0.0479	0.226	40	09/20/2018 18:12	WG1168808	
Iodomethane	U		0.00684	0.0141	1	09/20/2018 02:04	WG1168529	
Isopropylbenzene	U		0.000975	0.00282	1	09/20/2018 02:04	WG1168529	
p-Isopropyltoluene	U	UJ J4	0.00263	0.00565	1	09/20/2018 02:04	WG1168529	
2-Butanone (MEK)	U		0.565	1.13	40	09/20/2018 18:12	WG1168808	
Methylene Chloride	U		0.00750	0.0282	1	09/20/2018 02:04	WG1168529	JC 10/19/18
4-Methyl-2-pentanone (MIBK)	U		0.0113	0.0282	1	09/20/2018 02:04	WG1168529	

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000333	0.00113	1	09/20/2018 02:04	WG1168529
Naphthalene	U		0.00353	0.0141	1	09/20/2018 02:04	WG1168529
n-Propylbenzene	0.00287 J	J	0.00133	0.00565	1	09/20/2018 02:04	WG1168529
Styrene	U UJ	J4	0.123	0.565	40	09/20/2018 18:12	WG1168808
1,1,1,2-Tetrachloroethane	U UJ	J0 J4	0.000565	0.00282	1	09/20/2018 02:04	WG1168529
1,1,2,2-Tetrachloroethane	U		0.000441	0.00282	1	09/20/2018 02:04	WG1168529
1,1,2-Trichlorotrifluoroethane	U		0.000763	0.00282	1	09/20/2018 02:04	WG1168529
Tetrachloroethene	56.7		0.0316	0.113	40	09/20/2018 18:12	WG1168808
Toluene	0.00389 J	J	0.00141	0.00565	1	09/20/2018 02:04	WG1168529
1,2,3-Trichlorobenzene	U		0.000706	0.00282	1	09/20/2018 02:04	WG1168529
1,2,4-Trichlorobenzene	U		0.00545	0.0141	1	09/20/2018 02:04	WG1168529
1,1,1-Trichloroethane	U		0.000311	0.00282	1	09/20/2018 02:04	WG1168529
1,1,2-Trichloroethane	U		0.000998	0.00282	1	09/20/2018 02:04	WG1168529
Trichloroethene	4.36		0.0181	0.0452	40	09/20/2018 18:12	WG1168808
Trichlorofluoromethane	U		0.000565	0.00282	1	09/20/2018 02:04	WG1168529
1,2,3-Trichloropropane	U		0.00576	0.0141	1	09/20/2018 02:04	WG1168529
1,2,4-Trimethylbenzene	0.00887		0.00131	0.00565	1	09/20/2018 02:04	WG1168529
1,2,3-Trimethylbenzene	0.00267 J	J	0.00130	0.00565	1	09/20/2018 02:04	WG1168529
1,3,5-Trimethylbenzene	0.00398 J	J	0.00122	0.00565	1	09/20/2018 02:04	WG1168529
Vinyl acetate	U UJ	J0	0.00398	0.0141	1	09/20/2018 02:04	WG1168529
Vinyl chloride	0.0180		0.000772	0.00282	1	09/20/2018 02:04	WG1168529
Xylenes, Total	U		0.00540	0.00734	1	09/20/2018 02:04	WG1168529
(S) Toluene-d8	*106*			*75.0-131*		*09/20/2018 02:04*	WG1168529
(S) Toluene-d8	*105*			*75.0-131*		*09/20/2018 18:12*	WG1168808
(S) Dibromofluoromethane	*101*			*65.0-129*		*09/20/2018 02:04*	WG1168529
(S) Dibromofluoromethane	*110*			*65.0-129*		*09/20/2018 18:12*	WG1168808
(S) 4-Bromofluorobenzene	*108*			*67.0-138*		*09/20/2018 02:04*	WG1168529
(S) 4-Bromofluorobenzene	*83.7*			*67.0-138*		*09/20/2018 18:12*	WG1168808

Sample Narrative:

L1025469-06 WG1168529, WG1168808: Not all compounds reportable from 1x dilution.

L1025469-06 WG1168529, WG1168808: Cannot be re-analyzed at a lower dilution due to high levels of target analytes.

JC 10/19/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	89.1		1	09/17/2018 15:11	WG1166858

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0154	0.0281	1	09/20/2018 02:24	WG1168529
Acrylonitrile	U		0.00213	0.0140	1	09/20/2018 02:24	WG1168529
Benzene	U		0.000449	0.00112	1	09/20/2018 02:24	WG1168529
Bromobenzene	U		0.00118	0.0140	1	09/20/2018 02:24	WG1168529
Bromodichloromethane	U		0.000884	0.00281	1	09/20/2018 02:24	WG1168529
Bromochloromethane	U		0.00127	0.00561	1	09/20/2018 02:24	WG1168529
Bromoform	U		0.00671	0.0281	1	09/20/2018 02:24	WG1168529
Bromomethane	U		0.00415	0.0140	1	09/20/2018 02:24	WG1168529
n-Butylbenzene	U		0.00431	0.0140	1	09/20/2018 02:24	WG1168529
sec-Butylbenzene	U		0.00284	0.0140	1	09/20/2018 02:24	WG1168529
tert-Butylbenzene	U		0.00174	0.00561	1	09/20/2018 02:24	WG1168529
Carbon disulfide	U		0.00456	0.0140	1	09/20/2018 02:24	WG1168529
Carbon tetrachloride	U		0.00121	0.00561	1	09/20/2018 02:24	WG1168529
Chlorobenzene	U		0.000643	0.00281	1	09/20/2018 02:24	WG1168529
Chlorodibromomethane	U		0.000505	0.00281	1	09/20/2018 02:24	WG1168529
Chloroethane	U		0.00121	0.00561	1	09/20/2018 02:24	WG1168529
Chloroform	U		0.000466	0.00281	1	09/20/2018 02:24	WG1168529
Chloromethane	U		0.00156	0.0140	1	09/20/2018 02:24	WG1168529
2-Chlorotoluene	U		0.00103	0.00281	1	09/20/2018 02:24	WG1168529
4-Chlorotoluene	U		0.00127	0.00561	1	09/20/2018 02:24	WG1168529
1,2-Dibromo-3-Chloropropane	U	UJ J0	0.00572	0.0281	1	09/20/2018 02:24	WG1168529
1,2-Dibromoethane	U		0.000589	0.00281	1	09/20/2018 02:24	WG1168529
Dibromomethane	U		0.00112	0.00561	1	09/20/2018 02:24	WG1168529
1,2-Dichlorobenzene	U		0.00163	0.00561	1	09/20/2018 02:24	WG1168529
1,3-Dichlorobenzene	U		0.00191	0.00561	1	09/20/2018 02:24	WG1168529
1,4-Dichlorobenzene	U		0.00221	0.00561	1	09/20/2018 02:24	WG1168529
Dichlorodifluoromethane	U		0.000918	0.00281	1	09/20/2018 02:24	WG1168529
1,1-Dichloroethane	U		0.000645	0.00281	1	09/20/2018 02:24	WG1168529
1,2-Dichloroethane	U		0.000533	0.00281	1	09/20/2018 02:24	WG1168529
1,1-Dichloroethene	U		0.000561	0.00281	1	09/20/2018 02:24	WG1168529
cis-1,2-Dichloroethene	0.244		0.000774	0.00281	1	09/20/2018 16:35	WG1168808
trans-1,2-Dichloroethene	0.00171	J J J0	0.00160	0.00561	1	09/20/2018 02:24	WG1168529
1,2-Dichloropropane	U		0.00143	0.00561	1	09/20/2018 16:35	WG1168808
1,1-Dichloropropene	U		0.000786	0.00281	1	09/20/2018 02:24	WG1168529
1,3-Dichloropropane	U		0.00196	0.00561	1	09/20/2018 02:24	WG1168529
cis-1,3-Dichloropropene	U		0.000761	0.00281	1	09/20/2018 02:24	WG1168529
trans-1,3-Dichloropropene	U	UJ J0 J4	0.00172	0.00561	1	09/20/2018 02:24	WG1168529
trans-1,4-Dichloro-2-butene	U	UJ J0	0.00157	0.00561	1	09/20/2018 02:24	WG1168529
2,2-Dichloropropane	U	UJ J0	0.000890	0.00281	1	09/20/2018 02:24	WG1168529
Di-isopropyl ether	U		0.000393	0.00112	1	09/20/2018 02:24	WG1168529
Ethylbenzene	U		0.000595	0.00281	1	09/20/2018 02:24	WG1168529
Hexachloro-1,3-butadiene	U		0.0143	0.0281	1	09/20/2018 02:24	WG1168529
2-Hexanone	U		0.0112	0.0281	1	09/20/2018 02:24	WG1168529
n-Hexane	0.00251	J J J4	0.00119	0.00561	1	09/20/2018 16:35	WG1168808
Iodomethane	U		0.00679	0.0140	1	09/20/2018 02:24	WG1168529
Isopropylbenzene	U		0.000969	0.00281	1	09/20/2018 02:24	WG1168529
p-Isopropyltoluene	U	UJ J4	0.00262	0.00561	1	09/20/2018 02:24	WG1168529
2-Butanone (MEK)	U		0.0140	0.0281	1	09/20/2018 16:35	WG1168808
Methylene Chloride	0.0102	U B J	0.00745	0.0281	1	09/20/2018 02:24	WG1168529
4-Methyl-2-pentanone (MIBK)	U		0.0112	0.0281	1	09/20/2018 02:24	WG1168529

JC 10/19/18

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

Analyte	Result (dry) mg/kg		Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U			0.000331	0.00112	1	09/20/2018 02:24	WG1168529
Naphthalene	U			0.00350	0.0140	1	09/20/2018 02:24	WG1168529
n-Propylbenzene	U			0.00132	0.00561	1	09/20/2018 02:24	WG1168529
Styrene	U	UJ	J0 J4	0.00306	0.0140	1	09/20/2018 16:35	WG1168808
1,1,1,2-Tetrachloroethane	U	UJ	J0 J4	0.000561	0.00281	1	09/20/2018 02:24	WG1168529
1,1,2,2-Tetrachloroethane	U			0.000438	0.00281	1	09/20/2018 02:24	WG1168529
1,1,2-Trichlorotrifluoroethane	U			0.000758	0.00281	1	09/20/2018 02:24	WG1168529
Tetrachloroethene	1.60			0.000786	0.00281	1	09/20/2018 16:35	WG1168808
Toluene	0.00166	J	J	0.00140	0.00561	1	09/20/2018 02:24	WG1168529
1,2,3-Trichlorobenzene	U			0.000701	0.00281	1	09/20/2018 02:24	WG1168529
1,2,4-Trichlorobenzene	U			0.00541	0.0140	1	09/20/2018 02:24	WG1168529
1,1,1-Trichloroethane	U			0.000309	0.00281	1	09/20/2018 02:24	WG1168529
1,1,2-Trichloroethane	U			0.000991	0.00281	1	09/20/2018 02:24	WG1168529
Trichloroethene	0.100			0.000449	0.00112	1	09/20/2018 16:35	WG1168808
Trichlorofluoromethane	U			0.000561	0.00281	1	09/20/2018 02:24	WG1168529
1,2,3-Trichloropropane	U			0.00572	0.0140	1	09/20/2018 02:24	WG1168529
1,2,4-Trimethylbenzene	U			0.00130	0.00561	1	09/20/2018 02:24	WG1168529
1,2,3-Trimethylbenzene	U			0.00129	0.00561	1	09/20/2018 02:24	WG1168529
1,3,5-Trimethylbenzene	U			0.00121	0.00561	1	09/20/2018 02:24	WG1168529
Vinyl acetate	U	UJ	J0	0.00395	0.0140	1	09/20/2018 02:24	WG1168529
Vinyl chloride	U			0.000767	0.00281	1	09/20/2018 02:24	WG1168529
Xylenes, Total	U			0.00536	0.00730	1	09/20/2018 02:24	WG1168529
(S) Toluene-d8	*104*				*75.0-131*		*09/20/2018 02:24*	WG1168529
(S) Toluene-d8	*119*				*75.0-131*		*09/20/2018 16:35*	WG1168808
(S) Dibromofluoromethane	*102*				*65.0-129*		*09/20/2018 02:24*	WG1168529
(S) Dibromofluoromethane	*87.3*				*65.0-129*		*09/20/2018 16:35*	WG1168808
(S) 4-Bromofluorobenzene	*107*				*67.0-138*		*09/20/2018 02:24*	WG1168529
(S) 4-Bromofluorobenzene	*88.7*				*67.0-138*		*09/20/2018 16:35*	WG1168808

JC 10/19/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	89.1		1	09/17/2018 15:11	WG1166858

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	0.0671		0.0154	0.0280	1	09/20/2018 02:44	WG1168529
Acrylonitrile	U		0.00213	0.0140	1	09/20/2018 02:44	WG1168529
Benzene	0.000525	J J	0.000449	0.00112	1	09/20/2018 02:44	WG1168529
Bromobenzene	U		0.00118	0.0140	1	09/20/2018 02:44	WG1168529
Bromodichloromethane	U		0.000884	0.00280	1	09/20/2018 02:44	WG1168529
Bromochloromethane	U		0.00127	0.00561	1	09/20/2018 02:44	WG1168529
Bromoform	U		0.00671	0.0280	1	09/20/2018 02:44	WG1168529
Bromomethane	U		0.00415	0.0140	1	09/20/2018 02:44	WG1168529
n-Butylbenzene	U		0.00431	0.0140	1	09/20/2018 02:44	WG1168529
sec-Butylbenzene	U		0.00284	0.0140	1	09/20/2018 02:44	WG1168529
tert-Butylbenzene	U		0.00174	0.00561	1	09/20/2018 02:44	WG1168529
Carbon disulfide	U		0.00455	0.0140	1	09/20/2018 02:44	WG1168529
Carbon tetrachloride	U		0.00121	0.00561	1	09/20/2018 02:44	WG1168529
Chlorobenzene	U		0.000643	0.00280	1	09/20/2018 02:44	WG1168529
Chlorodibromomethane	U		0.000505	0.00280	1	09/20/2018 02:44	WG1168529
Chloroethane	0.0282		0.00121	0.00561	1	09/20/2018 02:44	WG1168529
Chloroform	U		0.000466	0.00280	1	09/20/2018 02:44	WG1168529
Chloromethane	U		0.00156	0.0140	1	09/20/2018 02:44	WG1168529
2-Chlorotoluene	U		0.00103	0.00280	1	09/20/2018 02:44	WG1168529
4-Chlorotoluene	U		0.00127	0.00561	1	09/20/2018 02:44	WG1168529
1,2-Dibromo-3-Chloropropane	U	UJ J0	0.00572	0.0280	1	09/20/2018 02:44	WG1168529
1,2-Dibromoethane	U		0.000589	0.00280	1	09/20/2018 02:44	WG1168529
Dibromomethane	U		0.00112	0.00561	1	09/20/2018 02:44	WG1168529
1,2-Dichlorobenzene	U		0.00163	0.00561	1	09/20/2018 02:44	WG1168529
1,3-Dichlorobenzene	U		0.00191	0.00561	1	09/20/2018 02:44	WG1168529
1,4-Dichlorobenzene	U		0.00221	0.00561	1	09/20/2018 02:44	WG1168529
Dichlorodifluoromethane	U		0.000918	0.00280	1	09/20/2018 02:44	WG1168529
1,1-Dichloroethane	U		0.000645	0.00280	1	09/20/2018 02:44	WG1168529
1,2-Dichloroethane	U		0.000533	0.00280	1	09/20/2018 02:44	WG1168529
1,1-Dichloroethene	U		0.000561	0.00280	1	09/20/2018 02:44	WG1168529
cis-1,2-Dichloroethene	0.00943		0.000774	0.00280	1	09/20/2018 17:14	WG1168808
trans-1,2-Dichloroethene	U	UJ J0	0.00160	0.00561	1	09/20/2018 02:44	WG1168529
1,2-Dichloropropane	U		0.00142	0.00561	1	09/20/2018 17:14	WG1168808
1,1-Dichloropropene	U		0.000785	0.00280	1	09/20/2018 02:44	WG1168529
1,3-Dichloropropane	U		0.00196	0.00561	1	09/20/2018 02:44	WG1168529
cis-1,3-Dichloropropene	U		0.000761	0.00280	1	09/20/2018 02:44	WG1168529
trans-1,3-Dichloropropene	0.00600	J J0 J4	0.00172	0.00561	1	09/20/2018 02:44	WG1168529
trans-1,4-Dichloro-2-butene	U	UJ J0	0.00157	0.00561	1	09/20/2018 02:44	WG1168529
2,2-Dichloropropane	0.00171	J J J0	0.000890	0.00280	1	09/20/2018 02:44	WG1168529
Di-isopropyl ether	U		0.000393	0.00112	1	09/20/2018 02:44	WG1168529
Ethylbenzene	U		0.000595	0.00280	1	09/20/2018 02:44	WG1168529
Hexachloro-1,3-butadiene	U		0.0142	0.0280	1	09/20/2018 02:44	WG1168529
2-Hexanone	U		0.0112	0.0280	1	09/20/2018 02:44	WG1168529
n-Hexane	0.00162	J J J4	0.00119	0.00561	1	09/20/2018 17:14	WG1168808
Iodomethane	U		0.00679	0.0140	1	09/20/2018 02:44	WG1168529
Isopropylbenzene	U		0.000968	0.00280	1	09/20/2018 02:44	WG1168529
p-Isopropyltoluene	U	UJ J4	0.00261	0.00561	1	09/20/2018 02:44	WG1168529
2-Butanone (MEK)	U		0.0140	0.0280	1	09/20/2018 17:14	WG1168808
Methylene Chloride	0.00858	U B J	0.00745	0.0280	1	09/20/2018 02:44	WG1168529
4-Methyl-2-pentanone (MIBK)	U		0.0112	0.0280	1	09/20/2018 02:44	WG1168529

JC 10/19/18

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

Analyte	Result (dry) mg/kg		Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	0.000562	J	J	0.000331	0.00112	1	09/20/2018 02:44	WG1168529
Naphthalene	U			0.00350	0.0140	1	09/20/2018 02:44	WG1168529
n-Propylbenzene	U			0.00132	0.00561	1	09/20/2018 02:44	WG1168529
Styrene	U	UJ	J4	0.00306	0.0140	1	09/20/2018 17:14	WG1168808
1,1,1,2-Tetrachloroethane	U	UJ	J0 J4	0.000561	0.00280	1	09/20/2018 02:44	WG1168529
1,1,2,2-Tetrachloroethane	U			0.000438	0.00280	1	09/20/2018 02:44	WG1168529
1,1,2-Trichlorotrifluoroethane	U			0.000757	0.00280	1	09/20/2018 02:44	WG1168529
Tetrachloroethene	0.0728			0.000785	0.00280	1	09/20/2018 17:14	WG1168808
Toluene	0.00304	J	J	0.00140	0.00561	1	09/20/2018 02:44	WG1168529
1,2,3-Trichlorobenzene	U			0.000701	0.00280	1	09/20/2018 02:44	WG1168529
1,2,4-Trichlorobenzene	U			0.00541	0.0140	1	09/20/2018 02:44	WG1168529
1,1,1-Trichloroethane	U			0.000309	0.00280	1	09/20/2018 02:44	WG1168529
1,1,2-Trichloroethane	U			0.000991	0.00280	1	09/20/2018 02:44	WG1168529
Trichloroethene	0.00797			0.000449	0.00112	1	09/20/2018 17:14	WG1168808
Trichlorofluoromethane	U			0.000561	0.00280	1	09/20/2018 02:44	WG1168529
1,2,3-Trichloropropane	U			0.00572	0.0140	1	09/20/2018 02:44	WG1168529
1,2,4-Trimethylbenzene	U			0.00130	0.00561	1	09/20/2018 02:44	WG1168529
1,2,3-Trimethylbenzene	U			0.00129	0.00561	1	09/20/2018 02:44	WG1168529
1,3,5-Trimethylbenzene	U			0.00121	0.00561	1	09/20/2018 02:44	WG1168529
Vinyl acetate	U	UJ	J0	0.00395	0.0140	1	09/20/2018 02:44	WG1168529
Vinyl chloride	U			0.000766	0.00280	1	09/20/2018 02:44	WG1168529
Xylenes, Total	U			0.00536	0.00729	1	09/20/2018 02:44	WG1168529
(S) Toluene-d8	*94.8*				*75.0-131*		*09/20/2018 02:44*	WG1168529
(S) Toluene-d8	*118*				*75.0-131*		*09/20/2018 17:14*	WG1168808
(S) Dibromofluoromethane	*107*				*65.0-129*		*09/20/2018 02:44*	WG1168529
(S) Dibromofluoromethane	*88.7*				*65.0-129*		*09/20/2018 17:14*	WG1168808
(S) 4-Bromofluorobenzene	*106*				*67.0-138*		*09/20/2018 02:44*	WG1168529
(S) 4-Bromofluorobenzene	*94.9*				*67.0-138*		*09/20/2018 17:14*	WG1168808

JC 10/19/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	90.8		1	09/17/2018 15:11	WG1166858

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0151	0.0275	1	09/20/2018 03:04	WG1168529
Acrylonitrile	U		0.00209	0.0138	1	09/20/2018 03:04	WG1168529
Benzene	0.000604	J J	0.000441	0.00110	1	09/20/2018 03:04	WG1168529
Bromobenzene	U		0.00116	0.0138	1	09/20/2018 03:04	WG1168529
Bromodichloromethane	U		0.000868	0.00275	1	09/20/2018 03:04	WG1168529
Bromochloromethane	U		0.00124	0.00551	1	09/20/2018 03:04	WG1168529
Bromoform	U		0.00659	0.0275	1	09/20/2018 03:04	WG1168529
Bromomethane	U		0.00408	0.0138	1	09/20/2018 03:04	WG1168529
n-Butylbenzene	U		0.00423	0.0138	1	09/20/2018 03:04	WG1168529
sec-Butylbenzene	U		0.00279	0.0138	1	09/20/2018 03:04	WG1168529
tert-Butylbenzene	U		0.00171	0.00551	1	09/20/2018 03:04	WG1168529
Carbon disulfide	U		0.00447	0.0138	1	09/20/2018 03:04	WG1168529
Carbon tetrachloride	U		0.00119	0.00551	1	09/20/2018 03:04	WG1168529
Chlorobenzene	U		0.000631	0.00275	1	09/20/2018 03:04	WG1168529
Chlorodibromomethane	U		0.000496	0.00275	1	09/20/2018 03:04	WG1168529
Chloroethane	U		0.00119	0.00551	1	09/20/2018 03:04	WG1168529
Chloroform	U		0.000457	0.00275	1	09/20/2018 03:04	WG1168529
Chloromethane	U		0.00153	0.0138	1	09/20/2018 03:04	WG1168529
2-Chlorotoluene	U		0.00101	0.00275	1	09/20/2018 03:04	WG1168529
4-Chlorotoluene	U		0.00124	0.00551	1	09/20/2018 03:04	WG1168529
1,2-Dibromo-3-Chloropropane	U	UJ J0	0.00562	0.0275	1	09/20/2018 03:04	WG1168529
1,2-Dibromoethane	U		0.000578	0.00275	1	09/20/2018 03:04	WG1168529
Dibromomethane	U		0.00110	0.00551	1	09/20/2018 03:04	WG1168529
1,2-Dichlorobenzene	U		0.00160	0.00551	1	09/20/2018 03:04	WG1168529
1,3-Dichlorobenzene	U		0.00187	0.00551	1	09/20/2018 03:04	WG1168529
1,4-Dichlorobenzene	U		0.00217	0.00551	1	09/20/2018 03:04	WG1168529
Dichlorodifluoromethane	U		0.000901	0.00275	1	09/20/2018 03:04	WG1168529
1,1-Dichloroethane	U		0.000633	0.00275	1	09/20/2018 03:04	WG1168529
1,2-Dichloroethane	U		0.000523	0.00275	1	09/20/2018 03:04	WG1168529
1,1-Dichloroethene	0.00762		0.000551	0.00275	1	09/20/2018 03:04	WG1168529
cis-1,2-Dichloroethene	0.0189		0.000760	0.00275	1	09/20/2018 03:04	WG1168529
trans-1,2-Dichloroethene	0.00742	J J0	0.00158	0.00551	1	09/20/2018 03:04	WG1168529
1,2-Dichloropropane	U		0.00140	0.00551	1	09/20/2018 23:35	WG1169029
1,1-Dichloropropene	U		0.000771	0.00275	1	09/20/2018 03:04	WG1168529
1,3-Dichloropropane	U		0.00193	0.00551	1	09/20/2018 03:04	WG1168529
cis-1,3-Dichloropropene	U		0.000747	0.00275	1	09/20/2018 03:04	WG1168529
trans-1,3-Dichloropropene	0.00731	J J0 J4	0.00169	0.00551	1	09/20/2018 03:04	WG1168529
trans-1,4-Dichloro-2-butene	U	UJ J0	0.00154	0.00551	1	09/20/2018 03:04	WG1168529
2,2-Dichloropropane	U	UJ J0	0.000874	0.00275	1	09/20/2018 03:04	WG1168529
Di-isopropyl ether	U		0.000386	0.00110	1	09/20/2018 03:04	WG1168529
Ethylbenzene	U		0.000584	0.00275	1	09/20/2018 03:04	WG1168529
Hexachloro-1,3-butadiene	U		0.0140	0.0275	1	09/20/2018 03:04	WG1168529
2-Hexanone	U		0.0110	0.0275	1	09/20/2018 03:04	WG1168529
n-Hexane	0.00146	J J	0.00117	0.00551	1	09/21/2018 15:32	WG1169450
Iodomethane	U		0.00666	0.0138	1	09/20/2018 03:04	WG1168529
Isopropylbenzene	U		0.000951	0.00275	1	09/20/2018 03:04	WG1168529
p-Isopropyltoluene	U	UJ J4	0.00257	0.00551	1	09/20/2018 03:04	WG1168529
2-Butanone (MEK)	U		0.0138	0.0275	1	09/20/2018 23:35	WG1169029
Methylene Chloride	U		0.00731	0.0275	1	09/20/2018 03:04	WG1168529
4-Methyl-2-pentanone (MIBK)	U		0.0110	0.0275	1	09/20/2018 03:04	WG1168529

JC 10/19/18

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000325	0.00110	1	09/20/2018 03:04	WG1168529
Naphthalene	U		0.00344	0.0138	1	09/20/2018 03:04	WG1168529
n-Propylbenzene	U		0.00130	0.00551	1	09/20/2018 03:04	WG1168529
Styrene	U		0.00301	0.0138	1	09/20/2018 23:35	WG1169029
1,1,1,2-Tetrachloroethane	U	UJ J0 J4	0.000551	0.00275	1	09/20/2018 03:04	WG1168529
1,1,2,2-Tetrachloroethane	U		0.000430	0.00275	1	09/20/2018 03:04	WG1168529
1,1,2-Trichlorotrifluoroethane	U		0.000744	0.00275	1	09/20/2018 03:04	WG1168529
Tetrachloroethene	2.31		0.000771	0.00275	1	09/20/2018 03:04	WG1168529
Toluene	0.00291	J J	0.00138	0.00551	1	09/20/2018 03:04	WG1168529
1,2,3-Trichlorobenzene	U		0.000689	0.00275	1	09/20/2018 03:04	WG1168529
1,2,4-Trichlorobenzene	U		0.00531	0.0138	1	09/20/2018 03:04	WG1168529
1,1,1-Trichloroethane	U		0.000303	0.00275	1	09/20/2018 03:04	WG1168529
1,1,2-Trichloroethane	U		0.000973	0.00275	1	09/20/2018 03:04	WG1168529
Trichloroethene	0.502		0.000441	0.00110	1	09/20/2018 03:04	WG1168529
Trichlorofluoromethane	U		0.000551	0.00275	1	09/20/2018 03:04	WG1168529
1,2,3-Trichloropropane	U		0.00562	0.0138	1	09/20/2018 03:04	WG1168529
1,2,4-Trimethylbenzene	U		0.00128	0.00551	1	09/20/2018 03:04	WG1168529
1,2,3-Trimethylbenzene	U		0.00127	0.00551	1	09/20/2018 03:04	WG1168529
1,3,5-Trimethylbenzene	U		0.00119	0.00551	1	09/20/2018 03:04	WG1168529
Vinyl acetate	U	UJ J0	0.00388	0.0138	1	09/20/2018 03:04	WG1168529
Vinyl chloride	U		0.000752	0.00275	1	09/20/2018 03:04	WG1168529
Xylenes, Total	U		0.00527	0.00716	1	09/20/2018 03:04	WG1168529
(S) Toluene-d8	*105*			*75.0-131*		*09/20/2018 03:04*	WG1168529
(S) Toluene-d8	*102*			*75.0-131*		*09/20/2018 23:35*	WG1169029
(S) Toluene-d8	*116*			*75.0-131*		*09/21/2018 15:32*	WG1169450
(S) Dibromofluoromethane	*101*			*65.0-129*		*09/20/2018 03:04*	WG1168529
(S) Dibromofluoromethane	*107*			*65.0-129*		*09/20/2018 23:35*	WG1169029
(S) Dibromofluoromethane	*91.4*			*65.0-129*		*09/21/2018 15:32*	WG1169450
(S) 4-Bromofluorobenzene	*107*			*67.0-138*		*09/20/2018 03:04*	WG1168529
(S) 4-Bromofluorobenzene	*106*			*67.0-138*		*09/20/2018 23:35*	WG1169029
(S) 4-Bromofluorobenzene	*85.2*			*67.0-138*		*09/21/2018 15:32*	WG1169450

JC 10/19/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	88.3		1	09/17/2018 15:11	WG1166858

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0155	0.0283	1	09/20/2018 03:24	WG1168529
Acrylonitrile	U		0.00215	0.0142	1	09/20/2018 03:24	WG1168529
Benzene	0.000701	J	J	0.000453	0.00113	1	09/20/2018 03:24	WG1168529
Bromobenzene	U			0.00119	0.0142	1	09/20/2018 03:24	WG1168529
Bromodichloromethane	U			0.000893	0.00283	1	09/20/2018 03:24	WG1168529
Bromochloromethane	U			0.00128	0.00566	1	09/20/2018 03:24	WG1168529
Bromoform	U			0.00677	0.0283	1	09/20/2018 03:24	WG1168529
Bromomethane	U			0.00419	0.0142	1	09/20/2018 03:24	WG1168529
n-Butylbenzene	U			0.00435	0.0142	1	09/20/2018 03:24	WG1168529
sec-Butylbenzene	U			0.00287	0.0142	1	09/20/2018 03:24	WG1168529
tert-Butylbenzene	U			0.00176	0.00566	1	09/20/2018 03:24	WG1168529
Carbon disulfide	U			0.00460	0.0142	1	09/20/2018 03:24	WG1168529
Carbon tetrachloride	U			0.00122	0.00566	1	09/20/2018 03:24	WG1168529
Chlorobenzene	U			0.000649	0.00283	1	09/20/2018 03:24	WG1168529
Chlorodibromomethane	U			0.000510	0.00283	1	09/20/2018 03:24	WG1168529
Chloroethane	0.0244			0.00122	0.00566	1	09/20/2018 03:24	WG1168529
Chloroform	U			0.000470	0.00283	1	09/20/2018 03:24	WG1168529
Chloromethane	U			0.00157	0.0142	1	09/20/2018 03:24	WG1168529
2-Chlorotoluene	U			0.00104	0.00283	1	09/20/2018 03:24	WG1168529
4-Chlorotoluene	U			0.00128	0.00566	1	09/20/2018 03:24	WG1168529
1,2-Dibromo-3-Chloropropane	U	UJ	J0	0.00578	0.0283	1	09/20/2018 03:24	WG1168529
1,2-Dibromoethane	U			0.000595	0.00283	1	09/20/2018 03:24	WG1168529
Dibromomethane	U			0.00113	0.00566	1	09/20/2018 03:24	WG1168529
1,2-Dichlorobenzene	U			0.00164	0.00566	1	09/20/2018 03:24	WG1168529
1,3-Dichlorobenzene	U			0.00193	0.00566	1	09/20/2018 03:24	WG1168529
1,4-Dichlorobenzene	U			0.00223	0.00566	1	09/20/2018 03:24	WG1168529
Dichlorodifluoromethane	U			0.000927	0.00283	1	09/20/2018 03:24	WG1168529
1,1-Dichloroethane	U			0.000651	0.00283	1	09/20/2018 03:24	WG1168529
1,2-Dichloroethane	U			0.000538	0.00283	1	09/20/2018 03:24	WG1168529
1,1-Dichloroethene	0.00354			0.000566	0.00283	1	09/20/2018 03:24	WG1168529
cis-1,2-Dichloroethene	0.0212			0.000782	0.00283	1	09/20/2018 03:24	WG1168529
trans-1,2-Dichloroethene	0.00528	J	J J0	0.00162	0.00566	1	09/20/2018 03:24	WG1168529
1,2-Dichloropropane	U			0.0116	0.0453	8	09/20/2018 23:53	WG1169029
1,1-Dichloropropene	U			0.000793	0.00283	1	09/20/2018 03:24	WG1168529
1,3-Dichloropropane	U			0.00198	0.00566	1	09/20/2018 03:24	WG1168529
cis-1,3-Dichloropropene	U			0.000768	0.00283	1	09/20/2018 03:24	WG1168529
trans-1,3-Dichloropropene	U	UJ	J0 J4	0.00173	0.00566	1	09/20/2018 03:24	WG1168529
trans-1,4-Dichloro-2-butene	U	UJ	J0	0.00159	0.00566	1	09/20/2018 03:24	WG1168529
2,2-Dichloropropane	0.00316	J	J0	0.000898	0.00283	1	09/20/2018 03:24	WG1168529
Di-isopropyl ether	U			0.000396	0.00113	1	09/20/2018 03:24	WG1168529
Ethylbenzene	0.000606	J	J	0.000600	0.00283	1	09/20/2018 03:24	WG1168529
Hexachloro-1,3-butadiene	U			0.0144	0.0283	1	09/20/2018 03:24	WG1168529
2-Hexanone	U			0.0113	0.0283	1	09/20/2018 03:24	WG1168529
n-Hexane	U			0.00961	0.0453	8	09/21/2018 15:52	WG1169450
Iodomethane	U			0.00685	0.0142	1	09/20/2018 03:24	WG1168529
Isopropylbenzene	U			0.000978	0.00283	1	09/20/2018 03:24	WG1168529
p-Isopropyltoluene	U	UJ	J4	0.00264	0.00566	1	09/20/2018 03:24	WG1168529
2-Butanone (MEK)	U			0.113	0.227	8	09/20/2018 23:53	WG1169029
Methylene Chloride	0.00858	U	B J	0.00752	0.0283	1	09/20/2018 03:24	WG1168529
4-Methyl-2-pentanone (MIBK)	U			0.0113	0.0283	1	09/20/2018 03:24	WG1168529

JC 10/19/18

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	0.00135		0.000334	0.00113	1	09/20/2018 03:24	WG1168529
Naphthalene	U		0.00353	0.0142	1	09/20/2018 03:24	WG1168529
n-Propylbenzene	U		0.00134	0.00566	1	09/20/2018 03:24	WG1168529
Styrene	U		0.0247	0.113	8	09/20/2018 23:53	WG1169029
1,1,1,2-Tetrachloroethane	U	UJ J0 J4	0.000566	0.00283	1	09/20/2018 03:24	WG1168529
1,1,2,2-Tetrachloroethane	U		0.000442	0.00283	1	09/20/2018 03:24	WG1168529
1,1,2-Trichlorotrifluoroethane	U		0.000765	0.00283	1	09/20/2018 03:24	WG1168529
Tetrachloroethene	5.03		0.00634	0.0227	8	09/20/2018 23:53	WG1169029
Toluene	0.00318	J J	0.00142	0.00566	1	09/20/2018 03:24	WG1168529
1,2,3-Trichlorobenzene	0.00174	J J	0.000708	0.00283	1	09/20/2018 03:24	WG1168529
1,2,4-Trichlorobenzene	U		0.00546	0.0142	1	09/20/2018 03:24	WG1168529
1,1,1-Trichloroethane	U		0.000312	0.00283	1	09/20/2018 03:24	WG1168529
1,1,2-Trichloroethane	U		0.00100	0.00283	1	09/20/2018 03:24	WG1168529
Trichloroethene	0.616		0.000453	0.00113	1	09/20/2018 03:24	WG1168529
Trichlorofluoromethane	U		0.000566	0.00283	1	09/20/2018 03:24	WG1168529
1,2,3-Trichloropropane	U		0.00578	0.0142	1	09/20/2018 03:24	WG1168529
1,2,4-Trimethylbenzene	0.00133	J J	0.00131	0.00566	1	09/20/2018 03:24	WG1168529
1,2,3-Trimethylbenzene	U		0.00130	0.00566	1	09/20/2018 03:24	WG1168529
1,3,5-Trimethylbenzene	0.00133	J J	0.00122	0.00566	1	09/20/2018 03:24	WG1168529
Vinyl acetate	U	UJ J0	0.00399	0.0142	1	09/20/2018 03:24	WG1168529
Vinyl chloride	U		0.000774	0.00283	1	09/20/2018 03:24	WG1168529
Xylenes, Total	U		0.00541	0.00736	1	09/20/2018 03:24	WG1168529
(S) Toluene-d8	*108*			*75.0-131*		*09/20/2018 03:24*	WG1168529
(S) Toluene-d8	*100*			*75.0-131*		*09/20/2018 23:53*	WG1169029
(S) Toluene-d8	*108*			*75.0-131*		*09/21/2018 15:52*	WG1169450
(S) Dibromofluoromethane	*102*			*65.0-129*		*09/20/2018 03:24*	WG1168529
(S) Dibromofluoromethane	*109*			*65.0-129*		*09/20/2018 23:53*	WG1169029
(S) Dibromofluoromethane	*107*			*65.0-129*		*09/21/2018 15:52*	WG1169450
(S) 4-Bromofluorobenzene	*108*			*67.0-138*		*09/20/2018 03:24*	WG1168529
(S) 4-Bromofluorobenzene	*107*			*67.0-138*		*09/20/2018 23:53*	WG1169029
(S) 4-Bromofluorobenzene	*85.4*			*67.0-138*		*09/21/2018 15:52*	WG1169450

Sample Narrative:

L1025469-10 WG1168529, WG1169029: Not all compounds reportable from 1x dilution.

L1025469-10 WG1168529, WG1169029: Cannot be re-analyzed at a lower dilution due to high levels of target analytes.

JC 10/19/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	93.5		1	09/17/2018 15:11	WG1166858

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	0.0590		0.0147	0.0268	1	09/20/2018 03:43	WG1168529
Acrylonitrile	U		0.00203	0.0134	1	09/20/2018 03:43	WG1168529
Benzene	0.000455 J	J	0.000428	0.00107	1	09/20/2018 03:43	WG1168529
Bromobenzene	U		0.00112	0.0134	1	09/20/2018 03:43	WG1168529
Bromodichloromethane	U		0.000843	0.00268	1	09/20/2018 03:43	WG1168529
Bromochloromethane	U		0.00121	0.00535	1	09/20/2018 03:43	WG1168529
Bromoform	U		0.00640	0.0268	1	09/20/2018 03:43	WG1168529
Bromomethane	U		0.00396	0.0134	1	09/20/2018 03:43	WG1168529
n-Butylbenzene	U		0.00411	0.0134	1	09/20/2018 03:43	WG1168529
sec-Butylbenzene	U		0.00271	0.0134	1	09/20/2018 03:43	WG1168529
tert-Butylbenzene	U		0.00166	0.00535	1	09/20/2018 03:43	WG1168529
Carbon disulfide	U		0.00434	0.0134	1	09/20/2018 03:43	WG1168529
Carbon tetrachloride	U		0.00116	0.00535	1	09/20/2018 03:43	WG1168529
Chlorobenzene	U		0.000613	0.00268	1	09/20/2018 03:43	WG1168529
Chlorodibromomethane	U		0.000482	0.00268	1	09/20/2018 03:43	WG1168529
Chloroethane	0.0265		0.00116	0.00535	1	09/20/2018 03:43	WG1168529
Chloroform	U		0.000444	0.00268	1	09/20/2018 03:43	WG1168529
Chloromethane	U		0.00149	0.0134	1	09/20/2018 03:43	WG1168529
2-Chlorotoluene	U		0.000984	0.00268	1	09/20/2018 03:43	WG1168529
4-Chlorotoluene	U		0.00121	0.00535	1	09/20/2018 03:43	WG1168529
1,2-Dibromo-3-Chloropropane	U UJ	J0	0.00546	0.0268	1	09/20/2018 03:43	WG1168529
1,2-Dibromoethane	U		0.000562	0.00268	1	09/20/2018 03:43	WG1168529
Dibromomethane	U		0.00107	0.00535	1	09/20/2018 03:43	WG1168529
1,2-Dichlorobenzene	U		0.00155	0.00535	1	09/20/2018 03:43	WG1168529
1,3-Dichlorobenzene	U		0.00182	0.00535	1	09/20/2018 03:43	WG1168529
1,4-Dichlorobenzene	U		0.00211	0.00535	1	09/20/2018 03:43	WG1168529
Dichlorodifluoromethane	U		0.000875	0.00268	1	09/20/2018 03:43	WG1168529
1,1-Dichloroethane	U		0.000615	0.00268	1	09/20/2018 03:43	WG1168529
1,2-Dichloroethane	U		0.000508	0.00268	1	09/20/2018 03:43	WG1168529
1,1-Dichloroethene	0.00469		0.000535	0.00268	1	09/20/2018 03:43	WG1168529
cis-1,2-Dichloroethene	0.242		0.000738	0.00268	1	09/20/2018 03:43	WG1168529
trans-1,2-Dichloroethene	U UJ	J0	0.00153	0.00535	1	09/20/2018 03:43	WG1168529
1,2-Dichloropropane	U		0.00544	0.0214	4	09/21/2018 00:12	WG1169029
1,1-Dichloropropene	U		0.000749	0.00268	1	09/20/2018 03:43	WG1168529
1,3-Dichloropropane	U		0.00187	0.00535	1	09/20/2018 03:43	WG1168529
cis-1,3-Dichloropropene	U		0.000725	0.00268	1	09/20/2018 03:43	WG1168529
trans-1,3-Dichloropropene	U UJ	J0 J4	0.00164	0.00535	1	09/20/2018 03:43	WG1168529
trans-1,4-Dichloro-2-butene	U UJ	J0	0.00150	0.00535	1	09/20/2018 03:43	WG1168529
2,2-Dichloropropane	U UJ	J0	0.000849	0.00268	1	09/20/2018 03:43	WG1168529
Di-isopropyl ether	U		0.000375	0.00107	1	09/20/2018 03:43	WG1168529
Ethylbenzene	0.000628 J	J	0.000567	0.00268	1	09/20/2018 03:43	WG1168529
Hexachloro-1,3-butadiene	U		0.0136	0.0268	1	09/20/2018 03:43	WG1168529
2-Hexanone	U		0.0107	0.0268	1	09/20/2018 03:43	WG1168529
n-Hexane	U		0.00454	0.0214	4	09/21/2018 16:11	WG1169450
Iodomethane	U		0.00647	0.0134	1	09/20/2018 03:43	WG1168529
Isopropylbenzene	U		0.000923	0.00268	1	09/20/2018 03:43	WG1168529
p-Isopropyltoluene	U UJ	J4	0.00249	0.00535	1	09/20/2018 03:43	WG1168529
2-Butanone (MEK)	U		0.0535	0.107	4	09/21/2018 00:12	WG1169029
Methylene Chloride	0.00833 U	B J	0.00710	0.0268	1	09/20/2018 03:43	WG1168529
4-Methyl-2-pentanone (MIBK)	U		0.0107	0.0268	1	09/20/2018 03:43	WG1168529

JC 10/19/18

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

Analyte	Result (dry) mg/kg		Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	0.00144			0.000316	0.00107	1	09/20/2018 03:43	WG1168529
Naphthalene	U			0.00334	0.0134	1	09/20/2018 03:43	WG1168529
n-Propylbenzene	U			0.00126	0.00535	1	09/20/2018 03:43	WG1168529
Styrene	U			0.0117	0.0535	4	09/21/2018 00:12	WG1169029
1,1,1,2-Tetrachloroethane	U	UJ	J0 J4	0.000535	0.00268	1	09/20/2018 03:43	WG1168529
1,1,2,2-Tetrachloroethane	U			0.000417	0.00268	1	09/20/2018 03:43	WG1168529
1,1,2-Trichlorotrifluoroethane	U			0.000722	0.00268	1	09/20/2018 03:43	WG1168529
Tetrachloroethene	2.32			0.000749	0.00268	1	09/20/2018 03:43	WG1168529
Toluene	0.00333	J	J	0.00134	0.00535	1	09/20/2018 03:43	WG1168529
1,2,3-Trichlorobenzene	U			0.000669	0.00268	1	09/20/2018 03:43	WG1168529
1,2,4-Trichlorobenzene	U			0.00516	0.0134	1	09/20/2018 03:43	WG1168529
1,1,1-Trichloroethane	U			0.000294	0.00268	1	09/20/2018 03:43	WG1168529
1,1,2-Trichloroethane	U			0.000945	0.00268	1	09/20/2018 03:43	WG1168529
Trichloroethene	0.282			0.000428	0.00107	1	09/20/2018 03:43	WG1168529
Trichlorofluoromethane	U			0.000535	0.00268	1	09/20/2018 03:43	WG1168529
1,2,3-Trichloropropane	U			0.00546	0.0134	1	09/20/2018 03:43	WG1168529
1,2,4-Trimethylbenzene	0.00271	J	J	0.00124	0.00535	1	09/20/2018 03:43	WG1168529
1,2,3-Trimethylbenzene	U			0.00123	0.00535	1	09/20/2018 03:43	WG1168529
1,3,5-Trimethylbenzene	0.00118	J	J	0.00116	0.00535	1	09/20/2018 03:43	WG1168529
Vinyl acetate	U	UJ	J0	0.00377	0.0134	1	09/20/2018 03:43	WG1168529
Vinyl chloride	0.00390			0.000731	0.00268	1	09/20/2018 03:43	WG1168529
Xylenes, Total	U			0.00511	0.00696	1	09/20/2018 03:43	WG1168529
(S) Toluene-d8	*90.9*				*75.0-131*		*09/20/2018 03:43*	WG1168529
(S) Toluene-d8	*94.4*				*75.0-131*		*09/21/2018 00:12*	WG1169029
(S) Toluene-d8	*108*				*75.0-131*		*09/21/2018 16:11*	WG1169450
(S) Dibromofluoromethane	*104*				*65.0-129*		*09/20/2018 03:43*	WG1168529
(S) Dibromofluoromethane	*114*				*65.0-129*		*09/21/2018 00:12*	WG1169029
(S) Dibromofluoromethane	*105*				*65.0-129*		*09/21/2018 16:11*	WG1169450
(S) 4-Bromofluorobenzene	*105*				*67.0-138*		*09/20/2018 03:43*	WG1168529
(S) 4-Bromofluorobenzene	*105*				*67.0-138*		*09/21/2018 00:12*	WG1169029
(S) 4-Bromofluorobenzene	*93.0*				*67.0-138*		*09/21/2018 16:11*	WG1169450

JC 10/19/18

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		1.05	25.0	1	09/14/2018 16:28	WG1166389
Acrylonitrile	U		0.873	5.00	1	09/14/2018 16:28	WG1166389
Benzene	U		0.0896	0.500	1	09/14/2018 16:28	WG1166389
Bromobenzene	U		0.133	0.500	1	09/14/2018 16:28	WG1166389
Bromodichloromethane	U		0.0800	0.500	1	09/14/2018 16:28	WG1166389
Bromochloromethane	U		0.145	0.500	1	09/14/2018 16:28	WG1166389
Bromoform	U		0.186	0.500	1	09/14/2018 16:28	WG1166389
Bromomethane	U		0.157	2.50	1	09/14/2018 16:28	WG1166389
n-Butylbenzene	U		0.143	0.500	1	09/14/2018 16:28	WG1166389
sec-Butylbenzene	U		0.134	0.500	1	09/14/2018 16:28	WG1166389
tert-Butylbenzene	U		0.183	0.500	1	09/14/2018 16:28	WG1166389
Carbon disulfide	U		0.101	0.500	1	09/14/2018 16:28	WG1166389
Carbon tetrachloride	U		0.159	0.500	1	09/14/2018 16:28	WG1166389
Chlorobenzene	U		0.140	0.500	1	09/14/2018 16:28	WG1166389
Chlorodibromomethane	U		0.128	0.500	1	09/14/2018 16:28	WG1166389
Chloroethane	U		0.141	2.50	1	09/14/2018 16:28	WG1166389
Chloroform	U		0.0860	0.500	1	09/14/2018 16:28	WG1166389
Chloromethane	U		0.153	1.25	1	09/14/2018 16:28	WG1166389
2-Chlorotoluene	U		0.111	0.500	1	09/14/2018 16:28	WG1166389
4-Chlorotoluene	U		0.0972	0.500	1	09/14/2018 16:28	WG1166389
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	09/14/2018 16:28	WG1166389
1,2-Dibromoethane	U		0.193	0.500	1	09/14/2018 16:28	WG1166389
Dibromomethane	U		0.117	0.500	1	09/14/2018 16:28	WG1166389
1,2-Dichlorobenzene	U		0.101	0.500	1	09/14/2018 16:28	WG1166389
1,3-Dichlorobenzene	U		0.130	0.500	1	09/14/2018 16:28	WG1166389
1,4-Dichlorobenzene	U		0.121	0.500	1	09/14/2018 16:28	WG1166389
Dichlorodifluoromethane	U		0.127	2.50	1	09/14/2018 16:28	WG1166389
1,1-Dichloroethane	U		0.114	0.500	1	09/14/2018 16:28	WG1166389
1,2-Dichloroethane	U		0.108	0.500	1	09/14/2018 16:28	WG1166389
1,1-Dichloroethene	U		0.188	0.500	1	09/14/2018 16:28	WG1166389
cis-1,2-Dichloroethene	U		0.0933	0.500	1	09/14/2018 16:28	WG1166389
trans-1,2-Dichloroethene	U		0.152	0.500	1	09/14/2018 16:28	WG1166389
1,2-Dichloropropane	U		0.190	0.500	1	09/14/2018 16:28	WG1166389
1,1-Dichloropropene	U		0.128	0.500	1	09/14/2018 16:28	WG1166389
1,3-Dichloropropane	U		0.147	1.00	1	09/14/2018 16:28	WG1166389
cis-1,3-Dichloropropene	U		0.0976	0.500	1	09/14/2018 16:28	WG1166389
trans-1,3-Dichloropropene	U		0.222	0.500	1	09/14/2018 16:28	WG1166389
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	09/14/2018 16:28	WG1166389
2,2-Dichloropropane	U		0.0929	0.500	1	09/14/2018 16:28	WG1166389
Di-isopropyl ether	U		0.0924	0.500	1	09/14/2018 16:28	WG1166389
Ethylbenzene	U		0.158	0.500	1	09/14/2018 16:28	WG1166389
Hexachloro-1,3-butadiene	U		0.157	1.00	1	09/14/2018 16:28	WG1166389
2-Hexanone	U		0.757	5.00	1	09/14/2018 16:28	WG1166389
n-Hexane	U		0.305	5.00	1	09/14/2018 16:28	WG1166389
Iodomethane	U		0.377	10.0	1	09/14/2018 16:28	WG1166389
Isopropylbenzene	U		0.126	0.500	1	09/14/2018 16:28	WG1166389
p-Isopropyltoluene	U		0.138	0.500	1	09/14/2018 16:28	WG1166389
2-Butanone (MEK)	U		1.28	5.00	1	09/14/2018 16:28	WG1166389
Methylene Chloride	U		1.07	2.50	1	09/14/2018 16:28	WG1166389
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	09/14/2018 16:28	WG1166389
Methyl tert-butyl ether	U		0.102	0.500	1	09/14/2018 16:28	WG1166389
Naphthalene	U		0.174	2.50	1	09/14/2018 16:28	WG1166389
n-Propylbenzene	U		0.162	0.500	1	09/14/2018 16:28	WG1166389
Styrene	U		0.117	0.500	1	09/14/2018 16:28	WG1166389
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	09/14/2018 16:28	WG1166389
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	09/14/2018 16:28	WG1166389

JC 10/19/18

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

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	09/14/2018 16:28	WG1166389
Tetrachloroethene	U		0.199	0.500	1	09/14/2018 16:28	WG1166389
Toluene	U		0.412	0.500	1	09/14/2018 16:28	WG1166389
1,2,3-Trichlorobenzene	U		0.164	0.500	1	09/14/2018 16:28	WG1166389
1,2,4-Trichlorobenzene	U		0.355	0.500	1	09/14/2018 16:28	WG1166389
1,1,1-Trichloroethane	U		0.0940	0.500	1	09/14/2018 16:28	WG1166389
1,1,2-Trichloroethane	U		0.186	0.500	1	09/14/2018 16:28	WG1166389
Trichloroethene	U		0.153	0.500	1	09/14/2018 16:28	WG1166389
Trichlorofluoromethane	U		0.130	2.50	1	09/14/2018 16:28	WG1166389
1,2,3-Trichloropropane	U		0.247	2.50	1	09/14/2018 16:28	WG1166389
1,2,4-Trimethylbenzene	U		0.123	0.500	1	09/14/2018 16:28	WG1166389
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	09/14/2018 16:28	WG1166389
1,3,5-Trimethylbenzene	U		0.124	0.500	1	09/14/2018 16:28	WG1166389
Vinyl acetate	U		0.645	5.00	1	09/14/2018 16:28	WG1166389
Vinyl chloride	U		0.118	0.500	1	09/14/2018 16:28	WG1166389
Xylenes, Total	U		0.316	1.50	1	09/14/2018 16:28	WG1166389
(S) Toluene-d8	*103*			*80.0-120*		*09/14/2018 16:28*	WG1166389
(S) Dibromofluoromethane	*101*			*75.0-120*		*09/14/2018 16:28*	WG1166389
(S) 4-Bromofluorobenzene	*90.1*			*77.0-126*		*09/14/2018 16:28*	WG1166389

JC 10/19/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	86.6		1	09/20/2018 11:19	WG1168410

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		3.16	5.77	200	09/23/2018 20:01	WG1170348
Acrylonitrile	U		0.00219	0.0144	1	09/21/2018 22:18	WG1169827
Benzene	U		0.000462	0.00115	1	09/21/2018 22:18	WG1169827
Bromobenzene	U		0.00121	0.0144	1	09/21/2018 22:18	WG1169827
Bromodichloromethane	U		0.000910	0.00289	1	09/21/2018 22:18	WG1169827
Bromochloromethane	U		0.00130	0.00577	1	09/21/2018 22:18	WG1169827
Bromoform	U		0.00690	0.0289	1	09/21/2018 22:18	WG1169827
Bromomethane	U		0.00427	0.0144	1	09/21/2018 22:18	WG1169827
n-Butylbenzene	U		0.00443	0.0144	1	09/21/2018 22:18	WG1169827
sec-Butylbenzene	U		0.00292	0.0144	1	09/21/2018 22:18	WG1169827
tert-Butylbenzene	U		0.00179	0.00577	1	09/21/2018 22:18	WG1169827
Carbon disulfide	U		0.00469	0.0144	1	09/21/2018 22:18	WG1169827
Carbon tetrachloride	U		0.00125	0.00577	1	09/21/2018 22:18	WG1169827
Chlorobenzene	U		0.000661	0.00289	1	09/21/2018 22:18	WG1169827
Chlorodibromomethane	U		0.000519	0.00289	1	09/21/2018 22:18	WG1169827
Chloroethane	U		0.249	1.15	200	09/23/2018 20:01	WG1170348
Chloroform	U		0.000479	0.00289	1	09/21/2018 22:18	WG1169827
Chloromethane	U		0.00160	0.0144	1	09/21/2018 22:18	WG1169827
2-Chlorotoluene	U		0.00106	0.00289	1	09/21/2018 22:18	WG1169827
4-Chlorotoluene	U		0.00130	0.00577	1	09/21/2018 22:18	WG1169827
1,2-Dibromo-3-Chloropropane	U	UJ J0	0.00589	0.0289	1	09/21/2018 22:18	WG1169827
1,2-Dibromoethane	U		0.000606	0.00289	1	09/21/2018 22:18	WG1169827
Dibromomethane	U		0.00115	0.00577	1	09/21/2018 22:18	WG1169827
1,2-Dichlorobenzene	U		0.00167	0.00577	1	09/21/2018 22:18	WG1169827
1,3-Dichlorobenzene	U		0.00196	0.00577	1	09/21/2018 22:18	WG1169827
1,4-Dichlorobenzene	U		0.00227	0.00577	1	09/21/2018 22:18	WG1169827
Dichlorodifluoromethane	U		0.000944	0.00289	1	09/21/2018 22:18	WG1169827
1,1-Dichloroethane	U		0.000664	0.00289	1	09/21/2018 22:18	WG1169827
1,2-Dichloroethane	U		0.000548	0.00289	1	09/21/2018 22:18	WG1169827
1,1-Dichloroethene	U		0.000577	0.00289	1	09/21/2018 22:18	WG1169827
cis-1,2-Dichloroethene	0.00700		0.000796	0.00289	1	09/21/2018 22:18	WG1169827
trans-1,2-Dichloroethene	U		0.00165	0.00577	1	09/21/2018 22:18	WG1169827
1,2-Dichloropropane	U		0.293	1.15	200	09/23/2018 20:01	WG1170348
1,1-Dichloropropene	U		0.000808	0.00289	1	09/21/2018 22:18	WG1169827
1,3-Dichloropropane	U		0.00202	0.00577	1	09/21/2018 22:18	WG1169827
cis-1,3-Dichloropropene	U		0.000783	0.00289	1	09/21/2018 22:18	WG1169827
trans-1,3-Dichloropropene	U		0.00177	0.00577	1	09/21/2018 22:18	WG1169827
trans-1,4-Dichloro-2-butene	U	UJ J0	0.00162	0.00577	1	09/21/2018 22:18	WG1169827
2,2-Dichloropropane	U		0.000915	0.00289	1	09/21/2018 22:18	WG1169827
Di-isopropyl ether	U		0.000404	0.00115	1	09/21/2018 22:18	WG1169827
Ethylbenzene	U		0.000612	0.00289	1	09/21/2018 22:18	WG1169827
Hexachloro-1,3-butadiene	U		0.0147	0.0289	1	09/21/2018 22:18	WG1169827
2-Hexanone	U		0.0115	0.0289	1	09/21/2018 22:18	WG1169827
n-Hexane	U		0.00122	0.00577	1	09/21/2018 22:18	WG1169827
Iodomethane	U	J4	0.00698	0.0144	1	09/21/2018 22:18	WG1169827
Isopropylbenzene	U		0.000996	0.00289	1	09/21/2018 22:18	WG1169827
p-Isopropyltoluene	U		0.00269	0.00577	1	09/21/2018 22:18	WG1169827
2-Butanone (MEK)	0.0472		0.0144	0.0289	1	09/21/2018 22:18	WG1169827
Methylene Chloride	U		0.00766	0.0289	1	09/21/2018 22:18	WG1169827
4-Methyl-2-pentanone (MIBK)	U		0.0115	0.0289	1	09/21/2018 22:18	WG1169827

JC 10/19/18

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000340	0.00115	1	09/21/2018 22:18	WG1169827
Naphthalene	U		0.00360	0.0144	1	09/21/2018 22:18	WG1169827
n-Propylbenzene	U		0.00136	0.00577	1	09/21/2018 22:18	WG1169827
Styrene	U		0.00315	0.0144	1	09/21/2018 22:18	WG1169827
1,1,1,2-Tetrachloroethane	U		0.000577	0.00289	1	09/21/2018 22:18	WG1169827
1,1,2,2-Tetrachloroethane	U		0.000450	0.00289	1	09/21/2018 22:18	WG1169827
1,1,2-Trichlorotrifluoroethane	U		0.000779	0.00289	1	09/21/2018 22:18	WG1169827
Tetrachloroethene	48.1		0.162	0.577	200	09/23/2018 20:01	WG1170348
Toluene	0.00424 J	J	0.00144	0.00577	1	09/21/2018 22:18	WG1169827
1,2,3-Trichlorobenzene	U		0.144	0.577	200	09/23/2018 20:01	WG1170348
1,2,4-Trichlorobenzene	U		0.00556	0.0144	1	09/21/2018 22:18	WG1169827
1,1,1-Trichloroethane	U		0.000317	0.00289	1	09/21/2018 22:18	WG1169827
1,1,2-Trichloroethane	U		0.00102	0.00289	1	09/21/2018 22:18	WG1169827
Trichloroethene	0.0503		0.000462	0.00115	1	09/21/2018 22:18	WG1169827
Trichlorofluoromethane	U		0.000577	0.00289	1	09/21/2018 22:18	WG1169827
1,2,3-Trichloropropane	U		0.00589	0.0144	1	09/21/2018 22:18	WG1169827
1,2,4-Trimethylbenzene	0.00204 J	J	0.00134	0.00577	1	09/21/2018 22:18	WG1169827
1,2,3-Trimethylbenzene	U		0.00133	0.00577	1	09/21/2018 22:18	WG1169827
1,3,5-Trimethylbenzene	U		0.00125	0.00577	1	09/21/2018 22:18	WG1169827
Vinyl acetate	U UJ	J0	0.00406	0.0144	1	09/21/2018 22:18	WG1169827
Vinyl chloride	U		0.000788	0.00289	1	09/21/2018 22:18	WG1169827
Xylenes, Total	U		0.00552	0.00750	1	09/21/2018 22:18	WG1169827
(S) Toluene-d8	*117*			*75.0-131*		*09/21/2018 22:18*	WG1169827
(S) Toluene-d8	*122*			*75.0-131*		*09/23/2018 20:01*	WG1170348
(S) Dibromofluoromethane	*102*			*65.0-129*		*09/21/2018 22:18*	WG1169827
(S) Dibromofluoromethane	*99.1*			*65.0-129*		*09/23/2018 20:01*	WG1170348
(S) 4-Bromofluorobenzene	*95.5*			*67.0-138*		*09/21/2018 22:18*	WG1169827
(S) 4-Bromofluorobenzene	*103*			*67.0-138*		*09/23/2018 20:01*	WG1170348

Sample Narrative:

L1026432-01 WG1170348, WG1169827: Cannot be reanalyzed at a lower dilution due to high levels of target analytes.

L1026432-01 WG1170348, WG1169827: Not all compounds reportable at lower dilution.

JC 10/19/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	86.3		1	09/20/2018 11:19	WG1168410

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0159	0.0290	1	09/23/2018 16:50	WG1170348
Acrylonitrile	U		0.00220	0.0145	1	09/21/2018 22:37	WG1169827
Benzene	U		0.000463	0.00116	1	09/21/2018 22:37	WG1169827
Bromobenzene	U		0.00122	0.0145	1	09/21/2018 22:37	WG1169827
Bromodichloromethane	U		0.000913	0.00290	1	09/21/2018 22:37	WG1169827
Bromochloromethane	U		0.00131	0.00579	1	09/21/2018 22:37	WG1169827
Bromoform	U		0.00693	0.0290	1	09/21/2018 22:37	WG1169827
Bromomethane	U		0.00429	0.0145	1	09/21/2018 22:37	WG1169827
n-Butylbenzene	U		0.00445	0.0145	1	09/21/2018 22:37	WG1169827
sec-Butylbenzene	U		0.00293	0.0145	1	09/21/2018 22:37	WG1169827
tert-Butylbenzene	U		0.00180	0.00579	1	09/21/2018 22:37	WG1169827
Carbon disulfide	U		0.00470	0.0145	1	09/21/2018 22:37	WG1169827
Carbon tetrachloride	U		0.00125	0.00579	1	09/21/2018 22:37	WG1169827
Chlorobenzene	U		0.000664	0.00290	1	09/21/2018 22:37	WG1169827
Chlorodibromomethane	U		0.000521	0.00290	1	09/21/2018 22:37	WG1169827
Chloroethane	U		0.00125	0.00579	1	09/23/2018 16:50	WG1170348
Chloroform	U		0.000481	0.00290	1	09/21/2018 22:37	WG1169827
Chloromethane	U		0.00161	0.0145	1	09/21/2018 22:37	WG1169827
2-Chlorotoluene	U		0.00107	0.00290	1	09/21/2018 22:37	WG1169827
4-Chlorotoluene	U		0.00131	0.00579	1	09/21/2018 22:37	WG1169827
1,2-Dibromo-3-Chloropropane	U	UJ J0	0.00591	0.0290	1	09/21/2018 22:37	WG1169827
1,2-Dibromoethane	U		0.000608	0.00290	1	09/21/2018 22:37	WG1169827
Dibromomethane	U		0.00116	0.00579	1	09/21/2018 22:37	WG1169827
1,2-Dichlorobenzene	U		0.00168	0.00579	1	09/21/2018 22:37	WG1169827
1,3-Dichlorobenzene	U		0.00197	0.00579	1	09/21/2018 22:37	WG1169827
1,4-Dichlorobenzene	U		0.00228	0.00579	1	09/21/2018 22:37	WG1169827
Dichlorodifluoromethane	U		0.000947	0.00290	1	09/21/2018 22:37	WG1169827
1,1-Dichloroethane	U		0.000666	0.00290	1	09/21/2018 22:37	WG1169827
1,2-Dichloroethane	U		0.000550	0.00290	1	09/21/2018 22:37	WG1169827
1,1-Dichloroethene	U		0.000579	0.00290	1	09/21/2018 22:37	WG1169827
cis-1,2-Dichloroethene	U		0.000799	0.00290	1	09/21/2018 22:37	WG1169827
trans-1,2-Dichloroethene	U		0.00166	0.00579	1	09/21/2018 22:37	WG1169827
1,2-Dichloropropane	U		0.00147	0.00579	1	09/23/2018 16:50	WG1170348
1,1-Dichloropropene	U		0.000811	0.00290	1	09/21/2018 22:37	WG1169827
1,3-Dichloropropane	U		0.00203	0.00579	1	09/21/2018 22:37	WG1169827
cis-1,3-Dichloropropene	U		0.000785	0.00290	1	09/21/2018 22:37	WG1169827
trans-1,3-Dichloropropene	U		0.00177	0.00579	1	09/21/2018 22:37	WG1169827
trans-1,4-Dichloro-2-butene	U	UJ J0	0.00162	0.00579	1	09/21/2018 22:37	WG1169827
2,2-Dichloropropane	U		0.000918	0.00290	1	09/21/2018 22:37	WG1169827
Di-isopropyl ether	U		0.000405	0.00116	1	09/21/2018 22:37	WG1169827
Ethylbenzene	U		0.000614	0.00290	1	09/21/2018 22:37	WG1169827
Hexachloro-1,3-butadiene	U		0.0147	0.0290	1	09/21/2018 22:37	WG1169827
2-Hexanone	U		0.0116	0.0290	1	09/21/2018 22:37	WG1169827
n-Hexane	U		0.00123	0.00579	1	09/21/2018 22:37	WG1169827
Iodomethane	U	J4	0.00701	0.0145	1	09/21/2018 22:37	WG1169827
Isopropylbenzene	U		0.00100	0.00290	1	09/21/2018 22:37	WG1169827
p-Isopropyltoluene	U		0.00270	0.00579	1	09/21/2018 22:37	WG1169827
2-Butanone (MEK)	U		0.0145	0.0290	1	09/21/2018 22:37	WG1169827
Methylene Chloride	0.00867	J J	0.00769	0.0290	1	09/21/2018 22:37	WG1169827
4-Methyl-2-pentanone (MIBK)	U		0.0116	0.0290	1	09/21/2018 22:37	WG1169827

JC 10/19/18

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000342	0.00116	1	09/21/2018 22:37	WG1169827
Naphthalene	U		0.00361	0.0145	1	09/21/2018 22:37	WG1169827
n-Propylbenzene	U		0.00137	0.00579	1	09/21/2018 22:37	WG1169827
Styrene	U		0.00316	0.0145	1	09/21/2018 22:37	WG1169827
1,1,1,2-Tetrachloroethane	U		0.000579	0.00290	1	09/21/2018 22:37	WG1169827
1,1,2,2-Tetrachloroethane	U		0.000452	0.00290	1	09/21/2018 22:37	WG1169827
1,1,2-Trichlorotrifluoroethane	U		0.000782	0.00290	1	09/21/2018 22:37	WG1169827
Tetrachloroethene	0.0827		0.000811	0.00290	1	09/23/2018 16:50	WG1170348
Toluene	0.00537 J	J	0.00145	0.00579	1	09/21/2018 22:37	WG1169827
1,2,3-Trichlorobenzene	U		0.000724	0.00290	1	09/23/2018 16:50	WG1170348
1,2,4-Trichlorobenzene	U		0.00558	0.0145	1	09/21/2018 22:37	WG1169827
1,1,1-Trichloroethane	U		0.000319	0.00290	1	09/21/2018 22:37	WG1169827
1,1,2-Trichloroethane	U		0.00102	0.00290	1	09/21/2018 22:37	WG1169827
Trichloroethene	U		0.000463	0.00116	1	09/21/2018 22:37	WG1169827
Trichlorofluoromethane	U		0.000579	0.00290	1	09/21/2018 22:37	WG1169827
1,2,3-Trichloropropane	U		0.00591	0.0145	1	09/21/2018 22:37	WG1169827
1,2,4-Trimethylbenzene	0.00160 J	J	0.00134	0.00579	1	09/21/2018 22:37	WG1169827
1,2,3-Trimethylbenzene	U		0.00133	0.00579	1	09/21/2018 22:37	WG1169827
1,3,5-Trimethylbenzene	U		0.00125	0.00579	1	09/21/2018 22:37	WG1169827
Vinyl acetate	U UJ	J0	0.00408	0.0145	1	09/21/2018 22:37	WG1169827
Vinyl chloride	U		0.000791	0.00290	1	09/21/2018 22:37	WG1169827
Xylenes, Total	U		0.00554	0.00753	1	09/21/2018 22:37	WG1169827
(S) Toluene-d8	*87.9*			*75.0-131*		*09/21/2018 22:37*	WG1169827
(S) Toluene-d8	*106*			*75.0-131*		*09/23/2018 16:50*	WG1170348
(S) Dibromofluoromethane	*102*			*65.0-129*		*09/21/2018 22:37*	WG1169827
(S) Dibromofluoromethane	*101*			*65.0-129*		*09/23/2018 16:50*	WG1170348
(S) 4-Bromofluorobenzene	*102*			*67.0-138*		*09/21/2018 22:37*	WG1169827
(S) 4-Bromofluorobenzene	*100*			*67.0-138*		*09/23/2018 16:50*	WG1170348

JC 10/19/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	88.4		1	09/20/2018 11:19	WG1168410

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

Analyte	Result (dry)	Qualifier		MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg			mg/kg	mg/kg		date / time	
Acetone	U			1.24	2.26	80	09/23/2018 20:25	WG1170348
Acrylonitrile	U			0.00215	0.0141	1	09/21/2018 22:56	WG1169827
Benzene	U			0.000452	0.00113	1	09/21/2018 22:56	WG1169827
Bromobenzene	U			0.00119	0.0141	1	09/21/2018 22:56	WG1169827
Bromodichloromethane	U			0.000891	0.00283	1	09/21/2018 22:56	WG1169827
Bromochloromethane	U			0.00128	0.00566	1	09/21/2018 22:56	WG1169827
Bromoform	U			0.00676	0.0283	1	09/21/2018 22:56	WG1169827
Bromomethane	U			0.00419	0.0141	1	09/21/2018 22:56	WG1169827
n-Butylbenzene	U			0.00434	0.0141	1	09/21/2018 22:56	WG1169827
sec-Butylbenzene	U			0.00286	0.0141	1	09/21/2018 22:56	WG1169827
tert-Butylbenzene	U			0.00175	0.00566	1	09/21/2018 22:56	WG1169827
Carbon disulfide	U			0.00459	0.0141	1	09/21/2018 22:56	WG1169827
Carbon tetrachloride	U			0.00122	0.00566	1	09/21/2018 22:56	WG1169827
Chlorobenzene	U			0.000648	0.00283	1	09/21/2018 22:56	WG1169827
Chlorodibromomethane	U			0.000509	0.00283	1	09/21/2018 22:56	WG1169827
Chloroethane	U			0.0977	0.452	80	09/23/2018 20:25	WG1170348
Chloroform	U			0.000469	0.00283	1	09/21/2018 22:56	WG1169827
Chloromethane	U			0.00157	0.0141	1	09/21/2018 22:56	WG1169827
2-Chlorotoluene	U			0.00104	0.00283	1	09/21/2018 22:56	WG1169827
4-Chlorotoluene	U			0.00128	0.00566	1	09/21/2018 22:56	WG1169827
1,2-Dibromo-3-Chloropropane	U	UJ	J0	0.00577	0.0283	1	09/21/2018 22:56	WG1169827
1,2-Dibromoethane	U			0.000594	0.00283	1	09/21/2018 22:56	WG1169827
Dibromomethane	U			0.00113	0.00566	1	09/21/2018 22:56	WG1169827
1,2-Dichlorobenzene	U			0.00164	0.00566	1	09/21/2018 22:56	WG1169827
1,3-Dichlorobenzene	U			0.00192	0.00566	1	09/21/2018 22:56	WG1169827
1,4-Dichlorobenzene	U			0.00223	0.00566	1	09/21/2018 22:56	WG1169827
Dichlorodifluoromethane	U			0.000925	0.00283	1	09/21/2018 22:56	WG1169827
1,1-Dichloroethane	U			0.000650	0.00283	1	09/21/2018 22:56	WG1169827
1,2-Dichloroethane	U			0.000537	0.00283	1	09/21/2018 22:56	WG1169827
1,1-Dichloroethene	U			0.000566	0.00283	1	09/21/2018 22:56	WG1169827
cis-1,2-Dichloroethene	1.06			0.000781	0.00283	1	09/21/2018 22:56	WG1169827
trans-1,2-Dichloroethene	U			0.00162	0.00566	1	09/21/2018 22:56	WG1169827
1,2-Dichloropropane	U			0.115	0.452	80	09/23/2018 20:25	WG1170348
1,1-Dichloropropene	U			0.000792	0.00283	1	09/21/2018 22:56	WG1169827
1,3-Dichloropropane	U			0.00198	0.00566	1	09/21/2018 22:56	WG1169827
cis-1,3-Dichloropropene	U			0.000767	0.00283	1	09/21/2018 22:56	WG1169827
trans-1,3-Dichloropropene	U			0.00173	0.00566	1	09/21/2018 22:56	WG1169827
trans-1,4-Dichloro-2-butene	U	UJ	J0	0.00158	0.00566	1	09/21/2018 22:56	WG1169827
2,2-Dichloropropane	U			0.000897	0.00283	1	09/21/2018 22:56	WG1169827
Di-isopropyl ether	U			0.000396	0.00113	1	09/21/2018 22:56	WG1169827
Ethylbenzene	U			0.000600	0.00283	1	09/21/2018 22:56	WG1169827
Hexachloro-1,3-butadiene	U			0.0144	0.0283	1	09/21/2018 22:56	WG1169827
2-Hexanone	U			0.0113	0.0283	1	09/21/2018 22:56	WG1169827
n-Hexane	U			0.00120	0.00566	1	09/21/2018 22:56	WG1169827
Iodomethane	U		J4	0.00684	0.0141	1	09/21/2018 22:56	WG1169827
Isopropylbenzene	U			0.000976	0.00283	1	09/21/2018 22:56	WG1169827
p-Isopropyltoluene	U			0.00264	0.00566	1	09/21/2018 22:56	WG1169827
2-Butanone (MEK)	0.0163	J	J	0.0141	0.0283	1	09/21/2018 22:56	WG1169827
Methylene Chloride	U			0.00751	0.0283	1	09/21/2018 22:56	WG1169827
4-Methyl-2-pentanone (MIBK)	U			0.0113	0.0283	1	09/21/2018 22:56	WG1169827

JC 10/19/18

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000334	0.00113	1	09/21/2018 22:56	WG1169827
Naphthalene	U		0.00353	0.0141	1	09/21/2018 22:56	WG1169827
n-Propylbenzene	U		0.00133	0.00566	1	09/21/2018 22:56	WG1169827
Styrene	U		0.00309	0.0141	1	09/21/2018 22:56	WG1169827
1,1,1,2-Tetrachloroethane	U		0.000566	0.00283	1	09/21/2018 22:56	WG1169827
1,1,2,2-Tetrachloroethane	U		0.000441	0.00283	1	09/21/2018 22:56	WG1169827
1,1,2-Trichlorotrifluoroethane	U		0.000764	0.00283	1	09/21/2018 22:56	WG1169827
Tetrachloroethene	47.1		0.0633	0.226	80	09/23/2018 20:25	WG1170348
Toluene	U		0.00141	0.00566	1	09/21/2018 22:56	WG1169827
1,2,3-Trichlorobenzene	U		0.0566	0.226	80	09/23/2018 20:25	WG1170348
1,2,4-Trichlorobenzene	U		0.00545	0.0141	1	09/21/2018 22:56	WG1169827
1,1,1-Trichloroethane	U		0.000311	0.00283	1	09/21/2018 22:56	WG1169827
1,1,2-Trichloroethane	U		0.000999	0.00283	1	09/21/2018 22:56	WG1169827
Trichloroethene	1.04		0.000452	0.00113	1	09/21/2018 22:56	WG1169827
Trichlorofluoromethane	U		0.000566	0.00283	1	09/21/2018 22:56	WG1169827
1,2,3-Trichloropropane	U		0.00577	0.0141	1	09/21/2018 22:56	WG1169827
1,2,4-Trimethylbenzene	0.00711		0.00131	0.00566	1	09/21/2018 22:56	WG1169827
1,2,3-Trimethylbenzene	0.00306	J J	0.00130	0.00566	1	09/21/2018 22:56	WG1169827
1,3,5-Trimethylbenzene	0.00241	J J	0.00122	0.00566	1	09/21/2018 22:56	WG1169827
Vinyl acetate	U	UJ J0	0.00398	0.0141	1	09/21/2018 22:56	WG1169827
Vinyl chloride	0.0522		0.000773	0.00283	1	09/21/2018 22:56	WG1169827
Xylenes, Total	U		0.00541	0.00735	1	09/21/2018 22:56	WG1169827
(S) Toluene-d8	*88.7*			*75.0-131*		*09/21/2018 22:56*	WG1169827
(S) Toluene-d8	*103*			*75.0-131*		*09/23/2018 20:25*	WG1170348
(S) Dibromofluoromethane	*101*			*65.0-129*		*09/21/2018 22:56*	WG1169827
(S) Dibromofluoromethane	*98.8*			*65.0-129*		*09/23/2018 20:25*	WG1170348
(S) 4-Bromofluorobenzene	*90.8*			*67.0-138*		*09/21/2018 22:56*	WG1169827
(S) 4-Bromofluorobenzene	*100*			*67.0-138*		*09/23/2018 20:25*	WG1170348

Sample Narrative:

L1026432-03 WG1170348, WG1169827: Cannot be reanalyzed at a lower dilution due to high levels of target analytes.

L1026432-03 WG1170348, WG1169827: Not all compounds reportable at lower dilution.

JC 10/19/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	94.2		1	09/20/2018 11:19	WG1168410

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	0.0413	J+	0.0145	0.0265	1	09/23/2018 17:14	WG1170348
Acrylonitrile	U		0.00202	0.0133	1	09/21/2018 23:15	WG1169827
Benzene	U		0.000425	0.00106	1	09/21/2018 23:15	WG1169827
Bromobenzene	U		0.00111	0.0133	1	09/21/2018 23:15	WG1169827
Bromodichloromethane	U		0.000837	0.00265	1	09/21/2018 23:15	WG1169827
Bromochloromethane	U		0.00120	0.00531	1	09/21/2018 23:15	WG1169827
Bromoform	U		0.00635	0.0265	1	09/21/2018 23:15	WG1169827
Bromomethane	U		0.00393	0.0133	1	09/21/2018 23:15	WG1169827
n-Butylbenzene	U		0.00408	0.0133	1	09/21/2018 23:15	WG1169827
sec-Butylbenzene	U		0.00269	0.0133	1	09/21/2018 23:15	WG1169827
tert-Butylbenzene	U		0.00165	0.00531	1	09/21/2018 23:15	WG1169827
Carbon disulfide	U		0.00431	0.0133	1	09/21/2018 23:15	WG1169827
Carbon tetrachloride	U		0.00115	0.00531	1	09/21/2018 23:15	WG1169827
Chlorobenzene	U		0.000608	0.00265	1	09/21/2018 23:15	WG1169827
Chlorodibromomethane	U		0.000478	0.00265	1	09/21/2018 23:15	WG1169827
Chloroethane	U		0.00115	0.00531	1	09/23/2018 17:14	WG1170348
Chloroform	U		0.000441	0.00265	1	09/21/2018 23:15	WG1169827
Chloromethane	U		0.00148	0.0133	1	09/21/2018 23:15	WG1169827
2-Chlorotoluene	U		0.000977	0.00265	1	09/21/2018 23:15	WG1169827
4-Chlorotoluene	U		0.00120	0.00531	1	09/21/2018 23:15	WG1169827
1,2-Dibromo-3-Chloropropane	U	UJ J0	0.00542	0.0265	1	09/21/2018 23:15	WG1169827
1,2-Dibromoethane	U		0.000557	0.00265	1	09/21/2018 23:15	WG1169827
Dibromomethane	U		0.00106	0.00531	1	09/21/2018 23:15	WG1169827
1,2-Dichlorobenzene	U		0.00154	0.00531	1	09/21/2018 23:15	WG1169827
1,3-Dichlorobenzene	U		0.00181	0.00531	1	09/21/2018 23:15	WG1169827
1,4-Dichlorobenzene	U		0.00209	0.00531	1	09/21/2018 23:15	WG1169827
Dichlorodifluoromethane	U		0.000869	0.00265	1	09/21/2018 23:15	WG1169827
1,1-Dichloroethane	U		0.000611	0.00265	1	09/21/2018 23:15	WG1169827
1,2-Dichloroethane	U		0.000504	0.00265	1	09/21/2018 23:15	WG1169827
1,1-Dichloroethene	U		0.000531	0.00265	1	09/21/2018 23:15	WG1169827
cis-1,2-Dichloroethene	0.0320		0.000733	0.00265	1	09/21/2018 23:15	WG1169827
trans-1,2-Dichloroethene	U		0.00152	0.00531	1	09/21/2018 23:15	WG1169827
1,2-Dichloropropane	U		0.00135	0.00531	1	09/23/2018 17:14	WG1170348
1,1-Dichloropropene	U		0.000743	0.00265	1	09/21/2018 23:15	WG1169827
1,3-Dichloropropane	U		0.00186	0.00531	1	09/21/2018 23:15	WG1169827
cis-1,3-Dichloropropene	U		0.000720	0.00265	1	09/21/2018 23:15	WG1169827
trans-1,3-Dichloropropene	U		0.00162	0.00531	1	09/21/2018 23:15	WG1169827
trans-1,4-Dichloro-2-butene	U	UJ J0	0.00149	0.00531	1	09/21/2018 23:15	WG1169827
2,2-Dichloropropane	U		0.000842	0.00265	1	09/21/2018 23:15	WG1169827
Di-isopropyl ether	U		0.000372	0.00106	1	09/21/2018 23:15	WG1169827
Ethylbenzene	U		0.000563	0.00265	1	09/21/2018 23:15	WG1169827
Hexachloro-1,3-butadiene	U		0.0135	0.0265	1	09/21/2018 23:15	WG1169827
2-Hexanone	U		0.0106	0.0265	1	09/21/2018 23:15	WG1169827
n-Hexane	U		0.00113	0.00531	1	09/21/2018 23:15	WG1169827
Iodomethane	U	J4	0.00642	0.0133	1	09/21/2018 23:15	WG1169827
Isopropylbenzene	U		0.000916	0.00265	1	09/21/2018 23:15	WG1169827
p-Isopropyltoluene	U		0.00247	0.00531	1	09/21/2018 23:15	WG1169827
2-Butanone (MEK)	U		0.0133	0.0265	1	09/21/2018 23:15	WG1169827
Methylene Chloride	0.00906	J J	0.00705	0.0265	1	09/21/2018 23:15	WG1169827
4-Methyl-2-pentanone (MIBK)	U		0.0106	0.0265	1	09/21/2018 23:15	WG1169827

JC 10/19/18

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000313	0.00106	1	09/21/2018 23:15	WG1169827
Naphthalene	U		0.00331	0.0133	1	09/21/2018 23:15	WG1169827
n-Propylbenzene	U		0.00125	0.00531	1	09/21/2018 23:15	WG1169827
Styrene	U		0.00290	0.0133	1	09/21/2018 23:15	WG1169827
1,1,1,2-Tetrachloroethane	U		0.000531	0.00265	1	09/21/2018 23:15	WG1169827
1,1,2,2-Tetrachloroethane	U		0.000414	0.00265	1	09/21/2018 23:15	WG1169827
1,1,2-Trichlorotrifluoroethane	U		0.000717	0.00265	1	09/21/2018 23:15	WG1169827
Tetrachloroethene	1.13		0.000743	0.00265	1	09/21/2018 23:15	WG1169827
Toluene	0.00173	J J	0.00133	0.00531	1	09/21/2018 23:15	WG1169827
1,2,3-Trichlorobenzene	U		0.000664	0.00265	1	09/23/2018 17:14	WG1170348
1,2,4-Trichlorobenzene	U		0.00512	0.0133	1	09/21/2018 23:15	WG1169827
1,1,1-Trichloroethane	U		0.000292	0.00265	1	09/21/2018 23:15	WG1169827
1,1,2-Trichloroethane	U		0.000938	0.00265	1	09/21/2018 23:15	WG1169827
Trichloroethene	0.0340		0.000425	0.00106	1	09/21/2018 23:15	WG1169827
Trichlorofluoromethane	U		0.000531	0.00265	1	09/21/2018 23:15	WG1169827
1,2,3-Trichloropropane	U		0.00542	0.0133	1	09/21/2018 23:15	WG1169827
1,2,4-Trimethylbenzene	U		0.00123	0.00531	1	09/21/2018 23:15	WG1169827
1,2,3-Trimethylbenzene	U		0.00122	0.00531	1	09/21/2018 23:15	WG1169827
1,3,5-Trimethylbenzene	U		0.00115	0.00531	1	09/21/2018 23:15	WG1169827
Vinyl acetate	U	UJ J0	0.00374	0.0133	1	09/21/2018 23:15	WG1169827
Vinyl chloride	U		0.000725	0.00265	1	09/21/2018 23:15	WG1169827
Xylenes, Total	U		0.00508	0.00690	1	09/21/2018 23:15	WG1169827
(S) Toluene-d8	*90.5*			*75.0-131*		*09/21/2018 23:15*	WG1169827
(S) Toluene-d8	*107*			*75.0-131*		*09/23/2018 17:14*	WG1170348
(S) Dibromofluoromethane	*98.4*			*65.0-129*		*09/21/2018 23:15*	WG1169827
(S) Dibromofluoromethane	*101*			*65.0-129*		*09/23/2018 17:14*	WG1170348
(S) 4-Bromofluorobenzene	*99.2*			*67.0-138*		*09/21/2018 23:15*	WG1169827
(S) 4-Bromofluorobenzene	*98.1*			*67.0-138*		*09/23/2018 17:14*	WG1170348

JC 10/19/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	84.2		1	09/20/2018 09:51	WG1168411

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	0.152 U	J	0.131	0.238	8	09/23/2018 20:49	WG1170348
Acrylonitrile	U		0.00226	0.0148	1	09/21/2018 23:34	WG1169827
Benzene	U		0.000475	0.00119	1	09/21/2018 23:34	WG1169827
Bromobenzene	U		0.00125	0.0148	1	09/21/2018 23:34	WG1169827
Bromodichloromethane	U		0.000936	0.00297	1	09/21/2018 23:34	WG1169827
Bromochloromethane	U		0.00134	0.00594	1	09/21/2018 23:34	WG1169827
Bromoform	U		0.00710	0.0297	1	09/21/2018 23:34	WG1169827
Bromomethane	U		0.00440	0.0148	1	09/21/2018 23:34	WG1169827
n-Butylbenzene	U		0.00456	0.0148	1	09/21/2018 23:34	WG1169827
sec-Butylbenzene	U		0.00301	0.0148	1	09/21/2018 23:34	WG1169827
tert-Butylbenzene	U		0.00184	0.00594	1	09/21/2018 23:34	WG1169827
Carbon disulfide	0.00631 J	J	0.00482	0.0148	1	09/21/2018 23:34	WG1169827
Carbon tetrachloride	U		0.00128	0.00594	1	09/21/2018 23:34	WG1169827
Chlorobenzene	U		0.000681	0.00297	1	09/21/2018 23:34	WG1169827
Chlorodibromomethane	U		0.000535	0.00297	1	09/21/2018 23:34	WG1169827
Chloroethane	U		0.0103	0.0475	8	09/23/2018 20:49	WG1170348
Chloroform	U		0.000493	0.00297	1	09/21/2018 23:34	WG1169827
Chloromethane	U		0.00165	0.0148	1	09/21/2018 23:34	WG1169827
2-Chlorotoluene	U		0.00109	0.00297	1	09/21/2018 23:34	WG1169827
4-Chlorotoluene	U		0.00134	0.00594	1	09/21/2018 23:34	WG1169827
1,2-Dibromo-3-Chloropropane	U UJ	J0	0.00606	0.0297	1	09/21/2018 23:34	WG1169827
1,2-Dibromoethane	U		0.000624	0.00297	1	09/21/2018 23:34	WG1169827
Dibromomethane	U		0.00119	0.00594	1	09/21/2018 23:34	WG1169827
1,2-Dichlorobenzene	U		0.00172	0.00594	1	09/21/2018 23:34	WG1169827
1,3-Dichlorobenzene	U		0.00202	0.00594	1	09/21/2018 23:34	WG1169827
1,4-Dichlorobenzene	U		0.00234	0.00594	1	09/21/2018 23:34	WG1169827
Dichlorodifluoromethane	U		0.000972	0.00297	1	09/21/2018 23:34	WG1169827
1,1-Dichloroethane	U		0.000683	0.00297	1	09/21/2018 23:34	WG1169827
1,2-Dichloroethane	U		0.000564	0.00297	1	09/21/2018 23:34	WG1169827
1,1-Dichloroethene	0.0204		0.000594	0.00297	1	09/21/2018 23:34	WG1169827
cis-1,2-Dichloroethene	3.42		0.00656	0.0238	8	09/23/2018 20:49	WG1170348
trans-1,2-Dichloroethene	0.0213		0.00170	0.00594	1	09/21/2018 23:34	WG1169827
1,2-Dichloropropane	U		0.0121	0.0475	8	09/23/2018 20:49	WG1170348
1,1-Dichloropropene	U		0.000832	0.00297	1	09/21/2018 23:34	WG1169827
1,3-Dichloropropane	U		0.00208	0.00594	1	09/21/2018 23:34	WG1169827
cis-1,3-Dichloropropene	U		0.000805	0.00297	1	09/21/2018 23:34	WG1169827
trans-1,3-Dichloropropene	U		0.00182	0.00594	1	09/21/2018 23:34	WG1169827
trans-1,4-Dichloro-2-butene	U UJ	J0	0.00166	0.00594	1	09/21/2018 23:34	WG1169827
2,2-Dichloropropane	U		0.000942	0.00297	1	09/21/2018 23:34	WG1169827
Di-isopropyl ether	U		0.000416	0.00119	1	09/21/2018 23:34	WG1169827
Ethylbenzene	0.000966 J	J	0.000630	0.00297	1	09/21/2018 23:34	WG1169827
Hexachloro-1,3-butadiene	U		0.0151	0.0297	1	09/21/2018 23:34	WG1169827
2-Hexanone	U		0.0119	0.0297	1	09/21/2018 23:34	WG1169827
n-Hexane	U		0.00126	0.00594	1	09/21/2018 23:34	WG1169827
Iodomethane	U	J4	0.00719	0.0148	1	09/21/2018 23:34	WG1169827
Isopropylbenzene	U		0.00103	0.00297	1	09/21/2018 23:34	WG1169827
p-Isopropyltoluene	U		0.00277	0.00594	1	09/21/2018 23:34	WG1169827 JC 10/19/18
2-Butanone (MEK)	0.0167 J	J	0.0148	0.0297	1	09/21/2018 23:34	WG1169827
Methylene Chloride	U		0.00789	0.0297	1	09/21/2018 23:34	WG1169827
4-Methyl-2-pentanone (MIBK)	U		0.0119	0.0297	1	09/21/2018 23:34	WG1169827

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000350	0.00119	1	09/21/2018 23:34	WG1169827
Naphthalene	U		0.00371	0.0148	1	09/21/2018 23:34	WG1169827
n-Propylbenzene	U		0.00140	0.00594	1	09/21/2018 23:34	WG1169827
Styrene	U		0.00324	0.0148	1	09/21/2018 23:34	WG1169827
1,1,1,2-Tetrachloroethane	U		0.000594	0.00297	1	09/21/2018 23:34	WG1169827
1,1,2,2-Tetrachloroethane	U		0.000463	0.00297	1	09/21/2018 23:34	WG1169827
1,1,2-Trichlorotrifluoroethane	U		0.000802	0.00297	1	09/21/2018 23:34	WG1169827
Tetrachloroethene	0.343		0.000832	0.00297	1	09/21/2018 23:34	WG1169827
Toluene	0.00745		0.00148	0.00594	1	09/21/2018 23:34	WG1169827
1,2,3-Trichlorobenzene	U		0.00594	0.0238	8	09/23/2018 20:49	WG1170348
1,2,4-Trichlorobenzene	U		0.00573	0.0148	1	09/21/2018 23:34	WG1169827
1,1,1-Trichloroethane	U		0.000327	0.00297	1	09/21/2018 23:34	WG1169827
1,1,2-Trichloroethane	U		0.00105	0.00297	1	09/21/2018 23:34	WG1169827
Trichloroethene	0.0155		0.000475	0.00119	1	09/21/2018 23:34	WG1169827
Trichlorofluoromethane	U		0.000594	0.00297	1	09/21/2018 23:34	WG1169827
1,2,3-Trichloropropane	U		0.00606	0.0148	1	09/21/2018 23:34	WG1169827
1,2,4-Trimethylbenzene	0.00156	J J	0.00138	0.00594	1	09/21/2018 23:34	WG1169827
1,2,3-Trimethylbenzene	0.00145	J J	0.00137	0.00594	1	09/21/2018 23:34	WG1169827
1,3,5-Trimethylbenzene	U		0.00128	0.00594	1	09/21/2018 23:34	WG1169827
Vinyl acetate	U	UJ J0	0.00418	0.0148	1	09/21/2018 23:34	WG1169827
Vinyl chloride	0.341		0.000811	0.00297	1	09/21/2018 23:34	WG1169827
Xylenes, Total	U		0.00568	0.00772	1	09/21/2018 23:34	WG1169827
(S) Toluene-d8	*88.1*			*75.0-131*		*09/21/2018 23:34*	WG1169827
(S) Toluene-d8	*104*			*75.0-131*		*09/23/2018 20:49*	WG1170348
(S) Dibromofluoromethane	*97.2*			*65.0-129*		*09/21/2018 23:34*	WG1169827
(S) Dibromofluoromethane	*99.2*			*65.0-129*		*09/23/2018 20:49*	WG1170348
(S) 4-Bromofluorobenzene	*102*			*67.0-138*		*09/21/2018 23:34*	WG1169827
(S) 4-Bromofluorobenzene	*100*			*67.0-138*		*09/23/2018 20:49*	WG1170348

Sample Narrative:

L1026432-05 WG1170348, WG1169827: Cannot be reanalyzed at a lower dilution due to high levels of target analytes.

L1026432-05 WG1170348, WG1169827: Not all compounds reportable at lower dilution.

JC 10/19/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	92.1		1	09/20/2018 09:51	WG1168411

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		1.49	2.71	100	09/23/2018 21:13	WG1170348
Acrylonitrile	U		0.00206	0.0136	1	09/21/2018 23:52	WG1169827
Benzene	U		0.000434	0.00109	1	09/21/2018 23:52	WG1169827
Bromobenzene	U		0.00114	0.0136	1	09/21/2018 23:52	WG1169827
Bromodichloromethane	U		0.000855	0.00271	1	09/21/2018 23:52	WG1169827
Bromochloromethane	U		0.00123	0.00543	1	09/21/2018 23:52	WG1169827
Bromoform	U		0.00649	0.0271	1	09/21/2018 23:52	WG1169827
Bromomethane	U		0.00402	0.0136	1	09/21/2018 23:52	WG1169827
n-Butylbenzene	U		0.00417	0.0136	1	09/21/2018 23:52	WG1169827
sec-Butylbenzene	U		0.00275	0.0136	1	09/21/2018 23:52	WG1169827
tert-Butylbenzene	U		0.00168	0.00543	1	09/21/2018 23:52	WG1169827
Carbon disulfide	U		0.00441	0.0136	1	09/21/2018 23:52	WG1169827
Carbon tetrachloride	U		0.00117	0.00543	1	09/21/2018 23:52	WG1169827
Chlorobenzene	U		0.000622	0.00271	1	09/21/2018 23:52	WG1169827
Chlorodibromomethane	U		0.000488	0.00271	1	09/21/2018 23:52	WG1169827
Chloroethane	U		0.117	0.543	100	09/23/2018 21:13	WG1170348
Chloroform	U		0.000450	0.00271	1	09/21/2018 23:52	WG1169827
Chloromethane	U		0.00151	0.0136	1	09/21/2018 23:52	WG1169827
2-Chlorotoluene	U		0.000999	0.00271	1	09/21/2018 23:52	WG1169827
4-Chlorotoluene	U		0.00123	0.00543	1	09/21/2018 23:52	WG1169827
1,2-Dibromo-3-Chloropropane	U	UJ J0	0.00554	0.0271	1	09/21/2018 23:52	WG1169827
1,2-Dibromoethane	U		0.000570	0.00271	1	09/21/2018 23:52	WG1169827
Dibromomethane	U		0.00109	0.00543	1	09/21/2018 23:52	WG1169827
1,2-Dichlorobenzene	U		0.00157	0.00543	1	09/21/2018 23:52	WG1169827
1,3-Dichlorobenzene	U		0.00185	0.00543	1	09/21/2018 23:52	WG1169827
1,4-Dichlorobenzene	U		0.00214	0.00543	1	09/21/2018 23:52	WG1169827
Dichlorodifluoromethane	U		0.000888	0.00271	1	09/21/2018 23:52	WG1169827
1,1-Dichloroethane	U		0.000624	0.00271	1	09/21/2018 23:52	WG1169827
1,2-Dichloroethane	U		0.000516	0.00271	1	09/21/2018 23:52	WG1169827
1,1-Dichloroethene	0.00651		0.000543	0.00271	1	09/21/2018 23:52	WG1169827
cis-1,2-Dichloroethene	2.16		0.0749	0.271	100	09/23/2018 21:13	WG1170348
trans-1,2-Dichloroethene	U		0.00155	0.00543	1	09/21/2018 23:52	WG1169827
1,2-Dichloropropane	U		0.138	0.543	100	09/23/2018 21:13	WG1170348
1,1-Dichloropropene	U		0.000760	0.00271	1	09/21/2018 23:52	WG1169827
1,3-Dichloropropane	U		0.00190	0.00543	1	09/21/2018 23:52	WG1169827
cis-1,3-Dichloropropene	U		0.000736	0.00271	1	09/21/2018 23:52	WG1169827
trans-1,3-Dichloropropene	U		0.00166	0.00543	1	09/21/2018 23:52	WG1169827
trans-1,4-Dichloro-2-butene	U	UJ J0	0.00152	0.00543	1	09/21/2018 23:52	WG1169827
2,2-Dichloropropane	U		0.000861	0.00271	1	09/21/2018 23:52	WG1169827
Di-isopropyl ether	U		0.000380	0.00109	1	09/21/2018 23:52	WG1169827
Ethylbenzene	U		0.000575	0.00271	1	09/21/2018 23:52	WG1169827
Hexachloro-1,3-butadiene	U		0.0138	0.0271	1	09/21/2018 23:52	WG1169827
2-Hexanone	U		0.0109	0.0271	1	09/21/2018 23:52	WG1169827
n-Hexane	U		0.00115	0.00543	1	09/21/2018 23:52	WG1169827
Iodomethane	U	J4	0.00657	0.0136	1	09/21/2018 23:52	WG1169827
Isopropylbenzene	U		0.000937	0.00271	1	09/21/2018 23:52	WG1169827
p-Isopropyltoluene	U		0.00253	0.00543	1	09/21/2018 23:52	WG1169827
2-Butanone (MEK)	U		0.0136	0.0271	1	09/21/2018 23:52	WG1169827
Methylene Chloride	U		0.00721	0.0271	1	09/21/2018 23:52	WG1169827
4-Methyl-2-pentanone (MIBK)	U		0.0109	0.0271	1	09/21/2018 23:52	WG1169827

JC 10/19/18

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000320	0.00109	1	09/21/2018 23:52	WG1169827
Naphthalene	U		0.00339	0.0136	1	09/21/2018 23:52	WG1169827
n-Propylbenzene	U		0.00128	0.00543	1	09/21/2018 23:52	WG1169827
Styrene	U		0.00296	0.0136	1	09/21/2018 23:52	WG1169827
1,1,1,2-Tetrachloroethane	U		0.000543	0.00271	1	09/21/2018 23:52	WG1169827
1,1,2,2-Tetrachloroethane	U		0.000423	0.00271	1	09/21/2018 23:52	WG1169827
1,1,2-Trichlorotrifluoroethane	U		0.000733	0.00271	1	09/21/2018 23:52	WG1169827
Tetrachloroethene	55.8		0.0760	0.271	100	09/23/2018 21:13	WG1170348
Toluene	0.00188	J J	0.00136	0.00543	1	09/21/2018 23:52	WG1169827
1,2,3-Trichlorobenzene	U		0.0678	0.271	100	09/23/2018 21:13	WG1170348
1,2,4-Trichlorobenzene	U		0.00523	0.0136	1	09/21/2018 23:52	WG1169827
1,1,1-Trichloroethane	U		0.000298	0.00271	1	09/21/2018 23:52	WG1169827
1,1,2-Trichloroethane	U		0.000958	0.00271	1	09/21/2018 23:52	WG1169827
Trichloroethene	0.491		0.000434	0.00109	1	09/21/2018 23:52	WG1169827
Trichlorofluoromethane	U		0.000543	0.00271	1	09/21/2018 23:52	WG1169827
1,2,3-Trichloropropane	U		0.00554	0.0136	1	09/21/2018 23:52	WG1169827
1,2,4-Trimethylbenzene	0.00460	J J	0.00126	0.00543	1	09/21/2018 23:52	WG1169827
1,2,3-Trimethylbenzene	0.00197	J J	0.00125	0.00543	1	09/21/2018 23:52	WG1169827
1,3,5-Trimethylbenzene	0.00184	J J	0.00117	0.00543	1	09/21/2018 23:52	WG1169827
Vinyl acetate	U	UJ J0	0.00382	0.0136	1	09/21/2018 23:52	WG1169827
Vinyl chloride	0.132		0.000741	0.00271	1	09/21/2018 23:52	WG1169827
Xylenes, Total	U		0.00519	0.00706	1	09/21/2018 23:52	WG1169827
(S) Toluene-d8	*114*			*75.0-131*		*09/21/2018 23:52*	WG1169827
(S) Toluene-d8	*103*			*75.0-131*		*09/23/2018 21:13*	WG1170348
(S) Dibromofluoromethane	*99.5*			*65.0-129*		*09/21/2018 23:52*	WG1169827
(S) Dibromofluoromethane	*99.8*			*65.0-129*		*09/23/2018 21:13*	WG1170348
(S) 4-Bromofluorobenzene	*94.8*			*67.0-138*		*09/21/2018 23:52*	WG1169827
(S) 4-Bromofluorobenzene	*101*			*67.0-138*		*09/23/2018 21:13*	WG1170348

Sample Narrative:

L1026432-06 WG1170348, WG1169827: Cannot be reanalyzed at a lower dilution due to high levels of target analytes.

L1026432-06 WG1170348, WG1169827: Not all compounds reportable at lower dilution.

JC 10/19/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	92.0		1	09/20/2018 09:51	WG1168411

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		1.49	2.72	100	09/23/2018 21:37	WG1170348
Acrylonitrile	U		0.00206	0.0136	1	09/22/2018 00:11	WG1169827
Benzene	U		0.000435	0.00109	1	09/22/2018 00:11	WG1169827
Bromobenzene	U		0.00114	0.0136	1	09/22/2018 00:11	WG1169827
Bromodichloromethane	U		0.000856	0.00272	1	09/22/2018 00:11	WG1169827
Bromochloromethane	U		0.00123	0.00543	1	09/22/2018 00:11	WG1169827
Bromoform	U		0.00650	0.0272	1	09/22/2018 00:11	WG1169827
Bromomethane	U		0.00402	0.0136	1	09/22/2018 00:11	WG1169827
n-Butylbenzene	U		0.00417	0.0136	1	09/22/2018 00:11	WG1169827
sec-Butylbenzene	U		0.00275	0.0136	1	09/22/2018 00:11	WG1169827
tert-Butylbenzene	U		0.00168	0.00543	1	09/22/2018 00:11	WG1169827
Carbon disulfide	U		0.00441	0.0136	1	09/22/2018 00:11	WG1169827
Carbon tetrachloride	U		0.00117	0.00543	1	09/22/2018 00:11	WG1169827
Chlorobenzene	U		0.000623	0.00272	1	09/22/2018 00:11	WG1169827
Chlorodibromomethane	U		0.000489	0.00272	1	09/22/2018 00:11	WG1169827
Chloroethane	U		0.117	0.543	100	09/23/2018 21:37	WG1170348
Chloroform	U		0.000451	0.00272	1	09/22/2018 00:11	WG1169827
Chloromethane	U		0.00151	0.0136	1	09/22/2018 00:11	WG1169827
2-Chlorotoluene	U		0.00100	0.00272	1	09/22/2018 00:11	WG1169827
4-Chlorotoluene	U		0.00123	0.00543	1	09/22/2018 00:11	WG1169827
1,2-Dibromo-3-Chloropropane	U	UJ J0	0.00554	0.0272	1	09/22/2018 00:11	WG1169827
1,2-Dibromoethane	U		0.000570	0.00272	1	09/22/2018 00:11	WG1169827
Dibromomethane	U		0.00109	0.00543	1	09/22/2018 00:11	WG1169827
1,2-Dichlorobenzene	U		0.00158	0.00543	1	09/22/2018 00:11	WG1169827
1,3-Dichlorobenzene	U		0.00185	0.00543	1	09/22/2018 00:11	WG1169827
1,4-Dichlorobenzene	U		0.00214	0.00543	1	09/22/2018 00:11	WG1169827
Dichlorodifluoromethane	U		0.000889	0.00272	1	09/22/2018 00:11	WG1169827
1,1-Dichloroethane	U		0.000625	0.00272	1	09/22/2018 00:11	WG1169827
1,2-Dichloroethane	U		0.000516	0.00272	1	09/22/2018 00:11	WG1169827
1,1-Dichloroethene	0.00321		0.000543	0.00272	1	09/22/2018 00:11	WG1169827
cis-1,2-Dichloroethene	1.88		0.000750	0.00272	1	09/22/2018 00:11	WG1169827
trans-1,2-Dichloroethene	U		0.00155	0.00543	1	09/22/2018 00:11	WG1169827
1,2-Dichloropropane	U		0.138	0.543	100	09/23/2018 21:37	WG1170348
1,1-Dichloropropene	U		0.000761	0.00272	1	09/22/2018 00:11	WG1169827
1,3-Dichloropropane	U		0.00190	0.00543	1	09/22/2018 00:11	WG1169827
cis-1,3-Dichloropropene	U		0.000737	0.00272	1	09/22/2018 00:11	WG1169827
trans-1,3-Dichloropropene	U		0.00166	0.00543	1	09/22/2018 00:11	WG1169827
trans-1,4-Dichloro-2-butene	U	UJ J0	0.00152	0.00543	1	09/22/2018 00:11	WG1169827
2,2-Dichloropropane	U		0.000862	0.00272	1	09/22/2018 00:11	WG1169827
Di-isopropyl ether	U		0.000380	0.00109	1	09/22/2018 00:11	WG1169827
Ethylbenzene	U		0.000576	0.00272	1	09/22/2018 00:11	WG1169827
Hexachloro-1,3-butadiene	U		0.0138	0.0272	1	09/22/2018 00:11	WG1169827
2-Hexanone	U		0.0109	0.0272	1	09/22/2018 00:11	WG1169827
n-Hexane	U		0.00115	0.00543	1	09/22/2018 00:11	WG1169827
Iodomethane	U	J4	0.00657	0.0136	1	09/22/2018 00:11	WG1169827
Isopropylbenzene	U		0.000938	0.00272	1	09/22/2018 00:11	WG1169827
p-Isopropyltoluene	U		0.00253	0.00543	1	09/22/2018 00:11	WG1169827
2-Butanone (MEK)	U		0.0136	0.0272	1	09/22/2018 00:11	WG1169827
Methylene Chloride	U		0.00721	0.0272	1	09/22/2018 00:11	WG1169827
4-Methyl-2-pentanone (MIBK)	U		0.0109	0.0272	1	09/22/2018 00:11	WG1169827

JC 10/19/18

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

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000320	0.00109	1	09/22/2018 00:11	WG1169827
Naphthalene	U		0.00339	0.0136	1	09/22/2018 00:11	WG1169827
n-Propylbenzene	U		0.00128	0.00543	1	09/22/2018 00:11	WG1169827
Styrene	U		0.00297	0.0136	1	09/22/2018 00:11	WG1169827
1,1,1,2-Tetrachloroethane	U		0.000543	0.00272	1	09/22/2018 00:11	WG1169827
1,1,2,2-Tetrachloroethane	U		0.000424	0.00272	1	09/22/2018 00:11	WG1169827
1,1,2-Trichlorotrifluoroethane	U		0.000733	0.00272	1	09/22/2018 00:11	WG1169827
Tetrachloroethene	50.8		0.0761	0.272	100	09/23/2018 21:37	WG1170348
Toluene	0.00326	J J	0.00136	0.00543	1	09/22/2018 00:11	WG1169827
1,2,3-Trichlorobenzene	U		0.0679	0.272	100	09/23/2018 21:37	WG1170348
1,2,4-Trichlorobenzene	U		0.00524	0.0136	1	09/22/2018 00:11	WG1169827
1,1,1-Trichloroethane	U		0.000299	0.00272	1	09/22/2018 00:11	WG1169827
1,1,2-Trichloroethane	U		0.000959	0.00272	1	09/22/2018 00:11	WG1169827
Trichloroethene	0.401		0.000435	0.00109	1	09/22/2018 00:11	WG1169827
Trichlorofluoromethane	U		0.000543	0.00272	1	09/22/2018 00:11	WG1169827
1,2,3-Trichloropropane	U		0.00554	0.0136	1	09/22/2018 00:11	WG1169827
1,2,4-Trimethylbenzene	0.00425	J J	0.00126	0.00543	1	09/22/2018 00:11	WG1169827
1,2,3-Trimethylbenzene	0.00215	J J	0.00125	0.00543	1	09/22/2018 00:11	WG1169827
1,3,5-Trimethylbenzene	U		0.00117	0.00543	1	09/22/2018 00:11	WG1169827
Vinyl acetate	U	UJ J0	0.00382	0.0136	1	09/22/2018 00:11	WG1169827
Vinyl chloride	0.105		0.000742	0.00272	1	09/22/2018 00:11	WG1169827
Xylenes, Total	U		0.00519	0.00706	1	09/22/2018 00:11	WG1169827
(S) Toluene-d8	*103*			*75.0-131*		*09/22/2018 00:11*	WG1169827
(S) Toluene-d8	*102*			*75.0-131*		*09/23/2018 21:37*	WG1170348
(S) Dibromofluoromethane	*96.5*			*65.0-129*		*09/22/2018 00:11*	WG1169827
(S) Dibromofluoromethane	*100*			*65.0-129*		*09/23/2018 21:37*	WG1170348
(S) 4-Bromofluorobenzene	*98.8*			*67.0-138*		*09/22/2018 00:11*	WG1169827
(S) 4-Bromofluorobenzene	*101*			*67.0-138*		*09/23/2018 21:37*	WG1170348

Sample Narrative:

L1026432-07 WG1170348, WG1169827: Cannot be reanalyzed at a lower dilution due to high levels of target analytes.

L1026432-07 WG1170348, WG1169827: Not all compounds reportable at lower dilution.

JC 10/19/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	91.4		1	09/20/2018 09:51	WG1168411

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		3.00	5.47	200	09/23/2018 22:01	WG1170348
Acrylonitrile	U		0.00208	0.0137	1	09/22/2018 00:30	WG1169827
Benzene	U		0.000437	0.00109	1	09/22/2018 00:30	WG1169827
Bromobenzene	U		0.00115	0.0137	1	09/22/2018 00:30	WG1169827
Bromodichloromethane	U		0.000862	0.00273	1	09/22/2018 00:30	WG1169827
Bromochloromethane	U		0.00124	0.00547	1	09/22/2018 00:30	WG1169827
Bromoform	U		0.00654	0.0273	1	09/22/2018 00:30	WG1169827
Bromomethane	U		0.00405	0.0137	1	09/22/2018 00:30	WG1169827
n-Butylbenzene	U		0.00420	0.0137	1	09/22/2018 00:30	WG1169827
sec-Butylbenzene	U		0.00277	0.0137	1	09/22/2018 00:30	WG1169827
tert-Butylbenzene	U		0.00170	0.00547	1	09/22/2018 00:30	WG1169827
Carbon disulfide	U		0.00444	0.0137	1	09/22/2018 00:30	WG1169827
Carbon tetrachloride	U		0.00118	0.00547	1	09/22/2018 00:30	WG1169827
Chlorobenzene	U		0.000627	0.00273	1	09/22/2018 00:30	WG1169827
Chlorodibromomethane	U		0.000492	0.00273	1	09/22/2018 00:30	WG1169827
Chloroethane	U		0.236	1.09	200	09/23/2018 22:01	WG1170348
Chloroform	U		0.000454	0.00273	1	09/22/2018 00:30	WG1169827
Chloromethane	U		0.00152	0.0137	1	09/22/2018 00:30	WG1169827
2-Chlorotoluene	U		0.00101	0.00273	1	09/22/2018 00:30	WG1169827
4-Chlorotoluene	U		0.00124	0.00547	1	09/22/2018 00:30	WG1169827
1,2-Dibromo-3-Chloropropane	U	UJ J0	0.00558	0.0273	1	09/22/2018 00:30	WG1169827
1,2-Dibromoethane	U		0.000574	0.00273	1	09/22/2018 00:30	WG1169827
Dibromomethane	U		0.00109	0.00547	1	09/22/2018 00:30	WG1169827
1,2-Dichlorobenzene	U		0.00159	0.00547	1	09/22/2018 00:30	WG1169827
1,3-Dichlorobenzene	U		0.00186	0.00547	1	09/22/2018 00:30	WG1169827
1,4-Dichlorobenzene	U		0.00215	0.00547	1	09/22/2018 00:30	WG1169827
Dichlorodifluoromethane	U		0.000895	0.00273	1	09/22/2018 00:30	WG1169827
1,1-Dichloroethane	U		0.000629	0.00273	1	09/22/2018 00:30	WG1169827
1,2-Dichloroethane	U		0.000519	0.00273	1	09/22/2018 00:30	WG1169827
1,1-Dichloroethene	0.0102		0.000547	0.00273	1	09/22/2018 00:30	WG1169827
cis-1,2-Dichloroethene	1.04		0.000755	0.00273	1	09/22/2018 00:30	WG1169827
trans-1,2-Dichloroethene	0.0126		0.00156	0.00547	1	09/22/2018 00:30	WG1169827
1,2-Dichloropropane	U		0.278	1.09	200	09/23/2018 22:01	WG1170348
1,1-Dichloropropene	U		0.000766	0.00273	1	09/22/2018 00:30	WG1169827
1,3-Dichloropropane	U		0.00191	0.00547	1	09/22/2018 00:30	WG1169827
cis-1,3-Dichloropropene	U		0.000741	0.00273	1	09/22/2018 00:30	WG1169827
trans-1,3-Dichloropropene	U		0.00167	0.00547	1	09/22/2018 00:30	WG1169827
trans-1,4-Dichloro-2-butene	U	UJ J0	0.00153	0.00547	1	09/22/2018 00:30	WG1169827
2,2-Dichloropropane	U		0.000867	0.00273	1	09/22/2018 00:30	WG1169827
Di-isopropyl ether	U		0.000383	0.00109	1	09/22/2018 00:30	WG1169827
Ethylbenzene	U		0.000580	0.00273	1	09/22/2018 00:30	WG1169827
Hexachloro-1,3-butadiene	U		0.0139	0.0273	1	09/22/2018 00:30	WG1169827
2-Hexanone	U		0.0109	0.0273	1	09/22/2018 00:30	WG1169827
n-Hexane	U		0.00116	0.00547	1	09/22/2018 00:30	WG1169827
Iodomethane	U	J4	0.00662	0.0137	1	09/22/2018 00:30	WG1169827
Isopropylbenzene	U		0.000944	0.00273	1	09/22/2018 00:30	WG1169827
p-Isopropyltoluene	U		0.00255	0.00547	1	09/22/2018 00:30	WG1169827
2-Butanone (MEK)	U		0.0137	0.0273	1	09/22/2018 00:30	WG1169827
Methylene Chloride	0.00902	J J	0.00726	0.0273	1	09/22/2018 00:30	WG1169827
4-Methyl-2-pentanone (MIBK)	U		0.0109	0.0273	1	09/22/2018 00:30	WG1169827

JC 10/19/18

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000323	0.00109	1	09/22/2018 00:30	WG1169827
Naphthalene	U		0.00341	0.0137	1	09/22/2018 00:30	WG1169827
n-Propylbenzene	U		0.00129	0.00547	1	09/22/2018 00:30	WG1169827
Styrene	U		0.00299	0.0137	1	09/22/2018 00:30	WG1169827
1,1,1,2-Tetrachloroethane	U		0.000547	0.00273	1	09/22/2018 00:30	WG1169827
1,1,2,2-Tetrachloroethane	U		0.000427	0.00273	1	09/22/2018 00:30	WG1169827
1,1,2-Trichlorotrifluoroethane	U		0.000738	0.00273	1	09/22/2018 00:30	WG1169827
Tetrachloroethene	54.4		0.153	0.547	200	09/23/2018 22:01	WG1170348
Toluene	0.00427	J J	0.00137	0.00547	1	09/22/2018 00:30	WG1169827
1,2,3-Trichlorobenzene	U		0.137	0.547	200	09/23/2018 22:01	WG1170348
1,2,4-Trichlorobenzene	U		0.00527	0.0137	1	09/22/2018 00:30	WG1169827
1,1,1-Trichloroethane	U		0.000301	0.00273	1	09/22/2018 00:30	WG1169827
1,1,2-Trichloroethane	U		0.000966	0.00273	1	09/22/2018 00:30	WG1169827
Trichloroethene	1.51		0.000437	0.00109	1	09/22/2018 00:30	WG1169827
Trichlorofluoromethane	U		0.000547	0.00273	1	09/22/2018 00:30	WG1169827
1,2,3-Trichloropropane	U		0.00558	0.0137	1	09/22/2018 00:30	WG1169827
1,2,4-Trimethylbenzene	0.00512	J J	0.00127	0.00547	1	09/22/2018 00:30	WG1169827
1,2,3-Trimethylbenzene	0.00233	J J	0.00126	0.00547	1	09/22/2018 00:30	WG1169827
1,3,5-Trimethylbenzene	0.00197	J J	0.00118	0.00547	1	09/22/2018 00:30	WG1169827
Vinyl acetate	U	UJ J0	0.00385	0.0137	1	09/22/2018 00:30	WG1169827
Vinyl chloride	0.0585		0.000747	0.00273	1	09/22/2018 00:30	WG1169827
Xylenes, Total	U		0.00523	0.00711	1	09/22/2018 00:30	WG1169827
(S) Toluene-d8	*112*			*75.0-131*		*09/22/2018 00:30*	WG1169827
(S) Toluene-d8	*102*			*75.0-131*		*09/23/2018 22:01*	WG1170348
(S) Dibromofluoromethane	*96.2*			*65.0-129*		*09/22/2018 00:30*	WG1169827
(S) Dibromofluoromethane	*99.9*			*65.0-129*		*09/23/2018 22:01*	WG1170348
(S) 4-Bromofluorobenzene	*98.1*			*67.0-138*		*09/22/2018 00:30*	WG1169827
(S) 4-Bromofluorobenzene	*100*			*67.0-138*		*09/23/2018 22:01*	WG1170348

Sample Narrative:

L1026432-08 WG1170348, WG1169827: Cannot be reanalyzed at a lower dilution due to high levels of target analytes.

L1026432-08 WG1170348, WG1169827: Not all compounds reportable at lower dilution.

JC 10/19/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	88.8		1	09/20/2018 09:51	WG1168411

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.309	0.563	20	09/23/2018 22:24	WG1170348
Acrylonitrile	U		0.00214	0.0141	1	09/22/2018 00:49	WG1169827
Benzene	U		0.000451	0.00113	1	09/22/2018 00:49	WG1169827
Bromobenzene	U		0.00118	0.0141	1	09/22/2018 00:49	WG1169827
Bromodichloromethane	U		0.000888	0.00282	1	09/22/2018 00:49	WG1169827
Bromochloromethane	U		0.00127	0.00563	1	09/22/2018 00:49	WG1169827
Bromoform	U		0.00674	0.0282	1	09/22/2018 00:49	WG1169827
Bromomethane	U		0.00417	0.0141	1	09/22/2018 00:49	WG1169827
n-Butylbenzene	U		0.00433	0.0141	1	09/22/2018 00:49	WG1169827
sec-Butylbenzene	U		0.00285	0.0141	1	09/22/2018 00:49	WG1169827
tert-Butylbenzene	U		0.00175	0.00563	1	09/22/2018 00:49	WG1169827
Carbon disulfide	U		0.00457	0.0141	1	09/22/2018 00:49	WG1169827
Carbon tetrachloride	U		0.00122	0.00563	1	09/22/2018 00:49	WG1169827
Chlorobenzene	U		0.000645	0.00282	1	09/22/2018 00:49	WG1169827
Chlorodibromomethane	U		0.000507	0.00282	1	09/22/2018 00:49	WG1169827
Chloroethane	U		0.0243	0.113	20	09/23/2018 22:24	WG1170348
Chloroform	U		0.000467	0.00282	1	09/22/2018 00:49	WG1169827
Chloromethane	U		0.00157	0.0141	1	09/22/2018 00:49	WG1169827
2-Chlorotoluene	U		0.00104	0.00282	1	09/22/2018 00:49	WG1169827
4-Chlorotoluene	U		0.00127	0.00563	1	09/22/2018 00:49	WG1169827
1,2-Dibromo-3-Chloropropane	U	UJ J0	0.00574	0.0282	1	09/22/2018 00:49	WG1169827
1,2-Dibromoethane	U		0.000591	0.00282	1	09/22/2018 00:49	WG1169827
Dibromomethane	U		0.00113	0.00563	1	09/22/2018 00:49	WG1169827
1,2-Dichlorobenzene	U		0.00163	0.00563	1	09/22/2018 00:49	WG1169827
1,3-Dichlorobenzene	U		0.00191	0.00563	1	09/22/2018 00:49	WG1169827
1,4-Dichlorobenzene	U		0.00222	0.00563	1	09/22/2018 00:49	WG1169827
Dichlorodifluoromethane	U		0.000921	0.00282	1	09/22/2018 00:49	WG1169827
1,1-Dichloroethane	U		0.000648	0.00282	1	09/22/2018 00:49	WG1169827
1,2-Dichloroethane	U		0.000535	0.00282	1	09/22/2018 00:49	WG1169827
1,1-Dichloroethene	U		0.000563	0.00282	1	09/22/2018 00:49	WG1169827
cis-1,2-Dichloroethene	0.566		0.000777	0.00282	1	09/22/2018 00:49	WG1169827
trans-1,2-Dichloroethene	U		0.00161	0.00563	1	09/22/2018 00:49	WG1169827
1,2-Dichloropropane	U		0.0286	0.113	20	09/23/2018 22:24	WG1170348
1,1-Dichloropropene	U		0.000788	0.00282	1	09/22/2018 00:49	WG1169827
1,3-Dichloropropane	U		0.00197	0.00563	1	09/22/2018 00:49	WG1169827
cis-1,3-Dichloropropene	U		0.000764	0.00282	1	09/22/2018 00:49	WG1169827
trans-1,3-Dichloropropene	U		0.00172	0.00563	1	09/22/2018 00:49	WG1169827
trans-1,4-Dichloro-2-butene	U	UJ J0	0.00158	0.00563	1	09/22/2018 00:49	WG1169827
2,2-Dichloropropane	U		0.000893	0.00282	1	09/22/2018 00:49	WG1169827
Di-isopropyl ether	U		0.000394	0.00113	1	09/22/2018 00:49	WG1169827 JC 10/19/18
Ethylbenzene	U		0.000597	0.00282	1	09/22/2018 00:49	WG1169827
Hexachloro-1,3-butadiene	U		0.0143	0.0282	1	09/22/2018 00:49	WG1169827
2-Hexanone	U		0.0113	0.0282	1	09/22/2018 00:49	WG1169827
n-Hexane	U		0.00119	0.00563	1	09/22/2018 00:49	WG1169827
Iodomethane	U	J4	0.00681	0.0141	1	09/22/2018 00:49	WG1169827
Isopropylbenzene	U		0.000972	0.00282	1	09/22/2018 00:49	WG1169827
p-Isopropyltoluene	U		0.00262	0.00563	1	09/22/2018 00:49	WG1169827
2-Butanone (MEK)	U		0.0141	0.0282	1	09/22/2018 00:49	WG1169827
Methylene Chloride	0.0109	J J	0.00748	0.0282	1	09/22/2018 00:49	WG1169827
4-Methyl-2-pentanone (MIBK)	U		0.0113	0.0282	1	09/22/2018 00:49	WG1169827

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000332	0.00113	1	09/22/2018 00:49	WG1169827
Naphthalene	U		0.00351	0.0141	1	09/22/2018 00:49	WG1169827
n-Propylbenzene	U		0.00133	0.00563	1	09/22/2018 00:49	WG1169827
Styrene	U		0.00307	0.0141	1	09/22/2018 00:49	WG1169827
1,1,1,2-Tetrachloroethane	U		0.000563	0.00282	1	09/22/2018 00:49	WG1169827
1,1,2,2-Tetrachloroethane	U		0.000439	0.00282	1	09/22/2018 00:49	WG1169827
1,1,2-Trichlorotrifluoroethane	U		0.000760	0.00282	1	09/22/2018 00:49	WG1169827
Tetrachloroethene	9.63		0.0158	0.0563	20	09/23/2018 22:24	WG1170348
Toluene	0.00436	J J	0.00141	0.00563	1	09/22/2018 00:49	WG1169827
1,2,3-Trichlorobenzene	U		0.0141	0.0563	20	09/23/2018 22:24	WG1170348
1,2,4-Trichlorobenzene	U		0.00543	0.0141	1	09/22/2018 00:49	WG1169827
1,1,1-Trichloroethane	U		0.000310	0.00282	1	09/22/2018 00:49	WG1169827
1,1,2-Trichloroethane	U		0.000995	0.00282	1	09/22/2018 00:49	WG1169827
Trichloroethene	0.347		0.000451	0.00113	1	09/22/2018 00:49	WG1169827
Trichlorofluoromethane	U		0.000563	0.00282	1	09/22/2018 00:49	WG1169827
1,2,3-Trichloropropane	U		0.00574	0.0141	1	09/22/2018 00:49	WG1169827
1,2,4-Trimethylbenzene	U		0.00131	0.00563	1	09/22/2018 00:49	WG1169827
1,2,3-Trimethylbenzene	U		0.00130	0.00563	1	09/22/2018 00:49	WG1169827
1,3,5-Trimethylbenzene	U		0.00122	0.00563	1	09/22/2018 00:49	WG1169827
Vinyl acetate	U	UJ J0	0.00396	0.0141	1	09/22/2018 00:49	WG1169827
Vinyl chloride	0.0123		0.000769	0.00282	1	09/22/2018 00:49	WG1169827
Xylenes, Total	U		0.00538	0.00732	1	09/22/2018 00:49	WG1169827
(S) Toluene-d8	*102*			*75.0-131*		*09/22/2018 00:49*	WG1169827
(S) Toluene-d8	*101*			*75.0-131*		*09/23/2018 22:24*	WG1170348
(S) Dibromofluoromethane	*97.5*			*65.0-129*		*09/22/2018 00:49*	WG1169827
(S) Dibromofluoromethane	*102*			*65.0-129*		*09/23/2018 22:24*	WG1170348
(S) 4-Bromofluorobenzene	*98.4*			*67.0-138*		*09/22/2018 00:49*	WG1169827
(S) 4-Bromofluorobenzene	*101*			*67.0-138*		*09/23/2018 22:24*	WG1170348

Sample Narrative:

L1026432-09 WG1170348, WG1169827: Cannot be reanalyzed at a lower dilution due to high levels of target analytes.

L1026432-09 WG1170348, WG1169827: Not all compounds reportable at lower dilution.

JC 10/19/18

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	5.26	J	1.05	25.0	1	09/18/2018 13:29	WG1167535
Acrylonitrile	U		0.873	5.00	1	09/18/2018 13:29	WG1167535
Benzene	U		0.0896	0.500	1	09/18/2018 13:29	WG1167535
Bromobenzene	U		0.133	0.500	1	09/18/2018 13:29	WG1167535
Bromodichloromethane	U		0.0800	0.500	1	09/18/2018 13:29	WG1167535
Bromochloromethane	U		0.145	0.500	1	09/18/2018 13:29	WG1167535
Bromoform	U		0.186	0.500	1	09/18/2018 13:29	WG1167535
Bromomethane	U		0.157	2.50	1	09/18/2018 13:29	WG1167535
n-Butylbenzene	U		0.143	0.500	1	09/18/2018 13:29	WG1167535
sec-Butylbenzene	U		0.134	0.500	1	09/18/2018 13:29	WG1167535
tert-Butylbenzene	U		0.183	0.500	1	09/18/2018 13:29	WG1167535
Carbon disulfide	U		0.101	0.500	1	09/18/2018 13:29	WG1167535
Carbon tetrachloride	U		0.159	0.500	1	09/18/2018 13:29	WG1167535
Chlorobenzene	U		0.140	0.500	1	09/18/2018 13:29	WG1167535
Chlorodibromomethane	U		0.128	0.500	1	09/18/2018 13:29	WG1167535
Chloroethane	U		0.141	2.50	1	09/18/2018 13:29	WG1167535
Chloroform	U		0.0860	0.500	1	09/18/2018 13:29	WG1167535
Chloromethane	U		0.153	1.25	1	09/18/2018 13:29	WG1167535
2-Chlorotoluene	U		0.111	0.500	1	09/18/2018 13:29	WG1167535
4-Chlorotoluene	U		0.0972	0.500	1	09/18/2018 13:29	WG1167535
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	09/18/2018 13:29	WG1167535
1,2-Dibromoethane	U		0.193	0.500	1	09/18/2018 13:29	WG1167535
Dibromomethane	U		0.117	0.500	1	09/18/2018 13:29	WG1167535
1,2-Dichlorobenzene	U		0.101	0.500	1	09/18/2018 13:29	WG1167535
1,3-Dichlorobenzene	U		0.130	0.500	1	09/18/2018 13:29	WG1167535
1,4-Dichlorobenzene	U		0.121	0.500	1	09/18/2018 13:29	WG1167535
Dichlorodifluoromethane	U		0.127	2.50	1	09/18/2018 13:29	WG1167535
1,1-Dichloroethane	U		0.114	0.500	1	09/18/2018 13:29	WG1167535
1,2-Dichloroethane	U		0.108	0.500	1	09/18/2018 13:29	WG1167535
1,1-Dichloroethene	U		0.188	0.500	1	09/18/2018 13:29	WG1167535
cis-1,2-Dichloroethene	U		0.0933	0.500	1	09/18/2018 13:29	WG1167535
trans-1,2-Dichloroethene	U		0.152	0.500	1	09/18/2018 13:29	WG1167535
1,2-Dichloropropane	U		0.190	0.500	1	09/18/2018 13:29	WG1167535
1,1-Dichloropropene	U		0.128	0.500	1	09/18/2018 13:29	WG1167535
1,3-Dichloropropane	U		0.147	1.00	1	09/18/2018 13:29	WG1167535
cis-1,3-Dichloropropene	U		0.0976	0.500	1	09/18/2018 13:29	WG1167535
trans-1,3-Dichloropropene	U		0.222	0.500	1	09/18/2018 13:29	WG1167535
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	09/18/2018 13:29	WG1167535
2,2-Dichloropropane	U		0.0929	0.500	1	09/18/2018 13:29	WG1167535
Di-isopropyl ether	U		0.0924	0.500	1	09/18/2018 13:29	WG1167535
Ethylbenzene	U		0.158	0.500	1	09/18/2018 13:29	WG1167535
Hexachloro-1,3-butadiene	U		0.157	1.00	1	09/18/2018 13:29	WG1167535
2-Hexanone	U		0.757	5.00	1	09/18/2018 13:29	WG1167535
n-Hexane	U		0.305	5.00	1	09/18/2018 13:29	WG1167535
Iodomethane	U		0.377	10.0	1	09/18/2018 13:29	WG1167535
Isopropylbenzene	U		0.126	0.500	1	09/18/2018 13:29	WG1167535
p-Isopropyltoluene	U		0.138	0.500	1	09/18/2018 13:29	WG1167535
2-Butanone (MEK)	U		1.28	5.00	1	09/18/2018 13:29	WG1167535
Methylene Chloride	U		1.07	2.50	1	09/18/2018 13:29	WG1167535
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	09/18/2018 13:29	WG1167535
Methyl tert-butyl ether	U		0.102	0.500	1	09/18/2018 13:29	WG1167535
Naphthalene	U		0.174	2.50	1	09/18/2018 13:29	WG1167535
n-Propylbenzene	U		0.162	0.500	1	09/18/2018 13:29	WG1167535
Styrene	U		0.117	0.500	1	09/18/2018 13:29	WG1167535
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	09/18/2018 13:29	WG1167535
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	09/18/2018 13:29	WG1167535

JC 10/19/18

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	09/18/2018 13:29	WG1167535
Tetrachloroethene	U		0.199	0.500	1	09/18/2018 13:29	WG1167535
Toluene	U		0.412	0.500	1	09/18/2018 13:29	WG1167535
1,2,3-Trichlorobenzene	U		0.164	0.500	1	09/18/2018 13:29	WG1167535
1,2,4-Trichlorobenzene	U		0.355	0.500	1	09/18/2018 13:29	WG1167535
1,1,1-Trichloroethane	U		0.0940	0.500	1	09/18/2018 13:29	WG1167535
1,1,2-Trichloroethane	U		0.186	0.500	1	09/18/2018 13:29	WG1167535
Trichloroethene	U		0.153	0.500	1	09/18/2018 13:29	WG1167535
Trichlorofluoromethane	U		0.130	2.50	1	09/18/2018 13:29	WG1167535
1,2,3-Trichloropropane	U		0.247	2.50	1	09/18/2018 13:29	WG1167535
1,2,4-Trimethylbenzene	U		0.123	0.500	1	09/18/2018 13:29	WG1167535
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	09/18/2018 13:29	WG1167535
1,3,5-Trimethylbenzene	U		0.124	0.500	1	09/18/2018 13:29	WG1167535
Vinyl acetate	U		0.645	5.00	1	09/18/2018 13:29	WG1167535
Vinyl chloride	U		0.118	0.500	1	09/18/2018 13:29	WG1167535
Xylenes, Total	U		0.316	1.50	1	09/18/2018 13:29	WG1167535
(S) Toluene-d8	*103*			*80.0-120*		*09/18/2018 13:29*	WG1167535
(S) Dibromofluoromethane	*101*			*75.0-120*		*09/18/2018 13:29*	WG1167535
(S) 4-Bromofluorobenzene	*86.4*			*77.0-126*		*09/18/2018 13:29*	WG1167535

JC 10/19/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	90.6		1	09/27/2018 14:37	WG1172388

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		1.21	2.21	80	10/01/2018 17:18	WG1173651
Acrylonitrile	U		0.00210	0.0138	1	09/29/2018 15:46	WG1173458
Benzene	U		0.000441	0.00110	1	09/29/2018 15:46	WG1173458
Bromobenzene	U		0.00116	0.0138	1	09/29/2018 15:46	WG1173458
Bromodichloromethane	U		0.000869	0.00276	1	09/29/2018 15:46	WG1173458
Bromochloromethane	U		0.00125	0.00552	1	09/29/2018 15:46	WG1173458
Bromoform	U		0.00660	0.0276	1	09/29/2018 15:46	WG1173458
Bromomethane	U		0.00408	0.0138	1	09/29/2018 15:46	WG1173458
n-Butylbenzene	U		0.00424	0.0138	1	09/29/2018 15:46	WG1173458
sec-Butylbenzene	U		0.00279	0.0138	1	09/29/2018 15:46	WG1173458
tert-Butylbenzene	U		0.00171	0.00552	1	09/29/2018 15:46	WG1173458
Carbon disulfide	U		0.00448	0.0138	1	09/29/2018 15:46	WG1173458
Carbon tetrachloride	U		0.00119	0.00552	1	09/29/2018 15:46	WG1173458
Chlorobenzene	U		0.000632	0.00276	1	09/29/2018 15:46	WG1173458
Chlorodibromomethane	U		0.000496	0.00276	1	09/29/2018 15:46	WG1173458
Chloroethane	U		0.00119	0.00552	1	09/29/2018 15:46	WG1173458
Chloroform	U		0.000458	0.00276	1	09/29/2018 15:46	WG1173458
Chloromethane	U		0.00153	0.0138	1	09/29/2018 15:46	WG1173458
2-Chlorotoluene	U		0.00102	0.00276	1	09/29/2018 15:46	WG1173458
4-Chlorotoluene	U		0.00125	0.00552	1	09/29/2018 15:46	WG1173458
1,2-Dibromo-3-Chloropropane	U		0.00563	0.0276	1	09/29/2018 15:46	WG1173458
1,2-Dibromoethane	U		0.000579	0.00276	1	09/29/2018 15:46	WG1173458
Dibromomethane	U		0.00110	0.00552	1	09/29/2018 15:46	WG1173458
1,2-Dichlorobenzene	U		0.00160	0.00552	1	09/29/2018 15:46	WG1173458
1,3-Dichlorobenzene	U		0.00188	0.00552	1	09/29/2018 15:46	WG1173458
1,4-Dichlorobenzene	U		0.00217	0.00552	1	09/29/2018 15:46	WG1173458
Dichlorodifluoromethane	U		0.000903	0.00276	1	09/29/2018 15:46	WG1173458
1,1-Dichloroethane	U		0.000634	0.00276	1	09/29/2018 15:46	WG1173458
1,2-Dichloroethane	U	J4	0.000524	0.00276	1	09/29/2018 15:46	WG1173458
1,1-Dichloroethene	0.0362		0.000552	0.00276	1	09/29/2018 15:46	WG1173458
cis-1,2-Dichloroethene	0.157		0.000761	0.00276	1	09/29/2018 15:46	WG1173458
trans-1,2-Dichloroethene	0.00404 J	J	0.00158	0.00552	1	09/29/2018 15:46	WG1173458
1,2-Dichloropropane	U		0.113	0.441	80	10/01/2018 17:18	WG1173651
1,1-Dichloropropene	U		0.000772	0.00276	1	09/29/2018 15:46	WG1173458
1,3-Dichloropropane	U		0.00193	0.00552	1	09/29/2018 15:46	WG1173458
cis-1,3-Dichloropropene	U		0.000748	0.00276	1	09/29/2018 15:46	WG1173458
trans-1,3-Dichloropropene	U		0.00169	0.00552	1	09/29/2018 15:46	WG1173458
trans-1,4-Dichloro-2-butene	U		0.00154	0.00552	1	09/29/2018 15:46	WG1173458
2,2-Dichloropropane	U		0.000875	0.00276	1	09/29/2018 15:46	WG1173458
Di-isopropyl ether	U		0.000386	0.00110	1	09/29/2018 15:46	WG1173458
Ethylbenzene	0.000719 J	J	0.000585	0.00276	1	09/29/2018 15:46	WG1173458
Hexachloro-1,3-butadiene	U		1.13	2.21	80	10/01/2018 17:18	WG1173651
2-Hexanone	U		0.0110	0.0276	1	09/29/2018 15:46	WG1173458
n-Hexane	0.00405 J	J J0	0.00117	0.00552	1	09/29/2018 15:46	WG1173458
Iodomethane	U		0.00668	0.0138	1	09/29/2018 15:46	WG1173458
Isopropylbenzene	U		0.000952	0.00276	1	09/29/2018 15:46	WG1173458
p-Isopropyltoluene	U		0.00257	0.00552	1	09/29/2018 15:46	WG1173458
2-Butanone (MEK)	U		1.10	2.21	80	10/01/2018 17:18	WG1173651
Methylene Chloride	U		0.00733	0.0276	1	09/29/2018 15:46	WG1173458
4-Methyl-2-pentanone (MIBK)	U		0.0110	0.0276	1	09/29/2018 15:46	WG1173458

JC 10/19/2018

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000325	0.00110	1	09/29/2018 15:46	WG1173458
Naphthalene	U		0.00344	0.0138	1	09/29/2018 15:46	WG1173458
n-Propylbenzene	U		0.00130	0.00552	1	09/29/2018 15:46	WG1173458
Styrene	U		0.00301	0.0138	1	09/29/2018 15:46	WG1173458
1,1,1,2-Tetrachloroethane	U		0.000552	0.00276	1	09/29/2018 15:46	WG1173458
1,1,2,2-Tetrachloroethane	U		0.000430	0.00276	1	09/29/2018 15:46	WG1173458
1,1,2-Trichlorotrifluoroethane	U		0.000745	0.00276	1	09/29/2018 15:46	WG1173458
Tetrachloroethene	31.4		0.0618	0.221	80	10/01/2018 17:18	WG1173651
Toluene	0.00447 J	J	0.00138	0.00552	1	09/29/2018 15:46	WG1173458
1,2,3-Trichlorobenzene	U		0.000690	0.00276	1	09/29/2018 15:46	WG1173458
1,2,4-Trichlorobenzene	U		0.00532	0.0138	1	09/29/2018 15:46	WG1173458
1,1,1-Trichloroethane	U		0.000303	0.00276	1	09/29/2018 15:46	WG1173458
1,1,2-Trichloroethane	U		0.0779	0.221	80	10/01/2018 17:18	WG1173651
Trichloroethene	1.21		0.0353	0.0883	80	10/01/2018 22:09	WG1174156
Trichlorofluoromethane	U		0.000552	0.00276	1	09/29/2018 15:46	WG1173458
1,2,3-Trichloropropane	U		0.00563	0.0138	1	09/29/2018 15:46	WG1173458
1,2,4-Trimethylbenzene	0.00240 J	J	0.00128	0.00552	1	09/29/2018 15:46	WG1173458
1,2,3-Trimethylbenzene	0.00129 J	J	0.00127	0.00552	1	09/29/2018 15:46	WG1173458
1,3,5-Trimethylbenzene	U		0.00119	0.00552	1	09/29/2018 15:46	WG1173458
Vinyl acetate	U UJ	J0 J4	0.00388	0.0138	1	09/29/2018 15:46	WG1173458
Vinyl chloride	0.0191		0.000754	0.00276	1	09/29/2018 15:46	WG1173458
Xylenes, Total	0.00585 J	J	0.00527	0.00717	1	09/29/2018 15:46	WG1173458
(S) Toluene-d8	*117*			*75.0-131*		*09/29/2018 15:46*	WG1173458
(S) Toluene-d8	*106*			*75.0-131*		*10/01/2018 17:18*	WG1173651
(S) Toluene-d8	*106*			*75.0-131*		*10/01/2018 22:09*	WG1174156
(S) Dibromofluoromethane	*106*			*65.0-129*		*09/29/2018 15:46*	WG1173458
(S) Dibromofluoromethane	*109*			*65.0-129*		*10/01/2018 17:18*	WG1173651
(S) Dibromofluoromethane	*99.5*			*65.0-129*		*10/01/2018 22:09*	WG1174156
(S) 4-Bromofluorobenzene	*107*			*67.0-138*		*09/29/2018 15:46*	WG1173458
(S) 4-Bromofluorobenzene	*108*			*67.0-138*		*10/01/2018 17:18*	WG1173651
(S) 4-Bromofluorobenzene	*110*			*67.0-138*		*10/01/2018 22:09*	WG1174156

JC 10/19/2018

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	86.9		1	09/27/2018 14:37	WG1172388

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0158	0.0288	1	10/01/2018 16:38	WG1173651
Acrylonitrile	U		0.00219	0.0144	1	09/29/2018 16:06	WG1173458
Benzene	U		0.000460	0.00115	1	09/29/2018 16:06	WG1173458
Bromobenzene	U		0.00121	0.0144	1	09/29/2018 16:06	WG1173458
Bromodichloromethane	U		0.000907	0.00288	1	09/29/2018 16:06	WG1173458
Bromochloromethane	U		0.00130	0.00576	1	09/29/2018 16:06	WG1173458
Bromoform	U		0.00688	0.0288	1	09/29/2018 16:06	WG1173458
Bromomethane	U		0.00426	0.0144	1	09/29/2018 16:06	WG1173458
n-Butylbenzene	U		0.00442	0.0144	1	09/29/2018 16:06	WG1173458
sec-Butylbenzene	U		0.00291	0.0144	1	09/29/2018 16:06	WG1173458
tert-Butylbenzene	U		0.00178	0.00576	1	09/29/2018 16:06	WG1173458
Carbon disulfide	U		0.00467	0.0144	1	09/29/2018 16:06	WG1173458
Carbon tetrachloride	U		0.00124	0.00576	1	09/29/2018 16:06	WG1173458
Chlorobenzene	U		0.000660	0.00288	1	09/29/2018 16:06	WG1173458
Chlorodibromomethane	U		0.000518	0.00288	1	09/29/2018 16:06	WG1173458
Chloroethane	U		0.00124	0.00576	1	09/29/2018 16:06	WG1173458
Chloroform	U		0.000478	0.00288	1	09/29/2018 16:06	WG1173458
Chloromethane	U		0.00160	0.0144	1	09/29/2018 16:06	WG1173458
2-Chlorotoluene	U		0.00106	0.00288	1	09/29/2018 16:06	WG1173458
4-Chlorotoluene	U		0.00130	0.00576	1	09/29/2018 16:06	WG1173458
1,2-Dibromo-3-Chloropropane	U		0.00587	0.0288	1	09/29/2018 16:06	WG1173458
1,2-Dibromoethane	U		0.000604	0.00288	1	09/29/2018 16:06	WG1173458
Dibromomethane	U		0.00115	0.00576	1	09/29/2018 16:06	WG1173458
1,2-Dichlorobenzene	U		0.00167	0.00576	1	09/29/2018 16:06	WG1173458
1,3-Dichlorobenzene	U		0.00196	0.00576	1	09/29/2018 16:06	WG1173458
1,4-Dichlorobenzene	U		0.00227	0.00576	1	09/29/2018 16:06	WG1173458
Dichlorodifluoromethane	U		0.000942	0.00288	1	09/29/2018 16:06	WG1173458
1,1-Dichloroethane	U		0.000662	0.00288	1	09/29/2018 16:06	WG1173458
1,2-Dichloroethane	U	J4	0.000547	0.00288	1	09/29/2018 16:06	WG1173458
1,1-Dichloroethene	0.00620		0.000576	0.00288	1	09/29/2018 16:06	WG1173458
cis-1,2-Dichloroethene	0.0220		0.000794	0.00288	1	09/29/2018 16:06	WG1173458
trans-1,2-Dichloroethene	0.00499 J	J	0.00165	0.00576	1	09/29/2018 16:06	WG1173458
1,2-Dichloropropane	U		0.00146	0.00576	1	10/01/2018 16:38	WG1173651
1,1-Dichloropropene	U		0.000806	0.00288	1	09/29/2018 16:06	WG1173458
1,3-Dichloropropane	U		0.00201	0.00576	1	09/29/2018 16:06	WG1173458
cis-1,3-Dichloropropene	U		0.000780	0.00288	1	09/29/2018 16:06	WG1173458
trans-1,3-Dichloropropene	U		0.00176	0.00576	1	09/29/2018 16:06	WG1173458
trans-1,4-Dichloro-2-butene	U		0.00161	0.00576	1	09/29/2018 16:06	WG1173458
2,2-Dichloropropane	U		0.000913	0.00288	1	09/29/2018 16:06	WG1173458
Di-isopropyl ether	U		0.000403	0.00115	1	09/29/2018 16:06	WG1173458
Ethylbenzene	U		0.000610	0.00288	1	09/29/2018 16:06	WG1173458
Hexachloro-1,3-butadiene	U		0.0146	0.0288	1	10/01/2018 16:38	WG1173651
2-Hexanone	U		0.0115	0.0288	1	09/29/2018 16:06	WG1173458
n-Hexane	U UJ	J0	0.00122	0.00576	1	09/29/2018 16:06	WG1173458
Iodomethane	U		0.00696	0.0144	1	09/29/2018 16:06	WG1173458
Isopropylbenzene	U		0.000993	0.00288	1	09/29/2018 16:06	WG1173458
p-Isopropyltoluene	U		0.00268	0.00576	1	09/29/2018 16:06	WG1173458
2-Butanone (MEK)	0.0211 J	J	0.0144	0.0288	1	10/01/2018 16:38	WG1173651
Methylene Chloride	U		0.00764	0.0288	1	09/29/2018 16:06	WG1173458
4-Methyl-2-pentanone (MIBK)	U		0.0115	0.0288	1	09/29/2018 16:06	WG1173458

JC 10/19/2018

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

Analyte	Result (dry) mg/kg		Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U			0.000340	0.00115	1	09/29/2018 16:06	WG1173458
Naphthalene	U			0.00359	0.0144	1	09/29/2018 16:06	WG1173458
n-Propylbenzene	U			0.00136	0.00576	1	09/29/2018 16:06	WG1173458
Styrene	U			0.00314	0.0144	1	09/29/2018 16:06	WG1173458
1,1,1,2-Tetrachloroethane	U			0.000576	0.00288	1	09/29/2018 16:06	WG1173458
1,1,2,2-Tetrachloroethane	U			0.000449	0.00288	1	09/29/2018 16:06	WG1173458
1,1,2-Trichlorotrifluoroethane	U			0.000777	0.00288	1	09/29/2018 16:06	WG1173458
Tetrachloroethene	0.205			0.000806	0.00288	1	10/01/2018 16:38	WG1173651
Toluene	0.00178	J	J	0.00144	0.00576	1	09/29/2018 16:06	WG1173458
1,2,3-Trichlorobenzene	U			0.000719	0.00288	1	09/29/2018 16:06	WG1173458
1,2,4-Trichlorobenzene	U			0.00555	0.0144	1	09/29/2018 16:06	WG1173458
1,1,1-Trichloroethane	U			0.000317	0.00288	1	09/29/2018 16:06	WG1173458
1,1,2-Trichloroethane	U			0.00102	0.00288	1	10/01/2018 16:38	WG1173651
Trichloroethene	0.202			0.000460	0.00115	1	10/01/2018 21:29	WG1174156
Trichlorofluoromethane	U			0.000576	0.00288	1	09/29/2018 16:06	WG1173458
1,2,3-Trichloropropane	U			0.00587	0.0144	1	09/29/2018 16:06	WG1173458
1,2,4-Trimethylbenzene	U			0.00134	0.00576	1	09/29/2018 16:06	WG1173458
1,2,3-Trimethylbenzene	U			0.00132	0.00576	1	09/29/2018 16:06	WG1173458
1,3,5-Trimethylbenzene	U			0.00124	0.00576	1	09/29/2018 16:06	WG1173458
Vinyl acetate	U	UJ	J0 J4	0.00405	0.0144	1	09/29/2018 16:06	WG1173458
Vinyl chloride	U			0.000786	0.00288	1	09/29/2018 16:06	WG1173458
Xylenes, Total	U			0.00550	0.00748	1	09/29/2018 16:06	WG1173458
(S) Toluene-d8	*111*				*75.0-131*		*09/29/2018 16:06*	WG1173458
(S) Toluene-d8	*104*				*75.0-131*		*10/01/2018 16:38*	WG1173651
(S) Toluene-d8	*104*				*75.0-131*		*10/01/2018 21:29*	WG1174156
(S) Dibromofluoromethane	*108*				*65.0-129*		*09/29/2018 16:06*	WG1173458
(S) Dibromofluoromethane	*107*				*65.0-129*		*10/01/2018 16:38*	WG1173651
(S) Dibromofluoromethane	*99.8*				*65.0-129*		*10/01/2018 21:29*	WG1174156
(S) 4-Bromofluorobenzene	*108*				*67.0-138*		*09/29/2018 16:06*	WG1173458
(S) 4-Bromofluorobenzene	*108*				*67.0-138*		*10/01/2018 16:38*	WG1173651
(S) 4-Bromofluorobenzene	*104*				*67.0-138*		*10/01/2018 21:29*	WG1174156

JC 10/19/2018

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	83.1		1	09/27/2018 14:37	WG1172388

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0165	0.0301	1	10/01/2018 16:58	WG1173651
Acrylonitrile	U		0.00229	0.0150	1	09/29/2018 16:27	WG1173458
Benzene	U		0.000481	0.00120	1	09/29/2018 16:27	WG1173458
Bromobenzene	U		0.00126	0.0150	1	09/29/2018 16:27	WG1173458
Bromodichloromethane	U		0.000948	0.00301	1	09/29/2018 16:27	WG1173458
Bromochloromethane	U		0.00136	0.00602	1	09/29/2018 16:27	WG1173458
Bromoform	U		0.00720	0.0301	1	09/29/2018 16:27	WG1173458
Bromomethane	U		0.00445	0.0150	1	09/29/2018 16:27	WG1173458
n-Butylbenzene	U		0.00462	0.0150	1	09/29/2018 16:27	WG1173458
sec-Butylbenzene	U		0.00304	0.0150	1	09/29/2018 16:27	WG1173458
tert-Butylbenzene	U		0.00187	0.00602	1	09/29/2018 16:27	WG1173458
Carbon disulfide	U		0.00489	0.0150	1	09/29/2018 16:27	WG1173458
Carbon tetrachloride	U		0.00130	0.00602	1	09/29/2018 16:27	WG1173458
Chlorobenzene	U		0.000690	0.00301	1	09/29/2018 16:27	WG1173458
Chlorodibromomethane	U		0.000542	0.00301	1	09/29/2018 16:27	WG1173458
Chloroethane	U		0.00130	0.00602	1	09/29/2018 16:27	WG1173458
Chloroform	U		0.000499	0.00301	1	09/29/2018 16:27	WG1173458
Chloromethane	U		0.00167	0.0150	1	09/29/2018 16:27	WG1173458
2-Chlorotoluene	U		0.00111	0.00301	1	09/29/2018 16:27	WG1173458
4-Chlorotoluene	U		0.00136	0.00602	1	09/29/2018 16:27	WG1173458
1,2-Dibromo-3-Chloropropane	U		0.00614	0.0301	1	09/29/2018 16:27	WG1173458
1,2-Dibromoethane	U		0.000632	0.00301	1	09/29/2018 16:27	WG1173458
Dibromomethane	U		0.00120	0.00602	1	09/29/2018 16:27	WG1173458
1,2-Dichlorobenzene	U		0.00175	0.00602	1	09/29/2018 16:27	WG1173458
1,3-Dichlorobenzene	U		0.00205	0.00602	1	09/29/2018 16:27	WG1173458
1,4-Dichlorobenzene	U		0.00237	0.00602	1	09/29/2018 16:27	WG1173458
Dichlorodifluoromethane	U		0.000984	0.00301	1	09/29/2018 16:27	WG1173458
1,1-Dichloroethane	U		0.000692	0.00301	1	09/29/2018 16:27	WG1173458
1,2-Dichloroethane	U	J4	0.000572	0.00301	1	09/29/2018 16:27	WG1173458
1,1-Dichloroethene	U		0.000602	0.00301	1	09/29/2018 16:27	WG1173458
cis-1,2-Dichloroethene	0.00113 J	J	0.000830	0.00301	1	09/29/2018 16:27	WG1173458
trans-1,2-Dichloroethene	U		0.00172	0.00602	1	09/29/2018 16:27	WG1173458
1,2-Dichloropropane	U		0.00153	0.00602	1	10/01/2018 16:58	WG1173651
1,1-Dichloropropene	U		0.000842	0.00301	1	09/29/2018 16:27	WG1173458
1,3-Dichloropropane	U		0.00211	0.00602	1	09/29/2018 16:27	WG1173458
cis-1,3-Dichloropropene	U		0.000816	0.00301	1	09/29/2018 16:27	WG1173458
trans-1,3-Dichloropropene	U		0.00184	0.00602	1	09/29/2018 16:27	WG1173458
trans-1,4-Dichloro-2-butene	U		0.00168	0.00602	1	09/29/2018 16:27	WG1173458
2,2-Dichloropropane	U		0.000954	0.00301	1	09/29/2018 16:27	WG1173458
Di-isopropyl ether	U		0.000421	0.00120	1	09/29/2018 16:27	WG1173458
Ethylbenzene	U		0.000638	0.00301	1	09/29/2018 16:27	WG1173458
Hexachloro-1,3-butadiene	U		0.0153	0.0301	1	10/01/2018 16:58	WG1173651
2-Hexanone	U		0.0120	0.0301	1	09/29/2018 16:27	WG1173458
n-Hexane	U UJ	J0	0.00128	0.00602	1	09/29/2018 16:27	WG1173458
Iodomethane	U		0.00728	0.0150	1	09/29/2018 16:27	WG1173458
Isopropylbenzene	U		0.00104	0.00301	1	09/29/2018 16:27	WG1173458
p-Isopropyltoluene	U		0.00280	0.00602	1	09/29/2018 16:27	WG1173458
2-Butanone (MEK)	0.0213 J	J	0.0150	0.0301	1	10/01/2018 16:58	WG1173651
Methylene Chloride	U		0.00799	0.0301	1	09/29/2018 16:27	WG1173458
4-Methyl-2-pentanone (MIBK)	U		0.0120	0.0301	1	09/29/2018 16:27	WG1173458

JC 10/19/2018

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

Analyte	Result (dry) mg/kg		Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U			0.000355	0.00120	1	09/29/2018 16:27	WG1173458
Naphthalene	U			0.00376	0.0150	1	09/29/2018 16:27	WG1173458
n-Propylbenzene	U			0.00142	0.00602	1	09/29/2018 16:27	WG1173458
Styrene	U			0.00329	0.0150	1	09/29/2018 16:27	WG1173458
1,1,1,2-Tetrachloroethane	U			0.000602	0.00301	1	09/29/2018 16:27	WG1173458
1,1,2,2-Tetrachloroethane	U			0.000469	0.00301	1	09/29/2018 16:27	WG1173458
1,1,2-Trichlorotrifluoroethane	U			0.000812	0.00301	1	09/29/2018 16:27	WG1173458
Tetrachloroethene	0.00194	J	J	0.000842	0.00301	1	10/01/2018 16:58	WG1173651
Toluene	0.00171	J	J	0.00150	0.00602	1	09/29/2018 16:27	WG1173458
1,2,3-Trichlorobenzene	U			0.000752	0.00301	1	09/29/2018 16:27	WG1173458
1,2,4-Trichlorobenzene	U			0.00580	0.0150	1	09/29/2018 16:27	WG1173458
1,1,1-Trichloroethane	U			0.000331	0.00301	1	09/29/2018 16:27	WG1173458
1,1,2-Trichloroethane	U			0.00106	0.00301	1	10/01/2018 16:58	WG1173651
Trichloroethene	0.00168			0.000481	0.00120	1	10/01/2018 21:49	WG1174156
Trichlorofluoromethane	U			0.000602	0.00301	1	09/29/2018 16:27	WG1173458
1,2,3-Trichloropropane	U			0.00614	0.0150	1	09/29/2018 16:27	WG1173458
1,2,4-Trimethylbenzene	U			0.00140	0.00602	1	09/29/2018 16:27	WG1173458
1,2,3-Trimethylbenzene	U			0.00138	0.00602	1	09/29/2018 16:27	WG1173458
1,3,5-Trimethylbenzene	U			0.00130	0.00602	1	09/29/2018 16:27	WG1173458
Vinyl acetate	U	UJ	J0 J4	0.00424	0.0150	1	09/29/2018 16:27	WG1173458
Vinyl chloride	U			0.000822	0.00301	1	09/29/2018 16:27	WG1173458
Xylenes, Total	U			0.00575	0.00782	1	09/29/2018 16:27	WG1173458
(S) Toluene-d8	*111*				*75.0-131*		*09/29/2018 16:27*	WG1173458
(S) Toluene-d8	*108*				*75.0-131*		*10/01/2018 16:58*	WG1173651
(S) Toluene-d8	*98.8*				*75.0-131*		*10/01/2018 21:49*	WG1174156
(S) Dibromofluoromethane	*106*				*65.0-129*		*09/29/2018 16:27*	WG1173458
(S) Dibromofluoromethane	*105*				*65.0-129*		*10/01/2018 16:58*	WG1173651
(S) Dibromofluoromethane	*104*				*65.0-129*		*10/01/2018 21:49*	WG1174156
(S) 4-Bromofluorobenzene	*105*				*67.0-138*		*09/29/2018 16:27*	WG1173458
(S) 4-Bromofluorobenzene	*112*				*67.0-138*		*10/01/2018 16:58*	WG1173651
(S) 4-Bromofluorobenzene	*108*				*67.0-138*		*10/01/2018 21:49*	WG1174156

JC 10/19/2018

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	92.0		1	09/27/2018 14:37	WG1172388

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch	
	mg/kg		mg/kg	mg/kg		date / time		
Acetone	U		0.0596	0.109	4	10/01/2018 17:38	WG1173651	
Acrylonitrile	U		0.00207	0.0136	1	09/29/2018 16:47	WG1173458	
Benzene	U		0.000435	0.00109	1	09/29/2018 16:47	WG1173458	
Bromobenzene	U		0.00114	0.0136	1	09/29/2018 16:47	WG1173458	
Bromodichloromethane	U		0.000857	0.00272	1	09/29/2018 16:47	WG1173458	
Bromochloromethane	U		0.00123	0.00544	1	09/29/2018 16:47	WG1173458	
Bromoform	U		0.00650	0.0272	1	09/29/2018 16:47	WG1173458	
Bromomethane	U		0.00402	0.0136	1	09/29/2018 16:47	WG1173458	
n-Butylbenzene	U		0.00417	0.0136	1	09/29/2018 16:47	WG1173458	
sec-Butylbenzene	U		0.00275	0.0136	1	09/29/2018 16:47	WG1173458	
tert-Butylbenzene	U		0.00168	0.00544	1	09/29/2018 16:47	WG1173458	
Carbon disulfide	U		0.00441	0.0136	1	09/29/2018 16:47	WG1173458	
Carbon tetrachloride	U		0.00117	0.00544	1	09/29/2018 16:47	WG1173458	
Chlorobenzene	U		0.000623	0.00272	1	09/29/2018 16:47	WG1173458	
Chlorodibromomethane	U		0.000489	0.00272	1	09/29/2018 16:47	WG1173458	
Chloroethane	U		0.00117	0.00544	1	09/29/2018 16:47	WG1173458	
Chloroform	U		0.000451	0.00272	1	09/29/2018 16:47	WG1173458	
Chloromethane	U		0.00151	0.0136	1	09/29/2018 16:47	WG1173458	
2-Chlorotoluene	U		0.00100	0.00272	1	09/29/2018 16:47	WG1173458	
4-Chlorotoluene	U		0.00123	0.00544	1	09/29/2018 16:47	WG1173458	
1,2-Dibromo-3-Chloropropane	U		0.00554	0.0272	1	09/29/2018 16:47	WG1173458	
1,2-Dibromoethane	U		0.000571	0.00272	1	09/29/2018 16:47	WG1173458	
Dibromomethane	U		0.00109	0.00544	1	09/29/2018 16:47	WG1173458	
1,2-Dichlorobenzene	U		0.00158	0.00544	1	09/29/2018 16:47	WG1173458	
1,3-Dichlorobenzene	U		0.00185	0.00544	1	09/29/2018 16:47	WG1173458	
1,4-Dichlorobenzene	U		0.00214	0.00544	1	09/29/2018 16:47	WG1173458	
Dichlorodifluoromethane	U		0.000889	0.00272	1	09/29/2018 16:47	WG1173458	
1,1-Dichloroethane	U		0.000625	0.00272	1	09/29/2018 16:47	WG1173458	
1,2-Dichloroethane	U	J4	0.000516	0.00272	1	09/29/2018 16:47	WG1173458	
1,1-Dichloroethene	U		0.000544	0.00272	1	09/29/2018 16:47	WG1173458	
cis-1,2-Dichloroethene	0.0103		0.000750	0.00272	1	09/29/2018 16:47	WG1173458	
trans-1,2-Dichloroethene	U		0.00155	0.00544	1	09/29/2018 16:47	WG1173458	
1,2-Dichloropropane	U		0.00552	0.0217	4	10/01/2018 17:38	WG1173651	
1,1-Dichloropropene	U		0.000761	0.00272	1	09/29/2018 16:47	WG1173458	
1,3-Dichloropropane	U		0.00190	0.00544	1	09/29/2018 16:47	WG1173458	
cis-1,3-Dichloropropene	U		0.000737	0.00272	1	09/29/2018 16:47	WG1173458	
trans-1,3-Dichloropropene	U		0.00166	0.00544	1	09/29/2018 16:47	WG1173458	
trans-1,4-Dichloro-2-butene	U		0.00152	0.00544	1	09/29/2018 16:47	WG1173458	
2,2-Dichloropropane	U		0.000862	0.00272	1	09/29/2018 16:47	WG1173458	
Di-isopropyl ether	U		0.000380	0.00109	1	09/29/2018 16:47	WG1173458	
Ethylbenzene	U		0.000576	0.00272	1	09/29/2018 16:47	WG1173458	
Hexachloro-1,3-butadiene	U		0.0552	0.109	4	10/01/2018 17:38	WG1173651	
2-Hexanone	U		0.0109	0.0272	1	09/29/2018 16:47	WG1173458	
n-Hexane	0.00228	J J0	0.00115	0.00544	1	09/29/2018 16:47	WG1173458	
Iodomethane	U		0.00658	0.0136	1	09/29/2018 16:47	WG1173458	
Isopropylbenzene	U		0.000938	0.00272	1	09/29/2018 16:47	WG1173458	
p-Isopropyltoluene	U		0.00253	0.00544	1	09/29/2018 16:47	WG1173458	
2-Butanone (MEK)	U		0.0544	0.109	4	10/01/2018 17:38	WG1173651	
Methylene Chloride	U		0.00722	0.0272	1	09/29/2018 16:47	WG1173458	
4-Methyl-2-pentanone (MIBK)	U		0.0109	0.0272	1	09/29/2018 16:47	WG1173458	JC 10/19/2018

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000321	0.00109	1	09/29/2018 16:47	WG1173458
Naphthalene	U		0.00339	0.0136	1	09/29/2018 16:47	WG1173458
n-Propylbenzene	U		0.00128	0.00544	1	09/29/2018 16:47	WG1173458
Styrene	U		0.00297	0.0136	1	09/29/2018 16:47	WG1173458
1,1,1,2-Tetrachloroethane	U		0.000544	0.00272	1	09/29/2018 16:47	WG1173458
1,1,2,2-Tetrachloroethane	U		0.000424	0.00272	1	09/29/2018 16:47	WG1173458
1,1,2-Trichlorotrifluoroethane	U		0.000734	0.00272	1	09/29/2018 16:47	WG1173458
Tetrachloroethene	0.983		0.00304	0.0109	4	10/01/2018 17:38	WG1173651
Toluene	0.00168 J	J	0.00136	0.00544	1	09/29/2018 16:47	WG1173458
1,2,3-Trichlorobenzene	U		0.000679	0.00272	1	09/29/2018 16:47	WG1173458
1,2,4-Trichlorobenzene	U		0.00524	0.0136	1	09/29/2018 16:47	WG1173458
1,1,1-Trichloroethane	U		0.000299	0.00272	1	09/29/2018 16:47	WG1173458
1,1,2-Trichloroethane	U		0.00384	0.0109	4	10/01/2018 17:38	WG1173651
Trichloroethene	0.00290 J	J	0.00174	0.00435	4	10/01/2018 22:29	WG1174156
Trichlorofluoromethane	U		0.000544	0.00272	1	09/29/2018 16:47	WG1173458
1,2,3-Trichloropropane	U		0.00554	0.0136	1	09/29/2018 16:47	WG1173458
1,2,4-Trimethylbenzene	U		0.00126	0.00544	1	09/29/2018 16:47	WG1173458
1,2,3-Trimethylbenzene	U		0.00125	0.00544	1	09/29/2018 16:47	WG1173458
1,3,5-Trimethylbenzene	U		0.00117	0.00544	1	09/29/2018 16:47	WG1173458
Vinyl acetate	U UJ	J0 J4	0.00383	0.0136	1	09/29/2018 16:47	WG1173458
Vinyl chloride	U		0.000742	0.00272	1	09/29/2018 16:47	WG1173458
Xylenes, Total	U		0.00520	0.00707	1	09/29/2018 16:47	WG1173458
(S) Toluene-d8	*111*			*75.0-131*		*09/29/2018 16:47*	WG1173458
(S) Toluene-d8	*92.9*			*75.0-131*		*10/01/2018 17:38*	WG1173651
(S) Toluene-d8	*92.7*			*75.0-131*		*10/01/2018 22:29*	WG1174156
(S) Dibromofluoromethane	*109*			*65.0-129*		*09/29/2018 16:47*	WG1173458
(S) Dibromofluoromethane	*111*			*65.0-129*		*10/01/2018 17:38*	WG1173651
(S) Dibromofluoromethane	*103*			*65.0-129*		*10/01/2018 22:29*	WG1174156
(S) 4-Bromofluorobenzene	*105*			*67.0-138*		*09/29/2018 16:47*	WG1173458
(S) 4-Bromofluorobenzene	*108*			*67.0-138*		*10/01/2018 17:38*	WG1173651
(S) 4-Bromofluorobenzene	*115*			*67.0-138*		*10/01/2018 22:29*	WG1174156

JC 10/19/2018

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	91.9		1	09/27/2018 14:37	WG1172388

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.149	0.272	10	10/01/2018 17:57	WG1173651
Acrylonitrile	U		0.00207	0.0136	1	09/29/2018 17:08	WG1173458
Benzene	0.000505 J	J	0.000435	0.00109	1	09/29/2018 17:08	WG1173458
Bromobenzene	U		0.00114	0.0136	1	09/29/2018 17:08	WG1173458
Bromodichloromethane	U		0.000857	0.00272	1	09/29/2018 17:08	WG1173458
Bromochloromethane	U		0.00123	0.00544	1	09/29/2018 17:08	WG1173458
Bromoform	U		0.00651	0.0272	1	09/29/2018 17:08	WG1173458
Bromomethane	U		0.00402	0.0136	1	09/29/2018 17:08	WG1173458
n-Butylbenzene	U		0.00418	0.0136	1	09/29/2018 17:08	WG1173458
sec-Butylbenzene	U		0.00275	0.0136	1	09/29/2018 17:08	WG1173458
tert-Butylbenzene	U		0.00169	0.00544	1	09/29/2018 17:08	WG1173458
Carbon disulfide	U		0.00442	0.0136	1	09/29/2018 17:08	WG1173458
Carbon tetrachloride	U		0.00117	0.00544	1	09/29/2018 17:08	WG1173458
Chlorobenzene	U		0.000623	0.00272	1	09/29/2018 17:08	WG1173458
Chlorodibromomethane	U		0.000490	0.00272	1	09/29/2018 17:08	WG1173458
Chloroethane	U		0.00117	0.00544	1	09/29/2018 17:08	WG1173458
Chloroform	U		0.000451	0.00272	1	09/29/2018 17:08	WG1173458
Chloromethane	U		0.00151	0.0136	1	09/29/2018 17:08	WG1173458
2-Chlorotoluene	U		0.00100	0.00272	1	09/29/2018 17:08	WG1173458
4-Chlorotoluene	U		0.00123	0.00544	1	09/29/2018 17:08	WG1173458
1,2-Dibromo-3-Chloropropane	U		0.00555	0.0272	1	09/29/2018 17:08	WG1173458
1,2-Dibromoethane	U		0.000571	0.00272	1	09/29/2018 17:08	WG1173458
Dibromomethane	U		0.00109	0.00544	1	09/29/2018 17:08	WG1173458
1,2-Dichlorobenzene	U		0.00158	0.00544	1	09/29/2018 17:08	WG1173458
1,3-Dichlorobenzene	U		0.00185	0.00544	1	09/29/2018 17:08	WG1173458
1,4-Dichlorobenzene	U		0.00214	0.00544	1	09/29/2018 17:08	WG1173458
Dichlorodifluoromethane	U		0.000890	0.00272	1	09/29/2018 17:08	WG1173458
1,1-Dichloroethane	U		0.000626	0.00272	1	09/29/2018 17:08	WG1173458
1,2-Dichloroethane	U	J4	0.000517	0.00272	1	09/29/2018 17:08	WG1173458
1,1-Dichloroethene	0.000563 J	J	0.000544	0.00272	1	09/29/2018 17:08	WG1173458
cis-1,2-Dichloroethene	0.171		0.000751	0.00272	1	09/29/2018 17:08	WG1173458
trans-1,2-Dichloroethene	0.00381 J	J	0.00156	0.00544	1	09/29/2018 17:08	WG1173458
1,2-Dichloropropane	U		0.0138	0.0544	10	10/01/2018 17:57	WG1173651
1,1-Dichloropropene	U		0.000761	0.00272	1	09/29/2018 17:08	WG1173458
1,3-Dichloropropane	U		0.00190	0.00544	1	09/29/2018 17:08	WG1173458
cis-1,3-Dichloropropene	U		0.000738	0.00272	1	09/29/2018 17:08	WG1173458
trans-1,3-Dichloropropene	U		0.00166	0.00544	1	09/29/2018 17:08	WG1173458
trans-1,4-Dichloro-2-butene	U		0.00152	0.00544	1	09/29/2018 17:08	WG1173458
2,2-Dichloropropane	U		0.000863	0.00272	1	09/29/2018 17:08	WG1173458
Di-isopropyl ether	U		0.000381	0.00109	1	09/29/2018 17:08	WG1173458
Ethylbenzene	0.000610 J	J	0.000577	0.00272	1	09/29/2018 17:08	WG1173458
Hexachloro-1,3-butadiene	U		0.138	0.272	10	10/01/2018 17:57	WG1173651
2-Hexanone	U		0.0109	0.0272	1	09/29/2018 17:08	WG1173458
n-Hexane	0.00339 J	J J0	0.00115	0.00544	1	09/29/2018 17:08	WG1173458
Iodomethane	U		0.00658	0.0136	1	09/29/2018 17:08	WG1173458
Isopropylbenzene	U		0.000939	0.00272	1	09/29/2018 17:08	WG1173458
p-Isopropyltoluene	U		0.00253	0.00544	1	09/29/2018 17:08	WG1173458
2-Butanone (MEK)	U		0.136	0.272	10	10/01/2018 17:57	WG1173651
Methylene Chloride	U		0.00722	0.0272	1	09/29/2018 17:08	WG1173458
4-Methyl-2-pentanone (MIBK)	U		0.0109	0.0272	1	09/29/2018 17:08	WG1173458

JC 10/19/2018

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

Analyte	Result (dry) mg/kg		Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U			0.000321	0.00109	1	09/29/2018 17:08	WG1173458
Naphthalene	U			0.00339	0.0136	1	09/29/2018 17:08	WG1173458
n-Propylbenzene	U			0.00128	0.00544	1	09/29/2018 17:08	WG1173458
Styrene	U			0.00297	0.0136	1	09/29/2018 17:08	WG1173458
1,1,1,2-Tetrachloroethane	U			0.000544	0.00272	1	09/29/2018 17:08	WG1173458
1,1,2,2-Tetrachloroethane	U			0.000424	0.00272	1	09/29/2018 17:08	WG1173458
1,1,2-Trichlorotrifluoroethane	U			0.000734	0.00272	1	09/29/2018 17:08	WG1173458
Tetrachloroethene	1.74			0.00761	0.0272	10	10/01/2018 17:57	WG1173651
Toluene	0.00303	J	J	0.00136	0.00544	1	09/29/2018 17:08	WG1173458
1,2,3-Trichlorobenzene	U			0.000680	0.00272	1	09/29/2018 17:08	WG1173458
1,2,4-Trichlorobenzene	U			0.00524	0.0136	1	09/29/2018 17:08	WG1173458
1,1,1-Trichloroethane	U			0.000299	0.00272	1	09/29/2018 17:08	WG1173458
1,1,2-Trichloroethane	U			0.00961	0.0272	10	10/01/2018 17:57	WG1173651
Trichloroethene	0.152			0.000435	0.00109	1	09/29/2018 17:08	WG1173458
Trichlorofluoromethane	U			0.000544	0.00272	1	09/29/2018 17:08	WG1173458
1,2,3-Trichloropropane	U			0.00555	0.0136	1	09/29/2018 17:08	WG1173458
1,2,4-Trimethylbenzene	U			0.00126	0.00544	1	09/29/2018 17:08	WG1173458
1,2,3-Trimethylbenzene	U			0.00125	0.00544	1	09/29/2018 17:08	WG1173458
1,3,5-Trimethylbenzene	U			0.00117	0.00544	1	09/29/2018 17:08	WG1173458
Vinyl acetate	U	UJ	J0 J4	0.00383	0.0136	1	09/29/2018 17:08	WG1173458
Vinyl chloride	0.00790			0.000743	0.00272	1	09/29/2018 17:08	WG1173458
Xylenes, Total	U			0.00520	0.00707	1	09/29/2018 17:08	WG1173458
(S) Toluene-d8	*112*				*75.0-131*		*09/29/2018 17:08*	WG1173458
(S) Toluene-d8	*97.0*				*75.0-131*		*10/01/2018 17:57*	WG1173651
(S) Dibromofluoromethane	*105*				*65.0-129*		*09/29/2018 17:08*	WG1173458
(S) Dibromofluoromethane	*110*				*65.0-129*		*10/01/2018 17:57*	WG1173651
(S) 4-Bromofluorobenzene	*106*				*67.0-138*		*09/29/2018 17:08*	WG1173458
(S) 4-Bromofluorobenzene	*109*				*67.0-138*		*10/01/2018 17:57*	WG1173651

JC 10/19/2018

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	89.5		1	09/27/2018 14:37	WG1172388

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.306	0.559	20	10/01/2018 12:57	WG1173651
Acrylonitrile	U		0.00212	0.0140	1	09/29/2018 17:28	WG1173458
Benzene	0.000458 J	J	0.000447	0.00112	1	09/29/2018 17:28	WG1173458
Bromobenzene	U		0.00117	0.0140	1	09/29/2018 17:28	WG1173458
Bromodichloromethane	U		0.000881	0.00279	1	09/29/2018 17:28	WG1173458
Bromochloromethane	U		0.00126	0.00559	1	09/29/2018 17:28	WG1173458
Bromoform	U		0.00668	0.0279	1	09/29/2018 17:28	WG1173458
Bromomethane	U		0.00414	0.0140	1	09/29/2018 17:28	WG1173458
n-Butylbenzene	U		0.00429	0.0140	1	09/29/2018 17:28	WG1173458
sec-Butylbenzene	U		0.00283	0.0140	1	09/29/2018 17:28	WG1173458
tert-Butylbenzene	U		0.00173	0.00559	1	09/29/2018 17:28	WG1173458
Carbon disulfide	U		0.00454	0.0140	1	09/29/2018 17:28	WG1173458
Carbon tetrachloride	U		0.00121	0.00559	1	09/29/2018 17:28	WG1173458
Chlorobenzene	U		0.000640	0.00279	1	09/29/2018 17:28	WG1173458
Chlorodibromomethane	U		0.000503	0.00279	1	09/29/2018 17:28	WG1173458
Chloroethane	U		0.00121	0.00559	1	09/29/2018 17:28	WG1173458
Chloroform	U		0.000464	0.00279	1	09/29/2018 17:28	WG1173458
Chloromethane	U		0.00155	0.0140	1	09/29/2018 17:28	WG1173458
2-Chlorotoluene	U		0.00103	0.00279	1	09/29/2018 17:28	WG1173458
4-Chlorotoluene	U		0.00126	0.00559	1	09/29/2018 17:28	WG1173458
1,2-Dibromo-3-Chloropropane	U		0.00570	0.0279	1	09/29/2018 17:28	WG1173458
1,2-Dibromoethane	U		0.000587	0.00279	1	09/29/2018 17:28	WG1173458
Dibromomethane	U		0.00112	0.00559	1	09/29/2018 17:28	WG1173458
1,2-Dichlorobenzene	U		0.00162	0.00559	1	09/29/2018 17:28	WG1173458
1,3-Dichlorobenzene	U		0.00190	0.00559	1	09/29/2018 17:28	WG1173458
1,4-Dichlorobenzene	U		0.00220	0.00559	1	09/29/2018 17:28	WG1173458
Dichlorodifluoromethane	U		0.000914	0.00279	1	09/29/2018 17:28	WG1173458
1,1-Dichloroethane	U		0.000643	0.00279	1	09/29/2018 17:28	WG1173458
1,2-Dichloroethane	U	J4	0.000531	0.00279	1	09/29/2018 17:28	WG1173458
1,1-Dichloroethene	U		0.000559	0.00279	1	09/29/2018 17:28	WG1173458
cis-1,2-Dichloroethene	0.0596		0.000771	0.00279	1	09/29/2018 17:28	WG1173458
trans-1,2-Dichloroethene	U		0.00160	0.00559	1	09/29/2018 17:28	WG1173458
1,2-Dichloropropane	U		0.0284	0.112	20	10/01/2018 12:57	WG1173651
1,1-Dichloropropene	U		0.000782	0.00279	1	09/29/2018 17:28	WG1173458
1,3-Dichloropropane	U		0.00196	0.00559	1	09/29/2018 17:28	WG1173458
cis-1,3-Dichloropropene	U		0.000758	0.00279	1	09/29/2018 17:28	WG1173458
trans-1,3-Dichloropropene	U		0.00171	0.00559	1	09/29/2018 17:28	WG1173458
trans-1,4-Dichloro-2-butene	U		0.00156	0.00559	1	09/29/2018 17:28	WG1173458
2,2-Dichloropropane	U		0.000886	0.00279	1	09/29/2018 17:28	WG1173458
Di-isopropyl ether	U		0.000391	0.00112	1	09/29/2018 17:28	WG1173458
Ethylbenzene	U		0.000592	0.00279	1	09/29/2018 17:28	WG1173458
Hexachloro-1,3-butadiene	U		0.284	0.559	20	10/01/2018 12:57	WG1173651
2-Hexanone	U		0.0112	0.0279	1	09/29/2018 17:28	WG1173458
n-Hexane	U UJ	J0	0.00118	0.00559	1	09/29/2018 17:28	WG1173458
Iodomethane	U		0.00676	0.0140	1	09/29/2018 17:28	WG1173458
Isopropylbenzene	U		0.000965	0.00279	1	09/29/2018 17:28	WG1173458
p-Isopropyltoluene	U		0.00260	0.00559	1	09/29/2018 17:28	WG1173458
2-Butanone (MEK)	U		0.279	0.559	20	10/01/2018 12:57	WG1173651
Methylene Chloride	U		0.00742	0.0279	1	09/29/2018 17:28	WG1173458
4-Methyl-2-pentanone (MIBK)	U		0.0112	0.0279	1	09/29/2018 17:28	WG1173458

JC 10/19/2018

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

Analyte	Result (dry) mg/kg		Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U			0.000330	0.00112	1	09/29/2018 17:28	WG1173458
Naphthalene	U			0.00349	0.0140	1	09/29/2018 17:28	WG1173458
n-Propylbenzene	U			0.00132	0.00559	1	09/29/2018 17:28	WG1173458
Styrene	U			0.00305	0.0140	1	09/29/2018 17:28	WG1173458
1,1,1,2-Tetrachloroethane	U			0.000559	0.00279	1	09/29/2018 17:28	WG1173458
1,1,2,2-Tetrachloroethane	U			0.000436	0.00279	1	09/29/2018 17:28	WG1173458
1,1,2-Trichlorotrifluoroethane	U			0.000754	0.00279	1	09/29/2018 17:28	WG1173458
Tetrachloroethene	8.01			0.0156	0.0559	20	10/01/2018 12:57	WG1173651
Toluene	0.00194	J	J	0.00140	0.00559	1	09/29/2018 17:28	WG1173458
1,2,3-Trichlorobenzene	U			0.000699	0.00279	1	09/29/2018 17:28	WG1173458
1,2,4-Trichlorobenzene	U			0.00539	0.0140	1	09/29/2018 17:28	WG1173458
1,1,1-Trichloroethane	U			0.000307	0.00279	1	09/29/2018 17:28	WG1173458
1,1,2-Trichloroethane	U			0.0198	0.0559	20	10/01/2018 12:57	WG1173651
Trichloroethene	0.0451			0.000447	0.00112	1	09/29/2018 17:28	WG1173458
Trichlorofluoromethane	U			0.000559	0.00279	1	09/29/2018 17:28	WG1173458
1,2,3-Trichloropropane	U			0.00570	0.0140	1	09/29/2018 17:28	WG1173458
1,2,4-Trimethylbenzene	0.00173	J	J	0.00130	0.00559	1	09/29/2018 17:28	WG1173458
1,2,3-Trimethylbenzene	U			0.00129	0.00559	1	09/29/2018 17:28	WG1173458
1,3,5-Trimethylbenzene	U			0.00121	0.00559	1	09/29/2018 17:28	WG1173458
Vinyl acetate	U	UJ	J0 J4	0.00393	0.0140	1	09/29/2018 17:28	WG1173458
Vinyl chloride	U			0.000763	0.00279	1	09/29/2018 17:28	WG1173458
Xylenes, Total	U			0.00534	0.00727	1	09/29/2018 17:28	WG1173458
(S) Toluene-d8	*111*				*75.0-131*		*09/29/2018 17:28*	WG1173458
(S) Toluene-d8	*103*				*75.0-131*		*10/01/2018 12:57*	WG1173651
(S) Dibromofluoromethane	*107*				*65.0-129*		*09/29/2018 17:28*	WG1173458
(S) Dibromofluoromethane	*105*				*65.0-129*		*10/01/2018 12:57*	WG1173651
(S) 4-Bromofluorobenzene	*107*				*67.0-138*		*09/29/2018 17:28*	WG1173458
(S) 4-Bromofluorobenzene	*110*				*67.0-138*		*10/01/2018 12:57*	WG1173651

JC 10/19/2018

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	83.1		1	09/27/2018 14:37	WG1172388

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0659	0.120	4	10/01/2018 13:17	WG1173651
Acrylonitrile	U		0.00229	0.0150	1	09/29/2018 17:49	WG1173458
Benzene	U		0.000481	0.00120	1	09/29/2018 17:49	WG1173458
Bromobenzene	U		0.00126	0.0150	1	09/29/2018 17:49	WG1173458
Bromodichloromethane	U		0.000948	0.00301	1	09/29/2018 17:49	WG1173458
Bromochloromethane	U		0.00136	0.00601	1	09/29/2018 17:49	WG1173458
Bromoform	U		0.00719	0.0301	1	09/29/2018 17:49	WG1173458
Bromomethane	U		0.00445	0.0150	1	09/29/2018 17:49	WG1173458
n-Butylbenzene	U		0.00462	0.0150	1	09/29/2018 17:49	WG1173458
sec-Butylbenzene	U		0.00304	0.0150	1	09/29/2018 17:49	WG1173458
tert-Butylbenzene	U		0.00186	0.00601	1	09/29/2018 17:49	WG1173458
Carbon disulfide	U		0.00488	0.0150	1	09/29/2018 17:49	WG1173458
Carbon tetrachloride	U		0.00130	0.00601	1	09/29/2018 17:49	WG1173458
Chlorobenzene	U		0.000689	0.00301	1	09/29/2018 17:49	WG1173458
Chlorodibromomethane	U		0.000541	0.00301	1	09/29/2018 17:49	WG1173458
Chloroethane	U		0.00130	0.00601	1	09/29/2018 17:49	WG1173458
Chloroform	U		0.000499	0.00301	1	09/29/2018 17:49	WG1173458
Chloromethane	U		0.00167	0.0150	1	09/29/2018 17:49	WG1173458
2-Chlorotoluene	U		0.00111	0.00301	1	09/29/2018 17:49	WG1173458
4-Chlorotoluene	U		0.00136	0.00601	1	09/29/2018 17:49	WG1173458
1,2-Dibromo-3-Chloropropane	U		0.00613	0.0301	1	09/29/2018 17:49	WG1173458
1,2-Dibromoethane	U		0.000631	0.00301	1	09/29/2018 17:49	WG1173458
Dibromomethane	U		0.00120	0.00601	1	09/29/2018 17:49	WG1173458
1,2-Dichlorobenzene	U		0.00174	0.00601	1	09/29/2018 17:49	WG1173458
1,3-Dichlorobenzene	U		0.00204	0.00601	1	09/29/2018 17:49	WG1173458
1,4-Dichlorobenzene	U		0.00237	0.00601	1	09/29/2018 17:49	WG1173458
Dichlorodifluoromethane	U		0.000984	0.00301	1	09/29/2018 17:49	WG1173458
1,1-Dichloroethane	U		0.000692	0.00301	1	09/29/2018 17:49	WG1173458
1,2-Dichloroethane	U	J4	0.000571	0.00301	1	09/29/2018 17:49	WG1173458
1,1-Dichloroethene	U		0.000601	0.00301	1	09/29/2018 17:49	WG1173458
cis-1,2-Dichloroethene	0.00818		0.000830	0.00301	1	09/29/2018 17:49	WG1173458
trans-1,2-Dichloroethene	U		0.00172	0.00601	1	09/29/2018 17:49	WG1173458
1,2-Dichloropropane	U		0.00611	0.0241	4	10/01/2018 13:17	WG1173651
1,1-Dichloropropene	U		0.000842	0.00301	1	09/29/2018 17:49	WG1173458
1,3-Dichloropropane	U		0.00210	0.00601	1	09/29/2018 17:49	WG1173458
cis-1,3-Dichloropropene	U		0.000815	0.00301	1	09/29/2018 17:49	WG1173458
trans-1,3-Dichloropropene	U		0.00184	0.00601	1	09/29/2018 17:49	WG1173458
trans-1,4-Dichloro-2-butene	U		0.00168	0.00601	1	09/29/2018 17:49	WG1173458
2,2-Dichloropropane	U		0.000954	0.00301	1	09/29/2018 17:49	WG1173458
Di-isopropyl ether	U		0.000421	0.00120	1	09/29/2018 17:49	WG1173458
Ethylbenzene	U		0.000637	0.00301	1	09/29/2018 17:49	WG1173458
Hexachloro-1,3-butadiene	U		0.0611	0.120	4	10/01/2018 13:17	WG1173651
2-Hexanone	U		0.0120	0.0301	1	09/29/2018 17:49	WG1173458
n-Hexane	0.00282	J J0	0.00127	0.00601	1	09/29/2018 17:49	WG1173458
Iodomethane	U		0.00728	0.0150	1	09/29/2018 17:49	WG1173458
Isopropylbenzene	U		0.00104	0.00301	1	09/29/2018 17:49	WG1173458
p-Isopropyltoluene	U		0.00280	0.00601	1	09/29/2018 17:49	WG1173458
2-Butanone (MEK)	U		0.0601	0.120	4	10/01/2018 13:17	WG1173651
Methylene Chloride	U		0.00799	0.0301	1	09/29/2018 17:49	WG1173458
4-Methyl-2-pentanone (MIBK)	U		0.0120	0.0301	1	09/29/2018 17:49	WG1173458

JC 10/19/2018

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

Analyte	Result (dry) mg/kg		Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U			0.000355	0.00120	1	09/29/2018 17:49	WG1173458
Naphthalene	U			0.00375	0.0150	1	09/29/2018 17:49	WG1173458
n-Propylbenzene	U			0.00142	0.00601	1	09/29/2018 17:49	WG1173458
Styrene	U			0.00328	0.0150	1	09/29/2018 17:49	WG1173458
1,1,1,2-Tetrachloroethane	U			0.000601	0.00301	1	09/29/2018 17:49	WG1173458
1,1,2,2-Tetrachloroethane	U			0.000469	0.00301	1	09/29/2018 17:49	WG1173458
1,1,2-Trichlorotrifluoroethane	U			0.000812	0.00301	1	09/29/2018 17:49	WG1173458
Tetrachloroethene	0.942			0.00337	0.0120	4	10/01/2018 13:17	WG1173651
Toluene	U			0.00150	0.00601	1	09/29/2018 17:49	WG1173458
1,2,3-Trichlorobenzene	U			0.000752	0.00301	1	09/29/2018 17:49	WG1173458
1,2,4-Trichlorobenzene	U			0.00580	0.0150	1	09/29/2018 17:49	WG1173458
1,1,1-Trichloroethane	U			0.000331	0.00301	1	09/29/2018 17:49	WG1173458
1,1,2-Trichloroethane	U			0.00425	0.0120	4	10/01/2018 13:17	WG1173651
Trichloroethene	0.00512			0.000481	0.00120	1	09/29/2018 17:49	WG1173458
Trichlorofluoromethane	U			0.000601	0.00301	1	09/29/2018 17:49	WG1173458
1,2,3-Trichloropropane	U			0.00613	0.0150	1	09/29/2018 17:49	WG1173458
1,2,4-Trimethylbenzene	U			0.00140	0.00601	1	09/29/2018 17:49	WG1173458
1,2,3-Trimethylbenzene	U			0.00138	0.00601	1	09/29/2018 17:49	WG1173458
1,3,5-Trimethylbenzene	U			0.00130	0.00601	1	09/29/2018 17:49	WG1173458
Vinyl acetate	U	UJ	J0 J4	0.00423	0.0150	1	09/29/2018 17:49	WG1173458
Vinyl chloride	0.00139	J	J	0.000821	0.00301	1	09/29/2018 17:49	WG1173458
Xylenes, Total	U			0.00575	0.00782	1	09/29/2018 17:49	WG1173458
(S) Toluene-d8	*107*				*75.0-131*		*09/29/2018 17:49*	WG1173458
(S) Toluene-d8	*106*				*75.0-131*		*10/01/2018 13:17*	WG1173651
(S) Dibromofluoromethane	*103*				*65.0-129*		*09/29/2018 17:49*	WG1173458
(S) Dibromofluoromethane	*105*				*65.0-129*		*10/01/2018 13:17*	WG1173651
(S) 4-Bromofluorobenzene	*108*				*67.0-138*		*09/29/2018 17:49*	WG1173458
(S) 4-Bromofluorobenzene	*110*				*67.0-138*		*10/01/2018 13:17*	WG1173651

JC 10/19/2018

MEMORANDUM

TO: Project File **DATE:** November 16, 2018

FROM: Jessie Compeau

SUBJECT: Laboratory Data Validation Review

PROJECT: American Linen Data Validation

PROJECT #: 1413.001.05.304

TASK: October, 2018 – Soil Samples

LAB: Pace Sample Delivery Groups (SDGs): L1034970, L1035515, L1036155, L1036161, L1036473, L1036481 and L1036740

One hundred and ten (110) soil samples including one (1) field duplicate, and two (2) trip blanks were collected as part of a sampling event at the Former American Linen Supply Site, in Seattle, Washington. Samples were collected between October 15th and 19th, 2018. The samples were shipped and delivered to Pace Analytical (formerly ESC Lab Sciences (ESC)) of Mount Juliet, TN for laboratory analysis. Selected samples were analyzed for the following:

- Volatile organic compounds (VOCs) by United States Environmental Protection Agency (USEPA) Method 8260C; and
- Total Solids by Standard Methods 2540 G-2011.

Associated soil sample data are reported in seven Pace SDGs (L1034970, L1035515, L1036155, L1036161, L1036473, L1036481 and L1036740). The quality assurance review of the sample data are summarized below.

DATA QUALIFICATIONS

Guidelines established by USEPA for a limited data validation review of analytical data along with Pace Analytical (Pace) control limit criteria were used to validate the data. The comments presented in this memorandum refer to the laboratory's performance in meeting the quality control criteria outlined in the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (USEPA, 2017).

DATA VALIDATION

Completeness

All samples were collected and analyzed as requested with the following discussion:

- Review of associated chain of custodies show that multiple soil samples were collected and placed on hold by PES. No action was taken other than to note this.

Sample Collection and Preservation

Samples were collected in laboratory-supplied sample containers preserved as appropriate for the individual analyses conducted. The samples were packed on ice in coolers and delivered by courier to the analytical laboratory. The laboratory reported that the coolers were received at a cooler temperature less than the recommended temperature preservation less than 6°C. No data were qualified based upon the sample collection and preservation information.

Holding Times

USEPA Method 8260C:
All samples were analyzed for VOCs within the EPA recommended holding time of fourteen days for soils from the date of collection. All holding time criteria were met.

Total Solids by SM 2540 G 2011:
Samples were analyzed within the USEPA recommended holding time of seven days for total solids.

Initial and Continuing Calibration

Calibration data for this project are not required for this deliverable however PACE's notes indicate the following:

- SDG L1034970 - *USEPA Method 8260C:* Continuing calibration verification (CCV) issues were noted by Pace for tetrachloroethene associated with analytical batch WG1184188 (analyzed on October 21, 2018). The compound is qualified by the laboratory "J0" to indicate that percent difference CCV is outside of laboratory acceptance criteria. **Associated results with laboratory qualified (J0) results are estimated and qualified (J/UJ).**

- SDG L1034970 - *USEPA Method 8260C:* Continuing calibration verification (CCV) issues were noted by Pace for methyl tert-butyl ether associated with analytical batch WG1181654 (analyzed on October 16, 2018). The compound is qualified by the laboratory "J0" to indicate that percent difference CCV is outside of laboratory acceptance criteria. **Associated results with laboratory qualified (J0) results are estimated and qualified (UJ).**

- SDG L1034970 - *USEPA Method 8260C:* Continuing calibration verification (CCV) issues were noted by Pace for multiple compounds associated with analytical batch WG1183157 (analyzed on October 19, 2018). The compounds are qualified by the laboratory "J0" to indicate that percent difference CCVs are outside of laboratory acceptance criteria. **Associated samples results with laboratory qualified (J0) results are estimated and qualified (J/UJ).**

- SDGs L1035515 and L1036155 - *USEPA Method 8260C:* Continuing calibration verification (CCV) issues were noted by Pace for carbon disulfide, ethylbenzene, and n-hexane associated with analytical batch WG1183540 (analyzed on October 19, 2018). The compounds are qualified by the laboratory "J0" to indicate that percent difference

CCVs are outside of laboratory acceptance criteria. **Associated results with laboratory qualified (J0) results are estimated and qualified (J/UJ).**

- SDGs L1036155 and L1036161 - *USEPA Method 8260C:* Continuing calibration verification (CCV) issues are noted by Pace for tetrachloroethene associated with analytical batch WG1185221 (analyzed on October 23, 2018). The compound is qualified by the laboratory "J0" to indicate that percent difference CCV is outside of laboratory acceptance criteria. **Associated results with laboratory qualified (J0) results are estimated and qualified (J/UJ).**

- SDG L1036473 - *USEPA Method 8260C:* Continuing calibration verification (CCV) issues are noted by Pace for tetrachloroethene associated with analytical batch WG1185319 (analyzed on October 24, 2018). The compound is qualified by the laboratory "J0" to indicate that percent difference CCV is outside of laboratory acceptance criteria. **Associated results with laboratory qualified (J0) results are estimated and qualified (J/UJ).**

- SDG L1036740 - *USEPA Method 8260C:* Continuing calibration verification (CCV) issue is noted by Pace for 2-butanone (MEK) associated with analytical batch WG1186927 (analyzed on October 26, 2018). The compound is qualified by the laboratory "J0" to indicate that percent difference CCV is outside of laboratory acceptance criteria. **Associated sample B-254A-27 result with laboratory qualified (J0) result for 2-butanone (MEK) is estimated and qualified (J/UJ).**

Method Blank Results

USEPA Method 8260C:
Laboratory method blanks were included with the analytical batches per method requirement. The target analytes were not detected in the method blanks at or above the reported detection limits (RDLs) with the following exceptions:

- SDG L1034970 - Analytical batch WG1181551: Low levels of hexachloro-1,3-butadiene, naphthalene, and 1,2,3-trichlorobenzene are detected in the method blank associated with the trip blank. No action was taken since these compounds are not detected in the associated trip blank.

- SDG L1034970 - Analytical batch WG1181654: Low levels of chloroform are detected in the method blank associated with four samples. **Chloroform results in two samples B-250-24 and B-251-25 are qualified as not detected (U) due to method blank contamination.** No action is required for the remaining two samples (B-249-20 and B-252-29) since chloroform is not detected.

- SDG L1034970 - Analytical batch WG1183157: Low levels of chloroform and methylene chloride are detected in the method blank associated with a number of samples. **The chloroform results in eight samples (B-251-8, B-251-10, B-251-15, B-251-20, B-251-25, B-252-2.5, B-252-10, and B-252-15) are detected below the RDL and are qualified as not detected (U) due to method blank contamination. The**

methylene chloride result in sample B-252-2.5 is qualified as not detected (U) due to method blank contamination.

- SDG L1035515 - Analytical batch WG1183540: Low levels of 2-butanone (MEK) and methylene chloride are detected in the method blank associated with the samples. **The 2-butanone (MEK) results below the RDL (laboratory qualified "BJ") in the associated samples are qualified as not detected (U) due to method blank contamination. The 2-butanone (MEK) results above the RDL (laboratory qualified "B") in the associated samples are qualified as estimated (J) due to method blank contamination.** No action is taken for methylene chloride since it is not detected in the associated samples.

- SDGs L1035515 and L1036155 - Analytical batch WG1184696: A low level of 1,2,3-trichlorobenzene is detected in the method blank associated the samples. No action is taken since 1,2,3-trichlorobenzene is not detected in the associated samples.

- SDGs L1036155 and L1036473 - Analytical batch WG1185221: A low level of n-hexane is detected in the method blank associated the samples. No action is taken since n-hexane is not detected in the associated samples.

- SDG L1036155 - Analytical batch WG1184313: Low levels of chloroform and 1,2,3-trichlorobenzene are detected in the method blank associated with the samples. **The chloroform results below the RDL (laboratory qualified "BJ") in the associated samples are qualified as not detected (U) due to method blank contamination. The chloroform results above the RDL (laboratory qualified "B") in the associated samples are qualified as estimated (J) due to method blank contamination.** No action is taken for 1,2,3-trichlorobenzene as it is not detected in the associated samples.

- SDG L1036161 - Analytical batch WG1184455: A low level of chloroform is detected in the method blank associated with the samples. No action is taken for chloroform as it is not detected in the associated samples.

- SDG L1036473 - Analytical batch WG1184455: A low level of chloroform is detected in the method blank associated with eleven samples. **The chloroform results below the RDL (laboratory qualified "BJ") in the associated samples are qualified as not detected (U) due to method blank contamination. The chloroform results above the RDL (laboratory qualified "B") in the associated samples are qualified as estimated (J) due to method blank contamination.**

- SDG L1036473 - Analytical batch WG1184727: A low level of chloroform is detected in the method blank associated with nineteen samples. **The chloroform results below the RDL (laboratory qualified "BJ") in the associated samples are qualified as not detected (U) due to method blank contamination. The chloroform results above the RDL (laboratory qualified "B") in the associated samples are qualified as estimated (J) due to method blank contamination.**

- SDGs L1036481 and L1036473 - Analytical batch WG1186559: A low level of methylene chloride is detected in the method blank associated with the samples. No action is taken for methylene chloride as it is not detected in the associated samples.

- SDG L1036740 - Analytical batch WG1188021: A low level of 2-butanone (MEK) is detected in the method blank associated with sample B-254A-35. **The 2-butanone (MEK) result is below the RDL (laboratory qualified "BJ") in associated sample B-254A-35 is qualified as not detected (U) due to method blank contamination. Refer to the discussion under Surrogate Recovery for additional information on sample B-254A-35.**

Total Solids by SM 2540 G 2011:
Laboratory method blanks were included with the analytical batches per method requirement. The target analytes (% solids) were not detected at a significant level in the method blanks and sample results are not impacted.

Trip Blank Results

USEPA Method 8260C:
Two trip blanks were collected and analyzed. The target analytes were not detected in the trip blanks (refer to SDGs L1034970 and L1036155) at or above the RDLs with the following exception:

- SDG L1034970 - Analytical batch WG1181551: A low level of acetone is detected in the trip blank. A low level of acetone is detected in associated sample B-251-20. **The acetone detection in sample B-251-20 is qualified as not detected (U) due to trip blank contamination.**

Field, Rinsate, or Equipment Blank Results

Field, rinsate, or equipment blanks were not collected.

Field Duplicate Analyses

Field duplicate sample pairs are as follows:

SDG L1036161: Samples IW-58A-38 and B-929-38

- Field duplicate pairs were submitted and analyzed for VOCs and percent solids. Percent solids and VOC target analyte results are comparable and within a relative percent difference (RPD) of 30% ($\pm$ 2x RDL for soil results <5X the RDL) for the field duplicates with the following exceptions:

    - **Trans-1,2-dichloroethene and trichloroethene results are not comparable (absolute differences >2X RDL) and field duplicate sample (IW-58A-38 and B-929-38) results for these compounds are estimated and qualified (J).**

Laboratory Duplicate Analyses

USEPA Method 8260C:
A laboratory duplicate sample was not analyzed. Refer to laboratory control sample/sample duplicate (LCS/LCSD) or matrix spike/matrix spike duplicates (MS/MSDs) results for precision data.

Total Solids by SM 2540 G 2011:
Laboratory duplicate sample analyses were performed on client and/or on non-client samples within the analytical batches. The primary/duplicate RPDs for total solids analyses are within the laboratory control limit of 5%.

Surrogate Recoveries

USEPA Method 8260C:
The surrogate recovery results for the samples, laboratory control samples, matrix spike samples, trip blanks, and the method blanks are within the laboratory surrogate control limits for all of the analyses with the following exception:

- SDG L1034970 - Analytical batch WG1183157 (October 20, 2018 analysis). Toluene-d8 surrogate recovery for sample B-252-19 is high, above criteria, and is qualified (J1) by the laboratory. **All positive detections associated with analytical batch WG1183157 in sample B-252-19 are estimated and qualified (J).**

- SDG L1035515 - Analytical batch WG1185916 (October 24, 2018 analysis). Toluene surrogate recovery for sample B-256-5 is high and above criteria and qualified (J1) by the laboratory. **Trichloroethene result for sample B-256-5 is estimated and qualified (J/UJ).**

- SDG L1036155 - Analytical batch WG1185140 (October 23, 2018 analysis). *4-Bromofluorobenzene* surrogate recovery for sample B-260-8 is below criteria (but greater than 10% recovery) and qualified (J2) by the laboratory. **Associated compound (benzene, di-isopropyl ether, methyl tert-butyl ether, tetrachloroethene, 1,2,4-trichlorobenzene, and trichloroethene) results for sample B-260-8 are estimated and qualified (J/UJ).** Refer to Other Quality Control issues for sample B-260-8 tetrachloroethene, internal standard recovery issue, and final qualification.

- SDG L1036473 - Analytical batch WG1184727 (October 22, 2018 analysis): Toluene-d8 surrogate recovery for sample B-253A-15 is high, above criteria, and is qualified (J1) by the laboratory. **All positive detections associated with analytical batch WG1184727 in sample B-253A-15 are estimated and qualified (J).**

- SDG L1036740 - Analytical batch WG1188021 (October 29, 2018 analysis). Toluene surrogate recovery for sample B-254A-35 is low and below criteria (but greater than 10% recovery) and qualified (J2) by the laboratory. **All associated analytical batch (WG1188021) results for sample B-254A-35 are estimated and qualified (J/UJ) except for the 2-butanone (MEK) detection which is qualified as not detected (U) due to blank contamination.**

Laboratory Control Samples

USEPA Method 8260C:

Laboratory control sample and laboratory control sample duplicate (LCS/LCSD) were analyzed by USEPA Method 8260C method. In some cases only LCS data are provided and no measure of precision is provided. No action is taken other than to note that overall a sufficient measure of precision was provided by the laboratory. The LCS or LCS/LCSD %Rs and RPDs for the all target compounds are within the laboratory control criteria for soils with the following discussions and exceptions:

- SDG L1034970 - Analytical batch WG1181654: LCS recovery for dibromomethane, 1,1,2,2-tetrachloroethane, and 1,1,2-trichloroethane are above laboratory control limit criteria and laboratory qualified (J4). These compounds are not detected in the associated samples. **Dibromomethane, 1,1,2,2-tetrachloroethane, and 1,1,2-trichloroethane are considered not detected (U) in the associated samples due to the elevated LCS recoveries.**

- SDG L1034970 - Analytical batch WG1182742: LCS recovery for dibromomethane, tetrachloroethene, and 1,1,2-trichloroethane are above control limit criteria and laboratory qualified (J4). **All associated positive detections for these compounds are estimated and qualified (J) and all associated non-detects are considered not detected (U) for the associated samples due to the elevated LCS recoveries.**

- SDG L1034970 - Analytical batch WG1182742: LCS recovery for 1,2,4-trimethylbenzene is recovered slightly below criteria and laboratory qualified (J4). **All associated sample results for 1,2,4-trimethylbenzene are estimated and qualified (J/UJ) due to a low LCS recovery.**

- SDG L1035515 - Analytical batch WG1183540: LCS recoveries for trans-1,3-dichloropropene, n-hexane, 2-butanone (MEK), and vinyl chloride are above control limit criteria and laboratory qualified (J4). **All associated positive detections for these compounds are estimated and qualified (J) and all associated non-detects are considered not detected (U) in the associated samples due to the elevated LCS recoveries.**

- SDGs L1035515 and L1036155 - Analytical batch WG1184696: LCS recovery for dichlorodifluoromethane (CFC-12) is recovered above criteria and laboratory qualified (J4). The compound is not detected in the associated samples. **Dichlorodifluoromethane (CFC-12) is considered not detected (U) in the associated samples due to the elevated LCS recovery.**

- SDG L1036155 - Analytical batch WG1183421: LCS recovery for 2,2-dichloropropane is recovered above criteria and laboratory qualified (J4). The compound is not detected in the associated samples. 2,2-Dichloropropane **is considered not detected (U) in the associated samples due to the elevated LCS recovery.**

- SDG L1036155 - Analytical batch WG1183540: LCS recoveries for trans-1,3-dichloropropene, n-hexane, and 2-butanone (MEK) are above control limit criteria and laboratory qualified (J4). **All associated positive detections for these compounds are estimated and qualified (J) and all associated non-detects are considered not detected (U) in the associated samples due to the elevated LCS recoveries.**

- SDGs L1036155, L1036161 and L1036473 - Analytical batch WG1184455: LCS recoveries for trans-1,3-dichloropropene and 1,1,1,2-tetrachloroethane are above control limit criteria and laboratory qualified (J4). These compounds are not detected in the associated samples. **All associated non-detects are considered not detected (U) in the associated samples due to the elevated LCS recoveries.**

- SDG L1036740 - Analytical batch WG1186927: LCS recovery for 1,1-dichloropropene is recovered above criteria and laboratory qualified (J4). This compound is not detected in the associated samples. **1,1-Dichloropropene is considered not detected (U) in the associated samples due to the elevated LCS recovery.**

- SDG L1036740- Analytical batch WG1188021: LCS recovery for 2,2-dichloropropane is recovered above criteria and laboratory qualified (J4). This compound is not detected in the associated samples. **2,2-Dichloropropane is considered not detected (U) in the associated samples due to the elevated LCS recovery.**

Total Solids by SM 2540 G 2011:
The LCS %Rs for total solids are within the laboratory control criteria for soils.

Matrix Spike/Matrix Spike Duplicates

USEPA Method 8260C:
Matrix spike/matrix spike duplicate (MS/MSD) analyses were performed on a non-client sample. In cases where MS/MSDs were not performed refer to LCS/LCSDs for accuracy and precision data. MS/MSD % Rs and RPDs are acceptable with the following exceptions:

- SDG L1034970 - Analytical batch WG1181654: Soil MS/MSDs associated with the samples were performed on a non-client sample within the analytical batch. Multiple MS/MSD compounds on one of the spikes are recovered within control limits but recovered wide with elevated RPDs and are laboratory qualified (J3). Several MS/MSD recoveries were recovered less than 10% and laboratory qualified (J6). No action was taken other than to note that the spike was performed on a non-client sample. Refer to the LCS and field duplicate results (SDG L1036161) for accuracy and precision data.

- SDG L1034970 - Analytical batch WG1182742: MS/MSD spike analyses were performed on a client sample B-251-5. Acrylonitrile and vinyl acetate are recovered within control limits but recovered wide with an elevated RPD and laboratory qualified (J3). No action was taken on this basis since recoveries are within. MS/MSD recoveries for tetrachloroethene are not reported since the sample amount was far greater (>5X) than the spike amount and exceeded the upper calibration range. No action was taken other than to note this. MS/MSD recoveries for vinyl chloride are recovered low (<10%) and

laboratory qualified (J6). **Sample B-251-5 vinyl chloride result is rejected (R) due to low spike recoveries.**

- SDG L1034970 - Analytical batch WG1183157: MS/MSD spike analyses were performed on a client sample B-267-10. MS/MSD recoveries for tetrachloroethene are not reported since the sample amount was far greater (>5X) than the spike amount. No action was taken other than to note this.

- SDG L1036473 - Analytical batch WG1184727: MS/MSD spike analyses were performed on a client sample B-252-25. MS/MSD recoveries for tetrachloroethene are not reported since the sample amount was far greater (>5X) than the spike amount. No action was taken other than to note this. 1,1,1-Trichloroethane is recovered within control limits but recovered wide with an elevated RPD and laboratory qualified (J3). No action was taken on this basis since recoveries are within.

- SDG L1036740 - Analytical batch WG1186927: Soil MS/MSDs associated with the samples were performed on a non-client sample within the analytical batch. Multiple MS/MSD compounds on one of the spikes are recovered within control limits but recovered wide with elevated RPDs and are laboratory qualified (J3). Multiple MS/MSD recoveries were recovered less than 10% and laboratory qualified (J6). MSD recovery for trichlorofluoromethane is recovered high and laboratory qualified (J5) due to matrix interference. MS/MSD recoveries for 1,2,4-trimethylbenzene are not reported since the sample amount was far greater (>5X) than the spike amount. No action was taken other than to note this. No action was taken other than to note that the spike was performed on a non-client sample. Refer to the LCS and field duplicate results (SDG L1036161) for accuracy and precision data.

Other Quality Control Issues

No laboratory quality control issues were identified in the laboratory reports with the following exceptions and discussions:

- SDG L1036155 - Analytical batch WG1185140 (October 23, 2018 analysis): Associated internal standard recoveries are poor due to matrix interference for four samples (B-260-8, B-261-5, B-261-10, and B-261-20) and the tetrachloroethene results are laboratory qualified (V3). **Associated tetrachloroethene results for these samples are estimated biased high (J+) and no action is taken for the remaining results associated with WG1185140 (benzene, di-isopropyl ether, methyl tert-butyl ether, 1,2,4-trichlorobenzene, and trichloroethene).** Sample B-260-8 tetrachloroethene result is estimated and qualified (J) due to a low surrogate recovery however this qualification is superseded by an estimated biased high qualifier (J+) due to the poor internal standard recovery.

- Electronic data deliverables (EDDs) for these SDGs were provided by the laboratory and data validator qualifiers were entered into the EDDs. In some cases different chemical synonyms are used between the EDD and the hardcopy however associated Chemical

Abstracts Service (CAS) numbers are provided in the EDD to confirm chemical identifications. Additional information was requested from the laboratory to cross reference the EDD versus final laboratory data.

Quantitation Limits

The RDLs used for this sample group are acceptable for the project. Several samples were diluted due to elevated concentrations of various target analytes. PACE sample narrative notes indicate that for multiple soil samples the target compounds were too high to run the samples at a lower dilution. In some cases diluted target analytes are non-detects. No action was taken other than to note this.

Detections between the method detection limit (MDL) and RDL are estimated (J) by the laboratory and qualified (J) by the data validator to re-emphasize that the detection is estimated.

Data Assessment

The laboratory data reported for this project were reviewed based on the criteria outlined in:

- USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (USEPA, 2017).

Data qualifiers are assigned and laboratory report pages with qualifiers are attached. All data, including qualified data, are judged to be acceptable for their intended use with the following exception:

- **SDG L1034970: Sample B-251-5 vinyl chloride result is rejected (R) due to low spike recoveries.**

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	91.5		1	10/24/2018 09:40	WG1184862

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch	
	mg/kg		mg/kg	mg/kg		date / time		
Acetone	U		0.150	0.273	10	10/24/2018 00:26	WG1185221	
Acrylonitrile	U		0.00208	0.0137	1	10/22/2018 17:32	WG1184455	
Benzene	U		0.000437	0.00109	1	10/22/2018 17:32	WG1184455	
Bromobenzene	U		0.00115	0.0137	1	10/22/2018 17:32	WG1184455	
Bromodichloromethane	U		0.000861	0.00273	1	10/22/2018 17:32	WG1184455	
Bromochloromethane	U		0.00124	0.00547	1	10/22/2018 17:32	WG1184455	
Bromoform	U		0.00654	0.0273	1	10/22/2018 17:32	WG1184455	
Bromomethane	U		0.00404	0.0137	1	10/22/2018 17:32	WG1184455	
n-Butylbenzene	U		0.00420	0.0137	1	10/22/2018 17:32	WG1184455	
sec-Butylbenzene	U		0.00277	0.0137	1	10/22/2018 17:32	WG1184455	
tert-Butylbenzene	U		0.00169	0.00547	1	10/22/2018 17:32	WG1184455	
Carbon disulfide	U		0.00444	0.0137	1	10/22/2018 17:32	WG1184455	
Carbon tetrachloride	U		0.00118	0.00547	1	10/22/2018 17:32	WG1184455	
Chlorobenzene	U		0.000626	0.00273	1	10/22/2018 17:32	WG1184455	
Chlorodibromomethane	U		0.000492	0.00273	1	10/22/2018 17:32	WG1184455	
Chloroethane	U		0.00118	0.00547	1	10/22/2018 17:32	WG1184455	
Chloroform	U		0.000454	0.00273	1	10/22/2018 17:32	WG1184455	
Chloromethane	U		0.00152	0.0137	1	10/22/2018 17:32	WG1184455	
2-Chlorotoluene	U		0.00101	0.00273	1	10/22/2018 17:32	WG1184455	
4-Chlorotoluene	U		0.00124	0.00547	1	10/22/2018 17:32	WG1184455	
1,2-Dibromo-3-Chloropropane	U		0.00557	0.0273	1	10/22/2018 17:32	WG1184455	
1,2-Dibromoethane	U		0.000574	0.00273	1	10/22/2018 17:32	WG1184455	
Dibromomethane	U		0.00109	0.00547	1	10/22/2018 17:32	WG1184455	
1,2-Dichlorobenzene	U		0.00158	0.00547	1	10/22/2018 17:32	WG1184455	
1,3-Dichlorobenzene	U		0.00186	0.00547	1	10/22/2018 17:32	WG1184455	
1,4-Dichlorobenzene	U		0.00215	0.00547	1	10/22/2018 17:32	WG1184455	
Dichlorodifluoromethane	U		0.00894	0.0273	10	10/24/2018 00:26	WG1185221	
1,1-Dichloroethane	U		0.000628	0.00273	1	10/22/2018 17:32	WG1184455	
1,2-Dichloroethane	U		0.000519	0.00273	1	10/22/2018 17:32	WG1184455	
1,1-Dichloroethene	0.00253	J	0.000547	0.00273	1	10/22/2018 17:32	WG1184455	
cis-1,2-Dichloroethene	1.48		0.00754	0.0273	10	10/24/2018 00:26	WG1185221	
trans-1,2-Dichloroethene	0.0323		0.00156	0.00547	1	10/22/2018 17:32	WG1184455	
1,2-Dichloropropane	U		0.00139	0.00547	1	10/22/2018 17:32	WG1184455	
1,1-Dichloropropene	U		0.000765	0.00273	1	10/22/2018 17:32	WG1184455	
1,3-Dichloropropane	U		0.00191	0.00547	1	10/22/2018 17:32	WG1184455	
cis-1,3-Dichloropropene	U		0.000741	0.00273	1	10/22/2018 17:32	WG1184455	
trans-1,3-Dichloropropene	U	U J4	0.00167	0.00547	1	10/22/2018 17:32	WG1184455	
trans-1,4-Dichloro-2-butene	U		0.00153	0.00547	1	10/22/2018 17:32	WG1184455	
2,2-Dichloropropane	U		0.000867	0.00273	1	10/22/2018 17:32	WG1184455	
Di-isopropyl ether	U		0.000383	0.00109	1	10/22/2018 17:32	WG1184455	
Ethylbenzene	U		0.000579	0.00273	1	10/22/2018 17:32	WG1184455	
Hexachloro-1,3-butadiene	U		0.0139	0.0273	1	10/22/2018 17:32	WG1184455	
2-Hexanone	U		0.0109	0.0273	1	10/22/2018 17:32	WG1184455	
n-Hexane	U		0.00116	0.00547	1	10/22/2018 17:32	WG1184455	
Iodomethane	U		0.00661	0.0137	1	10/22/2018 17:32	WG1184455	
Isopropylbenzene	U		0.000943	0.00273	1	10/22/2018 17:32	WG1184455	
p-Isopropyltoluene	U		0.00255	0.00547	1	10/22/2018 17:32	WG1184455	
2-Butanone (MEK)	0.0413		0.0137	0.0273	1	10/22/2018 17:32	WG1184455	JC 11/14/18
Methylene Chloride	U		0.00726	0.0273	1	10/22/2018 17:32	WG1184455	
4-Methyl-2-pentanone (MIBK)	U		0.0109	0.0273	1	10/22/2018 17:32	WG1184455	

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000322	0.00109	1	10/22/2018 17:32	WG1184455
Naphthalene	U		0.00341	0.0137	1	10/22/2018 17:32	WG1184455
n-Propylbenzene	U		0.00129	0.00547	1	10/22/2018 17:32	WG1184455
Styrene	U		0.00298	0.0137	1	10/22/2018 17:32	WG1184455
1,1,1,2-Tetrachloroethane	U U	J4	0.000547	0.00273	1	10/22/2018 17:32	WG1184455
1,1,2,2-Tetrachloroethane	U		0.00426	0.0273	10	10/24/2018 00:26	WG1185221
1,1,2-Trichlorotrifluoroethane	U		0.000738	0.00273	1	10/22/2018 17:32	WG1184455
Tetrachloroethene	2.67 J	J0	0.00765	0.0273	10	10/24/2018 00:26	WG1185221
Toluene	0.00206 J	J	0.00137	0.00547	1	10/22/2018 17:32	WG1184455
1,2,3-Trichlorobenzene	U		0.00683	0.0273	10	10/24/2018 00:26	WG1185221
1,2,4-Trichlorobenzene	U		0.00527	0.0137	1	10/22/2018 17:32	WG1184455
1,1,1-Trichloroethane	U		0.000301	0.00273	1	10/22/2018 17:32	WG1184455
1,1,2-Trichloroethane	U		0.000965	0.00273	1	10/22/2018 17:32	WG1184455
Trichloroethene	0.279		0.000437	0.00109	1	10/22/2018 17:32	WG1184455
Trichlorofluoromethane	U		0.000547	0.00273	1	10/22/2018 17:32	WG1184455
1,2,3-Trichloropropane	U		0.00557	0.0137	1	10/22/2018 17:32	WG1184455
1,2,4-Trimethylbenzene	U		0.00127	0.00547	1	10/22/2018 17:32	WG1184455
1,2,3-Trimethylbenzene	U		0.00126	0.00547	1	10/22/2018 17:32	WG1184455
1,3,5-Trimethylbenzene	U		0.00118	0.00547	1	10/22/2018 17:32	WG1184455
Vinyl acetate	U		0.00385	0.0137	1	10/22/2018 17:32	WG1184455
Vinyl chloride	0.0128		0.000747	0.00273	1	10/22/2018 17:32	WG1184455
Xylenes, Total	U		0.00522	0.00710	1	10/22/2018 17:32	WG1184455
(S) Toluene-d8	*105*			*75.0-131*		*10/22/2018 17:32*	WG1184455
(S) Toluene-d8	*97.2*			*75.0-131*		*10/24/2018 00:26*	WG1185221
(S) Dibromofluoromethane	*90.3*			*65.0-129*		*10/22/2018 17:32*	WG1184455
(S) Dibromofluoromethane	*118*			*65.0-129*		*10/24/2018 00:26*	WG1185221
(S) 4-Bromofluorobenzene	*92.0*			*67.0-138*		*10/22/2018 17:32*	WG1184455
(S) 4-Bromofluorobenzene	*123*			*67.0-138*		*10/24/2018 00:26*	WG1185221

JC 11/14/18

Sample Narrative:

L1036161-01 WG1185221, WG1184455: Cannot be reanalyzed at a lower dilution due to high levels of target analytes.

L1036161-01 WG1185221, WG1184455: Not all compounds reportable at lower dilution.

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	88.8		1	10/24/2018 11:13	WG1185188

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.154	0.281	10	10/24/2018 00:46	WG1185221
Acrylonitrile	U		0.00214	0.0141	1	10/22/2018 17:50	WG1184455
Benzene	U		0.000450	0.00113	1	10/22/2018 17:50	WG1184455
Bromobenzene	U		0.00118	0.0141	1	10/22/2018 17:50	WG1184455
Bromodichloromethane	U		0.000887	0.00281	1	10/22/2018 17:50	WG1184455
Bromochloromethane	U		0.00127	0.00563	1	10/22/2018 17:50	WG1184455
Bromoform	U		0.00673	0.0281	1	10/22/2018 17:50	WG1184455
Bromomethane	U		0.00417	0.0141	1	10/22/2018 17:50	WG1184455
n-Butylbenzene	U		0.00432	0.0141	1	10/22/2018 17:50	WG1184455
sec-Butylbenzene	U		0.00285	0.0141	1	10/22/2018 17:50	WG1184455
tert-Butylbenzene	U		0.00175	0.00563	1	10/22/2018 17:50	WG1184455
Carbon disulfide	U		0.00457	0.0141	1	10/22/2018 17:50	WG1184455
Carbon tetrachloride	U		0.00122	0.00563	1	10/22/2018 17:50	WG1184455
Chlorobenzene	U		0.000645	0.00281	1	10/22/2018 17:50	WG1184455
Chlorodibromomethane	U		0.000507	0.00281	1	10/22/2018 17:50	WG1184455
Chloroethane	U		0.00122	0.00563	1	10/22/2018 17:50	WG1184455
Chloroform	U		0.000467	0.00281	1	10/22/2018 17:50	WG1184455
Chloromethane	U		0.00156	0.0141	1	10/22/2018 17:50	WG1184455
2-Chlorotoluene	U		0.00104	0.00281	1	10/22/2018 17:50	WG1184455
4-Chlorotoluene	U		0.00127	0.00563	1	10/22/2018 17:50	WG1184455
1,2-Dibromo-3-Chloropropane	U		0.00574	0.0281	1	10/22/2018 17:50	WG1184455
1,2-Dibromoethane	U		0.000591	0.00281	1	10/22/2018 17:50	WG1184455
Dibromomethane	U		0.00113	0.00563	1	10/22/2018 17:50	WG1184455
1,2-Dichlorobenzene	U		0.00163	0.00563	1	10/22/2018 17:50	WG1184455
1,3-Dichlorobenzene	U		0.00191	0.00563	1	10/22/2018 17:50	WG1184455
1,4-Dichlorobenzene	U		0.00222	0.00563	1	10/22/2018 17:50	WG1184455
Dichlorodifluoromethane	U		0.00921	0.0281	10	10/24/2018 00:46	WG1185221
1,1-Dichloroethane	U		0.000647	0.00281	1	10/22/2018 17:50	WG1184455
1,2-Dichloroethane	U		0.000535	0.00281	1	10/22/2018 17:50	WG1184455
1,1-Dichloroethene	0.00373		0.000563	0.00281	1	10/22/2018 17:50	WG1184455
cis-1,2-Dichloroethene	1.77		0.00777	0.0281	10	10/24/2018 00:46	WG1185221
trans-1,2-Dichloroethene	0.0456		0.00161	0.00563	1	10/22/2018 17:50	WG1184455
1,2-Dichloropropane	U		0.00143	0.00563	1	10/22/2018 17:50	WG1184455
1,1-Dichloropropene	U		0.000788	0.00281	1	10/22/2018 17:50	WG1184455
1,3-Dichloropropane	U		0.00197	0.00563	1	10/22/2018 17:50	WG1184455
cis-1,3-Dichloropropene	U		0.000763	0.00281	1	10/22/2018 17:50	WG1184455
trans-1,3-Dichloropropene	U	U J4	0.00172	0.00563	1	10/22/2018 17:50	WG1184455
trans-1,4-Dichloro-2-butene	U		0.00158	0.00563	1	10/22/2018 17:50	WG1184455
2,2-Dichloropropane	U		0.000893	0.00281	1	10/22/2018 17:50	WG1184455
Di-isopropyl ether	U		0.000394	0.00113	1	10/22/2018 17:50	WG1184455
Ethylbenzene	U		0.000597	0.00281	1	10/22/2018 17:50	WG1184455
Hexachloro-1,3-butadiene	U		0.0143	0.0281	1	10/22/2018 17:50	WG1184455
2-Hexanone	U		0.0113	0.0281	1	10/22/2018 17:50	WG1184455
n-Hexane	U		0.00119	0.00563	1	10/22/2018 17:50	WG1184455
Iodomethane	U		0.00681	0.0141	1	10/22/2018 17:50	WG1184455
Isopropylbenzene	U		0.000972	0.00281	1	10/22/2018 17:50	WG1184455
p-Isopropyltoluene	U		0.00262	0.00563	1	10/22/2018 17:50	WG1184455
2-Butanone (MEK)	0.0306		0.0141	0.0281	1	10/22/2018 17:50	WG1184455
Methylene Chloride	U		0.00748	0.0281	1	10/22/2018 17:50	WG1184455
4-Methyl-2-pentanone (MIBK)	U		0.0113	0.0281	1	10/22/2018 17:50	WG1184455

JC 11/14/18

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

Analyte	Result (dry) mg/kg		Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U			0.000332	0.00113	1	10/22/2018 17:50	WG1184455
Naphthalene	U			0.00351	0.0141	1	10/22/2018 17:50	WG1184455
n-Propylbenzene	U			0.00133	0.00563	1	10/22/2018 17:50	WG1184455
Styrene	U			0.00307	0.0141	1	10/22/2018 17:50	WG1184455
1,1,1,2-Tetrachloroethane	U	U	J4	0.000563	0.00281	1	10/22/2018 17:50	WG1184455
1,1,2,2-Tetrachloroethane	U			0.00439	0.0281	10	10/24/2018 00:46	WG1185221
1,1,2-Trichlorotrifluoroethane	U			0.000760	0.00281	1	10/22/2018 17:50	WG1184455
Tetrachloroethene	2.31	J	J0	0.00788	0.0281	10	10/24/2018 00:46	WG1185221
Toluene	0.00250	J	J	0.00141	0.00563	1	10/22/2018 17:50	WG1184455
1,2,3-Trichlorobenzene	U			0.00704	0.0281	10	10/24/2018 00:46	WG1185221
1,2,4-Trichlorobenzene	U			0.00543	0.0141	1	10/22/2018 17:50	WG1184455
1,1,1-Trichloroethane	U			0.000310	0.00281	1	10/22/2018 17:50	WG1184455
1,1,2-Trichloroethane	U			0.000994	0.00281	1	10/22/2018 17:50	WG1184455
Trichloroethene	0.201			0.000450	0.00113	1	10/22/2018 17:50	WG1184455
Trichlorofluoromethane	U			0.000563	0.00281	1	10/22/2018 17:50	WG1184455
1,2,3-Trichloropropane	U			0.00574	0.0141	1	10/22/2018 17:50	WG1184455
1,2,4-Trimethylbenzene	0.00149	J	J	0.00131	0.00563	1	10/22/2018 17:50	WG1184455
1,2,3-Trimethylbenzene	U			0.00129	0.00563	1	10/22/2018 17:50	WG1184455
1,3,5-Trimethylbenzene	U			0.00122	0.00563	1	10/22/2018 17:50	WG1184455
Vinyl acetate	U			0.00396	0.0141	1	10/22/2018 17:50	WG1184455
Vinyl chloride	0.0167			0.000769	0.00281	1	10/22/2018 17:50	WG1184455
Xylenes, Total	U			0.00538	0.00732	1	10/22/2018 17:50	WG1184455
(S) Toluene-d8	*105*				*75.0-131*		*10/22/2018 17:50*	WG1184455
(S) Toluene-d8	*95.7*				*75.0-131*		*10/24/2018 00:46*	WG1185221
(S) Dibromofluoromethane	*90.1*				*65.0-129*		*10/22/2018 17:50*	WG1184455
(S) Dibromofluoromethane	*120*				*65.0-129*		*10/24/2018 00:46*	WG1185221
(S) 4-Bromofluorobenzene	*91.1*				*67.0-138*		*10/22/2018 17:50*	WG1184455
(S) 4-Bromofluorobenzene	*123*				*67.0-138*		*10/24/2018 00:46*	WG1185221

Sample Narrative:

L1036161-02 WG1185221, WG1184455: Cannot be reanalyzed at a lower dilution due to high levels of target analytes.

L1036161-02 WG1185221, WG1184455: Not all compounds reportable at lower dilution.

JC 11/14/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	85.8		1	10/24/2018 14:00	WG1185671

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0639	0.117	4	10/26/2018 05:55	WG1186559
Acrylonitrile	U		0.00886	0.0583	4	10/26/2018 05:55	WG1186559
Benzene	0.00321 J	J	0.00186	0.00466	4	10/26/2018 05:55	WG1186559
Bromobenzene	U		0.00489	0.0583	4	10/26/2018 05:55	WG1186559
Bromodichloromethane	U		0.00367	0.0117	4	10/26/2018 05:55	WG1186559
Bromochloromethane	U		0.00527	0.0233	4	10/26/2018 05:55	WG1186559
Bromoform	U		0.0278	0.117	4	10/26/2018 05:55	WG1186559
Bromomethane	U		0.0172	0.0583	4	10/26/2018 05:55	WG1186559
n-Butylbenzene	U		0.0179	0.0583	4	10/26/2018 05:55	WG1186559
sec-Butylbenzene	U		0.0118	0.0583	4	10/26/2018 05:55	WG1186559
tert-Butylbenzene	U		0.00722	0.0233	4	10/26/2018 05:55	WG1186559
Carbon disulfide	U		0.0189	0.0583	4	10/26/2018 05:55	WG1186559
Carbon tetrachloride	U		0.00503	0.0233	4	10/26/2018 05:55	WG1186559
Chlorobenzene	U		0.00267	0.0117	4	10/26/2018 05:55	WG1186559
Chlorodibromomethane	U		0.00210	0.0117	4	10/26/2018 05:55	WG1186559
Chloroethane	U		0.00503	0.0233	4	10/26/2018 05:55	WG1186559
Chloroform	0.00193 J	J	0.00193	0.0117	4	10/26/2018 05:55	WG1186559
Chloromethane	U		0.00648	0.0583	4	10/26/2018 05:55	WG1186559
2-Chlorotoluene	U		0.00429	0.0117	4	10/26/2018 05:55	WG1186559
4-Chlorotoluene	U		0.00527	0.0233	4	10/26/2018 05:55	WG1186559
1,2-Dibromo-3-Chloropropane	U		0.0238	0.117	4	10/26/2018 05:55	WG1186559
1,2-Dibromoethane	U		0.00245	0.0117	4	10/26/2018 05:55	WG1186559
Dibromomethane	U		0.00466	0.0233	4	10/26/2018 05:55	WG1186559
1,2-Dichlorobenzene	U		0.00676	0.0233	4	10/26/2018 05:55	WG1186559
1,3-Dichlorobenzene	U		0.00792	0.0233	4	10/26/2018 05:55	WG1186559
1,4-Dichlorobenzene	U		0.00918	0.0233	4	10/26/2018 05:55	WG1186559
Dichlorodifluoromethane	U		0.00381	0.0117	4	10/26/2018 05:55	WG1186559
1,1-Dichloroethane	U		0.00268	0.0117	4	10/26/2018 05:55	WG1186559
1,2-Dichloroethane	U		0.00221	0.0117	4	10/26/2018 05:55	WG1186559
1,1-Dichloroethene	U		0.00233	0.0117	4	10/26/2018 05:55	WG1186559
cis-1,2-Dichloroethene	0.336		0.00322	0.0117	4	10/26/2018 05:55	WG1186559
trans-1,2-Dichloroethene	U		0.00666	0.0233	4	10/26/2018 05:55	WG1186559
1,2-Dichloropropane	U		0.00592	0.0233	4	10/26/2018 05:55	WG1186559
1,1-Dichloropropene	U		0.00326	0.0117	4	10/26/2018 05:55	WG1186559
1,3-Dichloropropane	U		0.00816	0.0233	4	10/26/2018 05:55	WG1186559
cis-1,3-Dichloropropene	U		0.00316	0.0117	4	10/26/2018 05:55	WG1186559
trans-1,3-Dichloropropene	U		0.00713	0.0233	4	10/26/2018 05:55	WG1186559
trans-1,4-Dichloro-2-butene	U		0.00653	0.0233	4	10/26/2018 05:55	WG1186559
2,2-Dichloropropane	U		0.00369	0.0117	4	10/26/2018 05:55	WG1186559
Di-isopropyl ether	U		0.00163	0.00466	4	10/26/2018 05:55	WG1186559
Ethylbenzene	0.00256 J	J	0.00247	0.0117	4	10/26/2018 05:55	WG1186559
Hexachloro-1,3-butadiene	U		0.0592	0.117	4	10/26/2018 05:55	WG1186559
2-Hexanone	U		0.0466	0.117	4	10/26/2018 05:55	WG1186559
n-Hexane	U		0.00494	0.0233	4	10/26/2018 05:55	WG1186559
Iodomethane	U		0.0282	0.0583	4	10/26/2018 05:55	WG1186559
Isopropylbenzene	U		0.00402	0.0117	4	10/26/2018 05:55	WG1186559
p-Isopropyltoluene	U		0.0109	0.0233	4	10/26/2018 05:55	WG1186559
2-Butanone (MEK)	U		0.0583	0.117	4	10/26/2018 05:55	WG1186559
Methylene Chloride	U		0.0310	0.117	4	10/26/2018 05:55	WG1186559
4-Methyl-2-pentanone (MIBK)	U		0.0466	0.117	4	10/26/2018 05:55	WG1186559

JC 11/15/18

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

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.00137	0.00466	4	10/26/2018 05:55	WG1186559
Naphthalene	U		0.0146	0.0583	4	10/26/2018 05:55	WG1186559
n-Propylbenzene	U		0.00550	0.0233	4	10/26/2018 05:55	WG1186559
Styrene	U		0.0127	0.0583	4	10/26/2018 05:55	WG1186559
1,1,1,2-Tetrachloroethane	U		0.00233	0.0117	4	10/26/2018 05:55	WG1186559
1,1,2,2-Tetrachloroethane	U		0.00182	0.0117	4	10/26/2018 05:55	WG1186559
1,1,2-Trichlorotrifluoroethane	U		0.00315	0.0117	4	10/26/2018 05:55	WG1186559
Tetrachloroethene	1.35		0.00326	0.0117	4	10/26/2018 05:55	WG1186559
Toluene	0.00897	J J	0.00583	0.0233	4	10/26/2018 05:55	WG1186559
1,2,3-Trichlorobenzene	U		0.00291	0.0117	4	10/26/2018 05:55	WG1186559
1,2,4-Trichlorobenzene	U		0.0225	0.0583	4	10/26/2018 05:55	WG1186559
1,1,1-Trichloroethane	U		0.00128	0.0117	4	10/26/2018 05:55	WG1186559
1,1,2-Trichloroethane	U		0.00411	0.0117	4	10/26/2018 05:55	WG1186559
Trichloroethene	0.336		0.00186	0.00466	4	10/26/2018 05:55	WG1186559
Trichlorofluoromethane	U		0.00233	0.0117	4	10/26/2018 05:55	WG1186559
1,2,3-Trichloropropane	U		0.0238	0.0583	4	10/26/2018 05:55	WG1186559
1,2,4-Trimethylbenzene	U		0.00541	0.0233	4	10/26/2018 05:55	WG1186559
1,2,3-Trimethylbenzene	U		0.00536	0.0233	4	10/26/2018 05:55	WG1186559
1,3,5-Trimethylbenzene	U		0.00503	0.0233	4	10/26/2018 05:55	WG1186559
Vinyl acetate	U		0.0164	0.0583	4	10/26/2018 05:55	WG1186559
Vinyl chloride	U		0.00318	0.0117	4	10/26/2018 05:55	WG1186559
Xylenes, Total	U		0.0223	0.0303	4	10/26/2018 05:55	WG1186559
(S) Toluene-d8	*104*			*75.0-131*		*10/26/2018 05:55*	WG1186559
(S) Dibromofluoromethane	*95.5*			*65.0-129*		*10/26/2018 05:55*	WG1186559
(S) 4-Bromofluorobenzene	*108*			*67.0-138*		*10/26/2018 05:55*	WG1186559

Sample Narrative:

L1036481-01 WG1186559: Diluted due to high levels of target analytes.

JC 11/15/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	84.3		1	10/24/2018 14:15	WG1185771

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0162	0.0296	1	10/26/2018 00:50	WG1186559
Acrylonitrile	U		0.00225	0.0148	1	10/26/2018 00:50	WG1186559
Benzene	U		0.000474	0.00119	1	10/26/2018 00:50	WG1186559
Bromobenzene	U		0.00124	0.0148	1	10/26/2018 00:50	WG1186559
Bromodichloromethane	U		0.000934	0.00296	1	10/26/2018 00:50	WG1186559
Bromochloromethane	U		0.00134	0.00593	1	10/26/2018 00:50	WG1186559
Bromoform	U		0.00709	0.0296	1	10/26/2018 00:50	WG1186559
Bromomethane	U		0.00439	0.0148	1	10/26/2018 00:50	WG1186559
n-Butylbenzene	U		0.00455	0.0148	1	10/26/2018 00:50	WG1186559
sec-Butylbenzene	U		0.00300	0.0148	1	10/26/2018 00:50	WG1186559
tert-Butylbenzene	U		0.00184	0.00593	1	10/26/2018 00:50	WG1186559
Carbon disulfide	U		0.00481	0.0148	1	10/26/2018 00:50	WG1186559
Carbon tetrachloride	U		0.00128	0.00593	1	10/26/2018 00:50	WG1186559
Chlorobenzene	U		0.000679	0.00296	1	10/26/2018 00:50	WG1186559
Chlorodibromomethane	U		0.000534	0.00296	1	10/26/2018 00:50	WG1186559
Chloroethane	U		0.00128	0.00593	1	10/26/2018 00:50	WG1186559
Chloroform	U		0.000492	0.00296	1	10/26/2018 00:50	WG1186559
Chloromethane	U		0.00165	0.0148	1	10/26/2018 00:50	WG1186559
2-Chlorotoluene	U		0.00109	0.00296	1	10/26/2018 00:50	WG1186559
4-Chlorotoluene	U		0.00134	0.00593	1	10/26/2018 00:50	WG1186559
1,2-Dibromo-3-Chloropropane	U		0.00605	0.0296	1	10/26/2018 00:50	WG1186559
1,2-Dibromoethane	U		0.000622	0.00296	1	10/26/2018 00:50	WG1186559
Dibromomethane	U		0.00119	0.00593	1	10/26/2018 00:50	WG1186559
1,2-Dichlorobenzene	U		0.00172	0.00593	1	10/26/2018 00:50	WG1186559
1,3-Dichlorobenzene	U		0.00202	0.00593	1	10/26/2018 00:50	WG1186559
1,4-Dichlorobenzene	U		0.00234	0.00593	1	10/26/2018 00:50	WG1186559
Dichlorodifluoromethane	U		0.000970	0.00296	1	10/26/2018 00:50	WG1186559
1,1-Dichloroethane	U		0.000682	0.00296	1	10/26/2018 00:50	WG1186559
1,2-Dichloroethane	U		0.000563	0.00296	1	10/26/2018 00:50	WG1186559
1,1-Dichloroethene	0.00433		0.000593	0.00296	1	10/26/2018 00:50	WG1186559
cis-1,2-Dichloroethene	0.0191		0.000818	0.00296	1	10/26/2018 00:50	WG1186559
trans-1,2-Dichloroethene	U		0.00170	0.00593	1	10/26/2018 00:50	WG1186559
1,2-Dichloropropane	U		0.00151	0.00593	1	10/26/2018 00:50	WG1186559
1,1-Dichloropropene	U		0.000830	0.00296	1	10/26/2018 00:50	WG1186559
1,3-Dichloropropane	U		0.00207	0.00593	1	10/26/2018 00:50	WG1186559
cis-1,3-Dichloropropene	U		0.000804	0.00296	1	10/26/2018 00:50	WG1186559
trans-1,3-Dichloropropene	U		0.00181	0.00593	1	10/26/2018 00:50	WG1186559
trans-1,4-Dichloro-2-butene	U		0.00166	0.00593	1	10/26/2018 00:50	WG1186559
2,2-Dichloropropane	U		0.000940	0.00296	1	10/26/2018 00:50	WG1186559
Di-isopropyl ether	U		0.000415	0.00119	1	10/26/2018 00:50	WG1186559
Ethylbenzene	U		0.000628	0.00296	1	10/26/2018 00:50	WG1186559
Hexachloro-1,3-butadiene	U		0.0151	0.0296	1	10/26/2018 00:50	WG1186559
2-Hexanone	U		0.0119	0.0296	1	10/26/2018 00:50	WG1186559
n-Hexane	U		0.00126	0.00593	1	10/26/2018 00:50	WG1186559
Iodomethane	U		0.00717	0.0148	1	10/26/2018 00:50	WG1186559
Isopropylbenzene	U		0.00102	0.00296	1	10/26/2018 00:50	WG1186559
p-Isopropyltoluene	U		0.00276	0.00593	1	10/26/2018 00:50	WG1186559
2-Butanone (MEK)	U		0.0148	0.0296	1	10/26/2018 00:50	WG1186559
Methylene Chloride	U		0.00787	0.0296	1	10/26/2018 00:50	WG1186559
4-Methyl-2-pentanone (MIBK)	U		0.0119	0.0296	1	10/26/2018 00:50	WG1186559

JC 11/15/18

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000350	0.00119	1	10/26/2018 00:50	WG1186559
Naphthalene	U		0.00370	0.0148	1	10/26/2018 00:50	WG1186559
n-Propylbenzene	U		0.00140	0.00593	1	10/26/2018 00:50	WG1186559
Styrene	U		0.00324	0.0148	1	10/26/2018 00:50	WG1186559
1,1,1,2-Tetrachloroethane	U		0.000593	0.00296	1	10/26/2018 00:50	WG1186559
1,1,2,2-Tetrachloroethane	U		0.000462	0.00296	1	10/26/2018 00:50	WG1186559
1,1,2-Trichlorotrifluoroethane	U		0.000800	0.00296	1	10/26/2018 00:50	WG1186559
Tetrachloroethene	0.0916		0.000830	0.00296	1	10/26/2018 00:50	WG1186559
Toluene	U		0.00148	0.00593	1	10/26/2018 00:50	WG1186559
1,2,3-Trichlorobenzene	U		0.000741	0.00296	1	10/26/2018 00:50	WG1186559
1,2,4-Trichlorobenzene	U		0.00571	0.0148	1	10/26/2018 00:50	WG1186559
1,1,1-Trichloroethane	U		0.000326	0.00296	1	10/26/2018 00:50	WG1186559
1,1,2-Trichloroethane	U		0.00105	0.00296	1	10/26/2018 00:50	WG1186559
Trichloroethene	0.140		0.000474	0.00119	1	10/26/2018 00:50	WG1186559
Trichlorofluoromethane	U		0.000593	0.00296	1	10/26/2018 00:50	WG1186559
1,2,3-Trichloropropane	U		0.00605	0.0148	1	10/26/2018 00:50	WG1186559
1,2,4-Trimethylbenzene	U		0.00138	0.00593	1	10/26/2018 00:50	WG1186559
1,2,3-Trimethylbenzene	U		0.00136	0.00593	1	10/26/2018 00:50	WG1186559
1,3,5-Trimethylbenzene	U		0.00128	0.00593	1	10/26/2018 00:50	WG1186559
Vinyl acetate	U		0.00417	0.0148	1	10/26/2018 00:50	WG1186559
Vinyl chloride	U		0.000810	0.00296	1	10/26/2018 00:50	WG1186559
Xylenes, Total	U		0.00567	0.00771	1	10/26/2018 00:50	WG1186559
(S) Toluene-d8	*105*			*75.0-131*		*10/26/2018 00:50*	WG1186559
(S) Dibromofluoromethane	*94.7*			*65.0-129*		*10/26/2018 00:50*	WG1186559
(S) 4-Bromofluorobenzene	*104*			*67.0-138*		*10/26/2018 00:50*	WG1186559

JC 11/15/18

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	82.6		1	10/24/2018 14:15	WG1185771

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch	
	mg/kg		mg/kg	mg/kg		date / time		
Acetone	U		0.0663	0.121	4	10/26/2018 06:14	WG1186559	
Acrylonitrile	U		0.00920	0.0605	4	10/26/2018 06:14	WG1186559	
Benzene	U		0.00194	0.00484	4	10/26/2018 06:14	WG1186559	
Bromobenzene	U		0.00509	0.0605	4	10/26/2018 06:14	WG1186559	
Bromodichloromethane	U		0.00381	0.0121	4	10/26/2018 06:14	WG1186559	
Bromochloromethane	U		0.00547	0.0242	4	10/26/2018 06:14	WG1186559	
Bromoform	U		0.0289	0.121	4	10/26/2018 06:14	WG1186559	
Bromomethane	U		0.0179	0.0605	4	10/26/2018 06:14	WG1186559	
n-Butylbenzene	U		0.0186	0.0605	4	10/26/2018 06:14	WG1186559	
sec-Butylbenzene	U		0.0122	0.0605	4	10/26/2018 06:14	WG1186559	
tert-Butylbenzene	U		0.00751	0.0242	4	10/26/2018 06:14	WG1186559	
Carbon disulfide	U		0.0196	0.0605	4	10/26/2018 06:14	WG1186559	
Carbon tetrachloride	U		0.00523	0.0242	4	10/26/2018 06:14	WG1186559	
Chlorobenzene	U		0.00277	0.0121	4	10/26/2018 06:14	WG1186559	
Chlorodibromomethane	U		0.00218	0.0121	4	10/26/2018 06:14	WG1186559	
Chloroethane	U		0.00523	0.0242	4	10/26/2018 06:14	WG1186559	
Chloroform	U		0.00201	0.0121	4	10/26/2018 06:14	WG1186559	
Chloromethane	U		0.00673	0.0605	4	10/26/2018 06:14	WG1186559	
2-Chlorotoluene	U		0.00446	0.0121	4	10/26/2018 06:14	WG1186559	
4-Chlorotoluene	U		0.00547	0.0242	4	10/26/2018 06:14	WG1186559	
1,2-Dibromo-3-Chloropropane	U		0.0247	0.121	4	10/26/2018 06:14	WG1186559	
1,2-Dibromoethane	U		0.00254	0.0121	4	10/26/2018 06:14	WG1186559	
Dibromomethane	U		0.00484	0.0242	4	10/26/2018 06:14	WG1186559	
1,2-Dichlorobenzene	U		0.00702	0.0242	4	10/26/2018 06:14	WG1186559	
1,3-Dichlorobenzene	U		0.00823	0.0242	4	10/26/2018 06:14	WG1186559	
1,4-Dichlorobenzene	U		0.00954	0.0242	4	10/26/2018 06:14	WG1186559	
Dichlorodifluoromethane	U		0.00396	0.0121	4	10/26/2018 06:14	WG1186559	
1,1-Dichloroethane	U		0.00278	0.0121	4	10/26/2018 06:14	WG1186559	
1,2-Dichloroethane	U		0.00230	0.0121	4	10/26/2018 06:14	WG1186559	
1,1-Dichloroethene	U		0.00242	0.0121	4	10/26/2018 06:14	WG1186559	
cis-1,2-Dichloroethene	0.0238		0.00334	0.0121	4	10/26/2018 06:14	WG1186559	
trans-1,2-Dichloroethene	U		0.00693	0.0242	4	10/26/2018 06:14	WG1186559	
1,2-Dichloropropane	U		0.00615	0.0242	4	10/26/2018 06:14	WG1186559	
1,1-Dichloropropene	U		0.00339	0.0121	4	10/26/2018 06:14	WG1186559	
1,3-Dichloropropane	U		0.00848	0.0242	4	10/26/2018 06:14	WG1186559	
cis-1,3-Dichloropropene	U		0.00328	0.0121	4	10/26/2018 06:14	WG1186559	
trans-1,3-Dichloropropene	U		0.00741	0.0242	4	10/26/2018 06:14	WG1186559	
trans-1,4-Dichloro-2-butene	U		0.00678	0.0242	4	10/26/2018 06:14	WG1186559	
2,2-Dichloropropane	U		0.00384	0.0121	4	10/26/2018 06:14	WG1186559	
Di-isopropyl ether	U		0.00170	0.00484	4	10/26/2018 06:14	WG1186559	
Ethylbenzene	U		0.00257	0.0121	4	10/26/2018 06:14	WG1186559	
Hexachloro-1,3-butadiene	U		0.0615	0.121	4	10/26/2018 06:14	WG1186559	
2-Hexanone	U		0.0484	0.121	4	10/26/2018 06:14	WG1186559	
n-Hexane	U		0.00513	0.0242	4	10/26/2018 06:14	WG1186559	JC 11/15/18
Iodomethane	U		0.0293	0.0605	4	10/26/2018 06:14	WG1186559	
Isopropylbenzene	U		0.00418	0.0121	4	10/26/2018 06:14	WG1186559	
p-Isopropyltoluene	U		0.0113	0.0242	4	10/26/2018 06:14	WG1186559	
2-Butanone (MEK)	U		0.0605	0.121	4	10/26/2018 06:14	WG1186559	
Methylene Chloride	U		0.0322	0.121	4	10/26/2018 06:14	WG1186559	
4-Methyl-2-pentanone (MIBK)	U		0.0484	0.121	4	10/26/2018 06:14	WG1186559	

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.00143	0.00484	4	10/26/2018 06:14	WG1186559
Naphthalene	U		0.0151	0.0605	4	10/26/2018 06:14	WG1186559
n-Propylbenzene	U		0.00571	0.0242	4	10/26/2018 06:14	WG1186559
Styrene	U		0.0132	0.0605	4	10/26/2018 06:14	WG1186559
1,1,1,2-Tetrachloroethane	U		0.00242	0.0121	4	10/26/2018 06:14	WG1186559
1,1,2,2-Tetrachloroethane	U		0.00189	0.0121	4	10/26/2018 06:14	WG1186559
1,1,2-Trichlorotrifluoroethane	U		0.00327	0.0121	4	10/26/2018 06:14	WG1186559
Tetrachloroethene	1.47		0.00339	0.0121	4	10/26/2018 06:14	WG1186559
Toluene	U		0.00605	0.0242	4	10/26/2018 06:14	WG1186559
1,2,3-Trichlorobenzene	U		0.00303	0.0121	4	10/26/2018 06:14	WG1186559
1,2,4-Trichlorobenzene	U		0.0234	0.0605	4	10/26/2018 06:14	WG1186559
1,1,1-Trichloroethane	U		0.00133	0.0121	4	10/26/2018 06:14	WG1186559
1,1,2-Trichloroethane	U		0.00427	0.0121	4	10/26/2018 06:14	WG1186559
Trichloroethene	0.564		0.00194	0.00484	4	10/26/2018 06:14	WG1186559
Trichlorofluoromethane	U		0.00242	0.0121	4	10/26/2018 06:14	WG1186559
1,2,3-Trichloropropane	U		0.0247	0.0605	4	10/26/2018 06:14	WG1186559
1,2,4-Trimethylbenzene	U		0.00562	0.0242	4	10/26/2018 06:14	WG1186559
1,2,3-Trimethylbenzene	U		0.00557	0.0242	4	10/26/2018 06:14	WG1186559
1,3,5-Trimethylbenzene	U		0.00523	0.0242	4	10/26/2018 06:14	WG1186559
Vinyl acetate	U		0.0171	0.0605	4	10/26/2018 06:14	WG1186559
Vinyl chloride	U		0.00331	0.0121	4	10/26/2018 06:14	WG1186559
Xylenes, Total	U		0.0231	0.0315	4	10/26/2018 06:14	WG1186559
(S) Toluene-d8	*107*			*75.0-131*		*10/26/2018 06:14*	WG1186559
(S) Dibromofluoromethane	*99.2*			*65.0-129*		*10/26/2018 06:14*	WG1186559
(S) 4-Bromofluorobenzene	*106*			*67.0-138*		*10/26/2018 06:14*	WG1186559

Sample Narrative:

L1036481-03 WG1186559: Diluted due to high levels of target analytes.

JC 11/15/18

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

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

September 11, 2018

PES Environmental, Inc.- WA

Sample Delivery Group:	L1022679
Samples Received:	09/01/2018
Project Number:	1413.001.05.304
Description:	American Linen
Site:	1413001.05.304
Report To:	Brian O'Neal/Bill Haldeman 1215 Fourth Ave., Suite 1350 Seattle, WA 98161

Entire Report Reviewed By:

Brian Ford

Project Manager

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 Pace National is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

TABLE OF CONTENTS

Cp: Cover Page 1

Tc: Table of Contents 2

Ss: Sample Summary 3

Cn: Case Narrative 4

Sr: Sample Results 5

IW-22C-62 L1022679-01 5

IW-22C-78 L1022679-02 7

TRIP BLANK L1022679-03 9

Qc: Quality Control Summary 11

Total Solids by Method 2540 G-2011 11

Volatile Organic Compounds (GC/MS) by Method 8260C 12

Gl: Glossary of Terms 22

Al: Accreditations & Locations 23

Sc: Sample Chain of Custody 24

IW-22C-62 L1022679-01 Solid

Collected by	Collected date/time	Received date/time
Ben Hecht	08/31/18 09:35	09/01/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1163747	1	09/10/18 13:07	09/10/18 13:20	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1163811	1.07	08/31/18 09:35	09/10/18 12:18	ACG
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1163971	42.4	08/31/18 09:35	09/10/18 17:39	BMB

IW-22C-78 L1022679-02 Solid

Collected by	Collected date/time	Received date/time
Ben Hecht	08/31/18 13:00	09/01/18 08:45

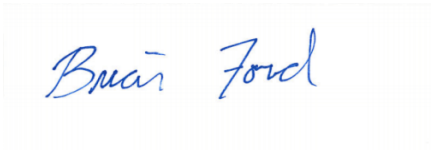
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1163747	1	09/10/18 13:07	09/10/18 13:20	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1163811	1	08/31/18 13:00	09/10/18 12:37	ACG
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1163971	40	08/31/18 13:00	09/10/18 17:58	BMB

TRIP BLANK L1022679-03 GW

Collected by	Collected date/time	Received date/time
Ben Hecht	08/31/18 00:00	09/01/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1161708	1	09/05/18 16:43	09/05/18 16:43	BMB
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1162010	1	09/06/18 02:34	09/06/18 02:34	RAS

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, 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.



Brian Ford
Project Manager

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	92.7		1	09/10/2018 13:20	WG1163747

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	0.0193	J	0.0158	0.0289	1.07	09/10/2018 12:18	WG1163811
Acrylonitrile	U		0.00219	0.0144	1.07	09/10/2018 12:18	WG1163811
Benzene	U		0.000462	0.00115	1.07	09/10/2018 12:18	WG1163811
Bromobenzene	U		0.00121	0.0144	1.07	09/10/2018 12:18	WG1163811
Bromodichloromethane	U	J4	0.000910	0.00289	1.07	09/10/2018 12:18	WG1163811
Bromochloromethane	U		0.00131	0.00577	1.07	09/10/2018 12:18	WG1163811
Bromoform	U		0.00691	0.0289	1.07	09/10/2018 12:18	WG1163811
Bromomethane	U		0.00427	0.0144	1.07	09/10/2018 12:18	WG1163811
n-Butylbenzene	U		0.00443	0.0144	1.07	09/10/2018 12:18	WG1163811
sec-Butylbenzene	U		0.00292	0.0144	1.07	09/10/2018 12:18	WG1163811
tert-Butylbenzene	U		0.00179	0.00577	1.07	09/10/2018 12:18	WG1163811
Carbon disulfide	U		0.00468	0.0144	1.07	09/10/2018 12:18	WG1163811
Carbon tetrachloride	U	J4	0.00125	0.00577	1.07	09/10/2018 12:18	WG1163811
Chlorobenzene	U		0.000661	0.00289	1.07	09/10/2018 12:18	WG1163811
Chlorodibromomethane	U		0.000520	0.00289	1.07	09/10/2018 12:18	WG1163811
Chloroethane	U		0.00125	0.00577	1.07	09/10/2018 12:18	WG1163811
Chloroform	U		0.000479	0.00289	1.07	09/10/2018 12:18	WG1163811
Chloromethane	U		0.00161	0.0144	1.07	09/10/2018 12:18	WG1163811
2-Chlorotoluene	U		0.00106	0.00289	1.07	09/10/2018 12:18	WG1163811
4-Chlorotoluene	0.00193	J	0.00131	0.00577	1.07	09/10/2018 12:18	WG1163811
1,2-Dibromo-3-Chloropropane	U		0.00589	0.0289	1.07	09/10/2018 12:18	WG1163811
1,2-Dibromoethane	U		0.000606	0.00289	1.07	09/10/2018 12:18	WG1163811
Dibromomethane	U		0.00115	0.00577	1.07	09/10/2018 12:18	WG1163811
1,2-Dichlorobenzene	U		0.00167	0.00577	1.07	09/10/2018 12:18	WG1163811
1,3-Dichlorobenzene	U		0.00196	0.00577	1.07	09/10/2018 12:18	WG1163811
1,4-Dichlorobenzene	U		0.00228	0.00577	1.07	09/10/2018 12:18	WG1163811
Dichlorodifluoromethane	U		0.000944	0.00289	1.07	09/10/2018 12:18	WG1163811
1,1-Dichloroethane	U		0.000664	0.00289	1.07	09/10/2018 12:18	WG1163811
1,2-Dichloroethane	U		0.000548	0.00289	1.07	09/10/2018 12:18	WG1163811
1,1-Dichloroethene	0.00263	J	0.000577	0.00289	1.07	09/10/2018 12:18	WG1163811
cis-1,2-Dichloroethene	0.305		0.000796	0.00289	1.07	09/10/2018 12:18	WG1163811
trans-1,2-Dichloroethene	U		0.00165	0.00577	1.07	09/10/2018 12:18	WG1163811
1,2-Dichloropropane	U		0.0581	0.229	42.4	09/10/2018 17:39	WG1163971
1,1-Dichloropropene	U		0.000808	0.00289	1.07	09/10/2018 12:18	WG1163811
1,3-Dichloropropane	U		0.00202	0.00577	1.07	09/10/2018 12:18	WG1163811
cis-1,3-Dichloropropene	U		0.000782	0.00289	1.07	09/10/2018 12:18	WG1163811
trans-1,3-Dichloropropene	U		0.00177	0.00577	1.07	09/10/2018 12:18	WG1163811
trans-1,4-Dichloro-2-butene	U		0.00162	0.00577	1.07	09/10/2018 12:18	WG1163811
2,2-Dichloropropane	U		0.000915	0.00289	1.07	09/10/2018 12:18	WG1163811
Di-isopropyl ether	U		0.000404	0.00115	1.07	09/10/2018 12:18	WG1163811
Ethylbenzene	0.00123	J	0.000612	0.00289	1.07	09/10/2018 12:18	WG1163811
Hexachloro-1,3-butadiene	U		0.0147	0.0289	1.07	09/10/2018 12:18	WG1163811
2-Hexanone	U		0.0115	0.0289	1.07	09/10/2018 12:18	WG1163811
n-Hexane	U		0.00122	0.00577	1.07	09/10/2018 12:18	WG1163811
Iodomethane	U		0.00698	0.0144	1.07	09/10/2018 12:18	WG1163811
Isopropylbenzene	U		0.000996	0.00289	1.07	09/10/2018 12:18	WG1163811
p-Isopropyltoluene	U		0.00269	0.00577	1.07	09/10/2018 12:18	WG1163811
2-Butanone (MEK)	0.0342		0.0145	0.0289	1.07	09/10/2018 12:18	WG1163811
Methylene Chloride	U		0.00766	0.0289	1.07	09/10/2018 12:18	WG1163811
4-Methyl-2-pentanone (MIBK)	U		0.0115	0.0289	1.07	09/10/2018 12:18	WG1163811

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000341	0.00115	1.07	09/10/2018 12:18	WG1163811
Naphthalene	U		0.00360	0.0144	1.07	09/10/2018 12:18	WG1163811
n-Propylbenzene	0.00179	J	0.00136	0.00577	1.07	09/10/2018 12:18	WG1163811
Styrene	U		0.00315	0.0144	1.07	09/10/2018 12:18	WG1163811
1,1,1,2-Tetrachloroethane	U		0.000577	0.00289	1.07	09/10/2018 12:18	WG1163811
1,1,2,2-Tetrachloroethane	U		0.000450	0.00289	1.07	09/10/2018 12:18	WG1163811
1,1,2-Trichlorotrifluoroethane	U		0.000779	0.00289	1.07	09/10/2018 12:18	WG1163811
Tetrachloroethene	14.5		0.0320	0.114	42.4	09/10/2018 17:39	WG1163971
Toluene	0.00954		0.00145	0.00577	1.07	09/10/2018 12:18	WG1163811
1,2,3-Trichlorobenzene	U		0.000722	0.00289	1.07	09/10/2018 12:18	WG1163811
1,2,4-Trichlorobenzene	U		0.00557	0.0144	1.07	09/10/2018 12:18	WG1163811
1,1,1-Trichloroethane	U		0.000317	0.00289	1.07	09/10/2018 12:18	WG1163811
1,1,2-Trichloroethane	U		0.00102	0.00289	1.07	09/10/2018 12:18	WG1163811
Trichloroethene	0.708		0.0183	0.0458	42.4	09/10/2018 17:39	WG1163971
Trichlorofluoromethane	U		0.000577	0.00289	1.07	09/10/2018 12:18	WG1163811
1,2,3-Trichloropropane	U		0.00589	0.0144	1.07	09/10/2018 12:18	WG1163811
1,2,4-Trimethylbenzene	0.0107		0.00134	0.00577	1.07	09/10/2018 12:18	WG1163811
1,2,3-Trimethylbenzene	0.00278	J	0.00133	0.00577	1.07	09/10/2018 12:18	WG1163811
1,3,5-Trimethylbenzene	0.00366	J	0.00125	0.00577	1.07	09/10/2018 12:18	WG1163811
Vinyl acetate	U	J3	0.00407	0.0144	1.07	09/10/2018 12:18	WG1163811
Vinyl chloride	U		0.000789	0.00289	1.07	09/10/2018 12:18	WG1163811
Xylenes, Total	U		0.219	0.297	42.4	09/10/2018 17:39	WG1163971
(S) Toluene-d8	*97.4*			*75.0-131*		*09/10/2018 12:18*	WG1163811
(S) Toluene-d8	*98.9*			*75.0-131*		*09/10/2018 17:39*	WG1163971
(S) Dibromofluoromethane	*93.0*			*65.0-129*		*09/10/2018 12:18*	WG1163811
(S) Dibromofluoromethane	*115*			*65.0-129*		*09/10/2018 17:39*	WG1163971
(S) 4-Bromofluorobenzene	*98.7*			*67.0-138*		*09/10/2018 12:18*	WG1163811
(S) 4-Bromofluorobenzene	*90.9*			*67.0-138*		*09/10/2018 17:39*	WG1163971

Sample Narrative:

L1022679-01 WG1163811, WG1163971: Not all compounds reportable from 1x dilution.

L1022679-01 WG1163811, WG1163971: Cannot be reanalyzed at a lower dilution due to high levels of target analytes.

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	82.6		1	09/10/2018 13:20	WG1163747

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0166	0.0303	1	09/10/2018 12:37	WG1163811
Acrylonitrile	U		0.00230	0.0151	1	09/10/2018 12:37	WG1163811
Benzene	U		0.000484	0.00121	1	09/10/2018 12:37	WG1163811
Bromobenzene	U		0.00127	0.0151	1	09/10/2018 12:37	WG1163811
Bromodichloromethane	U	J4	0.000954	0.00303	1	09/10/2018 12:37	WG1163811
Bromochloromethane	U		0.00137	0.00606	1	09/10/2018 12:37	WG1163811
Bromoform	U		0.00724	0.0303	1	09/10/2018 12:37	WG1163811
Bromomethane	U		0.00448	0.0151	1	09/10/2018 12:37	WG1163811
n-Butylbenzene	U		0.00465	0.0151	1	09/10/2018 12:37	WG1163811
sec-Butylbenzene	U		0.00306	0.0151	1	09/10/2018 12:37	WG1163811
tert-Butylbenzene	U		0.00188	0.00606	1	09/10/2018 12:37	WG1163811
Carbon disulfide	0.00695	J	0.00492	0.0151	1	09/10/2018 12:37	WG1163811
Carbon tetrachloride	U	J4	0.00131	0.00606	1	09/10/2018 12:37	WG1163811
Chlorobenzene	U		0.000694	0.00303	1	09/10/2018 12:37	WG1163811
Chlorodibromomethane	U		0.000545	0.00303	1	09/10/2018 12:37	WG1163811
Chloroethane	U		0.00131	0.00606	1	09/10/2018 12:37	WG1163811
Chloroform	U		0.000503	0.00303	1	09/10/2018 12:37	WG1163811
Chloromethane	U		0.00168	0.0151	1	09/10/2018 12:37	WG1163811
2-Chlorotoluene	U		0.00111	0.00303	1	09/10/2018 12:37	WG1163811
4-Chlorotoluene	U		0.00137	0.00606	1	09/10/2018 12:37	WG1163811
1,2-Dibromo-3-Chloropropane	U		0.00618	0.0303	1	09/10/2018 12:37	WG1163811
1,2-Dibromoethane	U		0.000636	0.00303	1	09/10/2018 12:37	WG1163811
Dibromomethane	U		0.00121	0.00606	1	09/10/2018 12:37	WG1163811
1,2-Dichlorobenzene	U		0.00176	0.00606	1	09/10/2018 12:37	WG1163811
1,3-Dichlorobenzene	U		0.00206	0.00606	1	09/10/2018 12:37	WG1163811
1,4-Dichlorobenzene	U		0.00239	0.00606	1	09/10/2018 12:37	WG1163811
Dichlorodifluoromethane	U		0.000991	0.00303	1	09/10/2018 12:37	WG1163811
1,1-Dichloroethane	U		0.000696	0.00303	1	09/10/2018 12:37	WG1163811
1,2-Dichloroethane	U		0.000575	0.00303	1	09/10/2018 12:37	WG1163811
1,1-Dichloroethene	0.00765		0.000606	0.00303	1	09/10/2018 12:37	WG1163811
cis-1,2-Dichloroethene	0.975		0.000836	0.00303	1	09/10/2018 12:37	WG1163811
trans-1,2-Dichloroethene	U		0.00173	0.00606	1	09/10/2018 12:37	WG1163811
1,2-Dichloropropane	U		0.0615	0.242	40	09/10/2018 17:58	WG1163971
1,1-Dichloropropene	U		0.000848	0.00303	1	09/10/2018 12:37	WG1163811
1,3-Dichloropropane	U		0.00212	0.00606	1	09/10/2018 12:37	WG1163811
cis-1,3-Dichloropropene	U		0.000821	0.00303	1	09/10/2018 12:37	WG1163811
trans-1,3-Dichloropropene	U		0.00185	0.00606	1	09/10/2018 12:37	WG1163811
trans-1,4-Dichloro-2-butene	U		0.00170	0.00606	1	09/10/2018 12:37	WG1163811
2,2-Dichloropropane	U		0.000961	0.00303	1	09/10/2018 12:37	WG1163811
Di-isopropyl ether	U		0.000424	0.00121	1	09/10/2018 12:37	WG1163811
Ethylbenzene	U		0.000642	0.00303	1	09/10/2018 12:37	WG1163811
Hexachloro-1,3-butadiene	U		0.0154	0.0303	1	09/10/2018 12:37	WG1163811
2-Hexanone	U		0.0121	0.0303	1	09/10/2018 12:37	WG1163811
n-Hexane	U		0.00128	0.00606	1	09/10/2018 12:37	WG1163811
Iodomethane	U		0.00733	0.0151	1	09/10/2018 12:37	WG1163811
Isopropylbenzene	U		0.00105	0.00303	1	09/10/2018 12:37	WG1163811
p-Isopropyltoluene	U		0.00282	0.00606	1	09/10/2018 12:37	WG1163811
2-Butanone (MEK)	0.0382		0.0151	0.0303	1	09/10/2018 12:37	WG1163811
Methylene Chloride	U		0.00804	0.0303	1	09/10/2018 12:37	WG1163811
4-Methyl-2-pentanone (MIBK)	U		0.0121	0.0303	1	09/10/2018 12:37	WG1163811

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000357	0.00121	1	09/10/2018 12:37	WG1163811
Naphthalene	U		0.00378	0.0151	1	09/10/2018 12:37	WG1163811
n-Propylbenzene	U		0.00143	0.00606	1	09/10/2018 12:37	WG1163811
Styrene	U		0.00331	0.0151	1	09/10/2018 12:37	WG1163811
1,1,1,2-Tetrachloroethane	U		0.000606	0.00303	1	09/10/2018 12:37	WG1163811
1,1,2,2-Tetrachloroethane	U		0.000472	0.00303	1	09/10/2018 12:37	WG1163811
1,1,2-Trichlorotrifluoroethane	U		0.000818	0.00303	1	09/10/2018 12:37	WG1163811
Tetrachloroethene	16.6		0.0339	0.121	40	09/10/2018 17:58	WG1163971
Toluene	0.00182	J	0.00151	0.00606	1	09/10/2018 12:37	WG1163811
1,2,3-Trichlorobenzene	U		0.000757	0.00303	1	09/10/2018 12:37	WG1163811
1,2,4-Trichlorobenzene	U		0.00584	0.0151	1	09/10/2018 12:37	WG1163811
1,1,1-Trichloroethane	U		0.000333	0.00303	1	09/10/2018 12:37	WG1163811
1,1,2-Trichloroethane	U		0.00107	0.00303	1	09/10/2018 12:37	WG1163811
Trichloroethene	0.915		0.0194	0.0484	40	09/10/2018 17:58	WG1163971
Trichlorofluoromethane	U		0.000606	0.00303	1	09/10/2018 12:37	WG1163811
1,2,3-Trichloropropane	U		0.00618	0.0151	1	09/10/2018 12:37	WG1163811
1,2,4-Trimethylbenzene	0.00241	J	0.00141	0.00606	1	09/10/2018 12:37	WG1163811
1,2,3-Trimethylbenzene	U		0.00139	0.00606	1	09/10/2018 12:37	WG1163811
1,3,5-Trimethylbenzene	U		0.00131	0.00606	1	09/10/2018 12:37	WG1163811
Vinyl acetate	U	J3	0.00426	0.0151	1	09/10/2018 12:37	WG1163811
Vinyl chloride	0.00698		0.000827	0.00303	1	09/10/2018 12:37	WG1163811
Xylenes, Total	U		0.231	0.315	40	09/10/2018 17:58	WG1163971
(S) Toluene-d8	*79.8*			*75.0-131*		*09/10/2018 12:37*	WG1163811
(S) Toluene-d8	*96.7*			*75.0-131*		*09/10/2018 17:58*	WG1163971
(S) Dibromofluoromethane	*94.4*			*65.0-129*		*09/10/2018 12:37*	WG1163811
(S) Dibromofluoromethane	*117*			*65.0-129*		*09/10/2018 17:58*	WG1163971
(S) 4-Bromofluorobenzene	*90.9*			*67.0-138*		*09/10/2018 12:37*	WG1163811
(S) 4-Bromofluorobenzene	*86.6*			*67.0-138*		*09/10/2018 17:58*	WG1163971

Sample Narrative:

L1022679-02 WG1163811, WG1163971: Not all compounds reportable from 1x dilution.

L1022679-02 WG1163811, WG1163971: Cannot be reanalyzed at a lower dilution due to high levels of target analytes.

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	1.58	J	1.05	25.0	1	09/05/2018 16:43	WG1161708
Acrylonitrile	U		0.873	5.00	1	09/05/2018 16:43	WG1161708
Benzene	U		0.0896	0.500	1	09/05/2018 16:43	WG1161708
Bromobenzene	U		0.133	0.500	1	09/05/2018 16:43	WG1161708
Bromodichloromethane	U		0.0800	0.500	1	09/05/2018 16:43	WG1161708
Bromochloromethane	U		0.145	0.500	1	09/05/2018 16:43	WG1161708
Bromoform	U		0.186	0.500	1	09/05/2018 16:43	WG1161708
Bromomethane	U		0.157	2.50	1	09/05/2018 16:43	WG1161708
n-Butylbenzene	U		0.143	0.500	1	09/05/2018 16:43	WG1161708
sec-Butylbenzene	U		0.134	0.500	1	09/05/2018 16:43	WG1161708
tert-Butylbenzene	U		0.183	0.500	1	09/05/2018 16:43	WG1161708
Carbon disulfide	U		0.101	0.500	1	09/05/2018 16:43	WG1161708
Carbon tetrachloride	U		0.159	0.500	1	09/05/2018 16:43	WG1161708
Chlorobenzene	U		0.140	0.500	1	09/05/2018 16:43	WG1161708
Chlorodibromomethane	U		0.128	0.500	1	09/05/2018 16:43	WG1161708
Chloroethane	U		0.141	2.50	1	09/05/2018 16:43	WG1161708
Chloroform	U		0.0860	0.500	1	09/05/2018 16:43	WG1161708
Chloromethane	U		0.153	1.25	1	09/05/2018 16:43	WG1161708
2-Chlorotoluene	U		0.111	0.500	1	09/05/2018 16:43	WG1161708
4-Chlorotoluene	U		0.0972	0.500	1	09/05/2018 16:43	WG1161708
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	09/05/2018 16:43	WG1161708
1,2-Dibromoethane	U		0.193	0.500	1	09/05/2018 16:43	WG1161708
Dibromomethane	U		0.117	0.500	1	09/05/2018 16:43	WG1161708
1,2-Dichlorobenzene	U		0.101	0.500	1	09/05/2018 16:43	WG1161708
1,3-Dichlorobenzene	U		0.130	0.500	1	09/05/2018 16:43	WG1161708
1,4-Dichlorobenzene	U		0.121	0.500	1	09/05/2018 16:43	WG1161708
Dichlorodifluoromethane	U		0.127	2.50	1	09/05/2018 16:43	WG1161708
1,1-Dichloroethane	U		0.114	0.500	1	09/05/2018 16:43	WG1161708
1,2-Dichloroethane	U		0.108	0.500	1	09/05/2018 16:43	WG1161708
1,1-Dichloroethene	U		0.188	0.500	1	09/05/2018 16:43	WG1161708
cis-1,2-Dichloroethene	U		0.0933	0.500	1	09/06/2018 02:34	WG1162010
trans-1,2-Dichloroethene	U		0.152	0.500	1	09/05/2018 16:43	WG1161708
1,2-Dichloropropane	U		0.190	0.500	1	09/05/2018 16:43	WG1161708
1,1-Dichloropropene	U		0.128	0.500	1	09/05/2018 16:43	WG1161708
1,3-Dichloropropane	U		0.147	1.00	1	09/05/2018 16:43	WG1161708
cis-1,3-Dichloropropene	U		0.0976	0.500	1	09/05/2018 16:43	WG1161708
trans-1,3-Dichloropropene	U		0.222	0.500	1	09/05/2018 16:43	WG1161708
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	09/05/2018 16:43	WG1161708
2,2-Dichloropropane	U		0.0929	0.500	1	09/05/2018 16:43	WG1161708
Di-isopropyl ether	U		0.0924	0.500	1	09/05/2018 16:43	WG1161708
Ethylbenzene	U		0.158	0.500	1	09/05/2018 16:43	WG1161708
Hexachloro-1,3-butadiene	U		0.157	1.00	1	09/05/2018 16:43	WG1161708
2-Hexanone	U		0.757	5.00	1	09/05/2018 16:43	WG1161708
n-Hexane	U		0.305	5.00	1	09/05/2018 16:43	WG1161708
Iodomethane	U		0.377	10.0	1	09/06/2018 02:34	WG1162010
Isopropylbenzene	U		0.126	0.500	1	09/05/2018 16:43	WG1161708
p-Isopropyltoluene	U		0.138	0.500	1	09/05/2018 16:43	WG1161708
2-Butanone (MEK)	U		1.28	5.00	1	09/05/2018 16:43	WG1161708
Methylene Chloride	U		1.07	2.50	1	09/05/2018 16:43	WG1161708
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	09/05/2018 16:43	WG1161708
Methyl tert-butyl ether	U		0.102	0.500	1	09/05/2018 16:43	WG1161708
Naphthalene	U		0.174	2.50	1	09/05/2018 16:43	WG1161708
n-Propylbenzene	U		0.162	0.500	1	09/05/2018 16:43	WG1161708
Styrene	U		0.117	0.500	1	09/05/2018 16:43	WG1161708
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	09/05/2018 16:43	WG1161708
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	09/05/2018 16:43	WG1161708

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	09/05/2018 16:43	WG1161708
Tetrachloroethene	U		0.199	0.500	1	09/05/2018 16:43	WG1161708
Toluene	U		0.412	0.500	1	09/05/2018 16:43	WG1161708
1,2,3-Trichlorobenzene	U		0.164	0.500	1	09/05/2018 16:43	WG1161708
1,2,4-Trichlorobenzene	U		0.355	0.500	1	09/05/2018 16:43	WG1161708
1,1,1-Trichloroethane	U		0.0940	0.500	1	09/05/2018 16:43	WG1161708
1,1,2-Trichloroethane	U		0.186	0.500	1	09/05/2018 16:43	WG1161708
Trichloroethene	U		0.153	0.500	1	09/05/2018 16:43	WG1161708
Trichlorofluoromethane	U		0.130	2.50	1	09/05/2018 16:43	WG1161708
1,2,3-Trichloropropane	U		0.247	2.50	1	09/05/2018 16:43	WG1161708
1,2,4-Trimethylbenzene	U		0.123	0.500	1	09/05/2018 16:43	WG1161708
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	09/05/2018 16:43	WG1161708
1,3,5-Trimethylbenzene	U		0.124	0.500	1	09/05/2018 16:43	WG1161708
Vinyl acetate	U		0.645	5.00	1	09/05/2018 16:43	WG1161708
Vinyl chloride	U		0.118	0.500	1	09/05/2018 16:43	WG1161708
Xylenes, Total	U		0.316	1.50	1	09/05/2018 16:43	WG1161708
(S) Toluene-d8	*102*			*80.0-120*		*09/05/2018 16:43*	WG1161708
(S) Toluene-d8	*102*			*80.0-120*		*09/06/2018 02:34*	WG1162010
(S) Dibromofluoromethane	*96.4*			*75.0-120*		*09/05/2018 16:43*	WG1161708
(S) Dibromofluoromethane	*105*			*75.0-120*		*09/06/2018 02:34*	WG1162010
(S) 4-Bromofluorobenzene	*108*			*77.0-126*		*09/05/2018 16:43*	WG1161708
(S) 4-Bromofluorobenzene	*99.9*			*77.0-126*		*09/06/2018 02:34*	WG1162010

Method Blank (MB)

(MB) R3340801-1 09/10/18 13:20

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.00100			

L1022683-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1022683-01 09/10/18 13:20 • (DUP) R3340801-3 09/10/18 13:20

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	82.1	82.5	1	0.445		10

Laboratory Control Sample (LCS)

(LCS) R3340801-2 09/10/18 13:20

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85.0-115	

Method Blank (MB)

(MB) R3339403-4 09/05/18 12:41

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Acetone	U		1.05	25.0
Acrylonitrile	U		0.873	5.00
Benzene	U		0.0896	0.500
Bromobenzene	U		0.133	0.500
Bromodichloromethane	U		0.0800	0.500
Bromochloromethane	U		0.145	0.500
Bromoform	U		0.186	0.500
Bromomethane	U		0.157	2.50
n-Butylbenzene	U		0.143	0.500
sec-Butylbenzene	U		0.134	0.500
tert-Butylbenzene	U		0.183	0.500
Carbon disulfide	U		0.101	0.500
Carbon tetrachloride	U		0.159	0.500
Chlorobenzene	U		0.140	0.500
Chlorodibromomethane	U		0.128	0.500
Chloroethane	U		0.141	2.50
Chloroform	U		0.0860	0.500
Chloromethane	U		0.153	1.25
2-Chlorotoluene	U		0.111	0.500
4-Chlorotoluene	U		0.0972	0.500
1,2-Dibromo-3-Chloropropane	U		0.325	2.50
1,2-Dibromoethane	U		0.193	0.500
Dibromomethane	U		0.117	0.500
1,2-Dichlorobenzene	U		0.101	0.500
1,3-Dichlorobenzene	U		0.130	0.500
1,4-Dichlorobenzene	U		0.121	0.500
Dichlorodifluoromethane	U		0.127	2.50
1,1-Dichloroethane	U		0.114	0.500
1,2-Dichloroethane	U		0.108	0.500
1,1-Dichloroethene	U		0.188	0.500
trans-1,2-Dichloroethene	U		0.152	0.500
1,2-Dichloropropane	U		0.190	0.500
1,1-Dichloropropene	U		0.128	0.500
1,3-Dichloropropane	U		0.147	1.00
cis-1,3-Dichloropropene	U		0.0976	0.500
trans-1,3-Dichloropropene	U		0.222	0.500
trans-1,4-Dichloro-2-butene	U		0.257	5.00
2,2-Dichloropropane	U		0.0929	0.500
Di-isopropyl ether	U		0.0924	0.500
Ethylbenzene	U		0.158	0.500

Method Blank (MB)

(MB) R3339403-4 09/05/18 12:41

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Hexachloro-1,3-butadiene	U		0.157	1.00
2-Hexanone	U		0.757	5.00
n-Hexane	U		0.305	5.00
Isopropylbenzene	U		0.126	0.500
p-Isopropyltoluene	U		0.138	0.500
2-Butanone (MEK)	U		1.28	5.00
Methylene Chloride	U		1.07	2.50
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00
Methyl tert-butyl ether	U		0.102	0.500
Naphthalene	0.680	J	0.174	2.50
n-Propylbenzene	U		0.162	0.500
Styrene	U		0.117	0.500
1,1,1,2-Tetrachloroethane	U		0.120	0.500
1,1,2,2-Tetrachloroethane	U		0.130	0.500
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500
Tetrachloroethene	U		0.199	0.500
Toluene	U		0.412	0.500
1,2,3-Trichlorobenzene	U		0.164	0.500
1,2,4-Trichlorobenzene	U		0.355	0.500
1,1,1-Trichloroethane	U		0.0940	0.500
1,1,2-Trichloroethane	U		0.186	0.500
Trichloroethene	U		0.153	0.500
Trichlorofluoromethane	U		0.130	2.50
1,2,3-Trichloropropane	U		0.247	2.50
1,2,4-Trimethylbenzene	0.183	J	0.123	0.500
1,2,3-Trimethylbenzene	U		0.0739	0.500
1,3,5-Trimethylbenzene	U		0.124	0.500
Vinyl acetate	U		0.645	5.00
Vinyl chloride	U		0.118	0.500
Xylenes, Total	U		0.316	1.50
(S) Toluene-d8	*105*			*80.0-120*
(S) Dibromofluoromethane	*88.4*			*75.0-120*
(S) 4-Bromofluorobenzene	*108*			*77.0-126*

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

(LCS) R3339403-1 09/05/18 11:21 • (LCSD) R3339403-2 09/05/18 11:41

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	110	116	87.9	92.4	19.0-160			4.98	27
Acrylonitrile	125	129	134	104	107	55.0-149			3.50	20
Benzene	25.0	23.6	24.1	94.5	96.3	70.0-123			1.87	20
Bromobenzene	25.0	27.5	28.4	110	114	73.0-121			3.27	20
Bromodichloromethane	25.0	24.1	24.8	96.4	99.2	75.0-120			2.95	20
Bromochloromethane	25.0	23.8	24.2	95.1	96.9	76.0-122			1.81	20
Bromoform	25.0	27.1	28.9	108	116	68.0-132			6.43	20
Bromomethane	25.0	15.6	16.3	62.4	65.2	10.0-160			4.40	25
n-Butylbenzene	25.0	24.3	25.6	97.1	102	73.0-125			5.16	20
sec-Butylbenzene	25.0	26.6	27.8	106	111	75.0-125			4.23	20
tert-Butylbenzene	25.0	27.5	29.0	110	116	76.0-124			5.34	20
Carbon disulfide	25.0	22.7	22.7	90.6	90.9	61.0-128			0.307	20
Carbon tetrachloride	25.0	20.8	21.4	83.3	85.4	68.0-126			2.57	20
Chlorobenzene	25.0	25.3	25.9	101	103	80.0-121			2.27	20
Chlorodibromomethane	25.0	24.3	25.1	97.2	100	77.0-125			3.24	20
Chloroethane	25.0	21.8	21.8	87.1	87.2	47.0-150			0.165	20
Chloroform	25.0	23.4	23.1	93.5	92.5	73.0-120			1.05	20
Chloromethane	25.0	21.3	21.9	85.3	87.7	41.0-142			2.83	20
2-Chlorotoluene	25.0	27.6	28.5	110	114	76.0-123			3.11	20
4-Chlorotoluene	25.0	27.7	28.8	111	115	75.0-122			3.93	20
1,2-Dibromo-3-Chloropropane	25.0	22.4	25.0	89.5	99.9	58.0-134			10.9	20
1,2-Dibromoethane	25.0	24.5	25.4	98.0	102	80.0-122			3.77	20
Dibromomethane	25.0	24.5	24.8	97.9	99.3	80.0-120			1.45	20
1,2-Dichlorobenzene	25.0	23.0	24.4	92.0	97.7	79.0-121			5.96	20
1,3-Dichlorobenzene	25.0	24.6	25.8	98.4	103	79.0-120			4.93	20
1,4-Dichlorobenzene	25.0	24.2	24.9	96.8	99.4	79.0-120			2.71	20
Dichlorodifluoromethane	25.0	21.2	21.6	84.9	86.4	51.0-149			1.81	20
1,1-Dichloroethane	25.0	23.5	23.6	93.9	94.3	70.0-126			0.362	20
1,2-Dichloroethane	25.0	21.7	21.7	86.7	86.7	70.0-128			0.0227	20
1,1-Dichloroethene	25.0	23.5	24.0	93.9	95.8	71.0-124			2.07	20
trans-1,2-Dichloroethene	25.0	24.4	24.8	97.7	99.2	73.0-120			1.49	20
1,2-Dichloropropane	25.0	26.4	26.3	106	105	77.0-125			0.254	20
1,1-Dichloropropene	25.0	23.5	23.6	94.0	94.4	74.0-126			0.377	20
1,3-Dichloropropane	25.0	24.4	25.7	97.8	103	80.0-120			5.18	20
cis-1,3-Dichloropropene	25.0	25.5	26.7	102	107	80.0-123			4.33	20
trans-1,3-Dichloropropene	25.0	24.6	25.8	98.5	103	78.0-124			4.49	20
trans-1,4-Dichloro-2-butene	25.0	26.7	29.1	107	117	33.0-144			8.72	20
2,2-Dichloropropane	25.0	22.4	22.3	89.6	89.3	58.0-130			0.326	20
Di-isopropyl ether	25.0	25.1	25.7	101	103	58.0-138			2.18	20
Ethylbenzene	25.0	25.4	26.7	101	107	79.0-123			5.21	20

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

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

(LCS) R3339403-1 09/05/18 11:21 • (LCSD) R3339403-2 09/05/18 11:41

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 %
Hexachloro-1,3-butadiene	25.0	24.3	26.2	97.3	105	54.0-138			7.28	20
2-Hexanone	125	142	154	114	123	67.0-149			7.66	20
n-Hexane	25.0	24.2	23.8	97.0	95.2	57.0-133			1.80	20
Isopropylbenzene	25.0	27.9	29.0	112	116	76.0-127			4.03	20
p-Isopropyltoluene	25.0	25.8	26.5	103	106	76.0-125			2.57	20
2-Butanone (MEK)	125	127	132	102	106	44.0-160			3.81	20
Methylene Chloride	25.0	21.9	22.7	87.5	90.8	67.0-120			3.72	20
4-Methyl-2-pentanone (MIBK)	125	133	142	107	114	68.0-142			6.69	20
Methyl tert-butyl ether	25.0	23.0	23.5	91.8	94.0	68.0-125			2.36	20
Naphthalene	25.0	21.2	23.7	85.0	95.0	54.0-135			11.1	20
n-Propylbenzene	25.0	27.7	29.0	111	116	77.0-124			4.74	20
Styrene	25.0	29.1	30.7	116	123	73.0-130			5.67	20
1,1,1,2-Tetrachloroethane	25.0	23.2	23.9	92.7	95.5	75.0-125			2.98	20
1,1,2,2-Tetrachloroethane	25.0	28.7	29.6	115	119	65.0-130			3.39	20
1,1,2-Trichlorotrifluoroethane	25.0	22.9	23.0	91.7	91.9	69.0-132			0.238	20
Tetrachloroethene	25.0	25.0	25.8	99.8	103	72.0-132			3.46	20
Toluene	25.0	24.2	24.9	96.6	99.7	79.0-120			3.11	20
1,2,3-Trichlorobenzene	25.0	22.4	24.7	89.5	98.7	50.0-138			9.77	20
1,2,4-Trichlorobenzene	25.0	22.9	24.7	91.6	98.6	57.0-137			7.43	20
1,1,1-Trichloroethane	25.0	22.3	22.5	89.2	90.2	73.0-124			1.07	20
1,1,2-Trichloroethane	25.0	25.1	25.5	100	102	80.0-120			1.44	20
Trichloroethene	25.0	24.9	25.2	99.7	101	78.0-124			1.25	20
Trichlorofluoromethane	25.0	19.6	21.1	78.4	84.5	59.0-147			7.55	20
1,2,3-Trichloropropane	25.0	25.9	28.5	103	114	73.0-130			9.57	20
1,2,4-Trimethylbenzene	25.0	27.9	29.2	111	117	76.0-121			4.67	20
1,2,3-Trimethylbenzene	25.0	24.4	25.4	97.5	102	77.0-120			4.04	20
1,3,5-Trimethylbenzene	25.0	28.1	29.2	113	117	76.0-122			3.64	20
Vinyl acetate	125	121	119	97.1	95.1	11.0-160			2.02	20
Vinyl chloride	25.0	22.5	22.3	89.8	89.0	67.0-131			0.887	20
Xylenes, Total	75.0	77.2	79.3	103	106	79.0-123			2.68	20
(S) Toluene-d8				*100*	*102*	*80.0-120*				
(S) Dibromofluoromethane				*89.6*	*89.1*	*75.0-120*				
(S) 4-Bromofluorobenzene				*108*	*110*	*77.0-126*				

Method Blank (MB)

(MB) R3339694-3 09/06/18 01:32

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
cis-1,2-Dichloroethene	U		0.0933	0.500
Iodomethane	U		0.377	10.0
(S) Toluene-d8	*102*			*80.0-120*
(S) Dibromofluoromethane	*102*			*75.0-120*
(S) 4-Bromofluorobenzene	*101*			*77.0-126*

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

(LCS) R3339694-1 09/06/18 00:35 • (LCSD) R3339694-2 09/06/18 00:54

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
cis-1,2-Dichloroethene	25.0	24.1	23.5	96.4	93.8	73.0-120			2.75	20
Iodomethane	125	125	119	100	95.0	33.0-147			5.17	26
(S) Toluene-d8				*101*	*97.4*	*80.0-120*				
(S) Dibromofluoromethane				*103*	*101*	*75.0-120*				
(S) 4-Bromofluorobenzene				*101*	*101*	*77.0-126*				

Method Blank (MB)

(MB) R3340631-3 09/10/18 10:50

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acetone	U		0.0137	0.0250
Acrylonitrile	U		0.00190	0.0125
Benzene	U		0.000400	0.00100
Bromobenzene	U		0.00105	0.0125
Bromodichloromethane	U		0.000788	0.00250
Bromochloromethane	U		0.00113	0.00500
Bromoform	U		0.00598	0.0250
Bromomethane	U		0.00370	0.0125
n-Butylbenzene	U		0.00384	0.0125
sec-Butylbenzene	U		0.00253	0.0125
tert-Butylbenzene	U		0.00155	0.00500
Carbon disulfide	U		0.00406	0.0125
Carbon tetrachloride	U		0.00108	0.00500
Chlorobenzene	U		0.000573	0.00250
Chlorodibromomethane	U		0.000450	0.00250
Chloroethane	U		0.00108	0.00500
Chloroform	U		0.000415	0.00250
Chloromethane	U		0.00139	0.0125
2-Chlorotoluene	U		0.000920	0.00250
4-Chlorotoluene	U		0.00113	0.00500
1,2-Dibromo-3-Chloropropane	U		0.00510	0.0250
1,2-Dibromoethane	U		0.000525	0.00250
Dibromomethane	U		0.00100	0.00500
1,2-Dichlorobenzene	U		0.00145	0.00500
1,3-Dichlorobenzene	U		0.00170	0.00500
1,4-Dichlorobenzene	U		0.00197	0.00500
trans-1,4-Dichloro-2-butene	U		0.00140	0.00500
Dichlorodifluoromethane	U		0.000818	0.00250
1,1-Dichloroethane	U		0.000575	0.00250
1,2-Dichloroethane	U		0.000475	0.00250
1,1-Dichloroethene	U		0.000500	0.00250
cis-1,2-Dichloroethene	U		0.000690	0.00250
trans-1,2-Dichloroethene	U		0.00143	0.00500
1,1-Dichloropropene	U		0.000700	0.00250
1,3-Dichloropropane	U		0.00175	0.00500
cis-1,3-Dichloropropene	U		0.000678	0.00250
trans-1,3-Dichloropropene	U		0.00153	0.00500
2,2-Dichloropropane	U		0.000793	0.00250
Di-isopropyl ether	U		0.000350	0.00100
Ethylbenzene	U		0.000530	0.00250

Method Blank (MB)

(MB) R3340631-3 09/10/18 10:50

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Hexachloro-1,3-butadiene	U		0.0127	0.0250
n-Hexane	U		0.00106	0.00500
2-Hexanone	U		0.0100	0.0250
Iodomethane	U		0.00605	0.0125
Isopropylbenzene	U		0.000863	0.00250
p-Isopropyltoluene	U		0.00233	0.00500
2-Butanone (MEK)	U		0.0125	0.0250
Methylene Chloride	U		0.00664	0.0250
4-Methyl-2-pentanone (MIBK)	U		0.0100	0.0250
Methyl tert-butyl ether	U		0.000295	0.00100
Naphthalene	U		0.00312	0.0125
n-Propylbenzene	U		0.00118	0.00500
Styrene	U		0.00273	0.0125
1,1,1,2-Tetrachloroethane	U		0.000500	0.00250
1,1,2,2-Tetrachloroethane	U		0.000390	0.00250
Toluene	U		0.00125	0.00500
1,1,2-Trichlorotrifluoroethane	U		0.000675	0.00250
1,2,3-Trichlorobenzene	U		0.000625	0.00250
1,2,4-Trichlorobenzene	U		0.00482	0.0125
1,1,1-Trichloroethane	U		0.000275	0.00250
1,1,2-Trichloroethane	U		0.000883	0.00250
Trichlorofluoromethane	U		0.000500	0.00250
1,2,3-Trichloropropane	U		0.00510	0.0125
1,2,3-Trimethylbenzene	U		0.00115	0.00500
1,2,4-Trimethylbenzene	U		0.00116	0.00500
1,3,5-Trimethylbenzene	U		0.00108	0.00500
Vinyl acetate	U		0.00352	0.0125
Vinyl chloride	U		0.000683	0.00250
(S) Toluene-d8	*107*			*75.0-131*
(S) Dibromofluoromethane	*99.4*			*65.0-129*
(S) 4-Bromofluorobenzene	*87.8*			*67.0-138*

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

(LCS) R3340631-1 09/10/18 09:01 • (LCSD) R3340631-2 09/10/18 09:20

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	0.625	0.778	0.717	125	115	10.0-160			8.28	31
Acrylonitrile	0.625	0.655	0.626	105	100	45.0-153			4.49	22

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

(LCS) R3340631-1 09/10/18 09:01 • (LCSD) R3340631-2 09/10/18 09:20

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.125	0.107	0.107	85.9	85.9	70.0-123			0.0391	20
Bromobenzene	0.125	0.125	0.117	99.8	93.5	73.0-121			6.47	20
Bromodichloromethane	0.125	0.150	0.158	120	126	73.0-121		J4	5.03	20
Bromochloromethane	0.125	0.114	0.111	90.9	88.9	77.0-128			2.22	20
Bromoform	0.125	0.146	0.136	117	109	64.0-132			6.91	20
Bromomethane	0.125	0.124	0.121	99.3	97.0	56.0-147			2.27	20
n-Butylbenzene	0.125	0.124	0.127	98.9	102	68.0-135			2.94	20
sec-Butylbenzene	0.125	0.109	0.115	87.6	92.3	74.0-130			5.29	20
tert-Butylbenzene	0.125	0.114	0.116	91.2	92.9	75.0-127			1.85	20
Carbon disulfide	0.125	0.108	0.108	86.2	86.7	56.0-133			0.544	20
Carbon tetrachloride	0.125	0.167	0.158	133	127	66.0-128	J4		5.19	20
Chlorobenzene	0.125	0.133	0.145	106	116	76.0-128			8.45	20
Chlorodibromomethane	0.125	0.147	0.152	117	122	74.0-127			3.68	20
Chloroethane	0.125	0.138	0.133	110	106	61.0-134			3.51	20
Chloroform	0.125	0.128	0.126	103	100	72.0-123			2.22	20
Chloromethane	0.125	0.137	0.138	109	110	51.0-138			0.984	20
2-Chlorotoluene	0.125	0.112	0.106	89.6	85.0	75.0-124			5.19	20
4-Chlorotoluene	0.125	0.123	0.114	98.8	91.5	75.0-124			7.60	20
1,2-Dibromo-3-Chloropropane	0.125	0.148	0.143	118	115	59.0-130			3.02	20
1,2-Dibromoethane	0.125	0.120	0.125	95.6	99.6	74.0-128			4.09	20
Dibromomethane	0.125	0.144	0.138	115	111	75.0-122			3.99	20
1,2-Dichlorobenzene	0.125	0.128	0.129	102	103	76.0-124			0.638	20
1,3-Dichlorobenzene	0.125	0.121	0.119	96.4	95.6	76.0-125			0.894	20
1,4-Dichlorobenzene	0.125	0.115	0.115	92.3	92.4	77.0-121			0.0338	20
trans-1,4-Dichloro-2-butene	0.125	0.140	0.136	112	109	45.0-143			2.77	20
Dichlorodifluoromethane	0.125	0.143	0.139	114	111	43.0-156			2.79	20
1,1-Dichloroethane	0.125	0.125	0.129	99.9	103	70.0-127			3.14	20
1,2-Dichloroethane	0.125	0.138	0.132	110	105	65.0-131			4.53	20
1,1-Dichloroethene	0.125	0.127	0.130	102	104	65.0-131			2.37	20
cis-1,2-Dichloroethene	0.125	0.112	0.107	89.4	85.3	73.0-125			4.65	20
trans-1,2-Dichloroethene	0.125	0.106	0.103	84.7	82.7	71.0-125			2.45	20
1,1-Dichloropropene	0.125	0.120	0.120	95.6	96.1	73.0-125			0.503	20
1,3-Dichloropropane	0.125	0.128	0.135	103	108	80.0-125			5.40	20
cis-1,3-Dichloropropene	0.125	0.123	0.132	98.0	106	76.0-127			7.35	20
trans-1,3-Dichloropropene	0.125	0.125	0.147	99.6	118	73.0-127			16.7	20
2,2-Dichloropropane	0.125	0.138	0.152	111	122	59.0-135			9.34	20
Di-isopropyl ether	0.125	0.127	0.125	101	99.7	60.0-136			1.70	20
Ethylbenzene	0.125	0.129	0.141	103	113	74.0-126			9.01	20
Hexachloro-1,3-butadiene	0.125	0.155	0.183	124	146	57.0-150			16.3	20
2-Hexanone	0.625	0.736	0.784	118	125	54.0-147			6.33	20

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

(LCS) R3340631-1 09/10/18 09:01 • (LCSD) R3340631-2 09/10/18 09:20

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
n-Hexane	0.125	0.121	0.111	97.1	88.6	55.0-137			9.13	20
Iodomethane	0.625	0.678	0.673	109	108	74.0-134			0.822	20
Isopropylbenzene	0.125	0.118	0.117	94.2	93.7	72.0-127			0.548	20
p-Isopropyltoluene	0.125	0.115	0.119	92.3	94.9	72.0-133			2.75	20
2-Butanone (MEK)	0.625	0.730	0.606	117	96.9	30.0-160			18.6	24
Methylene Chloride	0.125	0.112	0.103	89.8	82.4	68.0-123			8.60	20
4-Methyl-2-pentanone (MIBK)	0.625	0.800	0.843	128	135	56.0-143			5.22	20
Methyl tert-butyl ether	0.125	0.122	0.116	97.8	93.1	66.0-132			4.98	20
Naphthalene	0.125	0.118	0.126	94.1	101	59.0-130			7.12	20
n-Propylbenzene	0.125	0.108	0.110	86.6	88.3	74.0-126			1.93	20
Styrene	0.125	0.111	0.115	88.4	92.0	72.0-127			3.95	20
1,1,1,2-Tetrachloroethane	0.125	0.144	0.156	115	125	74.0-129			7.83	20
1,1,2,2-Tetrachloroethane	0.125	0.104	0.102	82.9	81.8	68.0-128			1.34	20
Toluene	0.125	0.123	0.130	98.8	104	75.0-121			5.02	20
1,1,2-Trichlorotrifluoroethane	0.125	0.103	0.101	82.3	81.0	61.0-139			1.68	20
1,2,3-Trichlorobenzene	0.125	0.130	0.145	104	116	59.0-139			11.1	20
1,2,4-Trichlorobenzene	0.125	0.130	0.136	104	109	62.0-137			4.09	20
1,1,1-Trichloroethane	0.125	0.140	0.138	112	110	69.0-126			1.67	20
1,1,2-Trichloroethane	0.125	0.114	0.126	91.3	101	78.0-123			10.1	20
Trichlorofluoromethane	0.125	0.139	0.133	111	107	61.0-142			3.98	20
1,2,3-Trichloropropane	0.125	0.128	0.137	103	110	67.0-129			6.76	20
1,2,3-Trimethylbenzene	0.125	0.119	0.114	95.4	90.8	74.0-124			4.85	20
1,2,4-Trimethylbenzene	0.125	0.126	0.122	101	98.0	70.0-126			2.84	20
1,3,5-Trimethylbenzene	0.125	0.118	0.118	94.2	94.0	73.0-127			0.172	20
Vinyl acetate	0.625	0.663	0.520	106	83.2	43.0-159		J3	24.1	20
Vinyl chloride	0.125	0.136	0.138	109	110	63.0-134			1.37	20
(S) Toluene-d8				*103*	*109*	*75.0-131*				
(S) Dibromofluoromethane				*97.6*	*94.0*	*65.0-129*				
(S) 4-Bromofluorobenzene				*92.4*	*90.0*	*67.0-138*				

Method Blank (MB)

(MB) R3340720-2 09/10/18 14:36

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
1,2-Dichloropropane	U		0.00127	0.00500
Tetrachloroethene	U		0.000700	0.00250
Trichloroethene	U		0.000400	0.00100
Xylenes, Total	U		0.00478	0.00650
(S) Toluene-d8	*107*			*75.0-131*
(S) Dibromofluoromethane	*91.2*			*65.0-129*
(S) 4-Bromofluorobenzene	*90.1*			*67.0-138*

Laboratory Control Sample (LCS)

(LCS) R3340720-1 09/10/18 13:36

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
1,2-Dichloropropane	0.125	0.120	96.4	74.0-125	
Tetrachloroethene	0.125	0.131	105	70.0-136	
Trichloroethene	0.125	0.114	91.1	76.0-126	
Xylenes, Total	0.375	0.338	90.1	72.0-127	
(S) Toluene-d8			*99.2*	*75.0-131*	
(S) Dibromofluoromethane			*110*	*65.0-129*	
(S) 4-Bromofluorobenzene			*103*	*67.0-138*	

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Abbreviations and Definitions

(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
MDL	Method Detection Limit.
MDL (dry)	Method Detection Limit.
RDL	Reported Detection Limit.
RDL (dry)	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(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.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
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.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

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.

Pace National 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.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T 104704245-17-14
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

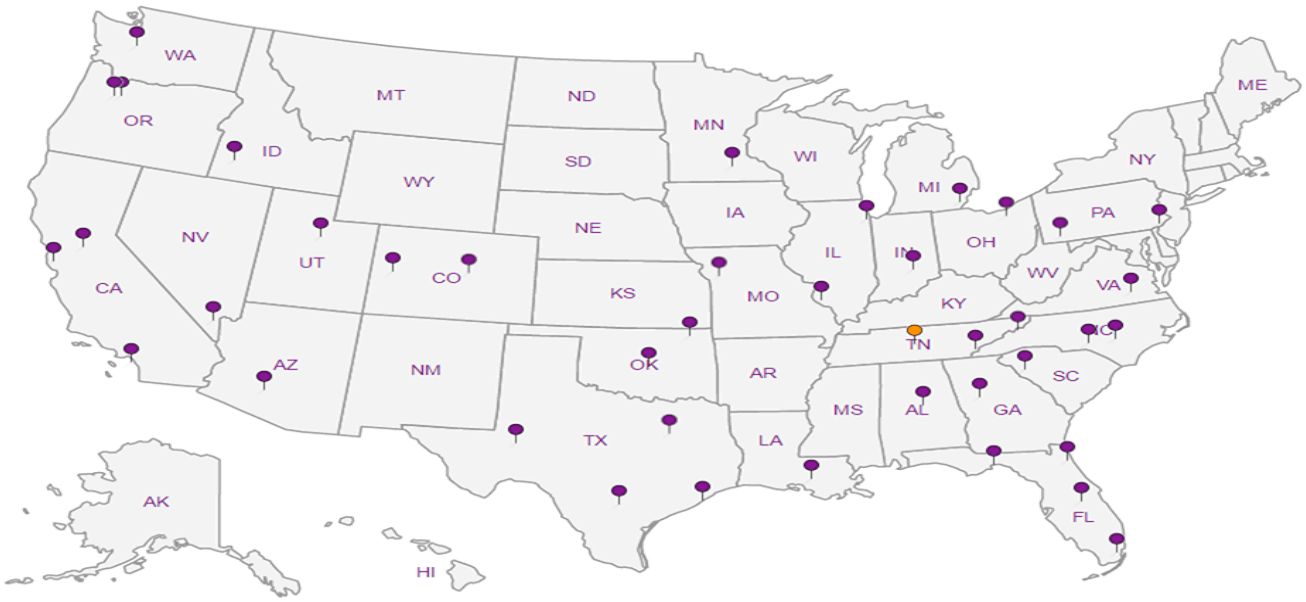
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

Our Locations

Pace National 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. Pace National performs all testing at our central laboratory.



PES Environmental, Inc.- WA

1215 Fourth Ave., Suite 1350
Seattle, WA 98161

Billing Information:
Attn: Accounts Payable
1215 Fourth Ave., Ste. 1350
Seattle, WA 98161

Pres Chk

Analysis / Container / Preservative

Chain of Custody Page 1 of 1

Pace Analytical
National Center for Testing & Innovation

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

Report to: Brian O'Neal/Bill Haldeman

Email To: boneal@pesenv.com; bhaldeman@pesenv.com

Project Description: American Linen

City/State Collected: SEATTLE, WA

Phone: 206-529-3980
Fax: 206-529-3985

Client Project # 1413.001.05.304

Lab Project # PESENVSWA-ALP

L# L1022679

B175

Collected by (print): Ben Hecht

Site/Facility ID # 1413001 05.304

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Acctnum: PESENVSWA
Template: T139825
Prelogin: P668288
TSR: 110 - Brian Ford
PB:

Shipped Via: FedEX Ground

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOCs V8260C 40mlAmb/MeOH5ml/Syr	dry weight 2ozClr-NoPres	trip blk V8260LLC 40mlAmb-HCl-Blk	Remarks	Sample # (lab only)
~~IW-53A-25~~	~~G~~	~~SS~~	~~25~~	~~8/29/18~~	~~1405~~	~~2~~	X	X		~~HOLD~~	
~~IW-53A-41~~	~~G~~	~~SS~~	~~41~~	~~8/29/18~~	~~1510~~	~~2~~	X	X		~~HOLD~~	
~~IW-22C-25~~	~~G~~	~~SS~~	~~25~~	~~8/30/18~~	~~1405~~	~~2~~	X	X		~~HOLD~~	
IW-22C-56	G	SS	56	8/30/18	1720	2	X	X		HOLD	
IW-22C-62	G	SS	62	8/31/18	0935	2	X	X			-01
IW-22C-70	G	SS	70	8/31/18	1035	2	X	X		HOLD	
IW-22C-78	G	SS	78	8/31/18	1300	2	X	X			-02
TRIP BLANK	—	~~SS~~ W	—	—	—	1	X	X	X		-03
		SS									
		SS									

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

RAD SCREEN: <0.5 mR/hr

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking # 4510 1654 1921

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	If preservation required by Login: Date/Time
1 2	8/31/18	15:40		1	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 1.2 °C 11 Bottles Received: 8	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 9/1/18 Time: 0845	09-0007 Condition: NCF / OK

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

September 17, 2018

PES Environmental, Inc.- WA

Sample Delivery Group:	L1024338
Samples Received:	09/08/2018
Project Number:	1413.001.05.304
Description:	American Linen
Report To:	Brian O'Neal/Bill Haldeman
	1215 Fourth Ave., Suite 1350
	Seattle, WA 98161

Entire Report Reviewed By:

Brian Ford

Project Manager

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 Pace National is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

TABLE OF CONTENTS

Cp: Cover Page 1

Tc: Table of Contents 2

Ss: Sample Summary 3

Cn: Case Narrative 5

Sr: Sample Results 6

- IW-23C-42 L1024338-01 6
- IW-54B-8 L1024338-02 8
- IW-54B-13 L1024338-03 10
- IW-54B-21 L1024338-04 12
- IW-54B-33 L1024338-05 14
- IW-24C-48 L1024338-06 16
- IW-24C-55 L1024338-07 18
- TRIP BLANK L1024338-08 20

Qc: Quality Control Summary 22

- Total Solids by Method 2540 G-2011 22
- Volatile Organic Compounds (GC/MS) by Method 8260C 24

Gl: Glossary of Terms 41

Al: Accreditations & Locations 42

Sc: Sample Chain of Custody 43

IW-23C-42 L1024338-01 Solid

Collected by	Collected date/time	Received date/time
S. McKernan	09/04/18 16:30	09/08/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1165172	1	09/13/18 12:09	09/13/18 12:19	KDW
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1164600	1	09/04/18 16:30	09/12/18 04:30	BMB
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1165154	400	09/04/18 16:30	09/13/18 03:50	JAH

IW-54B-8 L1024338-02 Solid

Collected by	Collected date/time	Received date/time
S. McKernan	09/05/18 17:00	09/08/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1165172	1	09/13/18 12:09	09/13/18 12:19	KDW
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1164600	1	09/05/18 17:00	09/12/18 04:49	BMB
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1165154	2000	09/05/18 17:00	09/13/18 04:10	JAH
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1165578	20000	09/05/18 17:00	09/13/18 16:17	BMB

IW-54B-13 L1024338-03 Solid

Collected by	Collected date/time	Received date/time
S. McKernan	09/06/18 08:55	09/08/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1165172	1	09/13/18 12:09	09/13/18 12:19	KDW
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1164600	1	09/06/18 08:55	09/12/18 05:08	BMB
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1165578	10	09/06/18 08:55	09/13/18 15:59	BMB

IW-54B-21 L1024338-04 Solid

Collected by	Collected date/time	Received date/time
S. McKernan	09/06/18 09:00	09/08/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1165176	1	09/13/18 11:41	09/13/18 11:53	KDW
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1164600	1	09/06/18 09:00	09/12/18 05:27	BMB
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1165154	20	09/06/18 09:00	09/13/18 04:50	JAH

IW-54B-33 L1024338-05 Solid

Collected by	Collected date/time	Received date/time
S. McKernan	09/06/18 10:15	09/08/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1165176	1	09/13/18 11:41	09/13/18 11:53	KDW
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1164600	1.06	09/06/18 10:15	09/12/18 05:46	BMB
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1165154	1.05	09/06/18 10:15	09/13/18 03:30	JAH

IW-24C-48 L1024338-06 Solid

Collected by	Collected date/time	Received date/time
S. McKernan	09/07/18 13:40	09/08/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1165176	1	09/13/18 11:41	09/13/18 11:53	KDW
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1164600	1	09/07/18 13:40	09/12/18 06:05	BMB
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1165154	10	09/07/18 13:40	09/13/18 05:09	JAH

IW-24C-55 L1024338-07 Solid

			Collected by	Collected date/time	Received date/time
			S. McKernan	09/07/18 14:20	09/08/18 08:45

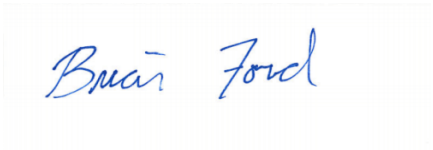
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1165176	1	09/13/18 11:41	09/13/18 11:53	KDW
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1166945	1.04	09/07/18 14:20	09/17/18 13:33	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1167356	104	09/07/18 14:20	09/17/18 15:38	DWR

TRIP BLANK L1024338-08 GW

			Collected by	Collected date/time	Received date/time
			S. McKernan	09/06/18 00:00	09/08/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1164809	1	09/13/18 01:50	09/13/18 01:50	ACG

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, 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.



Brian Ford
Project Manager

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	83.5		1	09/13/2018 12:19	WG1165172

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	0.0193	J	0.0164	0.0299	1	09/12/2018 04:30	WG1164600
Acrylonitrile	U		0.00227	0.0150	1	09/12/2018 04:30	WG1164600
Benzene	U		0.000479	0.00120	1	09/12/2018 04:30	WG1164600
Bromobenzene	U		0.00126	0.0150	1	09/12/2018 04:30	WG1164600
Bromodichloromethane	U		0.000943	0.00299	1	09/12/2018 04:30	WG1164600
Bromochloromethane	U		0.00135	0.00598	1	09/12/2018 04:30	WG1164600
Bromoform	U		0.00716	0.0299	1	09/12/2018 04:30	WG1164600
Bromomethane	U		0.00443	0.0150	1	09/12/2018 04:30	WG1164600
n-Butylbenzene	0.00802	J	0.00460	0.0150	1	09/12/2018 04:30	WG1164600
sec-Butylbenzene	0.00399	J	0.00303	0.0150	1	09/12/2018 04:30	WG1164600
tert-Butylbenzene	0.00248	J	0.00186	0.00598	1	09/12/2018 04:30	WG1164600
Carbon disulfide	U		0.00486	0.0150	1	09/12/2018 04:30	WG1164600
Carbon tetrachloride	U		0.00129	0.00598	1	09/12/2018 04:30	WG1164600
Chlorobenzene	U		0.000686	0.00299	1	09/12/2018 04:30	WG1164600
Chlorodibromomethane	U		0.000539	0.00299	1	09/12/2018 04:30	WG1164600
Chloroethane	U		0.00129	0.00598	1	09/12/2018 04:30	WG1164600
Chloroform	U		0.000497	0.00299	1	09/12/2018 04:30	WG1164600
Chloromethane	U		0.00166	0.0150	1	09/12/2018 04:30	WG1164600
2-Chlorotoluene	U		0.00110	0.00299	1	09/12/2018 04:30	WG1164600
4-Chlorotoluene	U		0.00135	0.00598	1	09/12/2018 04:30	WG1164600
1,2-Dibromo-3-Chloropropane	U		0.00610	0.0299	1	09/12/2018 04:30	WG1164600
1,2-Dibromoethane	U		0.000628	0.00299	1	09/12/2018 04:30	WG1164600
Dibromomethane	U		0.00120	0.00598	1	09/12/2018 04:30	WG1164600
1,2-Dichlorobenzene	U		0.00174	0.00598	1	09/12/2018 04:30	WG1164600
1,3-Dichlorobenzene	U		0.00203	0.00598	1	09/12/2018 04:30	WG1164600
1,4-Dichlorobenzene	U		0.00236	0.00598	1	09/12/2018 04:30	WG1164600
Dichlorodifluoromethane	U		0.000979	0.00299	1	09/12/2018 04:30	WG1164600
1,1-Dichloroethane	U		0.000688	0.00299	1	09/12/2018 04:30	WG1164600
1,2-Dichloroethane	U		0.000569	0.00299	1	09/12/2018 04:30	WG1164600
1,1-Dichloroethene	0.0116		0.000598	0.00299	1	09/12/2018 04:30	WG1164600
cis-1,2-Dichloroethene	8.86		0.330	1.20	400	09/13/2018 03:50	WG1165154
trans-1,2-Dichloroethene	0.0116	J0	0.00171	0.00598	1	09/12/2018 04:30	WG1164600
1,2-Dichloropropane	U		0.608	2.39	400	09/13/2018 03:50	WG1165154
1,1-Dichloropropene	U		0.000838	0.00299	1	09/12/2018 04:30	WG1164600
1,3-Dichloropropane	U		0.00209	0.00598	1	09/12/2018 04:30	WG1164600
cis-1,3-Dichloropropene	U		0.000812	0.00299	1	09/12/2018 04:30	WG1164600
trans-1,3-Dichloropropene	U		0.00183	0.00598	1	09/12/2018 04:30	WG1164600
trans-1,4-Dichloro-2-butene	U		0.00168	0.00598	1	09/12/2018 04:30	WG1164600
2,2-Dichloropropane	U		0.000949	0.00299	1	09/12/2018 04:30	WG1164600
Di-isopropyl ether	U		0.000419	0.00120	1	09/12/2018 04:30	WG1164600
Ethylbenzene	0.00266	J	0.000634	0.00299	1	09/12/2018 04:30	WG1164600
Hexachloro-1,3-butadiene	U		0.0152	0.0299	1	09/12/2018 04:30	WG1164600
2-Hexanone	U		0.0120	0.0299	1	09/12/2018 04:30	WG1164600
n-Hexane	U	J0	0.00127	0.00598	1	09/12/2018 04:30	WG1164600
Iodomethane	U		0.00724	0.0150	1	09/12/2018 04:30	WG1164600
Isopropylbenzene	0.00186	J	0.00103	0.00299	1	09/12/2018 04:30	WG1164600
p-Isopropyltoluene	0.00450	J	0.00279	0.00598	1	09/12/2018 04:30	WG1164600
2-Butanone (MEK)	U		0.0150	0.0299	1	09/12/2018 04:30	WG1164600
Methylene Chloride	U		0.00795	0.0299	1	09/12/2018 04:30	WG1164600
4-Methyl-2-pentanone (MIBK)	U		0.0120	0.0299	1	09/12/2018 04:30	WG1164600

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000353	0.00120	1	09/12/2018 04:30	WG1164600
Naphthalene	0.0229		0.00373	0.0150	1	09/12/2018 04:30	WG1164600
n-Propylbenzene	0.00809		0.00141	0.00598	1	09/12/2018 04:30	WG1164600
Styrene	U		0.00327	0.0150	1	09/12/2018 04:30	WG1164600
1,1,1,2-Tetrachloroethane	U		0.000598	0.00299	1	09/12/2018 04:30	WG1164600
1,1,2,2-Tetrachloroethane	U		0.000467	0.00299	1	09/12/2018 04:30	WG1164600
1,1,2-Trichlorotrifluoroethane	U		0.323	1.20	400	09/13/2018 03:50	WG1165154
Tetrachloroethene	308		0.335	1.20	400	09/13/2018 03:50	WG1165154
Toluene	0.00716		0.00150	0.00598	1	09/12/2018 04:30	WG1164600
1,2,3-Trichlorobenzene	U		0.000748	0.00299	1	09/12/2018 04:30	WG1164600
1,2,4-Trichlorobenzene	U		0.00577	0.0150	1	09/12/2018 04:30	WG1164600
1,1,1-Trichloroethane	U		0.000329	0.00299	1	09/12/2018 04:30	WG1164600
1,1,2-Trichloroethane	U		0.00106	0.00299	1	09/12/2018 04:30	WG1164600
Trichloroethene	0.929		0.192	0.479	400	09/13/2018 03:50	WG1165154
Trichlorofluoromethane	U		0.000598	0.00299	1	09/12/2018 04:30	WG1164600
1,2,3-Trichloropropane	U		0.00610	0.0150	1	09/12/2018 04:30	WG1164600
1,2,4-Trimethylbenzene	0.0811		0.00139	0.00598	1	09/12/2018 04:30	WG1164600
1,2,3-Trimethylbenzene	0.0380		0.00138	0.00598	1	09/12/2018 04:30	WG1164600
1,3,5-Trimethylbenzene	0.0240		0.00129	0.00598	1	09/12/2018 04:30	WG1164600
Vinyl acetate	U	J0	0.00421	0.0150	1	09/12/2018 04:30	WG1164600
Vinyl chloride	0.532		0.000818	0.00299	1	09/12/2018 04:30	WG1164600
Xylenes, Total	U		2.29	3.11	400	09/13/2018 03:50	WG1165154
(S) Toluene-d8	*105*			*75.0-131*		*09/12/2018 04:30*	WG1164600
(S) Toluene-d8	*98.6*			*75.0-131*		*09/13/2018 03:50*	WG1165154
(S) Dibromofluoromethane	*90.9*			*65.0-129*		*09/12/2018 04:30*	WG1164600
(S) Dibromofluoromethane	*106*			*65.0-129*		*09/13/2018 03:50*	WG1165154
(S) 4-Bromofluorobenzene	*106*			*67.0-138*		*09/12/2018 04:30*	WG1164600
(S) 4-Bromofluorobenzene	*96.7*			*67.0-138*		*09/13/2018 03:50*	WG1165154

Sample Narrative:

L1024338-01 WG1164600, WG1165154: Not all analytes reportable at lower dilution.

L1024338-01 WG1164600, WG1165154: Cannot be re-analyzed at a lower dilution due to high levels of target analytes.

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	91.7		1	09/13/2018 12:19	WG1165172

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0149	0.0273	1	09/12/2018 04:49	WG1164600
Acrylonitrile	U		0.00207	0.0136	1	09/12/2018 04:49	WG1164600
Benzene	U		0.000436	0.00109	1	09/12/2018 04:49	WG1164600
Bromobenzene	U		0.00115	0.0136	1	09/12/2018 04:49	WG1164600
Bromodichloromethane	U		0.000860	0.00273	1	09/12/2018 04:49	WG1164600
Bromochloromethane	U		0.00123	0.00545	1	09/12/2018 04:49	WG1164600
Bromoform	U		0.00652	0.0273	1	09/12/2018 04:49	WG1164600
Bromomethane	U		0.00404	0.0136	1	09/12/2018 04:49	WG1164600
n-Butylbenzene	U		0.00419	0.0136	1	09/12/2018 04:49	WG1164600
sec-Butylbenzene	U		0.00276	0.0136	1	09/12/2018 04:49	WG1164600
tert-Butylbenzene	U		0.00169	0.00545	1	09/12/2018 04:49	WG1164600
Carbon disulfide	U		0.00443	0.0136	1	09/12/2018 04:49	WG1164600
Carbon tetrachloride	U		0.00118	0.00545	1	09/12/2018 04:49	WG1164600
Chlorobenzene	U		0.000625	0.00273	1	09/12/2018 04:49	WG1164600
Chlorodibromomethane	U		0.000491	0.00273	1	09/12/2018 04:49	WG1164600
Chloroethane	U		0.00118	0.00545	1	09/12/2018 04:49	WG1164600
Chloroform	U		0.000453	0.00273	1	09/12/2018 04:49	WG1164600
Chloromethane	U		0.00152	0.0136	1	09/12/2018 04:49	WG1164600
2-Chlorotoluene	U		0.00100	0.00273	1	09/12/2018 04:49	WG1164600
4-Chlorotoluene	U		0.00123	0.00545	1	09/12/2018 04:49	WG1164600
1,2-Dibromo-3-Chloropropane	U		0.00556	0.0273	1	09/12/2018 04:49	WG1164600
1,2-Dibromoethane	U		0.000573	0.00273	1	09/12/2018 04:49	WG1164600
Dibromomethane	U		0.00109	0.00545	1	09/12/2018 04:49	WG1164600
1,2-Dichlorobenzene	U		0.00158	0.00545	1	09/12/2018 04:49	WG1164600
1,3-Dichlorobenzene	U		0.00185	0.00545	1	09/12/2018 04:49	WG1164600
1,4-Dichlorobenzene	U		0.00215	0.00545	1	09/12/2018 04:49	WG1164600
Dichlorodifluoromethane	U		0.000892	0.00273	1	09/12/2018 04:49	WG1164600
1,1-Dichloroethane	U		0.000627	0.00273	1	09/12/2018 04:49	WG1164600
1,2-Dichloroethane	U		0.000518	0.00273	1	09/12/2018 04:49	WG1164600
1,1-Dichloroethene	U		0.000545	0.00273	1	09/12/2018 04:49	WG1164600
cis-1,2-Dichloroethene	U		1.51	5.45	2000	09/13/2018 04:10	WG1165154
trans-1,2-Dichloroethene	U	J0	0.00156	0.00545	1	09/12/2018 04:49	WG1164600
1,2-Dichloropropane	U		2.77	10.9	2000	09/13/2018 04:10	WG1165154
1,1-Dichloropropene	U		0.000764	0.00273	1	09/12/2018 04:49	WG1164600
1,3-Dichloropropane	U		0.00191	0.00545	1	09/12/2018 04:49	WG1164600
cis-1,3-Dichloropropene	U		0.000740	0.00273	1	09/12/2018 04:49	WG1164600
trans-1,3-Dichloropropene	U		0.00167	0.00545	1	09/12/2018 04:49	WG1164600
trans-1,4-Dichloro-2-butene	U		0.00153	0.00545	1	09/12/2018 04:49	WG1164600
2,2-Dichloropropane	U		0.000865	0.00273	1	09/12/2018 04:49	WG1164600
Di-isopropyl ether	U		0.000382	0.00109	1	09/12/2018 04:49	WG1164600
Ethylbenzene	0.00226	J	0.000578	0.00273	1	09/12/2018 04:49	WG1164600
Hexachloro-1,3-butadiene	U		0.0139	0.0273	1	09/12/2018 04:49	WG1164600
2-Hexanone	U		0.0109	0.0273	1	09/12/2018 04:49	WG1164600
n-Hexane	U	J0	0.00116	0.00545	1	09/12/2018 04:49	WG1164600
Iodomethane	U		0.00660	0.0136	1	09/12/2018 04:49	WG1164600
Isopropylbenzene	0.000956	J	0.000941	0.00273	1	09/12/2018 04:49	WG1164600
p-Isopropyltoluene	U		0.00254	0.00545	1	09/12/2018 04:49	WG1164600
2-Butanone (MEK)	0.0224	J	0.0136	0.0273	1	09/12/2018 04:49	WG1164600
Methylene Chloride	U		0.00724	0.0273	1	09/12/2018 04:49	WG1164600
4-Methyl-2-pentanone (MIBK)	U		0.0109	0.0273	1	09/12/2018 04:49	WG1164600

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000322	0.00109	1	09/12/2018 04:49	WG1164600
Naphthalene	U		0.00340	0.0136	1	09/12/2018 04:49	WG1164600
n-Propylbenzene	0.00358	J	0.00129	0.00545	1	09/12/2018 04:49	WG1164600
Styrene	U		0.00298	0.0136	1	09/12/2018 04:49	WG1164600
1,1,1,2-Tetrachloroethane	U		0.000545	0.00273	1	09/12/2018 04:49	WG1164600
1,1,2,2-Tetrachloroethane	U		0.000425	0.00273	1	09/12/2018 04:49	WG1164600
1,1,2-Trichlorotrifluoroethane	U		1.47	5.45	2000	09/13/2018 04:10	WG1165154
Tetrachloroethene	937		15.3	54.5	20000	09/13/2018 16:17	WG1165578
Toluene	0.00476	J	0.00136	0.00545	1	09/12/2018 04:49	WG1164600
1,2,3-Trichlorobenzene	U		0.000682	0.00273	1	09/12/2018 04:49	WG1164600
1,2,4-Trichlorobenzene	U		0.00526	0.0136	1	09/12/2018 04:49	WG1164600
1,1,1-Trichloroethane	U		0.000300	0.00273	1	09/12/2018 04:49	WG1164600
1,1,2-Trichloroethane	U		0.000963	0.00273	1	09/12/2018 04:49	WG1164600
Trichloroethene	0.922	J	0.873	2.18	2000	09/13/2018 04:10	WG1165154
Trichlorofluoromethane	U		0.000545	0.00273	1	09/12/2018 04:49	WG1164600
1,2,3-Trichloropropane	U		0.00556	0.0136	1	09/12/2018 04:49	WG1164600
1,2,4-Trimethylbenzene	0.00891		0.00127	0.00545	1	09/12/2018 04:49	WG1164600
1,2,3-Trimethylbenzene	U		0.00125	0.00545	1	09/12/2018 04:49	WG1164600
1,3,5-Trimethylbenzene	0.00290	J	0.00118	0.00545	1	09/12/2018 04:49	WG1164600
Vinyl acetate	U	J0	0.00384	0.0136	1	09/12/2018 04:49	WG1164600
Vinyl chloride	0.00293		0.000745	0.00273	1	09/12/2018 04:49	WG1164600
Xylenes, Total	U		10.4	14.2	2000	09/13/2018 04:10	WG1165154
(S) Toluene-d8	*124*			*75.0-131*		*09/12/2018 04:49*	WG1164600
(S) Toluene-d8	*99.3*			*75.0-131*		*09/13/2018 04:10*	WG1165154
(S) Toluene-d8	*99.7*			*75.0-131*		*09/13/2018 16:17*	WG1165578
(S) Dibromofluoromethane	*90.0*			*65.0-129*		*09/12/2018 04:49*	WG1164600
(S) Dibromofluoromethane	*107*			*65.0-129*		*09/13/2018 04:10*	WG1165154
(S) Dibromofluoromethane	*105*			*65.0-129*		*09/13/2018 16:17*	WG1165578
(S) 4-Bromofluorobenzene	*98.1*			*67.0-138*		*09/12/2018 04:49*	WG1164600
(S) 4-Bromofluorobenzene	*103*			*67.0-138*		*09/13/2018 04:10*	WG1165154
(S) 4-Bromofluorobenzene	*106*			*67.0-138*		*09/13/2018 16:17*	WG1165578

Sample Narrative:

L1024338-02 WG1164600, WG1165154: Not all analytes reportable at lower dilution.

L1024338-02 WG1164600, WG1165154: Cannot be re-analyzed at a lower dilution due to high levels of target analytes.

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	90.2		1	09/13/2018 12:19	WG1165172

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	0.0186	J	0.0152	0.0277	1	09/12/2018 05:08	WG1164600
Acrylonitrile	U		0.00211	0.0139	1	09/12/2018 05:08	WG1164600
Benzene	U		0.000444	0.00111	1	09/12/2018 05:08	WG1164600
Bromobenzene	U		0.00116	0.0139	1	09/12/2018 05:08	WG1164600
Bromodichloromethane	U		0.000874	0.00277	1	09/12/2018 05:08	WG1164600
Bromochloromethane	U		0.00125	0.00555	1	09/12/2018 05:08	WG1164600
Bromoform	U		0.00663	0.0277	1	09/12/2018 05:08	WG1164600
Bromomethane	U		0.00410	0.0139	1	09/12/2018 05:08	WG1164600
n-Butylbenzene	U		0.00426	0.0139	1	09/12/2018 05:08	WG1164600
sec-Butylbenzene	U		0.00281	0.0139	1	09/12/2018 05:08	WG1164600
tert-Butylbenzene	U		0.00172	0.00555	1	09/12/2018 05:08	WG1164600
Carbon disulfide	U		0.00450	0.0139	1	09/12/2018 05:08	WG1164600
Carbon tetrachloride	U		0.00120	0.00555	1	09/12/2018 05:08	WG1164600
Chlorobenzene	U		0.000636	0.00277	1	09/12/2018 05:08	WG1164600
Chlorodibromomethane	U		0.000499	0.00277	1	09/12/2018 05:08	WG1164600
Chloroethane	U		0.00120	0.00555	1	09/12/2018 05:08	WG1164600
Chloroform	U		0.000460	0.00277	1	09/12/2018 05:08	WG1164600
Chloromethane	U		0.00154	0.0139	1	09/12/2018 05:08	WG1164600
2-Chlorotoluene	U		0.00102	0.00277	1	09/12/2018 05:08	WG1164600
4-Chlorotoluene	U		0.00125	0.00555	1	09/12/2018 05:08	WG1164600
1,2-Dibromo-3-Chloropropane	U		0.00566	0.0277	1	09/12/2018 05:08	WG1164600
1,2-Dibromoethane	U		0.000582	0.00277	1	09/12/2018 05:08	WG1164600
Dibromomethane	U		0.00111	0.00555	1	09/12/2018 05:08	WG1164600
1,2-Dichlorobenzene	U		0.00161	0.00555	1	09/12/2018 05:08	WG1164600
1,3-Dichlorobenzene	U		0.00189	0.00555	1	09/12/2018 05:08	WG1164600
1,4-Dichlorobenzene	U		0.00219	0.00555	1	09/12/2018 05:08	WG1164600
Dichlorodifluoromethane	U		0.000907	0.00277	1	09/12/2018 05:08	WG1164600
1,1-Dichloroethane	U		0.000638	0.00277	1	09/12/2018 05:08	WG1164600
1,2-Dichloroethane	U		0.000527	0.00277	1	09/12/2018 05:08	WG1164600
1,1-Dichloroethene	U		0.000555	0.00277	1	09/12/2018 05:08	WG1164600
cis-1,2-Dichloroethene	0.0349		0.00765	0.0277	10	09/13/2018 15:59	WG1165578
trans-1,2-Dichloroethene	U	J0	0.00159	0.00555	1	09/12/2018 05:08	WG1164600
1,2-Dichloropropane	U		0.0141	0.0555	10	09/13/2018 15:59	WG1165578
1,1-Dichloropropene	U		0.000776	0.00277	1	09/12/2018 05:08	WG1164600
1,3-Dichloropropane	U		0.00194	0.00555	1	09/12/2018 05:08	WG1164600
cis-1,3-Dichloropropene	U		0.000752	0.00277	1	09/12/2018 05:08	WG1164600
trans-1,3-Dichloropropene	U		0.00170	0.00555	1	09/12/2018 05:08	WG1164600
trans-1,4-Dichloro-2-butene	U		0.00155	0.00555	1	09/12/2018 05:08	WG1164600
2,2-Dichloropropane	U		0.000880	0.00277	1	09/12/2018 05:08	WG1164600
Di-isopropyl ether	U		0.000388	0.00111	1	09/12/2018 05:08	WG1164600
Ethylbenzene	U		0.000588	0.00277	1	09/12/2018 05:08	WG1164600
Hexachloro-1,3-butadiene	U		0.0141	0.0277	1	09/12/2018 05:08	WG1164600
2-Hexanone	U		0.0111	0.0277	1	09/12/2018 05:08	WG1164600
n-Hexane	U	J0	0.00118	0.00555	1	09/12/2018 05:08	WG1164600
Iodomethane	U		0.00671	0.0139	1	09/12/2018 05:08	WG1164600
Isopropylbenzene	U		0.000957	0.00277	1	09/12/2018 05:08	WG1164600
p-Isopropyltoluene	U		0.00258	0.00555	1	09/12/2018 05:08	WG1164600
2-Butanone (MEK)	U		0.0139	0.0277	1	09/12/2018 05:08	WG1164600
Methylene Chloride	U		0.00737	0.0277	1	09/12/2018 05:08	WG1164600
4-Methyl-2-pentanone (MIBK)	U		0.0111	0.0277	1	09/12/2018 05:08	WG1164600

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

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000327	0.00111	1	09/12/2018 05:08	WG1164600
Naphthalene	U		0.00346	0.0139	1	09/12/2018 05:08	WG1164600
n-Propylbenzene	U		0.00131	0.00555	1	09/12/2018 05:08	WG1164600
Styrene	U		0.00303	0.0139	1	09/12/2018 05:08	WG1164600
1,1,1,2-Tetrachloroethane	U		0.000555	0.00277	1	09/12/2018 05:08	WG1164600
1,1,2,2-Tetrachloroethane	U		0.000433	0.00277	1	09/12/2018 05:08	WG1164600
1,1,2-Trichlorotrifluoroethane	U		0.00749	0.0277	10	09/13/2018 15:59	WG1165578
Tetrachloroethene	2.21		0.00776	0.0277	10	09/13/2018 15:59	WG1165578
Toluene	U		0.00139	0.00555	1	09/12/2018 05:08	WG1164600
1,2,3-Trichlorobenzene	U		0.000693	0.00277	1	09/12/2018 05:08	WG1164600
1,2,4-Trichlorobenzene	U		0.00535	0.0139	1	09/12/2018 05:08	WG1164600
1,1,1-Trichloroethane	U		0.000305	0.00277	1	09/12/2018 05:08	WG1164600
1,1,2-Trichloroethane	U		0.000979	0.00277	1	09/12/2018 05:08	WG1164600
Trichloroethene	0.0456		0.00444	0.0111	10	09/13/2018 15:59	WG1165578
Trichlorofluoromethane	U		0.000555	0.00277	1	09/12/2018 05:08	WG1164600
1,2,3-Trichloropropane	U		0.00566	0.0139	1	09/12/2018 05:08	WG1164600
1,2,4-Trimethylbenzene	U		0.00129	0.00555	1	09/12/2018 05:08	WG1164600
1,2,3-Trimethylbenzene	U		0.00128	0.00555	1	09/12/2018 05:08	WG1164600
1,3,5-Trimethylbenzene	U		0.00120	0.00555	1	09/12/2018 05:08	WG1164600
Vinyl acetate	U	J0	0.00390	0.0139	1	09/12/2018 05:08	WG1164600
Vinyl chloride	U		0.000758	0.00277	1	09/12/2018 05:08	WG1164600
Xylenes, Total	U		0.0530	0.0721	10	09/13/2018 15:59	WG1165578
(S) Toluene-d8	*108*			*75.0-131*		*09/12/2018 05:08*	WG1164600
(S) Toluene-d8	*101*			*75.0-131*		*09/13/2018 15:59*	WG1165578
(S) Dibromofluoromethane	*91.7*			*65.0-129*		*09/12/2018 05:08*	WG1164600
(S) Dibromofluoromethane	*110*			*65.0-129*		*09/13/2018 15:59*	WG1165578
(S) 4-Bromofluorobenzene	*98.6*			*67.0-138*		*09/12/2018 05:08*	WG1164600
(S) 4-Bromofluorobenzene	*103*			*67.0-138*		*09/13/2018 15:59*	WG1165578

Sample Narrative:

L1024338-03 WG1164600, WG1165578: Not all analytes reportable at lower dilution.

L1024338-03 WG1164600, WG1165578: Cannot be re-analyzed at a lower dilution due to high levels of target analytes.

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	91.6		1	09/13/2018 11:53	WG1165176

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0149	0.0273	1	09/12/2018 05:27	WG1164600
Acrylonitrile	U		0.00207	0.0136	1	09/12/2018 05:27	WG1164600
Benzene	U		0.000436	0.00109	1	09/12/2018 05:27	WG1164600
Bromobenzene	U		0.00115	0.0136	1	09/12/2018 05:27	WG1164600
Bromodichloromethane	U		0.000860	0.00273	1	09/12/2018 05:27	WG1164600
Bromochloromethane	U		0.00123	0.00546	1	09/12/2018 05:27	WG1164600
Bromoform	U		0.00652	0.0273	1	09/12/2018 05:27	WG1164600
Bromomethane	U		0.00404	0.0136	1	09/12/2018 05:27	WG1164600
n-Butylbenzene	U		0.00419	0.0136	1	09/12/2018 05:27	WG1164600
sec-Butylbenzene	U		0.00276	0.0136	1	09/12/2018 05:27	WG1164600
tert-Butylbenzene	U		0.00169	0.00546	1	09/12/2018 05:27	WG1164600
Carbon disulfide	U		0.00443	0.0136	1	09/12/2018 05:27	WG1164600
Carbon tetrachloride	U		0.00118	0.00546	1	09/12/2018 05:27	WG1164600
Chlorobenzene	U		0.000625	0.00273	1	09/12/2018 05:27	WG1164600
Chlorodibromomethane	U		0.000491	0.00273	1	09/12/2018 05:27	WG1164600
Chloroethane	U		0.00118	0.00546	1	09/12/2018 05:27	WG1164600
Chloroform	U		0.000453	0.00273	1	09/12/2018 05:27	WG1164600
Chloromethane	U		0.00152	0.0136	1	09/12/2018 05:27	WG1164600
2-Chlorotoluene	U		0.00100	0.00273	1	09/12/2018 05:27	WG1164600
4-Chlorotoluene	U		0.00123	0.00546	1	09/12/2018 05:27	WG1164600
1,2-Dibromo-3-Chloropropane	U		0.00556	0.0273	1	09/12/2018 05:27	WG1164600
1,2-Dibromoethane	U		0.000573	0.00273	1	09/12/2018 05:27	WG1164600
Dibromomethane	U		0.00109	0.00546	1	09/12/2018 05:27	WG1164600
1,2-Dichlorobenzene	U		0.00158	0.00546	1	09/12/2018 05:27	WG1164600
1,3-Dichlorobenzene	U		0.00185	0.00546	1	09/12/2018 05:27	WG1164600
1,4-Dichlorobenzene	U		0.00215	0.00546	1	09/12/2018 05:27	WG1164600
Dichlorodifluoromethane	U		0.000893	0.00273	1	09/12/2018 05:27	WG1164600
1,1-Dichloroethane	U		0.000627	0.00273	1	09/12/2018 05:27	WG1164600
1,2-Dichloroethane	U		0.000518	0.00273	1	09/12/2018 05:27	WG1164600
1,1-Dichloroethene	0.00669		0.000546	0.00273	1	09/12/2018 05:27	WG1164600
cis-1,2-Dichloroethene	1.90		0.000753	0.00273	1	09/12/2018 05:27	WG1164600
trans-1,2-Dichloroethene	0.00612	J0	0.00156	0.00546	1	09/12/2018 05:27	WG1164600
1,2-Dichloropropane	1.13		0.0277	0.109	20	09/13/2018 04:50	WG1165154
1,1-Dichloropropene	U		0.000764	0.00273	1	09/12/2018 05:27	WG1164600
1,3-Dichloropropane	U		0.00191	0.00546	1	09/12/2018 05:27	WG1164600
cis-1,3-Dichloropropene	U		0.000740	0.00273	1	09/12/2018 05:27	WG1164600
trans-1,3-Dichloropropene	U		0.00167	0.00546	1	09/12/2018 05:27	WG1164600
trans-1,4-Dichloro-2-butene	U		0.00153	0.00546	1	09/12/2018 05:27	WG1164600
2,2-Dichloropropane	U		0.000865	0.00273	1	09/12/2018 05:27	WG1164600
Di-isopropyl ether	U		0.000382	0.00109	1	09/12/2018 05:27	WG1164600
Ethylbenzene	U		0.000578	0.00273	1	09/12/2018 05:27	WG1164600
Hexachloro-1,3-butadiene	U		0.0139	0.0273	1	09/12/2018 05:27	WG1164600
2-Hexanone	U		0.0109	0.0273	1	09/12/2018 05:27	WG1164600
n-Hexane	U	J0	0.00116	0.00546	1	09/12/2018 05:27	WG1164600
Iodomethane	U		0.00660	0.0136	1	09/12/2018 05:27	WG1164600
Isopropylbenzene	U		0.000942	0.00273	1	09/12/2018 05:27	WG1164600
p-Isopropyltoluene	U		0.00254	0.00546	1	09/12/2018 05:27	WG1164600
2-Butanone (MEK)	0.0152	J	0.0136	0.0273	1	09/12/2018 05:27	WG1164600
Methylene Chloride	U		0.00724	0.0273	1	09/12/2018 05:27	WG1164600
4-Methyl-2-pentanone (MIBK)	U		0.0109	0.0273	1	09/12/2018 05:27	WG1164600

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000322	0.00109	1	09/12/2018 05:27	WG1164600
Naphthalene	U		0.00340	0.0136	1	09/12/2018 05:27	WG1164600
n-Propylbenzene	U		0.00129	0.00546	1	09/12/2018 05:27	WG1164600
Styrene	U		0.00298	0.0136	1	09/12/2018 05:27	WG1164600
1,1,1,2-Tetrachloroethane	U		0.000546	0.00273	1	09/12/2018 05:27	WG1164600
1,1,2,2-Tetrachloroethane	U		0.000426	0.00273	1	09/12/2018 05:27	WG1164600
1,1,2-Trichlorotrifluoroethane	U		0.0147	0.0546	20	09/13/2018 04:50	WG1165154
Tetrachloroethene	11.0		0.0153	0.0546	20	09/13/2018 04:50	WG1165154
Toluene	0.00277	J	0.00136	0.00546	1	09/12/2018 05:27	WG1164600
1,2,3-Trichlorobenzene	U		0.000682	0.00273	1	09/12/2018 05:27	WG1164600
1,2,4-Trichlorobenzene	U		0.00526	0.0136	1	09/12/2018 05:27	WG1164600
1,1,1-Trichloroethane	U		0.000300	0.00273	1	09/12/2018 05:27	WG1164600
1,1,2-Trichloroethane	U		0.000963	0.00273	1	09/12/2018 05:27	WG1164600
Trichloroethene	4.48		0.00873	0.0218	20	09/13/2018 04:50	WG1165154
Trichlorofluoromethane	U		0.000546	0.00273	1	09/12/2018 05:27	WG1164600
1,2,3-Trichloropropane	U		0.00556	0.0136	1	09/12/2018 05:27	WG1164600
1,2,4-Trimethylbenzene	0.00251	J	0.00127	0.00546	1	09/12/2018 05:27	WG1164600
1,2,3-Trimethylbenzene	U		0.00125	0.00546	1	09/12/2018 05:27	WG1164600
1,3,5-Trimethylbenzene	U		0.00118	0.00546	1	09/12/2018 05:27	WG1164600
Vinyl acetate	U	J0	0.00384	0.0136	1	09/12/2018 05:27	WG1164600
Vinyl chloride	U		0.000745	0.00273	1	09/12/2018 05:27	WG1164600
Xylenes, Total	U		0.104	0.142	20	09/13/2018 04:50	WG1165154
(S) Toluene-d8	*105*			*75.0-131*		*09/12/2018 05:27*	WG1164600
(S) Toluene-d8	*100*			*75.0-131*		*09/13/2018 04:50*	WG1165154
(S) Dibromofluoromethane	*93.5*			*65.0-129*		*09/12/2018 05:27*	WG1164600
(S) Dibromofluoromethane	*105*			*65.0-129*		*09/13/2018 04:50*	WG1165154
(S) 4-Bromofluorobenzene	*101*			*67.0-138*		*09/12/2018 05:27*	WG1164600
(S) 4-Bromofluorobenzene	*96.9*			*67.0-138*		*09/13/2018 04:50*	WG1165154

Sample Narrative:

L1024338-04 WG1164600, WG1165154: Not all analytes reportable at lower dilution.

L1024338-04 WG1164600, WG1165154: Cannot be re-analyzed at a lower dilution due to high levels of target analytes.

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	84.8		1	09/13/2018 11:53	WG1165176

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0171	0.0313	1.06	09/12/2018 05:46	WG1164600
Acrylonitrile	U		0.00237	0.0156	1.06	09/12/2018 05:46	WG1164600
Benzene	0.000702	J	0.000500	0.00125	1.06	09/12/2018 05:46	WG1164600
Bromobenzene	U		0.00131	0.0156	1.06	09/12/2018 05:46	WG1164600
Bromodichloromethane	U		0.000985	0.00313	1.06	09/12/2018 05:46	WG1164600
Bromochloromethane	U		0.00142	0.00625	1.06	09/12/2018 05:46	WG1164600
Bromoform	U		0.00748	0.0313	1.06	09/12/2018 05:46	WG1164600
Bromomethane	U		0.00462	0.0156	1.06	09/12/2018 05:46	WG1164600
n-Butylbenzene	U		0.00480	0.0156	1.06	09/12/2018 05:46	WG1164600
sec-Butylbenzene	U		0.00316	0.0156	1.06	09/12/2018 05:46	WG1164600
tert-Butylbenzene	U		0.00193	0.00625	1.06	09/12/2018 05:46	WG1164600
Carbon disulfide	U		0.00507	0.0156	1.06	09/12/2018 05:46	WG1164600
Carbon tetrachloride	U		0.00134	0.00625	1.06	09/12/2018 05:46	WG1164600
Chlorobenzene	U		0.000716	0.00313	1.06	09/12/2018 05:46	WG1164600
Chlorodibromomethane	U		0.000563	0.00313	1.06	09/12/2018 05:46	WG1164600
Chloroethane	U		0.00134	0.00625	1.06	09/12/2018 05:46	WG1164600
Chloroform	U		0.000519	0.00313	1.06	09/12/2018 05:46	WG1164600
Chloromethane	U		0.00173	0.0156	1.06	09/12/2018 05:46	WG1164600
2-Chlorotoluene	U		0.00115	0.00313	1.06	09/12/2018 05:46	WG1164600
4-Chlorotoluene	U		0.00142	0.00625	1.06	09/12/2018 05:46	WG1164600
1,2-Dibromo-3-Chloropropane	U		0.00638	0.0313	1.06	09/12/2018 05:46	WG1164600
1,2-Dibromoethane	U		0.000656	0.00313	1.06	09/12/2018 05:46	WG1164600
Dibromomethane	U		0.00125	0.00625	1.06	09/12/2018 05:46	WG1164600
1,2-Dichlorobenzene	U		0.00182	0.00625	1.06	09/12/2018 05:46	WG1164600
1,3-Dichlorobenzene	U		0.00212	0.00625	1.06	09/12/2018 05:46	WG1164600
1,4-Dichlorobenzene	U		0.00247	0.00625	1.06	09/12/2018 05:46	WG1164600
Dichlorodifluoromethane	U		0.00102	0.00313	1.06	09/12/2018 05:46	WG1164600
1,1-Dichloroethane	U		0.000720	0.00313	1.06	09/12/2018 05:46	WG1164600
1,2-Dichloroethane	U		0.000595	0.00313	1.06	09/12/2018 05:46	WG1164600
1,1-Dichloroethene	0.00379		0.000625	0.00313	1.06	09/12/2018 05:46	WG1164600
cis-1,2-Dichloroethene	1.02		0.000862	0.00313	1.06	09/12/2018 05:46	WG1164600
trans-1,2-Dichloroethene	U	J0	0.00179	0.00625	1.06	09/12/2018 05:46	WG1164600
1,2-Dichloropropane	U		0.00157	0.00619	1.05	09/13/2018 03:30	WG1165154
1,1-Dichloropropene	U		0.000875	0.00313	1.06	09/12/2018 05:46	WG1164600
1,3-Dichloropropane	U		0.00219	0.00625	1.06	09/12/2018 05:46	WG1164600
cis-1,3-Dichloropropene	U		0.000848	0.00313	1.06	09/12/2018 05:46	WG1164600
trans-1,3-Dichloropropene	U		0.00191	0.00625	1.06	09/12/2018 05:46	WG1164600
trans-1,4-Dichloro-2-butene	U		0.00175	0.00625	1.06	09/12/2018 05:46	WG1164600
2,2-Dichloropropane	U		0.000991	0.00313	1.06	09/12/2018 05:46	WG1164600
Di-isopropyl ether	U		0.000438	0.00125	1.06	09/12/2018 05:46	WG1164600
Ethylbenzene	U		0.000663	0.00313	1.06	09/12/2018 05:46	WG1164600
Hexachloro-1,3-butadiene	U		0.0159	0.0313	1.06	09/12/2018 05:46	WG1164600
2-Hexanone	U		0.0125	0.0313	1.06	09/12/2018 05:46	WG1164600
n-Hexane	U	J0	0.00132	0.00625	1.06	09/12/2018 05:46	WG1164600
Iodomethane	U		0.00756	0.0156	1.06	09/12/2018 05:46	WG1164600
Isopropylbenzene	U		0.00108	0.00313	1.06	09/12/2018 05:46	WG1164600
p-Isopropyltoluene	U		0.00291	0.00625	1.06	09/12/2018 05:46	WG1164600
2-Butanone (MEK)	0.0350		0.0156	0.0313	1.06	09/12/2018 05:46	WG1164600
Methylene Chloride	U		0.00830	0.0313	1.06	09/12/2018 05:46	WG1164600
4-Methyl-2-pentanone (MIBK)	U		0.0125	0.0313	1.06	09/12/2018 05:46	WG1164600

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000369	0.00125	1.06	09/12/2018 05:46	WG1164600
Naphthalene	U		0.00390	0.0156	1.06	09/12/2018 05:46	WG1164600
n-Propylbenzene	U		0.00147	0.00625	1.06	09/12/2018 05:46	WG1164600
Styrene	U		0.00341	0.0156	1.06	09/12/2018 05:46	WG1164600
1,1,1,2-Tetrachloroethane	U		0.000625	0.00313	1.06	09/12/2018 05:46	WG1164600
1,1,2,2-Tetrachloroethane	U		0.000487	0.00313	1.06	09/12/2018 05:46	WG1164600
1,1,2-Trichlorotrifluoroethane	U		0.000836	0.00310	1.05	09/13/2018 03:30	WG1165154
Tetrachloroethene	0.0689		0.000867	0.00310	1.05	09/13/2018 03:30	WG1165154
Toluene	0.00246	J	0.00156	0.00625	1.06	09/12/2018 05:46	WG1164600
1,2,3-Trichlorobenzene	U		0.000781	0.00313	1.06	09/12/2018 05:46	WG1164600
1,2,4-Trichlorobenzene	U		0.00603	0.0156	1.06	09/12/2018 05:46	WG1164600
1,1,1-Trichloroethane	U		0.000344	0.00313	1.06	09/12/2018 05:46	WG1164600
1,1,2-Trichloroethane	U		0.00110	0.00313	1.06	09/12/2018 05:46	WG1164600
Trichloroethene	0.0349		0.000495	0.00124	1.05	09/13/2018 03:30	WG1165154
Trichlorofluoromethane	U		0.000625	0.00313	1.06	09/12/2018 05:46	WG1164600
1,2,3-Trichloropropane	U		0.00638	0.0156	1.06	09/12/2018 05:46	WG1164600
1,2,4-Trimethylbenzene	U		0.00145	0.00625	1.06	09/12/2018 05:46	WG1164600
1,2,3-Trimethylbenzene	U		0.00144	0.00625	1.06	09/12/2018 05:46	WG1164600
1,3,5-Trimethylbenzene	U		0.00134	0.00625	1.06	09/12/2018 05:46	WG1164600
Vinyl acetate	U	J0	0.00440	0.0156	1.06	09/12/2018 05:46	WG1164600
Vinyl chloride	0.0927		0.000854	0.00313	1.06	09/12/2018 05:46	WG1164600
Xylenes, Total	U		0.00592	0.00805	1.05	09/13/2018 03:30	WG1165154
(S) Toluene-d8	*90.7*			*75.0-131*		*09/12/2018 05:46*	WG1164600
(S) Toluene-d8	*110*			*75.0-131*		*09/13/2018 03:30*	WG1165154
(S) Dibromofluoromethane	*98.7*			*65.0-129*		*09/12/2018 05:46*	WG1164600
(S) Dibromofluoromethane	*87.8*			*65.0-129*		*09/13/2018 03:30*	WG1165154
(S) 4-Bromofluorobenzene	*95.7*			*67.0-138*		*09/12/2018 05:46*	WG1164600
(S) 4-Bromofluorobenzene	*109*			*67.0-138*		*09/13/2018 03:30*	WG1165154

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	88.5		1	09/13/2018 11:53	WG1165176

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U	J3	0.0155	0.0283	1	09/12/2018 06:05	WG1164600
Acrylonitrile	U		0.00215	0.0141	1	09/12/2018 06:05	WG1164600
Benzene	0.000635	J	0.000452	0.00113	1	09/12/2018 06:05	WG1164600
Bromobenzene	U		0.00119	0.0141	1	09/12/2018 06:05	WG1164600
Bromodichloromethane	U		0.000891	0.00283	1	09/12/2018 06:05	WG1164600
Bromochloromethane	U		0.00128	0.00565	1	09/12/2018 06:05	WG1164600
Bromoform	U		0.00676	0.0283	1	09/12/2018 06:05	WG1164600
Bromomethane	U		0.00418	0.0141	1	09/12/2018 06:05	WG1164600
n-Butylbenzene	U		0.00434	0.0141	1	09/12/2018 06:05	WG1164600
sec-Butylbenzene	U		0.00286	0.0141	1	09/12/2018 06:05	WG1164600
tert-Butylbenzene	U		0.00175	0.00565	1	09/12/2018 06:05	WG1164600
Carbon disulfide	U		0.00459	0.0141	1	09/12/2018 06:05	WG1164600
Carbon tetrachloride	U		0.00122	0.00565	1	09/12/2018 06:05	WG1164600
Chlorobenzene	U		0.000648	0.00283	1	09/12/2018 06:05	WG1164600
Chlorodibromomethane	U		0.000509	0.00283	1	09/12/2018 06:05	WG1164600
Chloroethane	U		0.00122	0.00565	1	09/12/2018 06:05	WG1164600
Chloroform	U		0.000469	0.00283	1	09/12/2018 06:05	WG1164600
Chloromethane	U		0.00157	0.0141	1	09/12/2018 06:05	WG1164600
2-Chlorotoluene	U		0.00104	0.00283	1	09/12/2018 06:05	WG1164600
4-Chlorotoluene	U		0.00128	0.00565	1	09/12/2018 06:05	WG1164600
1,2-Dibromo-3-Chloropropane	U		0.00576	0.0283	1	09/12/2018 06:05	WG1164600
1,2-Dibromoethane	U		0.000593	0.00283	1	09/12/2018 06:05	WG1164600
Dibromomethane	U		0.00113	0.00565	1	09/12/2018 06:05	WG1164600
1,2-Dichlorobenzene	U		0.00164	0.00565	1	09/12/2018 06:05	WG1164600
1,3-Dichlorobenzene	U		0.00192	0.00565	1	09/12/2018 06:05	WG1164600
1,4-Dichlorobenzene	U		0.00223	0.00565	1	09/12/2018 06:05	WG1164600
Dichlorodifluoromethane	U		0.000925	0.00283	1	09/12/2018 06:05	WG1164600
1,1-Dichloroethane	U		0.000650	0.00283	1	09/12/2018 06:05	WG1164600
1,2-Dichloroethane	U		0.000537	0.00283	1	09/12/2018 06:05	WG1164600
1,1-Dichloroethene	0.0124		0.000565	0.00283	1	09/12/2018 06:05	WG1164600
cis-1,2-Dichloroethene	3.74		0.00780	0.0283	10	09/13/2018 05:09	WG1165154
trans-1,2-Dichloroethene	0.0101	J0	0.00162	0.00565	1	09/12/2018 06:05	WG1164600
1,2-Dichloropropane	U		0.0144	0.0565	10	09/13/2018 05:09	WG1165154
1,1-Dichloropropene	U		0.000791	0.00283	1	09/12/2018 06:05	WG1164600
1,3-Dichloropropane	U		0.00198	0.00565	1	09/12/2018 06:05	WG1164600
cis-1,3-Dichloropropene	U		0.000766	0.00283	1	09/12/2018 06:05	WG1164600
trans-1,3-Dichloropropene	U		0.00173	0.00565	1	09/12/2018 06:05	WG1164600
trans-1,4-Dichloro-2-butene	U		0.00158	0.00565	1	09/12/2018 06:05	WG1164600
2,2-Dichloropropane	U		0.000896	0.00283	1	09/12/2018 06:05	WG1164600
Di-isopropyl ether	U		0.000396	0.00113	1	09/12/2018 06:05	WG1164600
Ethylbenzene	U		0.000599	0.00283	1	09/12/2018 06:05	WG1164600
Hexachloro-1,3-butadiene	U		0.0144	0.0283	1	09/12/2018 06:05	WG1164600
2-Hexanone	U		0.0113	0.0283	1	09/12/2018 06:05	WG1164600
n-Hexane	U	J0	0.00120	0.00565	1	09/12/2018 06:05	WG1164600
Iodomethane	U		0.00684	0.0141	1	09/12/2018 06:05	WG1164600
Isopropylbenzene	U		0.000975	0.00283	1	09/12/2018 06:05	WG1164600
p-Isopropyltoluene	U		0.00263	0.00565	1	09/12/2018 06:05	WG1164600
2-Butanone (MEK)	U		0.0141	0.0283	1	09/12/2018 06:05	WG1164600
Methylene Chloride	U		0.00751	0.0283	1	09/12/2018 06:05	WG1164600
4-Methyl-2-pentanone (MIBK)	U		0.0113	0.0283	1	09/12/2018 06:05	WG1164600

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000333	0.00113	1	09/12/2018 06:05	WG1164600
Naphthalene	U		0.00353	0.0141	1	09/12/2018 06:05	WG1164600
n-Propylbenzene	U		0.00133	0.00565	1	09/12/2018 06:05	WG1164600
Styrene	U		0.00309	0.0141	1	09/12/2018 06:05	WG1164600
1,1,1,2-Tetrachloroethane	U		0.000565	0.00283	1	09/12/2018 06:05	WG1164600
1,1,2,2-Tetrachloroethane	U		0.000441	0.00283	1	09/12/2018 06:05	WG1164600
1,1,2-Trichlorotrifluoroethane	U		0.00763	0.0283	10	09/13/2018 05:09	WG1165154
Tetrachloroethene	0.313		0.00791	0.0283	10	09/13/2018 05:09	WG1165154
Toluene	0.00380	J	0.00141	0.00565	1	09/12/2018 06:05	WG1164600
1,2,3-Trichlorobenzene	U		0.000706	0.00283	1	09/12/2018 06:05	WG1164600
1,2,4-Trichlorobenzene	U		0.00545	0.0141	1	09/12/2018 06:05	WG1164600
1,1,1-Trichloroethane	U		0.000311	0.00283	1	09/12/2018 06:05	WG1164600
1,1,2-Trichloroethane	U		0.000998	0.00283	1	09/12/2018 06:05	WG1164600
Trichloroethene	0.0257		0.00452	0.0113	10	09/13/2018 05:09	WG1165154
Trichlorofluoromethane	U		0.000565	0.00283	1	09/12/2018 06:05	WG1164600
1,2,3-Trichloropropane	U		0.00576	0.0141	1	09/12/2018 06:05	WG1164600
1,2,4-Trimethylbenzene	0.00191	J	0.00131	0.00565	1	09/12/2018 06:05	WG1164600
1,2,3-Trimethylbenzene	U		0.00130	0.00565	1	09/12/2018 06:05	WG1164600
1,3,5-Trimethylbenzene	U		0.00122	0.00565	1	09/12/2018 06:05	WG1164600
Vinyl acetate	U	J0	0.00398	0.0141	1	09/12/2018 06:05	WG1164600
Vinyl chloride	0.176	J6	0.000772	0.00283	1	09/12/2018 06:05	WG1164600
Xylenes, Total	U		0.0540	0.0735	10	09/13/2018 05:09	WG1165154
(S) Toluene-d8	*94.9*			*75.0-131*		*09/12/2018 06:05*	WG1164600
(S) Toluene-d8	*102*			*75.0-131*		*09/13/2018 05:09*	WG1165154
(S) Dibromofluoromethane	*94.5*			*65.0-129*		*09/12/2018 06:05*	WG1164600
(S) Dibromofluoromethane	*98.4*			*65.0-129*		*09/13/2018 05:09*	WG1165154
(S) 4-Bromofluorobenzene	*101*			*67.0-138*		*09/12/2018 06:05*	WG1164600
(S) 4-Bromofluorobenzene	*94.7*			*67.0-138*		*09/13/2018 05:09*	WG1165154

Sample Narrative:

L1024338-06 WG1164600, WG1165154: Not all analytes reportable at lower dilution.

L1024338-06 WG1164600, WG1165154: Cannot be re-analyzed at a lower dilution due to high levels of target analytes.

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	87.3		1	09/13/2018 11:53	WG1165176

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0163	0.0298	1.04	09/17/2018 13:33	WG1166945
Acrylonitrile	U		0.00227	0.0149	1.04	09/17/2018 13:33	WG1166945
Benzene	0.000769	J	0.000476	0.00119	1.04	09/17/2018 13:33	WG1166945
Bromobenzene	U		0.00125	0.0149	1.04	09/17/2018 13:33	WG1166945
Bromodichloromethane	U		0.0939	0.298	104	09/17/2018 15:38	WG1167356
Bromochloromethane	U		0.00135	0.00595	1.04	09/17/2018 13:33	WG1166945
Bromoform	U		0.00712	0.0298	1.04	09/17/2018 13:33	WG1166945
Bromomethane	U		0.441	1.49	104	09/17/2018 15:38	WG1167356
n-Butylbenzene	0.00478	J	0.00457	0.0149	1.04	09/17/2018 13:33	WG1166945
sec-Butylbenzene	U		0.00301	0.0149	1.04	09/17/2018 13:33	WG1166945
tert-Butylbenzene	0.00213	J	0.00184	0.00595	1.04	09/17/2018 13:33	WG1166945
Carbon disulfide	0.00537	B J	0.00483	0.0149	1.04	09/17/2018 13:33	WG1166945
Carbon tetrachloride	U		0.00128	0.00595	1.04	09/17/2018 13:33	WG1166945
Chlorobenzene	U		0.000682	0.00298	1.04	09/17/2018 13:33	WG1166945
Chlorodibromomethane	U		0.000536	0.00298	1.04	09/17/2018 13:33	WG1166945
Chloroethane	U		0.00128	0.00595	1.04	09/17/2018 13:33	WG1166945
Chloroform	U		0.000495	0.00298	1.04	09/17/2018 13:33	WG1166945
Chloromethane	U		0.00165	0.0149	1.04	09/17/2018 13:33	WG1166945
2-Chlorotoluene	U		0.00110	0.00298	1.04	09/17/2018 13:33	WG1166945
4-Chlorotoluene	U		0.00135	0.00595	1.04	09/17/2018 13:33	WG1166945
1,2-Dibromo-3-Chloropropane	U		0.00607	0.0298	1.04	09/17/2018 13:33	WG1166945
1,2-Dibromoethane	U	J4	0.000625	0.00298	1.04	09/17/2018 13:33	WG1166945
Dibromomethane	U		0.00119	0.00595	1.04	09/17/2018 13:33	WG1166945
1,2-Dichlorobenzene	U		0.00173	0.00595	1.04	09/17/2018 13:33	WG1166945
1,3-Dichlorobenzene	U		0.00203	0.00595	1.04	09/17/2018 13:33	WG1166945
1,4-Dichlorobenzene	U	J4	0.00235	0.00595	1.04	09/17/2018 13:33	WG1166945
Dichlorodifluoromethane	U		0.000974	0.00298	1.04	09/17/2018 13:33	WG1166945
1,1-Dichloroethane	U		0.000685	0.00298	1.04	09/17/2018 13:33	WG1166945
1,2-Dichloroethane	U		0.000566	0.00298	1.04	09/17/2018 13:33	WG1166945
1,1-Dichloroethene	0.00857		0.000595	0.00298	1.04	09/17/2018 13:33	WG1166945
cis-1,2-Dichloroethene	0.980		0.000822	0.00298	1.04	09/17/2018 13:33	WG1166945
trans-1,2-Dichloroethene	0.0424		0.00171	0.00595	1.04	09/17/2018 13:33	WG1166945
1,2-Dichloropropane	U		0.00151	0.00595	1.04	09/17/2018 13:33	WG1166945
1,1-Dichloropropene	U		0.000834	0.00298	1.04	09/17/2018 13:33	WG1166945
1,3-Dichloropropane	U		0.00208	0.00595	1.04	09/17/2018 13:33	WG1166945
cis-1,3-Dichloropropene	U		0.000807	0.00298	1.04	09/17/2018 13:33	WG1166945
trans-1,3-Dichloropropene	U		0.00182	0.00595	1.04	09/17/2018 13:33	WG1166945
trans-1,4-Dichloro-2-butene	U		0.00167	0.00595	1.04	09/17/2018 13:33	WG1166945
2,2-Dichloropropane	U		0.000945	0.00298	1.04	09/17/2018 13:33	WG1166945
Di-isopropyl ether	U		0.000417	0.00119	1.04	09/17/2018 13:33	WG1166945
Ethylbenzene	0.00186	J	0.000631	0.00298	1.04	09/17/2018 13:33	WG1166945
Hexachloro-1,3-butadiene	U		0.0151	0.0298	1.04	09/17/2018 13:33	WG1166945
2-Hexanone	U		0.0119	0.0298	1.04	09/17/2018 13:33	WG1166945
n-Hexane	U	J4	0.00126	0.00595	1.04	09/17/2018 13:33	WG1166945
Iodomethane	U	J4	0.720	1.49	104	09/17/2018 15:38	WG1167356
Isopropylbenzene	0.00133	J	0.00103	0.00298	1.04	09/17/2018 13:33	WG1166945
p-Isopropyltoluene	0.00285	J	0.00277	0.00595	1.04	09/17/2018 13:33	WG1166945
2-Butanone (MEK)	0.0508		0.0149	0.0298	1.04	09/17/2018 13:33	WG1166945
Methylene Chloride	U		0.00790	0.0298	1.04	09/17/2018 13:33	WG1166945
4-Methyl-2-pentanone (MIBK)	U		0.0119	0.0298	1.04	09/17/2018 13:33	WG1166945

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000352	0.00119	1.04	09/17/2018 13:33	WG1166945
Naphthalene	0.00586	J	0.00371	0.0149	1.04	09/17/2018 13:33	WG1166945
n-Propylbenzene	0.00290	J	0.00141	0.00595	1.04	09/17/2018 13:33	WG1166945
Styrene	U		0.00325	0.0149	1.04	09/17/2018 13:33	WG1166945
1,1,1,2-Tetrachloroethane	U		0.000595	0.00298	1.04	09/17/2018 13:33	WG1166945
1,1,2,2-Tetrachloroethane	U	J4	0.000465	0.00298	1.04	09/17/2018 13:33	WG1166945
1,1,2-Trichlorotrifluoroethane	U		0.000804	0.00298	1.04	09/17/2018 13:33	WG1166945
Tetrachloroethene	140		0.0834	0.298	104	09/17/2018 15:38	WG1167356
Toluene	0.00382	J	0.00149	0.00595	1.04	09/17/2018 13:33	WG1166945
1,2,3-Trichlorobenzene	U		0.000744	0.00298	1.04	09/17/2018 13:33	WG1166945
1,2,4-Trichlorobenzene	U		0.00574	0.0149	1.04	09/17/2018 13:33	WG1166945
1,1,1-Trichloroethane	U	J4	0.000327	0.00298	1.04	09/17/2018 13:33	WG1166945
1,1,2-Trichloroethane	U		0.00105	0.00298	1.04	09/17/2018 13:33	WG1166945
Trichloroethene	0.882		0.000476	0.00119	1.04	09/17/2018 13:33	WG1166945
Trichlorofluoromethane	U		0.000595	0.00298	1.04	09/17/2018 13:33	WG1166945
1,2,3-Trichloropropane	U		0.00607	0.0149	1.04	09/17/2018 13:33	WG1166945
1,2,4-Trimethylbenzene	0.0250		0.00139	0.00595	1.04	09/17/2018 13:33	WG1166945
1,2,3-Trimethylbenzene	0.00905		0.00137	0.00595	1.04	09/17/2018 13:33	WG1166945
1,3,5-Trimethylbenzene	0.00869		0.00128	0.00595	1.04	09/17/2018 13:33	WG1166945
Vinyl acetate	U		0.00419	0.0149	1.04	09/17/2018 13:33	WG1166945
Vinyl chloride	U		0.000813	0.00298	1.04	09/17/2018 13:33	WG1166945
Xylenes, Total	0.00785		0.00569	0.00774	1.04	09/17/2018 13:33	WG1166945
(S) Toluene-d8	*107*			*75.0-131*		*09/17/2018 13:33*	WG1166945
(S) Toluene-d8	*111*			*75.0-131*		*09/17/2018 15:38*	WG1167356
(S) Dibromofluoromethane	*116*			*65.0-129*		*09/17/2018 13:33*	WG1166945
(S) Dibromofluoromethane	*102*			*65.0-129*		*09/17/2018 15:38*	WG1167356
(S) 4-Bromofluorobenzene	*101*			*67.0-138*		*09/17/2018 13:33*	WG1166945
(S) 4-Bromofluorobenzene	*106*			*67.0-138*		*09/17/2018 15:38*	WG1167356

Sample Narrative:

L1024338-07 WG1166945, WG1167356: Not all analytes reportable at lower dilution.

L1024338-07 WG1166945, WG1167356: Cannot be re-analyzed at a lower dilution due to high levels of target analytes.

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	1.29	J	1.05	25.0	1	09/13/2018 01:50	WG1164809
Acrylonitrile	U		0.873	5.00	1	09/13/2018 01:50	WG1164809
Benzene	U		0.0896	0.500	1	09/13/2018 01:50	WG1164809
Bromobenzene	U		0.133	0.500	1	09/13/2018 01:50	WG1164809
Bromodichloromethane	U		0.0800	0.500	1	09/13/2018 01:50	WG1164809
Bromochloromethane	U		0.145	0.500	1	09/13/2018 01:50	WG1164809
Bromoform	U		0.186	0.500	1	09/13/2018 01:50	WG1164809
Bromomethane	U	J0	0.157	2.50	1	09/13/2018 01:50	WG1164809
n-Butylbenzene	U		0.143	0.500	1	09/13/2018 01:50	WG1164809
sec-Butylbenzene	U		0.134	0.500	1	09/13/2018 01:50	WG1164809
tert-Butylbenzene	U		0.183	0.500	1	09/13/2018 01:50	WG1164809
Carbon disulfide	U		0.101	0.500	1	09/13/2018 01:50	WG1164809
Carbon tetrachloride	U		0.159	0.500	1	09/13/2018 01:50	WG1164809
Chlorobenzene	U		0.140	0.500	1	09/13/2018 01:50	WG1164809
Chlorodibromomethane	U		0.128	0.500	1	09/13/2018 01:50	WG1164809
Chloroethane	U		0.141	2.50	1	09/13/2018 01:50	WG1164809
Chloroform	U		0.0860	0.500	1	09/13/2018 01:50	WG1164809
Chloromethane	U		0.153	1.25	1	09/13/2018 01:50	WG1164809
2-Chlorotoluene	U		0.111	0.500	1	09/13/2018 01:50	WG1164809
4-Chlorotoluene	U		0.0972	0.500	1	09/13/2018 01:50	WG1164809
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	09/13/2018 01:50	WG1164809
1,2-Dibromoethane	U		0.193	0.500	1	09/13/2018 01:50	WG1164809
Dibromomethane	U		0.117	0.500	1	09/13/2018 01:50	WG1164809
1,2-Dichlorobenzene	U		0.101	0.500	1	09/13/2018 01:50	WG1164809
1,3-Dichlorobenzene	U		0.130	0.500	1	09/13/2018 01:50	WG1164809
1,4-Dichlorobenzene	U		0.121	0.500	1	09/13/2018 01:50	WG1164809
Dichlorodifluoromethane	U		0.127	2.50	1	09/13/2018 01:50	WG1164809
1,1-Dichloroethane	U		0.114	0.500	1	09/13/2018 01:50	WG1164809
1,2-Dichloroethane	U		0.108	0.500	1	09/13/2018 01:50	WG1164809
1,1-Dichloroethene	U		0.188	0.500	1	09/13/2018 01:50	WG1164809
cis-1,2-Dichloroethene	U		0.0933	0.500	1	09/13/2018 01:50	WG1164809
trans-1,2-Dichloroethene	U		0.152	0.500	1	09/13/2018 01:50	WG1164809
1,2-Dichloropropane	U		0.190	0.500	1	09/13/2018 01:50	WG1164809
1,1-Dichloropropene	U		0.128	0.500	1	09/13/2018 01:50	WG1164809
1,3-Dichloropropane	U		0.147	1.00	1	09/13/2018 01:50	WG1164809
cis-1,3-Dichloropropene	U		0.0976	0.500	1	09/13/2018 01:50	WG1164809
trans-1,3-Dichloropropene	U		0.222	0.500	1	09/13/2018 01:50	WG1164809
trans-1,4-Dichloro-2-butene	U	J0	0.257	5.00	1	09/13/2018 01:50	WG1164809
2,2-Dichloropropane	U		0.0929	0.500	1	09/13/2018 01:50	WG1164809
Di-isopropyl ether	U		0.0924	0.500	1	09/13/2018 01:50	WG1164809
Ethylbenzene	U		0.158	0.500	1	09/13/2018 01:50	WG1164809
Hexachloro-1,3-butadiene	U		0.157	1.00	1	09/13/2018 01:50	WG1164809
2-Hexanone	U		0.757	5.00	1	09/13/2018 01:50	WG1164809
n-Hexane	U		0.305	5.00	1	09/13/2018 01:50	WG1164809
Iodomethane	U	J0	0.377	10.0	1	09/13/2018 01:50	WG1164809
Isopropylbenzene	U		0.126	0.500	1	09/13/2018 01:50	WG1164809
p-Isopropyltoluene	U		0.138	0.500	1	09/13/2018 01:50	WG1164809
2-Butanone (MEK)	U		1.28	5.00	1	09/13/2018 01:50	WG1164809
Methylene Chloride	U		1.07	2.50	1	09/13/2018 01:50	WG1164809
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	09/13/2018 01:50	WG1164809
Methyl tert-butyl ether	U		0.102	0.500	1	09/13/2018 01:50	WG1164809
Naphthalene	U		0.174	2.50	1	09/13/2018 01:50	WG1164809
n-Propylbenzene	U		0.162	0.500	1	09/13/2018 01:50	WG1164809
Styrene	U		0.117	0.500	1	09/13/2018 01:50	WG1164809
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	09/13/2018 01:50	WG1164809
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	09/13/2018 01:50	WG1164809

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	09/13/2018 01:50	WG1164809
Tetrachloroethene	U		0.199	0.500	1	09/13/2018 01:50	WG1164809
Toluene	U		0.412	0.500	1	09/13/2018 01:50	WG1164809
1,2,3-Trichlorobenzene	U		0.164	0.500	1	09/13/2018 01:50	WG1164809
1,2,4-Trichlorobenzene	U		0.355	0.500	1	09/13/2018 01:50	WG1164809
1,1,1-Trichloroethane	U		0.0940	0.500	1	09/13/2018 01:50	WG1164809
1,1,2-Trichloroethane	U		0.186	0.500	1	09/13/2018 01:50	WG1164809
Trichloroethene	U		0.153	0.500	1	09/13/2018 01:50	WG1164809
Trichlorofluoromethane	U		0.130	2.50	1	09/13/2018 01:50	WG1164809
1,2,3-Trichloropropane	U		0.247	2.50	1	09/13/2018 01:50	WG1164809
1,2,4-Trimethylbenzene	U		0.123	0.500	1	09/13/2018 01:50	WG1164809
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	09/13/2018 01:50	WG1164809
1,3,5-Trimethylbenzene	U		0.124	0.500	1	09/13/2018 01:50	WG1164809
Vinyl acetate	U	J0	0.645	5.00	1	09/13/2018 01:50	WG1164809
Vinyl chloride	U		0.118	0.500	1	09/13/2018 01:50	WG1164809
Xylenes, Total	U		0.316	1.50	1	09/13/2018 01:50	WG1164809
(S) Toluene-d8	*107*			*80.0-120*		*09/13/2018 01:50*	WG1164809
(S) Dibromofluoromethane	*92.9*			*75.0-120*		*09/13/2018 01:50*	WG1164809
(S) 4-Bromofluorobenzene	*104*			*77.0-126*		*09/13/2018 01:50*	WG1164809

Method Blank (MB)

(MB) R3341902-1 09/13/18 12:19

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.00200			

L1024338-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1024338-02 09/13/18 12:19 • (DUP) R3341902-3 09/13/18 12:19

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	91.7	89.2	1	2.74		10

Laboratory Control Sample (LCS)

(LCS) R3341902-2 09/13/18 12:19

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85.0-115	

Method Blank (MB)

(MB) R3341900-1 09/13/18 11:53

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.000			

L1024338-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1024338-04 09/13/18 11:53 • (DUP) R3341900-3 09/13/18 11:53

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	91.6	90.4	1	1.33		10

Laboratory Control Sample (LCS)

(LCS) R3341900-2 09/13/18 11:53

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85.0-115	

Method Blank (MB)

(MB) R3341328-2 09/11/18 22:38

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acetone	U		0.0137	0.0250
Acrylonitrile	U		0.00190	0.0125
Benzene	U		0.000400	0.00100
Bromobenzene	U		0.00105	0.0125
Bromodichloromethane	U		0.000788	0.00250
Bromochloromethane	U		0.00113	0.00500
Bromoform	U		0.00598	0.0250
Bromomethane	U		0.00370	0.0125
n-Butylbenzene	U		0.00384	0.0125
sec-Butylbenzene	U		0.00253	0.0125
tert-Butylbenzene	U		0.00155	0.00500
Carbon disulfide	U		0.00406	0.0125
Carbon tetrachloride	U		0.00108	0.00500
Chlorobenzene	U		0.000573	0.00250
Chlorodibromomethane	U		0.000450	0.00250
Chloroethane	U		0.00108	0.00500
Chloroform	U		0.000415	0.00250
Chloromethane	U		0.00139	0.0125
2-Chlorotoluene	U		0.000920	0.00250
4-Chlorotoluene	U		0.00113	0.00500
1,2-Dibromo-3-Chloropropane	U		0.00510	0.0250
1,2-Dibromoethane	U		0.000525	0.00250
Dibromomethane	U		0.00100	0.00500
1,2-Dichlorobenzene	U		0.00145	0.00500
1,3-Dichlorobenzene	U		0.00170	0.00500
1,4-Dichlorobenzene	U		0.00197	0.00500
trans-1,4-Dichloro-2-butene	U		0.00140	0.00500
Dichlorodifluoromethane	U		0.000818	0.00250
1,1-Dichloroethane	U		0.000575	0.00250
1,2-Dichloroethane	U		0.000475	0.00250
1,1-Dichloroethene	U		0.000500	0.00250
cis-1,2-Dichloroethene	U		0.000690	0.00250
trans-1,2-Dichloroethene	U		0.00143	0.00500
1,1-Dichloropropene	U		0.000700	0.00250
1,3-Dichloropropane	U		0.00175	0.00500
cis-1,3-Dichloropropene	U		0.000678	0.00250
trans-1,3-Dichloropropene	U		0.00153	0.00500
2,2-Dichloropropane	U		0.000793	0.00250
Di-isopropyl ether	U		0.000350	0.00100
Ethylbenzene	U		0.000530	0.00250

Method Blank (MB)

(MB) R3341328-2 09/11/18 22:38

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Hexachloro-1,3-butadiene	U		0.0127	0.0250
n-Hexane	0.00417	J	0.00106	0.00500
2-Hexanone	U		0.0100	0.0250
Iodomethane	U		0.00605	0.0125
Isopropylbenzene	U		0.000863	0.00250
p-Isopropyltoluene	U		0.00233	0.00500
2-Butanone (MEK)	U		0.0125	0.0250
Methylene Chloride	U		0.00664	0.0250
4-Methyl-2-pentanone (MIBK)	U		0.0100	0.0250
Methyl tert-butyl ether	U		0.000295	0.00100
Naphthalene	U		0.00312	0.0125
n-Propylbenzene	U		0.00118	0.00500
Styrene	U		0.00273	0.0125
1,1,1,2-Tetrachloroethane	U		0.000500	0.00250
1,1,2,2-Tetrachloroethane	U		0.000390	0.00250
Toluene	U		0.00125	0.00500
1,2,3-Trichlorobenzene	U		0.000625	0.00250
1,2,4-Trichlorobenzene	U		0.00482	0.0125
1,1,1-Trichloroethane	U		0.000275	0.00250
1,1,2-Trichloroethane	U		0.000883	0.00250
Trichlorofluoromethane	U		0.000500	0.00250
1,2,3-Trichloropropane	U		0.00510	0.0125
1,2,3-Trimethylbenzene	U		0.00115	0.00500
1,2,4-Trimethylbenzene	U		0.00116	0.00500
1,3,5-Trimethylbenzene	U		0.00108	0.00500
Vinyl acetate	U		0.00352	0.0125
Vinyl chloride	U		0.000683	0.00250
(S) Toluene-d8	*105*			*75.0-131*
(S) Dibromofluoromethane	*94.6*			*65.0-129*
(S) 4-Bromofluorobenzene	*102*			*67.0-138*

Laboratory Control Sample (LCS)

(LCS) R3341328-1 09/11/18 21:09

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acetone	0.625	0.861	138	10.0-160	
Acrylonitrile	0.625	0.668	107	45.0-153	
Benzene	0.125	0.106	85.2	70.0-123	

Laboratory Control Sample (LCS)

(LCS) R3341328-1 09/11/18 21:09

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Bromobenzene	0.125	0.122	97.4	73.0-121	
Bromodichloromethane	0.125	0.139	111	73.0-121	
Bromochloromethane	0.125	0.116	92.9	77.0-128	
Bromoform	0.125	0.148	119	64.0-132	
Bromomethane	0.125	0.111	88.8	56.0-147	
n-Butylbenzene	0.125	0.106	84.8	68.0-135	
sec-Butylbenzene	0.125	0.104	83.6	74.0-130	
tert-Butylbenzene	0.125	0.103	82.5	75.0-127	
Carbon disulfide	0.125	0.101	81.0	56.0-133	
Carbon tetrachloride	0.125	0.136	109	66.0-128	
Chlorobenzene	0.125	0.132	105	76.0-128	
Chlorodibromomethane	0.125	0.135	108	74.0-127	
Chloroethane	0.125	0.128	102	61.0-134	
Chloroform	0.125	0.116	93.1	72.0-123	
Chloromethane	0.125	0.117	93.8	51.0-138	
2-Chlorotoluene	0.125	0.109	87.4	75.0-124	
4-Chlorotoluene	0.125	0.118	94.6	75.0-124	
1,2-Dibromo-3-Chloropropane	0.125	0.148	119	59.0-130	
1,2-Dibromoethane	0.125	0.121	96.6	74.0-128	
Dibromomethane	0.125	0.141	113	75.0-122	
1,2-Dichlorobenzene	0.125	0.125	99.7	76.0-124	
1,3-Dichlorobenzene	0.125	0.113	90.1	76.0-125	
1,4-Dichlorobenzene	0.125	0.108	86.3	77.0-121	
trans-1,4-Dichloro-2-butene	0.125	0.119	95.4	45.0-143	
Dichlorodifluoromethane	0.125	0.133	106	43.0-156	
1,1-Dichloroethane	0.125	0.114	91.3	70.0-127	
1,2-Dichloroethane	0.125	0.115	91.7	65.0-131	
1,1-Dichloroethene	0.125	0.109	87.4	65.0-131	
cis-1,2-Dichloroethene	0.125	0.111	88.4	73.0-125	
trans-1,2-Dichloroethene	0.125	0.0984	78.7	71.0-125	
1,1-Dichloropropene	0.125	0.105	83.9	73.0-125	
1,3-Dichloropropane	0.125	0.127	101	80.0-125	
cis-1,3-Dichloropropene	0.125	0.118	94.5	76.0-127	
trans-1,3-Dichloropropene	0.125	0.135	108	73.0-127	
2,2-Dichloropropane	0.125	0.109	86.8	59.0-135	
Di-isopropyl ether	0.125	0.111	88.9	60.0-136	
Ethylbenzene	0.125	0.125	99.8	74.0-126	
Hexachloro-1,3-butadiene	0.125	0.142	113	57.0-150	
2-Hexanone	0.625	0.760	122	54.0-147	
n-Hexane	0.125	0.0850	68.0	55.0-137	

Laboratory Control Sample (LCS)

(LCS) R3341328-1 09/11/18 21:09

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Iodomethane	0.625	0.579	92.6	74.0-134	
Isopropylbenzene	0.125	0.107	85.2	72.0-127	
p-Isopropyltoluene	0.125	0.109	87.3	72.0-133	
2-Butanone (MEK)	0.625	0.689	110	30.0-160	
Methylene Chloride	0.125	0.111	88.5	68.0-123	
4-Methyl-2-pentanone (MIBK)	0.625	0.733	117	56.0-143	
Methyl tert-butyl ether	0.125	0.112	89.5	66.0-132	
Naphthalene	0.125	0.118	94.7	59.0-130	
n-Propylbenzene	0.125	0.100	80.2	74.0-126	
Styrene	0.125	0.113	90.5	72.0-127	
1,1,1,2-Tetrachloroethane	0.125	0.138	110	74.0-129	
1,1,2,2-Tetrachloroethane	0.125	0.120	96.1	68.0-128	
Toluene	0.125	0.120	95.7	75.0-121	
1,2,3-Trichlorobenzene	0.125	0.118	94.3	59.0-139	
1,2,4-Trichlorobenzene	0.125	0.120	95.7	62.0-137	
1,1,1-Trichloroethane	0.125	0.112	89.9	69.0-126	
1,1,2-Trichloroethane	0.125	0.119	95.6	78.0-123	
Trichlorofluoromethane	0.125	0.111	88.5	61.0-142	
1,2,3-Trichloropropane	0.125	0.138	110	67.0-129	
1,2,3-Trimethylbenzene	0.125	0.129	103	74.0-124	
1,2,4-Trimethylbenzene	0.125	0.112	89.6	70.0-126	
1,3,5-Trimethylbenzene	0.125	0.111	88.7	73.0-127	
Vinyl acetate	0.625	0.387	61.9	43.0-159	
Vinyl chloride	0.125	0.127	102	63.0-134	
(S) Toluene-d8			*107*	*75.0-131*	
(S) Dibromofluoromethane			*95.5*	*65.0-129*	
(S) 4-Bromofluorobenzene			*94.0*	*67.0-138*	

L1024338-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1024338-06 09/12/18 06:05 • (MS) R3341328-3 09/11/18 23:07 • (MSD) R3341328-4 09/11/18 23:26

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acetone	0.706	U	0.711	0.401	101	56.8	1	10.0-160		J3	55.7	40
Acrylonitrile	0.706	U	0.620	0.473	87.8	67.0	1	10.0-160			26.8	40
Benzene	0.141	0.000635	0.0702	0.0717	49.2	50.3	1	10.0-149			2.10	37
Bromobenzene	0.141	U	0.0920	0.115	65.1	81.5	1	10.0-156			22.4	38
Bromodichloromethane	0.141	U	0.130	0.125	91.8	88.8	1	10.0-143			3.38	37
Bromochloromethane	0.141	U	0.0769	0.0835	54.4	59.1	1	10.0-155			8.27	33

L1024338-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1024338-06 09/12/18 06:05 • (MS) R3341328-3 09/11/18 23:07 • (MSD) R3341328-4 09/11/18 23:26

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Bromoform	0.141	U	0.128	0.140	90.3	99.1	1	10.0-146			9.25	36
Bromomethane	0.141	U	0.0509	0.0466	36.0	33.0	1	10.0-149			8.69	38
n-Butylbenzene	0.141	U	0.0943	0.108	66.8	76.2	1	10.0-160			13.2	40
sec-Butylbenzene	0.141	U	0.0852	0.0997	60.3	70.6	1	10.0-159			15.7	39
tert-Butylbenzene	0.141	U	0.0872	0.102	61.7	72.2	1	10.0-156			15.6	39
Carbon disulfide	0.141	U	0.0276	0.0289	19.5	20.5	1	10.0-145			4.69	39
Carbon tetrachloride	0.141	U	0.100	0.101	70.8	71.3	1	10.0-145			0.735	37
Chlorobenzene	0.141	U	0.0867	0.0940	61.3	66.6	1	10.0-152			8.16	39
Chlorodibromomethane	0.141	U	0.103	0.106	72.8	74.8	1	10.0-146			2.69	37
Chloroethane	0.141	U	0.0422	0.0436	29.8	30.8	1	10.0-146			3.26	40
Chloroform	0.141	U	0.0900	0.0918	63.7	64.9	1	10.0-146			1.95	37
Chloromethane	0.141	U	0.0584	0.0616	41.4	43.6	1	10.0-159			5.34	37
2-Chlorotoluene	0.141	U	0.0877	0.101	62.1	71.4	1	10.0-159			13.9	38
4-Chlorotoluene	0.141	U	0.0869	0.104	61.5	73.3	1	10.0-155			17.5	39
1,2-Dibromo-3-Chloropropane	0.141	U	0.108	0.109	76.6	76.9	1	10.0-151			0.474	39
1,2-Dibromoethane	0.141	U	0.0920	0.0860	65.1	60.8	1	10.0-148			6.78	34
Dibromomethane	0.141	U	0.106	0.108	75.2	76.3	1	10.0-147			1.43	35
1,2-Dichlorobenzene	0.141	U	0.107	0.111	75.9	78.4	1	10.0-155			3.22	37
1,3-Dichlorobenzene	0.141	U	0.0968	0.109	68.5	77.0	1	10.0-153			11.7	38
1,4-Dichlorobenzene	0.141	U	0.0925	0.0957	65.4	67.7	1	10.0-151			3.44	38
trans-1,4-Dichloro-2-butene	0.141	U	0.116	0.118	81.8	83.5	1	10.0-152			2.00	36
Dichlorodifluoromethane	0.141	U	0.0785	0.0728	55.6	51.5	1	10.0-160			7.63	35
1,1-Dichloroethane	0.141	U	0.0869	0.0853	61.5	60.3	1	10.0-147			1.94	37
1,2-Dichloroethane	0.141	U	0.0989	0.0966	70.0	68.4	1	10.0-148			2.29	35
1,1-Dichloroethene	0.141	0.0124	0.0721	0.0768	42.3	45.6	1	10.0-155			6.27	37
cis-1,2-Dichloroethene	0.141	3.92	2.68	2.66	0.000	0.000	1	10.0-149	E V	E V	0.908	37
trans-1,2-Dichloroethene	0.141	0.0101	0.0632	0.0649	37.6	38.8	1	10.0-150			2.59	37
1,1-Dichloropropene	0.141	U	0.0607	0.0613	42.9	43.4	1	10.0-153			0.933	35
1,3-Dichloropropane	0.141	U	0.0923	0.0970	65.3	68.7	1	10.0-154			5.02	35
cis-1,3-Dichloropropene	0.141	U	0.0797	0.0892	56.4	63.1	1	10.0-151			11.3	37
trans-1,3-Dichloropropene	0.141	U	0.0970	0.0942	68.6	66.7	1	10.0-148			2.91	37
2,2-Dichloropropane	0.141	U	0.0907	0.0928	64.2	65.7	1	10.0-138			2.32	36
Di-isopropyl ether	0.141	U	0.0952	0.0965	67.4	68.3	1	10.0-147			1.35	36
Ethylbenzene	0.141	U	0.0811	0.0843	57.4	59.7	1	10.0-160			3.89	38
Hexachloro-1,3-butadiene	0.141	U	0.156	0.160	111	113	1	10.0-160			2.41	40
2-Hexanone	0.706	U	0.525	0.490	74.3	69.4	1	10.0-160			6.86	36
n-Hexane	0.141	U	0.0412	0.0438	29.2	31.0	1	10.0-157			6.08	37
Iodomethane	0.706	U	0.313	0.323	44.4	45.8	1	10.0-160			3.14	38
Isopropylbenzene	0.141	U	0.0863	0.101	61.0	71.4	1	10.0-155			15.6	38

L1024338-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1024338-06 09/12/18 06:05 • (MS) R3341328-3 09/11/18 23:07 • (MSD) R3341328-4 09/11/18 23:26

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
p-Isopropyltoluene	0.141	U	0.0863	0.0976	61.1	69.1	1	10.0-160			12.3	40
2-Butanone (MEK)	0.706	U	0.805	0.676	114	95.7	1	10.0-160			17.4	40
Methylene Chloride	0.141	U	0.0697	0.0714	49.3	50.5	1	10.0-141			2.37	37
4-Methyl-2-pentanone (MIBK)	0.706	U	0.582	0.558	82.4	79.0	1	10.0-160			4.20	35
Methyl tert-butyl ether	0.141	U	0.0812	0.0859	57.5	60.8	1	11.0-147			5.57	35
Naphthalene	0.141	U	0.0939	0.100	66.4	71.1	1	10.0-160			6.76	36
n-Propylbenzene	0.141	U	0.0807	0.0906	57.1	64.1	1	10.0-158			11.5	38
Styrene	0.141	U	0.0938	0.110	66.4	78.1	1	10.0-160			16.1	40
1,1,1,2-Tetrachloroethane	0.141	U	0.0957	0.105	67.7	74.4	1	10.0-149			9.42	39
1,1,2,2-Tetrachloroethane	0.141	U	0.0992	0.103	70.2	72.7	1	10.0-160			3.57	35
Toluene	0.141	0.00380	0.0758	0.0849	51.0	57.4	1	10.0-156			11.2	38
1,2,3-Trichlorobenzene	0.141	U	0.110	0.125	77.6	88.4	1	10.0-160			13.0	40
1,2,4-Trichlorobenzene	0.141	U	0.113	0.115	80.3	81.3	1	10.0-160			1.25	40
1,1,1-Trichloroethane	0.141	U	0.0950	0.0903	67.3	63.9	1	10.0-144			5.10	35
1,1,2-Trichloroethane	0.141	U	0.0947	0.102	67.0	72.3	1	10.0-160			7.49	35
Trichlorofluoromethane	0.141	U	0.0514	0.0616	36.4	43.6	1	10.0-160			18.1	40
1,2,3-Trichloropropane	0.141	U	0.116	0.128	82.4	90.6	1	10.0-156			9.57	35
1,2,3-Trimethylbenzene	0.141	U	0.102	0.114	71.9	80.8	1	10.0-160			11.7	36
1,2,4-Trimethylbenzene	0.141	0.00191	0.0931	0.108	64.5	74.8	1	10.0-160			14.4	36
1,3,5-Trimethylbenzene	0.141	U	0.0861	0.104	60.9	73.6	1	10.0-160			18.8	38
Vinyl acetate	0.706	U	0.280	0.232	39.7	32.9	1	10.0-128			18.8	40
Vinyl chloride	0.141	0.176	0.179	0.173	2.19	0.000	1	10.0-160	J6	J6	3.65	37
(S) Toluene-d8					*90.4*	*96.1*		*75.0-131*				
(S) Dibromofluoromethane					*96.2*	*93.7*		*65.0-129*				
(S) 4-Bromofluorobenzene					*94.7*	*103*		*67.0-138*				

Sample Narrative:

OS: Not all analytes reportable at lower dilution.

Method Blank (MB)

(MB) R3341601-2 09/12/18 22:33

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
cis-1,2-Dichloroethene	U		0.000690	0.00250
1,2-Dichloropropane	U		0.00127	0.00500
Tetrachloroethene	U		0.000700	0.00250
1,1,2-Trichlorotrifluoroethane	U		0.000675	0.00250
Trichloroethene	U		0.000400	0.00100
Xylenes, Total	U		0.00478	0.00650
(S) Toluene-d8	*111*			*75.0-131*
(S) Dibromofluoromethane	*87.2*			*65.0-129*
(S) 4-Bromofluorobenzene	*103*			*67.0-138*

Laboratory Control Sample (LCS)

(LCS) R3341601-1 09/12/18 21:27

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
cis-1,2-Dichloroethene	0.125	0.113	90.4	73.0-125	
1,2-Dichloropropane	0.125	0.121	96.5	74.0-125	
Tetrachloroethene	0.125	0.119	95.3	70.0-136	
1,1,2-Trichlorotrifluoroethane	0.125	0.126	101	61.0-139	
Trichloroethene	0.125	0.110	88.1	76.0-126	
Xylenes, Total	0.375	0.370	98.7	72.0-127	
(S) Toluene-d8			*97.3*	*75.0-131*	
(S) Dibromofluoromethane			*106*	*65.0-129*	
(S) 4-Bromofluorobenzene			*96.7*	*67.0-138*	

Method Blank (MB)

(MB) R3341808-1 09/13/18 13:31

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
cis-1,2-Dichloroethene	U		0.000690	0.00250
1,2-Dichloropropane	U		0.00127	0.00500
Tetrachloroethene	U		0.000700	0.00250
1,1,2-Trichlorotrifluoroethane	U		0.000675	0.00250
Trichloroethene	U		0.000400	0.00100
Xylenes, Total	U		0.00478	0.00650
(S) Toluene-d8	*101*			*75.0-131*
(S) Dibromofluoromethane	*102*			*65.0-129*
(S) 4-Bromofluorobenzene	*105*			*67.0-138*

Laboratory Control Sample (LCS)

(LCS) R3341808-2 09/13/18 13:50

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
cis-1,2-Dichloroethene	0.125	0.137	109	73.0-125	
1,2-Dichloropropane	0.125	0.142	114	74.0-125	
Tetrachloroethene	0.125	0.117	93.4	70.0-136	
1,1,2-Trichlorotrifluoroethane	0.125	0.138	110	61.0-139	
Trichloroethene	0.125	0.142	114	76.0-126	
Xylenes, Total	0.375	0.352	93.9	72.0-127	
(S) Toluene-d8			*99.1*	*75.0-131*	
(S) Dibromofluoromethane			*110*	*65.0-129*	
(S) 4-Bromofluorobenzene			*103*	*67.0-138*	

Method Blank (MB)

(MB) R3342518-2 09/17/18 13:02

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acetone	U		0.0137	0.0250
Acrylonitrile	U		0.00190	0.0125
Benzene	U		0.000400	0.00100
Bromobenzene	U		0.00105	0.0125
Bromochloromethane	U		0.00113	0.00500
Bromoform	U		0.00598	0.0250
n-Butylbenzene	U		0.00384	0.0125
sec-Butylbenzene	U		0.00253	0.0125
tert-Butylbenzene	U		0.00155	0.00500
Carbon disulfide	0.00696	J	0.00406	0.0125
Carbon tetrachloride	U		0.00108	0.00500
Chlorobenzene	U		0.000573	0.00250
Chlorodibromomethane	U		0.000450	0.00250
Chloroethane	U		0.00108	0.00500
Chloroform	U		0.000415	0.00250
Chloromethane	U		0.00139	0.0125
2-Chlorotoluene	U		0.000920	0.00250
4-Chlorotoluene	U		0.00113	0.00500
1,2-Dibromo-3-Chloropropane	U		0.00510	0.0250
1,2-Dibromoethane	U		0.000525	0.00250
Dibromomethane	U		0.00100	0.00500
1,2-Dichlorobenzene	U		0.00145	0.00500
1,3-Dichlorobenzene	U		0.00170	0.00500
1,4-Dichlorobenzene	U		0.00197	0.00500
trans-1,4-Dichloro-2-butene	U		0.00140	0.00500
Dichlorodifluoromethane	U		0.000818	0.00250
1,1-Dichloroethane	U		0.000575	0.00250
1,2-Dichloroethane	U		0.000475	0.00250
1,1-Dichloroethene	U		0.000500	0.00250
cis-1,2-Dichloroethene	U		0.000690	0.00250
trans-1,2-Dichloroethene	U		0.00143	0.00500
1,2-Dichloropropane	U		0.00127	0.00500
1,1-Dichloropropene	U		0.000700	0.00250
1,3-Dichloropropane	U		0.00175	0.00500
cis-1,3-Dichloropropene	U		0.000678	0.00250
trans-1,3-Dichloropropene	U		0.00153	0.00500
2,2-Dichloropropane	U		0.000793	0.00250
Di-isopropyl ether	U		0.000350	0.00100
Ethylbenzene	U		0.000530	0.00250
Hexachloro-1,3-butadiene	U		0.0127	0.0250

Method Blank (MB)

(MB) R3342518-2 09/17/18 13:02

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
n-Hexane	0.0106		0.00106	0.00500
2-Hexanone	U		0.0100	0.0250
Isopropylbenzene	U		0.000863	0.00250
p-Isopropyltoluene	U		0.00233	0.00500
2-Butanone (MEK)	U		0.0125	0.0250
Methylene Chloride	0.0134	J	0.00664	0.0250
4-Methyl-2-pentanone (MIBK)	U		0.0100	0.0250
Methyl tert-butyl ether	U		0.000295	0.00100
Naphthalene	U		0.00312	0.0125
n-Propylbenzene	U		0.00118	0.00500
Styrene	0.00327	J	0.00273	0.0125
1,1,1,2-Tetrachloroethane	U		0.000500	0.00250
1,1,2,2-Tetrachloroethane	U		0.000390	0.00250
Toluene	U		0.00125	0.00500
1,1,2-Trichlorotrifluoroethane	U		0.000675	0.00250
1,2,3-Trichlorobenzene	0.000685	J	0.000625	0.00250
1,2,4-Trichlorobenzene	U		0.00482	0.0125
1,1,1-Trichloroethane	U		0.000275	0.00250
1,1,2-Trichloroethane	U		0.000883	0.00250
Trichloroethene	U		0.000400	0.00100
Trichlorofluoromethane	U		0.000500	0.00250
1,2,3-Trichloropropane	U		0.00510	0.0125
1,2,3-Trimethylbenzene	U		0.00115	0.00500
1,2,4-Trimethylbenzene	U		0.00116	0.00500
1,3,5-Trimethylbenzene	U		0.00108	0.00500
Vinyl acetate	U		0.00352	0.0125
Vinyl chloride	U		0.000683	0.00250
Xylenes, Total	U		0.00478	0.00650
(S) Toluene-d8	*110*			*75.0-131*
(S) Dibromofluoromethane	*113*			*65.0-129*
(S) 4-Bromofluorobenzene	*102*			*67.0-138*

Laboratory Control Sample (LCS)

(LCS) R3342518-1 09/17/18 11:50

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acetone	0.625	0.507	81.1	10.0-160	
Acrylonitrile	0.625	0.798	128	45.0-153	

Laboratory Control Sample (LCS)

(LCS) R3342518-1 09/17/18 11:50

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.125	0.108	86.7	70.0-123	
Bromobenzene	0.125	0.128	102	73.0-121	
Bromochloromethane	0.125	0.107	86.0	77.0-128	
Bromoform	0.125	0.128	103	64.0-132	
n-Butylbenzene	0.125	0.148	118	68.0-135	
sec-Butylbenzene	0.125	0.158	126	74.0-130	
tert-Butylbenzene	0.125	0.145	116	75.0-127	
Carbon disulfide	0.125	0.108	86.2	56.0-133	
Carbon tetrachloride	0.125	0.149	119	66.0-128	
Chlorobenzene	0.125	0.116	92.7	76.0-128	
Chlorodibromomethane	0.125	0.110	88.0	74.0-127	
Chloroethane	0.125	0.113	90.4	61.0-134	
Chloroform	0.125	0.108	86.1	72.0-123	
Chloromethane	0.125	0.0964	77.1	51.0-138	
2-Chlorotoluene	0.125	0.122	97.4	75.0-124	
4-Chlorotoluene	0.125	0.130	104	75.0-124	
1,2-Dibromo-3-Chloropropane	0.125	0.119	94.9	59.0-130	
1,2-Dibromoethane	0.125	0.0899	72.0	74.0-128	J4
Dibromomethane	0.125	0.135	108	75.0-122	
1,2-Dichlorobenzene	0.125	0.109	87.3	76.0-124	
1,3-Dichlorobenzene	0.125	0.0998	79.8	76.0-125	
1,4-Dichlorobenzene	0.125	0.0916	73.3	77.0-121	J4
trans-1,4-Dichloro-2-butene	0.125	0.121	96.9	45.0-143	
Dichlorodifluoromethane	0.125	0.127	102	43.0-156	
1,1-Dichloroethane	0.125	0.157	126	70.0-127	
1,2-Dichloroethane	0.125	0.127	102	65.0-131	
1,1-Dichloroethene	0.125	0.101	81.2	65.0-131	
cis-1,2-Dichloroethene	0.125	0.143	114	73.0-125	
trans-1,2-Dichloroethene	0.125	0.122	97.4	71.0-125	
1,2-Dichloropropane	0.125	0.110	88.2	74.0-125	
1,1-Dichloropropene	0.125	0.150	120	73.0-125	
1,3-Dichloropropane	0.125	0.126	101	80.0-125	
cis-1,3-Dichloropropene	0.125	0.151	121	76.0-127	
trans-1,3-Dichloropropene	0.125	0.131	105	73.0-127	
2,2-Dichloropropane	0.125	0.156	125	59.0-135	
Di-isopropyl ether	0.125	0.132	106	60.0-136	
Ethylbenzene	0.125	0.105	84.3	74.0-126	
Hexachloro-1,3-butadiene	0.125	0.129	103	57.0-150	
2-Hexanone	0.625	0.663	106	54.0-147	
n-Hexane	0.125	0.176	141	55.0-137	J4

Laboratory Control Sample (LCS)

(LCS) R3342518-1 09/17/18 11:50

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Isopropylbenzene	0.125	0.110	88.4	72.0-127	
p-Isopropyltoluene	0.125	0.136	109	72.0-133	
2-Butanone (MEK)	0.625	0.766	122	30.0-160	
Methylene Chloride	0.125	0.111	88.6	68.0-123	
4-Methyl-2-pentanone (MIBK)	0.625	0.727	116	56.0-143	
Methyl tert-butyl ether	0.125	0.152	121	66.0-132	
Naphthalene	0.125	0.112	89.9	59.0-130	
n-Propylbenzene	0.125	0.114	90.8	74.0-126	
Styrene	0.125	0.0960	76.8	72.0-127	
1,1,1,2-Tetrachloroethane	0.125	0.104	82.8	74.0-129	
1,1,2,2-Tetrachloroethane	0.125	0.161	129	68.0-128	J4
Toluene	0.125	0.101	80.4	75.0-121	
1,1,2-Trichlorotrifluoroethane	0.125	0.156	125	61.0-139	
1,2,3-Trichlorobenzene	0.125	0.118	94.6	59.0-139	
1,2,4-Trichlorobenzene	0.125	0.129	103	62.0-137	
1,1,1-Trichloroethane	0.125	0.171	137	69.0-126	J4
1,1,2-Trichloroethane	0.125	0.113	90.2	78.0-123	
Trichloroethene	0.125	0.118	94.5	76.0-126	
Trichlorofluoromethane	0.125	0.156	125	61.0-142	
1,2,3-Trichloropropane	0.125	0.132	106	67.0-129	
1,2,3-Trimethylbenzene	0.125	0.140	112	74.0-124	
1,2,4-Trimethylbenzene	0.125	0.129	103	70.0-126	
1,3,5-Trimethylbenzene	0.125	0.137	109	73.0-127	
Vinyl acetate	0.625	0.873	140	43.0-159	
Vinyl chloride	0.125	0.112	89.8	63.0-134	
Xylenes, Total	0.375	0.306	81.6	72.0-127	
(S) Toluene-d8			*101*	*75.0-131*	
(S) Dibromofluoromethane			*108*	*65.0-129*	
(S) 4-Bromofluorobenzene			*102*	*67.0-138*	

Method Blank (MB)

(MB) R3342545-1 09/17/18 11:24

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Bromodichloromethane	U		0.000788	0.00250
Bromomethane	U		0.00370	0.0125
Iodomethane	U		0.00605	0.0125
Tetrachloroethene	U		0.000700	0.00250
(S) Toluene-d8	*109*			*75.0-131*
(S) Dibromofluoromethane	*104*			*65.0-129*
(S) 4-Bromofluorobenzene	*103*			*67.0-138*

Laboratory Control Sample (LCS)

(LCS) R3342545-2 09/17/18 11:45

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Bromodichloromethane	0.125	0.103	82.4	73.0-121	
Bromomethane	0.125	0.124	99.3	56.0-147	
Iodomethane	0.625	0.280	44.7	74.0-134	J4
Tetrachloroethene	0.125	0.116	92.7	70.0-136	
(S) Toluene-d8			*104*	*75.0-131*	
(S) Dibromofluoromethane			*100*	*65.0-129*	
(S) 4-Bromofluorobenzene			*104*	*67.0-138*	

Method Blank (MB)

(MB) R3342055-3 09/12/18 22:43

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Acetone	U		1.05	25.0
Acrylonitrile	U		0.873	5.00
Benzene	U		0.0896	0.500
Bromobenzene	U		0.133	0.500
Bromodichloromethane	U		0.0800	0.500
Bromochloromethane	U		0.145	0.500
Bromoform	U		0.186	0.500
Bromomethane	U		0.157	2.50
n-Butylbenzene	U		0.143	0.500
sec-Butylbenzene	U		0.134	0.500
tert-Butylbenzene	U		0.183	0.500
Carbon disulfide	U		0.101	0.500
Carbon tetrachloride	U		0.159	0.500
Chlorobenzene	U		0.140	0.500
Chlorodibromomethane	U		0.128	0.500
Chloroethane	U		0.141	2.50
Chloroform	U		0.0860	0.500
Chloromethane	U		0.153	1.25
2-Chlorotoluene	U		0.111	0.500
4-Chlorotoluene	U		0.0972	0.500
1,2-Dibromo-3-Chloropropane	U		0.325	2.50
1,2-Dibromoethane	U		0.193	0.500
Dibromomethane	U		0.117	0.500
1,2-Dichlorobenzene	U		0.101	0.500
1,3-Dichlorobenzene	U		0.130	0.500
1,4-Dichlorobenzene	U		0.121	0.500
Dichlorodifluoromethane	U		0.127	2.50
1,1-Dichloroethane	U		0.114	0.500
1,2-Dichloroethane	U		0.108	0.500
1,1-Dichloroethene	U		0.188	0.500
cis-1,2-Dichloroethene	U		0.0933	0.500
trans-1,2-Dichloroethene	U		0.152	0.500
1,2-Dichloropropane	U		0.190	0.500
1,1-Dichloropropene	U		0.128	0.500
1,3-Dichloropropane	U		0.147	1.00
cis-1,3-Dichloropropene	U		0.0976	0.500
trans-1,3-Dichloropropene	U		0.222	0.500
trans-1,4-Dichloro-2-butene	U		0.257	5.00
2,2-Dichloropropane	U		0.0929	0.500
Di-isopropyl ether	U		0.0924	0.500

Method Blank (MB)

(MB) R3342055-3 09/12/18 22:43

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Ethylbenzene	U		0.158	0.500
Hexachloro-1,3-butadiene	0.274	J	0.157	1.00
2-Hexanone	U		0.757	5.00
n-Hexane	U		0.305	5.00
Iodomethane	U		0.377	10.0
Isopropylbenzene	U		0.126	0.500
p-Isopropyltoluene	U		0.138	0.500
2-Butanone (MEK)	U		1.28	5.00
Methylene Chloride	U		1.07	2.50
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00
Methyl tert-butyl ether	U		0.102	0.500
Naphthalene	U		0.174	2.50
n-Propylbenzene	U		0.162	0.500
Styrene	U		0.117	0.500
1,1,1,2-Tetrachloroethane	U		0.120	0.500
1,1,2,2-Tetrachloroethane	U		0.130	0.500
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500
Tetrachloroethene	U		0.199	0.500
Toluene	U		0.412	0.500
1,2,3-Trichlorobenzene	U		0.164	0.500
1,2,4-Trichlorobenzene	U		0.355	0.500
1,1,1-Trichloroethane	U		0.0940	0.500
1,1,2-Trichloroethane	U		0.186	0.500
Trichloroethene	U		0.153	0.500
Trichlorofluoromethane	U		0.130	2.50
1,2,3-Trichloropropane	U		0.247	2.50
1,2,4-Trimethylbenzene	U		0.123	0.500
1,2,3-Trimethylbenzene	U		0.0739	0.500
1,3,5-Trimethylbenzene	U		0.124	0.500
Vinyl acetate	U		0.645	5.00
Vinyl chloride	U		0.118	0.500
Xylenes, Total	U		0.316	1.50
(S) Toluene-d8	*108*			*80.0-120*
(S) Dibromofluoromethane	*91.7*			*75.0-120*
(S) 4-Bromofluorobenzene	*103*			*77.0-126*

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

(LCS) R3342055-1 09/12/18 21:24 • (LCSD) R3342055-2 09/12/18 21:44

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 %
Acetone	125	117	124	93.6	99.4	19.0-160			6.01	27
Acrylonitrile	125	130	134	104	107	55.0-149			2.91	20
Benzene	25.0	23.0	22.8	92.1	91.2	70.0-123			0.979	20
Bromobenzene	25.0	24.3	24.1	97.0	96.3	73.0-121			0.781	20
Bromodichloromethane	25.0	24.3	24.1	97.2	96.2	75.0-120			0.965	20
Bromochloromethane	25.0	28.4	26.9	113	108	76.0-122			5.10	20
Bromoform	25.0	27.8	26.9	111	108	68.0-132			3.33	20
Bromomethane	25.0	11.8	14.6	47.2	58.3	10.0-160			21.2	25
n-Butylbenzene	25.0	21.4	21.5	85.5	86.0	73.0-125			0.595	20
sec-Butylbenzene	25.0	23.5	23.4	94.0	93.4	75.0-125			0.599	20
tert-Butylbenzene	25.0	23.6	23.2	94.6	93.0	76.0-124			1.70	20
Carbon disulfide	25.0	20.9	20.9	83.5	83.5	61.0-128			0.0728	20
Carbon tetrachloride	25.0	22.8	23.2	91.3	93.0	68.0-126			1.79	20
Chlorobenzene	25.0	27.2	27.7	109	111	80.0-121			1.65	20
Chlorodibromomethane	25.0	26.6	26.4	107	106	77.0-125			0.923	20
Chloroethane	25.0	20.6	20.6	82.5	82.2	47.0-150			0.292	20
Chloroform	25.0	23.2	23.7	92.7	94.8	73.0-120			2.26	20
Chloromethane	25.0	20.3	20.4	81.3	81.7	41.0-142			0.424	20
2-Chlorotoluene	25.0	24.5	24.1	97.8	96.3	76.0-123			1.58	20
4-Chlorotoluene	25.0	22.6	22.4	90.2	89.7	75.0-122			0.643	20
1,2-Dibromo-3-Chloropropane	25.0	27.5	28.3	110	113	58.0-134			2.98	20
1,2-Dibromoethane	25.0	27.9	28.4	112	114	80.0-122			1.76	20
Dibromomethane	25.0	22.9	22.9	91.7	91.5	80.0-120			0.211	20
1,2-Dichlorobenzene	25.0	25.8	25.2	103	101	79.0-121			2.32	20
1,3-Dichlorobenzene	25.0	24.9	24.2	99.4	96.9	79.0-120			2.61	20
1,4-Dichlorobenzene	25.0	24.7	23.1	98.7	92.4	79.0-120			6.56	20
Dichlorodifluoromethane	25.0	25.0	24.9	99.9	99.6	51.0-149			0.350	20
1,1-Dichloroethane	25.0	22.1	22.6	88.5	90.3	70.0-126			2.05	20
1,2-Dichloroethane	25.0	22.5	22.3	90.1	89.2	70.0-128			1.06	20
1,1-Dichloroethene	25.0	23.3	23.1	93.1	92.2	71.0-124			0.959	20
cis-1,2-Dichloroethene	25.0	24.3	23.1	97.2	92.2	73.0-120			5.23	20
trans-1,2-Dichloroethene	25.0	23.6	23.6	94.4	94.4	73.0-120			0.00890	20
1,2-Dichloropropane	25.0	24.9	24.5	99.5	98.1	77.0-125			1.41	20
1,1-Dichloropropene	25.0	22.4	22.2	89.8	88.8	74.0-126			1.09	20
1,3-Dichloropropane	25.0	26.7	27.0	107	108	80.0-120			0.998	20
cis-1,3-Dichloropropene	25.0	26.8	27.4	107	110	80.0-123			2.26	20
trans-1,3-Dichloropropene	25.0	25.9	25.0	103	99.9	78.0-124			3.54	20
trans-1,4-Dichloro-2-butene	25.0	18.3	18.5	73.0	74.2	33.0-144			1.52	20
2,2-Dichloropropane	25.0	20.1	21.0	80.5	84.1	58.0-130			4.34	20
Di-isopropyl ether	25.0	23.3	23.0	93.2	91.9	58.0-138			1.45	20

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

(LCS) R3342055-1 09/12/18 21:24 • (LCSD) R3342055-2 09/12/18 21:44

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 %
Ethylbenzene	25.0	26.6	27.3	106	109	79.0-123			2.65	20
Hexachloro-1,3-butadiene	25.0	21.6	20.8	86.5	83.3	54.0-138			3.83	20
2-Hexanone	125	148	150	118	120	67.0-149			1.27	20
n-Hexane	25.0	21.1	21.5	84.5	85.8	57.0-133			1.61	20
Iodomethane	125	95.6	110	76.5	88.2	33.0-147			14.2	26
Isopropylbenzene	25.0	28.8	28.2	115	113	76.0-127			2.10	20
p-Isopropyltoluene	25.0	23.9	23.7	95.5	95.0	76.0-125			0.568	20
2-Butanone (MEK)	125	123	124	98.2	99.6	44.0-160			1.40	20
Methylene Chloride	25.0	21.6	21.5	86.6	86.1	67.0-120			0.523	20
4-Methyl-2-pentanone (MIBK)	125	135	137	108	110	68.0-142			1.88	20
Methyl tert-butyl ether	25.0	22.8	23.2	91.3	92.7	68.0-125			1.52	20
Naphthalene	25.0	24.7	25.0	98.6	99.8	54.0-135			1.19	20
n-Propylbenzene	25.0	25.9	25.7	104	103	77.0-124			0.840	20
Styrene	25.0	29.2	28.5	117	114	73.0-130			2.55	20
1,1,1,2-Tetrachloroethane	25.0	27.0	26.9	108	107	75.0-125			0.409	20
1,1,2,2-Tetrachloroethane	25.0	27.7	26.6	111	106	65.0-130			4.00	20
1,1,2-Trichlorotrifluoroethane	25.0	22.8	23.3	91.0	93.1	69.0-132			2.26	20
Tetrachloroethene	25.0	26.8	26.7	107	107	72.0-132			0.472	20
Toluene	25.0	25.4	25.6	102	102	79.0-120			0.747	20
1,2,3-Trichlorobenzene	25.0	25.1	25.7	100	103	50.0-138			2.56	20
1,2,4-Trichlorobenzene	25.0	24.7	24.2	98.6	96.7	57.0-137			1.97	20
1,1,1-Trichloroethane	25.0	22.5	22.3	89.9	89.3	73.0-124			0.643	20
1,1,2-Trichloroethane	25.0	26.8	26.9	107	108	80.0-120			0.499	20
Trichloroethene	25.0	24.7	25.3	98.8	101	78.0-124			2.52	20
Trichlorofluoromethane	25.0	24.7	24.8	98.9	99.4	59.0-147			0.503	20
1,2,3-Trichloropropane	25.0	27.5	26.3	110	105	73.0-130			4.43	20
1,2,4-Trimethylbenzene	25.0	24.2	23.5	96.9	94.0	76.0-121			3.03	20
1,2,3-Trimethylbenzene	25.0	22.5	22.2	90.1	88.7	77.0-120			1.65	20
1,3,5-Trimethylbenzene	25.0	26.5	26.7	106	107	76.0-122			0.744	20
Vinyl acetate	125	90.6	85.2	72.5	68.2	11.0-160			6.15	20
Vinyl chloride	25.0	24.6	24.3	98.6	97.2	67.0-131			1.36	20
Xylenes, Total	75.0	79.0	80.2	105	107	79.0-123			1.51	20
(S) Toluene-d8				*105*	*107*	*80.0-120*				
(S) Dibromofluoromethane				*90.3*	*91.2*	*75.0-120*				
(S) 4-Bromofluorobenzene				*108*	*106*	*77.0-126*				

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Abbreviations and Definitions

(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
MDL	Method Detection Limit.
MDL (dry)	Method Detection Limit.
RDL	Reported Detection Limit.
RDL (dry)	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(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.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
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.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

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.
J0	J0: Calibration verification outside of acceptance limits. Result is estimated.
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.

Pace National 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.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T 104704245-17-14
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

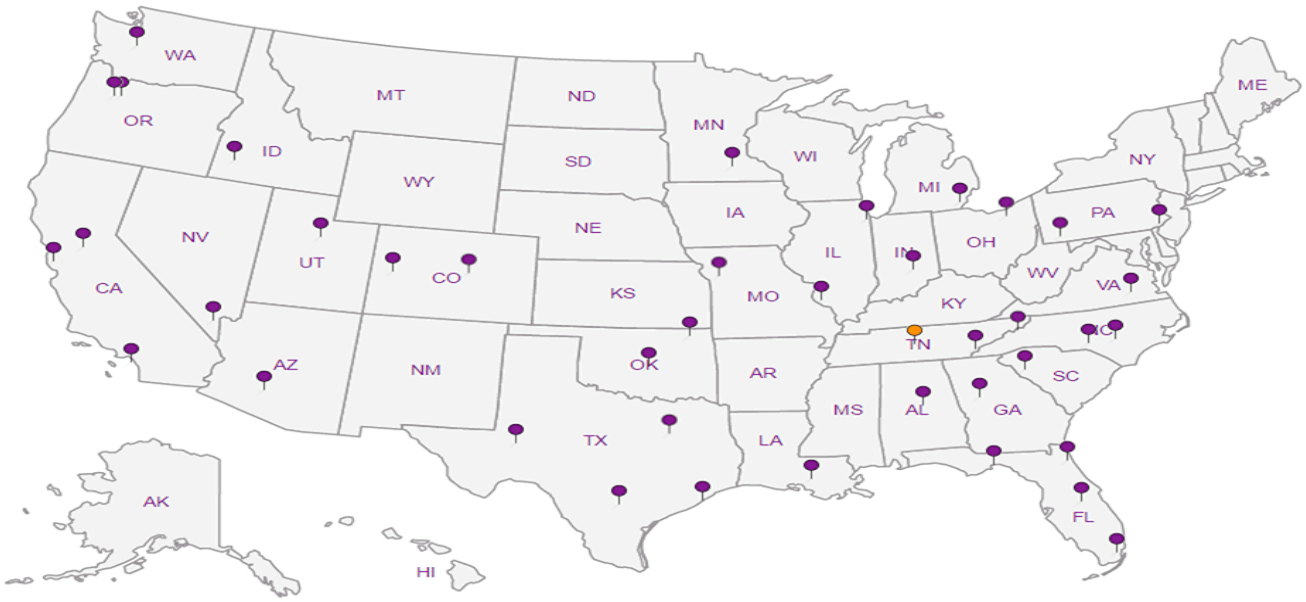
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

Our Locations

Pace National 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. Pace National performs all testing at our central laboratory.



PES Environmental, Inc.- WA

1215 Fourth Ave., Suite 1350
Seattle, WA 98161

Billing Information:
Attn: Accounts Payable
1215 Fourth Ave., Ste. 1350
Seattle, WA 98161

Pres Chk

Report to: Brian O'Neal/Bill Haldeman

Email To: boneal@pesenv.com; bhaldeman@pesenv.com

Project Description: American Linen

City/State Collected: SEATTLE, WA

Phone: 206-529-3980
Fax: 206-529-3985

Client Project # 1413.001.05.304

Lab Project # PESENVSWA-ALP

Collected by (print): SMCKERNAN

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y A

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOCs V8260C 40mlAmb/MeOH5ml/Syr	dry weight 2ozClr-NoPres	trip blk V8260LLC 40mlAmb-HCl-Blk	Remarks	Sample # (lab only)
IW-23C-42	G	SS	42	9/4/18	1630	3	X	X	X		-01
IW-54B-8		SS	8	9/5/18	1700	2	X	X	X		-02
IW-54B-13		SS	13	9/6/18	0855		X	X	X		-03
IW-54B-19		SS	19		0830		X	X	X	HOLD	
IW-54B-21		SS	21		0900		X	X	X		-04
IW-54B-25		SS	25		1000		X	X	X	HOLD	
IW-54B-33		SS	33		1015		X	X	X		-05
IW-24C-36		SS	36	9/7/18	1140		X	X	X	HOLD	
IW-24C-48		SS	48		1340		X	X	X		-06
IW-24C-55		SS	55		1420		X	X	X		-07

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: RAD SCREEN: <0.5 mR/hr

pH _____ Temp _____
Flow _____ Other _____

Samples returned via: __ UPS X FedEx __ Courier _____

Tracking # 4510 1054 1900

Relinquished by : (Signature) — Date: 9/7/18 — Time: 1600

Relinquished by : (Signature) — Date: — Time:

Relinquished by : (Signature) — Date: — Time:

Received by: (Signature)

Received by: (Signature)

Received for lab by: (Signature) — Date: 9/8/18 — Time: 8:45

Trip Blank Received: Yes / No
HCL / MeoH
TBR

Temp: 4.2 °C Bottles Received: 20

If preservation required by Login: Date/Time

09-0027 Condition: NCF / OK

Sample Receipt Checklist
COC Seal Present/Intact: __NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N

Chain of Custody Page 1 of 1

Pace Analytical
National Center for Testing & Innovation

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

L# L1024338
D180

Acctnum: PESENVSWA
Template: T139825
Prelogin: P668288
TSR: 110 - Brian Ford
PB:
Shipped Via: FedEX Ground

Chain of Custody Page 2 of 2

Pace Analytical® National Center for Testing & Innovation

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

L# L1024338

Table #

Acctnum: PESENVSWA

Template: T139825

Prelogin: P668288

TSR: 110 - Brian Ford

PB:

Shipped Via: FedEx Ground

PES Environmental, Inc.- WA

1215 Fourth Ave., Suite 1350
Seattle, WA 98161

Billing Information:
Attn: Accounts Payable
1215 Fourth Ave., Ste. 1350
Seattle, WA 98161

Pres Chk

Report to: Brian O'Neal/Bill Haldeman

Email To: boneal@pesenv.com; bhaldeman@pesenv.com

Project Description: American Linen

City/State Collected: SEATTLE, WA

Phone: 206-529-3980
Fax: 206-529-3985

Client Project # 1413.001.05.304

Lab Project # PESENVSWA-ALP

Collected by (print): S. McKERNAN

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOCs V8260C 40mlAmb/MeOH5ml/Syr	dry weight 2ozClr-NoPres	trip blk V8260LLC 40mlAmb-HCl-Blk	Remarks	Sample # (lab only)
TRIP BLANK	—	WSS	—	—	—	1			X		06
		SS									
		SS									
		SS									
		SS									
		SS									
		SS									
		SS									
		SS									
		SS									

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: RAD SCREEN: <0.5 mR/hr

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS X FedEx __ Courier __ _____

Tracking # 4510 1654 1900

Sample Receipt Checklist
COC Seal Present/Intact: __NP __Y __N
COC Signed/Accurate: __Y __N
Bottles arrive intact: __Y __N
Correct bottles used: __Y __N
Sufficient volume sent: __Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N

Trip Blank Received: Yes / No
HCl / MeOH
TBR

Temp: 4.2°C Bottles Received: 20

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)
	9/7/18	1600	
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)
			Sydney M

Date: 9/8/18 Time: 8:45

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

September 21, 2018

PES Environmental, Inc.- WA

Sample Delivery Group:	L1025469
Samples Received:	09/13/2018
Project Number:	1413.001.05.304
Description:	American Linen
Site:	1413.001.05.304
Report To:	Brian O'Neal/Bill Haldeman 1215 Fourth Ave., Suite 1350 Seattle, WA 98161

Entire Report Reviewed By:

Brian Ford

Brian Ford
Project Manager

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 Pace National is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

TABLE OF CONTENTS

Cp: Cover Page 1

Tc: Table of Contents 2

Ss: Sample Summary 3

Cn: Case Narrative 5

Sr: Sample Results 6

IW-24C-66 L1025469-01 6

IW-24C-75 L1025469-02 8

IW-24C-80 L1025469-03 10

IW-27C-45 L1025469-04 12

IW-14D-45 L1025469-05 14

IW-14D-55 L1025469-06 16

IW-14D-65 L1025469-07 18

IW-14D-75 L1025469-08 20

IW-14D-86 L1025469-09 22

IW-14D-95 L1025469-10 24

IW-15D-54 L1025469-11 26

TRIP BLANK L1025469-12 28

Qc: Quality Control Summary 30

Total Solids by Method 2540 G-2011 30

Volatile Organic Compounds (GC/MS) by Method 8260C 32

Gl: Glossary of Terms 52

Al: Accreditations & Locations 53

Sc: Sample Chain of Custody 54

IW-24C-66 L1025469-01 Solid

Collected by: S. McKernan | Collected date/time: 09/10/18 10:30 | Received date/time: 09/13/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1166857	1	09/18/18 09:52	09/18/18 10:05	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1168763	1	09/13/18 22:12	09/20/18 18:29	BMB
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1169487	400	09/13/18 22:12	09/21/18 14:38	JHH

IW-24C-75 L1025469-02 Solid

Collected by: S. McKernan | Collected date/time: 09/10/18 10:00 | Received date/time: 09/13/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1166857	1	09/18/18 09:52	09/18/18 10:05	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1168763	1.08	09/13/18 22:12	09/20/18 18:52	BMB
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1169487	432	09/13/18 22:12	09/21/18 14:58	JHH

IW-24C-80 L1025469-03 Solid

Collected by: S. McKernan | Collected date/time: 09/10/18 11:00 | Received date/time: 09/13/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1166857	1	09/18/18 09:52	09/18/18 10:05	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1168529	1	09/13/18 22:12	09/20/18 01:04	JHH
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1168808	20	09/13/18 22:12	09/20/18 17:33	BMB

IW-27C-45 L1025469-04 Solid

Collected by: S. McKernan | Collected date/time: 09/10/18 11:55 | Received date/time: 09/13/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1166858	1	09/17/18 15:02	09/17/18 15:11	KDW
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1168529	1	09/13/18 22:12	09/20/18 01:24	JHH
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1168808	20	09/13/18 22:12	09/20/18 17:53	BMB

IW-14D-45 L1025469-05 Solid

Collected by: S. McKernan | Collected date/time: 09/11/18 08:55 | Received date/time: 09/13/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1166858	1	09/17/18 15:02	09/17/18 15:11	KDW
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1168529	1	09/13/18 22:12	09/20/18 01:44	JHH
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1168808	2	09/13/18 22:12	09/20/18 16:16	JAH

IW-14D-55 L1025469-06 Solid

Collected by: S. McKernan | Collected date/time: 09/11/18 09:50 | Received date/time: 09/13/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1166858	1	09/17/18 15:02	09/17/18 15:11	KDW
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1168529	1	09/13/18 22:12	09/20/18 02:04	JHH
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1168808	40	09/13/18 22:12	09/20/18 18:12	BMB

IW-14D-65 L1025469-07 Solid

Collected by: S. McKernan | Collected date/time: 09/11/18 11:00 | Received date/time: 09/13/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1166858	1	09/17/18 15:02	09/17/18 15:11	KDW
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1168529	1	09/13/18 22:12	09/20/18 02:24	JHH
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1168808	1	09/13/18 22:12	09/20/18 16:35	JAH

IW-14D-75 L1025469-08 Solid

Collected by: S. McKernan | Collected date/time: 09/11/18 12:00 | Received date/time: 09/13/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1166858	1	09/17/18 15:02	09/17/18 15:11	KDW
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1168529	1	09/13/18 22:12	09/20/18 02:44	JHH
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1168808	1	09/13/18 22:12	09/20/18 17:14	BMB

IW-14D-86 L1025469-09 Solid

Collected by: S. McKernan | Collected date/time: 09/11/18 12:35 | Received date/time: 09/13/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1166858	1	09/17/18 15:02	09/17/18 15:11	KDW
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1168529	1	09/13/18 22:12	09/20/18 03:04	JHH
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1169029	1	09/13/18 22:12	09/20/18 23:35	JHH
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1169450	1	09/13/18 22:12	09/21/18 15:32	JHH

IW-14D-95 L1025469-10 Solid

Collected by: S. McKernan | Collected date/time: 09/11/18 14:30 | Received date/time: 09/13/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1166858	1	09/17/18 15:02	09/17/18 15:11	KDW
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1168529	1	09/13/18 22:12	09/20/18 03:24	JHH
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1169029	8	09/13/18 22:12	09/20/18 23:53	JHH
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1169450	8	09/13/18 22:12	09/21/18 15:52	JHH

IW-15D-54 L1025469-11 Solid

Collected by: S. McKernan | Collected date/time: 09/11/18 16:30 | Received date/time: 09/13/18 08:45

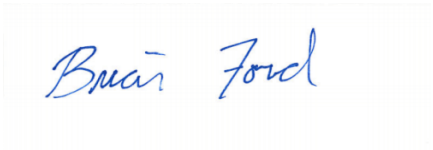
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1166858	1	09/17/18 15:02	09/17/18 15:11	KDW
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1168529	1	09/13/18 22:12	09/20/18 03:43	JHH
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1169029	4	09/13/18 22:12	09/21/18 00:12	JHH
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1169450	4	09/13/18 22:12	09/21/18 16:11	JHH

TRIP BLANK L1025469-12 GW

Collected by: S. McKernan | Collected date/time: 09/10/18 00:00 | Received date/time: 09/13/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1166389	1	09/14/18 16:28	09/14/18 16:28	BMB

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, 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.



Brian Ford
Project Manager

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	80.9		1	09/18/2018 10:05	WG1166857

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0169	0.0309	1	09/20/2018 18:29	WG1168763
Acrylonitrile	U		0.00235	0.0155	1	09/20/2018 18:29	WG1168763
Benzene	U		0.000495	0.00124	1	09/20/2018 18:29	WG1168763
Bromobenzene	U		0.00130	0.0155	1	09/20/2018 18:29	WG1168763
Bromodichloromethane	U		0.390	1.24	400	09/21/2018 14:38	WG1169487
Bromochloromethane	U		0.00140	0.00618	1	09/20/2018 18:29	WG1168763
Bromoform	U		0.00740	0.0309	1	09/20/2018 18:29	WG1168763
Bromomethane	U		1.83	6.18	400	09/21/2018 14:38	WG1169487
n-Butylbenzene	0.00916	J	0.00475	0.0155	1	09/20/2018 18:29	WG1168763
sec-Butylbenzene	0.00315	J	0.00313	0.0155	1	09/20/2018 18:29	WG1168763
tert-Butylbenzene	U		0.00192	0.00618	1	09/20/2018 18:29	WG1168763
Carbon disulfide	U		0.00502	0.0155	1	09/20/2018 18:29	WG1168763
Carbon tetrachloride	U		0.00134	0.00618	1	09/20/2018 18:29	WG1168763
Chlorobenzene	U		0.000709	0.00309	1	09/20/2018 18:29	WG1168763
Chlorodibromomethane	U		0.000557	0.00309	1	09/20/2018 18:29	WG1168763
Chloroethane	U		0.00134	0.00618	1	09/20/2018 18:29	WG1168763
Chloroform	U		0.000513	0.00309	1	09/20/2018 18:29	WG1168763
Chloromethane	U		0.00172	0.0155	1	09/20/2018 18:29	WG1168763
2-Chlorotoluene	U		0.00114	0.00309	1	09/20/2018 18:29	WG1168763
4-Chlorotoluene	U		0.00140	0.00618	1	09/20/2018 18:29	WG1168763
1,2-Dibromo-3-Chloropropane	U		0.00631	0.0309	1	09/20/2018 18:29	WG1168763
1,2-Dibromoethane	U		0.000649	0.00309	1	09/20/2018 18:29	WG1168763
Dibromomethane	U		0.00124	0.00618	1	09/20/2018 18:29	WG1168763
1,2-Dichlorobenzene	U		0.00179	0.00618	1	09/20/2018 18:29	WG1168763
1,3-Dichlorobenzene	U		0.00210	0.00618	1	09/20/2018 18:29	WG1168763
1,4-Dichlorobenzene	U	J4	0.00244	0.00618	1	09/20/2018 18:29	WG1168763
Dichlorodifluoromethane	U		0.00101	0.00309	1	09/20/2018 18:29	WG1168763
1,1-Dichloroethane	U		0.000711	0.00309	1	09/20/2018 18:29	WG1168763
1,2-Dichloroethane	U		0.000587	0.00309	1	09/20/2018 18:29	WG1168763
1,1-Dichloroethene	0.0130		0.000618	0.00309	1	09/20/2018 18:29	WG1168763
cis-1,2-Dichloroethene	2.18		0.341	1.24	400	09/21/2018 14:38	WG1169487
trans-1,2-Dichloroethene	0.0248		0.00177	0.00618	1	09/20/2018 18:29	WG1168763
1,2-Dichloropropane	U		0.00157	0.00618	1	09/20/2018 18:29	WG1168763
1,1-Dichloropropene	U		0.000866	0.00309	1	09/20/2018 18:29	WG1168763
1,3-Dichloropropane	U		0.00216	0.00618	1	09/20/2018 18:29	WG1168763
cis-1,3-Dichloropropene	U	J4	0.000839	0.00309	1	09/20/2018 18:29	WG1168763
trans-1,3-Dichloropropene	U		0.00189	0.00618	1	09/20/2018 18:29	WG1168763
trans-1,4-Dichloro-2-butene	U		0.00173	0.00618	1	09/20/2018 18:29	WG1168763
2,2-Dichloropropane	U		0.000981	0.00309	1	09/20/2018 18:29	WG1168763
Di-isopropyl ether	U		0.000433	0.00124	1	09/20/2018 18:29	WG1168763
Ethylbenzene	U		0.262	1.24	400	09/21/2018 14:38	WG1169487
Hexachloro-1,3-butadiene	U		0.0157	0.0309	1	09/20/2018 18:29	WG1168763
2-Hexanone	U		0.0124	0.0309	1	09/20/2018 18:29	WG1168763
n-Hexane	0.00438	J	0.00131	0.00618	1	09/20/2018 18:29	WG1168763
Iodomethane	U		0.00748	0.0155	1	09/20/2018 18:29	WG1168763
Isopropylbenzene	0.00161	J	0.00107	0.00309	1	09/20/2018 18:29	WG1168763
p-Isopropyltoluene	0.00325	J	0.00288	0.00618	1	09/20/2018 18:29	WG1168763
2-Butanone (MEK)	U		0.0155	0.0309	1	09/20/2018 18:29	WG1168763
Methylene Chloride	0.00907	B J	0.00821	0.0309	1	09/20/2018 18:29	WG1168763
4-Methyl-2-pentanone (MIBK)	U		0.0124	0.0309	1	09/20/2018 18:29	WG1168763

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000365	0.00124	1	09/20/2018 18:29	WG1168763
Naphthalene	0.00746	J	0.00386	0.0155	1	09/20/2018 18:29	WG1168763
n-Propylbenzene	0.00663		0.00146	0.00618	1	09/20/2018 18:29	WG1168763
Styrene	U	J0 J4	0.00338	0.0155	1	09/20/2018 18:29	WG1168763
1,1,1,2-Tetrachloroethane	U		0.000618	0.00309	1	09/20/2018 18:29	WG1168763
1,1,2,2-Tetrachloroethane	U	J4	0.000482	0.00309	1	09/20/2018 18:29	WG1168763
1,1,2-Trichlorotrifluoroethane	U		0.000835	0.00309	1	09/20/2018 18:29	WG1168763
Tetrachloroethene	210		0.346	1.24	400	09/21/2018 14:38	WG1169487
Toluene	U		0.618	2.47	400	09/21/2018 14:38	WG1169487
1,2,3-Trichlorobenzene	U		0.000773	0.00309	1	09/20/2018 18:29	WG1168763
1,2,4-Trichlorobenzene	U		0.00596	0.0155	1	09/20/2018 18:29	WG1168763
1,1,1-Trichloroethane	U		0.000340	0.00309	1	09/20/2018 18:29	WG1168763
1,1,2-Trichloroethane	U		0.00109	0.00309	1	09/20/2018 18:29	WG1168763
Trichloroethene	1.54		0.198	0.495	400	09/21/2018 14:38	WG1169487
Trichlorofluoromethane	U		0.000618	0.00309	1	09/20/2018 18:29	WG1168763
1,2,3-Trichloropropane	U		0.00631	0.0155	1	09/20/2018 18:29	WG1168763
1,2,4-Trimethylbenzene	0.0427		0.00143	0.00618	1	09/20/2018 18:29	WG1168763
1,2,3-Trimethylbenzene	0.0149		0.00142	0.00618	1	09/20/2018 18:29	WG1168763
1,3,5-Trimethylbenzene	0.0148		0.00134	0.00618	1	09/20/2018 18:29	WG1168763
Vinyl acetate	U		0.00435	0.0155	1	09/20/2018 18:29	WG1168763
Vinyl chloride	U		0.000845	0.00309	1	09/20/2018 18:29	WG1168763
Xylenes, Total	0.0121		0.00591	0.00804	1	09/20/2018 18:29	WG1168763
(S) Toluene-d8	*114*			*75.0-131*		*09/20/2018 18:29*	WG1168763
(S) Toluene-d8	*101*			*75.0-131*		*09/21/2018 14:38*	WG1169487
(S) Dibromofluoromethane	*91.9*			*65.0-129*		*09/20/2018 18:29*	WG1168763
(S) Dibromofluoromethane	*103*			*65.0-129*		*09/21/2018 14:38*	WG1169487
(S) 4-Bromofluorobenzene	*100*			*67.0-138*		*09/20/2018 18:29*	WG1168763
(S) 4-Bromofluorobenzene	*109*			*67.0-138*		*09/21/2018 14:38*	WG1169487

Sample Narrative:

L1025469-01 WG1168763, WG1169487: Not all compounds reportable from 1x dilution.

L1025469-01 WG1168763, WG1169487: Cannot be re-analyzed at a lower dilution due to high levels of target analytes.

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	90.4		1	09/18/2018 10:05	WG1166857

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0164	0.0299	1.08	09/20/2018 18:52	WG1168763
Acrylonitrile	U		0.00227	0.0149	1.08	09/20/2018 18:52	WG1168763
Benzene	U		0.000478	0.00120	1.08	09/20/2018 18:52	WG1168763
Bromobenzene	U		0.00125	0.0149	1.08	09/20/2018 18:52	WG1168763
Bromodichloromethane	U		0.376	1.20	432	09/21/2018 14:58	WG1169487
Bromochloromethane	U		0.00135	0.00598	1.08	09/20/2018 18:52	WG1168763
Bromoform	U		0.00715	0.0299	1.08	09/20/2018 18:52	WG1168763
Bromomethane	U		1.77	5.98	432	09/21/2018 14:58	WG1169487
n-Butylbenzene	0.00998	J	0.00459	0.0149	1.08	09/20/2018 18:52	WG1168763
sec-Butylbenzene	0.00336	J	0.00302	0.0149	1.08	09/20/2018 18:52	WG1168763
tert-Butylbenzene	U		0.00185	0.00598	1.08	09/20/2018 18:52	WG1168763
Carbon disulfide	U		0.00485	0.0149	1.08	09/20/2018 18:52	WG1168763
Carbon tetrachloride	U		0.00129	0.00598	1.08	09/20/2018 18:52	WG1168763
Chlorobenzene	U		0.000685	0.00299	1.08	09/20/2018 18:52	WG1168763
Chlorodibromomethane	U		0.000538	0.00299	1.08	09/20/2018 18:52	WG1168763
Chloroethane	U		0.00129	0.00598	1.08	09/20/2018 18:52	WG1168763
Chloroform	U		0.000496	0.00299	1.08	09/20/2018 18:52	WG1168763
Chloromethane	U		0.00166	0.0149	1.08	09/20/2018 18:52	WG1168763
2-Chlorotoluene	U		0.00110	0.00299	1.08	09/20/2018 18:52	WG1168763
4-Chlorotoluene	U		0.00135	0.00598	1.08	09/20/2018 18:52	WG1168763
1,2-Dibromo-3-Chloropropane	U		0.00610	0.0299	1.08	09/20/2018 18:52	WG1168763
1,2-Dibromoethane	U		0.000628	0.00299	1.08	09/20/2018 18:52	WG1168763
Dibromomethane	U		0.00120	0.00598	1.08	09/20/2018 18:52	WG1168763
1,2-Dichlorobenzene	U		0.00174	0.00598	1.08	09/20/2018 18:52	WG1168763
1,3-Dichlorobenzene	U		0.00204	0.00598	1.08	09/20/2018 18:52	WG1168763
1,4-Dichlorobenzene	U	J4	0.00236	0.00598	1.08	09/20/2018 18:52	WG1168763
Dichlorodifluoromethane	U		0.000977	0.00299	1.08	09/20/2018 18:52	WG1168763
1,1-Dichloroethane	U		0.000687	0.00299	1.08	09/20/2018 18:52	WG1168763
1,2-Dichloroethane	U		0.000568	0.00299	1.08	09/20/2018 18:52	WG1168763
1,1-Dichloroethene	0.0198		0.000598	0.00299	1.08	09/20/2018 18:52	WG1168763
cis-1,2-Dichloroethene	2.62		0.330	1.20	432	09/21/2018 14:58	WG1169487
trans-1,2-Dichloroethene	0.0228		0.00170	0.00598	1.08	09/20/2018 18:52	WG1168763
1,2-Dichloropropane	U		0.00152	0.00598	1.08	09/20/2018 18:52	WG1168763
1,1-Dichloropropene	U		0.000837	0.00299	1.08	09/20/2018 18:52	WG1168763
1,3-Dichloropropane	U		0.00209	0.00598	1.08	09/20/2018 18:52	WG1168763
cis-1,3-Dichloropropene	U	J4	0.000810	0.00299	1.08	09/20/2018 18:52	WG1168763
trans-1,3-Dichloropropene	U		0.00183	0.00598	1.08	09/20/2018 18:52	WG1168763
trans-1,4-Dichloro-2-butene	U		0.00167	0.00598	1.08	09/20/2018 18:52	WG1168763
2,2-Dichloropropane	U		0.000947	0.00299	1.08	09/20/2018 18:52	WG1168763
Di-isopropyl ether	U		0.000418	0.00120	1.08	09/20/2018 18:52	WG1168763
Ethylbenzene	U		0.253	1.20	432	09/21/2018 14:58	WG1169487
Hexachloro-1,3-butadiene	U		0.0152	0.0299	1.08	09/20/2018 18:52	WG1168763
2-Hexanone	U		0.0120	0.0299	1.08	09/20/2018 18:52	WG1168763
n-Hexane	U		0.00126	0.00598	1.08	09/20/2018 18:52	WG1168763
Iodomethane	U		0.00723	0.0149	1.08	09/20/2018 18:52	WG1168763
Isopropylbenzene	0.00149	J	0.00103	0.00299	1.08	09/20/2018 18:52	WG1168763
p-Isopropyltoluene	U		0.00279	0.00598	1.08	09/20/2018 18:52	WG1168763
2-Butanone (MEK)	U		0.0149	0.0299	1.08	09/20/2018 18:52	WG1168763
Methylene Chloride	0.0112	B J	0.00794	0.0299	1.08	09/20/2018 18:52	WG1168763
4-Methyl-2-pentanone (MIBK)	U		0.0120	0.0299	1.08	09/20/2018 18:52	WG1168763

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000353	0.00120	1.08	09/20/2018 18:52	WG1168763
Naphthalene	0.00881	J	0.00373	0.0149	1.08	09/20/2018 18:52	WG1168763
n-Propylbenzene	0.00761		0.00141	0.00598	1.08	09/20/2018 18:52	WG1168763
Styrene	U	J0 J4	0.00326	0.0149	1.08	09/20/2018 18:52	WG1168763
1,1,1,2-Tetrachloroethane	U		0.000598	0.00299	1.08	09/20/2018 18:52	WG1168763
1,1,2,2-Tetrachloroethane	U	J4	0.000466	0.00299	1.08	09/20/2018 18:52	WG1168763
1,1,2-Trichlorotrifluoroethane	U		0.000807	0.00299	1.08	09/20/2018 18:52	WG1168763
Tetrachloroethene	309		0.334	1.20	432	09/21/2018 14:58	WG1169487
Toluene	U		0.598	2.39	432	09/21/2018 14:58	WG1169487
1,2,3-Trichlorobenzene	U		0.000747	0.00299	1.08	09/20/2018 18:52	WG1168763
1,2,4-Trichlorobenzene	U		0.00576	0.0149	1.08	09/20/2018 18:52	WG1168763
1,1,1-Trichloroethane	U		0.000329	0.00299	1.08	09/20/2018 18:52	WG1168763
1,1,2-Trichloroethane	U		0.00106	0.00299	1.08	09/20/2018 18:52	WG1168763
Trichloroethene	2.12		0.191	0.478	432	09/21/2018 14:58	WG1169487
Trichlorofluoromethane	U		0.000598	0.00299	1.08	09/20/2018 18:52	WG1168763
1,2,3-Trichloropropane	U		0.00610	0.0149	1.08	09/20/2018 18:52	WG1168763
1,2,4-Trimethylbenzene	0.0481		0.00138	0.00598	1.08	09/20/2018 18:52	WG1168763
1,2,3-Trimethylbenzene	0.0159		0.00137	0.00598	1.08	09/20/2018 18:52	WG1168763
1,3,5-Trimethylbenzene	0.0170		0.00129	0.00598	1.08	09/20/2018 18:52	WG1168763
Vinyl acetate	U		0.00421	0.0149	1.08	09/20/2018 18:52	WG1168763
Vinyl chloride	U		0.000817	0.00299	1.08	09/20/2018 18:52	WG1168763
Xylenes, Total	0.0127		0.00571	0.00777	1.08	09/20/2018 18:52	WG1168763
(S) Toluene-d8	*114*			*75.0-131*		*09/20/2018 18:52*	WG1168763
(S) Toluene-d8	*109*			*75.0-131*		*09/21/2018 14:58*	WG1169487
(S) Dibromofluoromethane	*92.3*			*65.0-129*		*09/20/2018 18:52*	WG1168763
(S) Dibromofluoromethane	*103*			*65.0-129*		*09/21/2018 14:58*	WG1169487
(S) 4-Bromofluorobenzene	*102*			*67.0-138*		*09/20/2018 18:52*	WG1168763
(S) 4-Bromofluorobenzene	*103*			*67.0-138*		*09/21/2018 14:58*	WG1169487

Sample Narrative:

L1025469-02 WG1168763, WG1169487: Not all compounds reportable from 1x dilution.

L1025469-02 WG1168763, WG1169487: Cannot be re-analyzed at a lower dilution due to high levels of target analytes.

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	90.4		1	09/18/2018 10:05	WG1166857

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0152	0.0277	1	09/20/2018 01:04	WG1168529
Acrylonitrile	U		0.00210	0.0138	1	09/20/2018 01:04	WG1168529
Benzene	U		0.000442	0.00111	1	09/20/2018 01:04	WG1168529
Bromobenzene	U		0.00116	0.0138	1	09/20/2018 01:04	WG1168529
Bromodichloromethane	U		0.000872	0.00277	1	09/20/2018 01:04	WG1168529
Bromochloromethane	U		0.00125	0.00553	1	09/20/2018 01:04	WG1168529
Bromoform	U		0.00661	0.0277	1	09/20/2018 01:04	WG1168529
Bromomethane	U		0.00409	0.0138	1	09/20/2018 01:04	WG1168529
n-Butylbenzene	U		0.00425	0.0138	1	09/20/2018 01:04	WG1168529
sec-Butylbenzene	U		0.00280	0.0138	1	09/20/2018 01:04	WG1168529
tert-Butylbenzene	U		0.00171	0.00553	1	09/20/2018 01:04	WG1168529
Carbon disulfide	U		0.00449	0.0138	1	09/20/2018 01:04	WG1168529
Carbon tetrachloride	U		0.00119	0.00553	1	09/20/2018 01:04	WG1168529
Chlorobenzene	U		0.000634	0.00277	1	09/20/2018 01:04	WG1168529
Chlorodibromomethane	0.000680	J	0.000498	0.00277	1	09/20/2018 01:04	WG1168529
Chloroethane	U		0.00119	0.00553	1	09/20/2018 01:04	WG1168529
Chloroform	U		0.000459	0.00277	1	09/20/2018 01:04	WG1168529
Chloromethane	U		0.00154	0.0138	1	09/20/2018 01:04	WG1168529
2-Chlorotoluene	U		0.00102	0.00277	1	09/20/2018 01:04	WG1168529
4-Chlorotoluene	U		0.00125	0.00553	1	09/20/2018 01:04	WG1168529
1,2-Dibromo-3-Chloropropane	U	J0	0.00564	0.0277	1	09/20/2018 01:04	WG1168529
1,2-Dibromoethane	U		0.000581	0.00277	1	09/20/2018 01:04	WG1168529
Dibromomethane	U		0.00111	0.00553	1	09/20/2018 01:04	WG1168529
1,2-Dichlorobenzene	U		0.00160	0.00553	1	09/20/2018 01:04	WG1168529
1,3-Dichlorobenzene	U		0.00188	0.00553	1	09/20/2018 01:04	WG1168529
1,4-Dichlorobenzene	U		0.00218	0.00553	1	09/20/2018 01:04	WG1168529
Dichlorodifluoromethane	U		0.000905	0.00277	1	09/20/2018 01:04	WG1168529
1,1-Dichloroethane	U		0.000636	0.00277	1	09/20/2018 01:04	WG1168529
1,2-Dichloroethane	U		0.000525	0.00277	1	09/20/2018 01:04	WG1168529
1,1-Dichloroethene	U		0.000553	0.00277	1	09/20/2018 01:04	WG1168529
cis-1,2-Dichloroethene	0.699		0.000763	0.00277	1	09/20/2018 01:04	WG1168529
trans-1,2-Dichloroethene	0.00418	J J0	0.00158	0.00553	1	09/20/2018 01:04	WG1168529
1,2-Dichloropropane	U		0.0281	0.111	20	09/20/2018 17:33	WG1168808
1,1-Dichloropropene	U		0.000774	0.00277	1	09/20/2018 01:04	WG1168529
1,3-Dichloropropane	U		0.00194	0.00553	1	09/20/2018 01:04	WG1168529
cis-1,3-Dichloropropene	U		0.000750	0.00277	1	09/20/2018 01:04	WG1168529
trans-1,3-Dichloropropene	U	J0 J4	0.00169	0.00553	1	09/20/2018 01:04	WG1168529
trans-1,4-Dichloro-2-butene	U	J0	0.00155	0.00553	1	09/20/2018 01:04	WG1168529
2,2-Dichloropropane	0.00144	J J0	0.000877	0.00277	1	09/20/2018 01:04	WG1168529
Di-isopropyl ether	U		0.000387	0.00111	1	09/20/2018 01:04	WG1168529
Ethylbenzene	U		0.000586	0.00277	1	09/20/2018 01:04	WG1168529
Hexachloro-1,3-butadiene	U		0.0140	0.0277	1	09/20/2018 01:04	WG1168529
2-Hexanone	U		0.0111	0.0277	1	09/20/2018 01:04	WG1168529
n-Hexane	U	J4	0.0234	0.111	20	09/20/2018 17:33	WG1168808
Iodomethane	U		0.00669	0.0138	1	09/20/2018 01:04	WG1168529
Isopropylbenzene	U		0.000955	0.00277	1	09/20/2018 01:04	WG1168529
p-Isopropyltoluene	U	J4	0.00258	0.00553	1	09/20/2018 01:04	WG1168529
2-Butanone (MEK)	U		0.277	0.553	20	09/20/2018 17:33	WG1168808
Methylene Chloride	U		0.00734	0.0277	1	09/20/2018 01:04	WG1168529
4-Methyl-2-pentanone (MIBK)	U		0.0111	0.0277	1	09/20/2018 01:04	WG1168529

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000326	0.00111	1	09/20/2018 01:04	WG1168529
Naphthalene	U		0.00345	0.0138	1	09/20/2018 01:04	WG1168529
n-Propylbenzene	U		0.00131	0.00553	1	09/20/2018 01:04	WG1168529
Styrene	U	J4	0.0604	0.277	20	09/20/2018 17:33	WG1168808
1,1,1,2-Tetrachloroethane	U	J0 J4	0.000553	0.00277	1	09/20/2018 01:04	WG1168529
1,1,2,2-Tetrachloroethane	U		0.000431	0.00277	1	09/20/2018 01:04	WG1168529
1,1,2-Trichlorotrifluoroethane	U		0.000747	0.00277	1	09/20/2018 01:04	WG1168529
Tetrachloroethene	12.3		0.0155	0.0553	20	09/20/2018 17:33	WG1168808
Toluene	0.00148	J	0.00138	0.00553	1	09/20/2018 01:04	WG1168529
1,2,3-Trichlorobenzene	U		0.000691	0.00277	1	09/20/2018 01:04	WG1168529
1,2,4-Trichlorobenzene	U		0.00533	0.0138	1	09/20/2018 01:04	WG1168529
1,1,1-Trichloroethane	U		0.000304	0.00277	1	09/20/2018 01:04	WG1168529
1,1,2-Trichloroethane	U		0.000977	0.00277	1	09/20/2018 01:04	WG1168529
Trichloroethene	0.128		0.000442	0.00111	1	09/20/2018 01:04	WG1168529
Trichlorofluoromethane	U		0.000553	0.00277	1	09/20/2018 01:04	WG1168529
1,2,3-Trichloropropane	U		0.00564	0.0138	1	09/20/2018 01:04	WG1168529
1,2,4-Trimethylbenzene	0.00194	J	0.00128	0.00553	1	09/20/2018 01:04	WG1168529
1,2,3-Trimethylbenzene	U		0.00127	0.00553	1	09/20/2018 01:04	WG1168529
1,3,5-Trimethylbenzene	U		0.00119	0.00553	1	09/20/2018 01:04	WG1168529
Vinyl acetate	U	J0	0.00389	0.0138	1	09/20/2018 01:04	WG1168529
Vinyl chloride	0.0312		0.000755	0.00277	1	09/20/2018 01:04	WG1168529
Xylenes, Total	U		0.00529	0.00719	1	09/20/2018 01:04	WG1168529
(S) Toluene-d8	*103*			*75.0-131*		*09/20/2018 01:04*	WG1168529
(S) Toluene-d8	*107*			*75.0-131*		*09/20/2018 17:33*	WG1168808
(S) Dibromofluoromethane	*105*			*65.0-129*		*09/20/2018 01:04*	WG1168529
(S) Dibromofluoromethane	*106*			*65.0-129*		*09/20/2018 17:33*	WG1168808
(S) 4-Bromofluorobenzene	*106*			*67.0-138*		*09/20/2018 01:04*	WG1168529
(S) 4-Bromofluorobenzene	*86.6*			*67.0-138*		*09/20/2018 17:33*	WG1168808

Sample Narrative:

L1025469-03 WG1168529, WG1168808: Not all compounds reportable from 1x dilution.

L1025469-03 WG1168529, WG1168808: Cannot be re-analyzed at a lower dilution due to high levels of target analytes.

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	89.3		1	09/17/2018 15:11	WG1166858

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0153	0.0280	1	09/20/2018 01:24	WG1168529
Acrylonitrile	U		0.00213	0.0140	1	09/20/2018 01:24	WG1168529
Benzene	U		0.000448	0.00112	1	09/20/2018 01:24	WG1168529
Bromobenzene	U		0.00118	0.0140	1	09/20/2018 01:24	WG1168529
Bromodichloromethane	U		0.000882	0.00280	1	09/20/2018 01:24	WG1168529
Bromochloromethane	U		0.00126	0.00560	1	09/20/2018 01:24	WG1168529
Bromoform	U		0.00669	0.0280	1	09/20/2018 01:24	WG1168529
Bromomethane	U		0.00414	0.0140	1	09/20/2018 01:24	WG1168529
n-Butylbenzene	U		0.00430	0.0140	1	09/20/2018 01:24	WG1168529
sec-Butylbenzene	U		0.00283	0.0140	1	09/20/2018 01:24	WG1168529
tert-Butylbenzene	U		0.00173	0.00560	1	09/20/2018 01:24	WG1168529
Carbon disulfide	U		0.00454	0.0140	1	09/20/2018 01:24	WG1168529
Carbon tetrachloride	U		0.00121	0.00560	1	09/20/2018 01:24	WG1168529
Chlorobenzene	U		0.000641	0.00280	1	09/20/2018 01:24	WG1168529
Chlorodibromomethane	U		0.000504	0.00280	1	09/20/2018 01:24	WG1168529
Chloroethane	U		0.00121	0.00560	1	09/20/2018 01:24	WG1168529
Chloroform	U		0.000465	0.00280	1	09/20/2018 01:24	WG1168529
Chloromethane	U		0.00156	0.0140	1	09/20/2018 01:24	WG1168529
2-Chlorotoluene	U		0.00103	0.00280	1	09/20/2018 01:24	WG1168529
4-Chlorotoluene	U		0.00126	0.00560	1	09/20/2018 01:24	WG1168529
1,2-Dibromo-3-Chloropropane	U	J0	0.00571	0.0280	1	09/20/2018 01:24	WG1168529
1,2-Dibromoethane	U		0.000588	0.00280	1	09/20/2018 01:24	WG1168529
Dibromomethane	U		0.00112	0.00560	1	09/20/2018 01:24	WG1168529
1,2-Dichlorobenzene	U		0.00162	0.00560	1	09/20/2018 01:24	WG1168529
1,3-Dichlorobenzene	U		0.00190	0.00560	1	09/20/2018 01:24	WG1168529
1,4-Dichlorobenzene	U		0.00221	0.00560	1	09/20/2018 01:24	WG1168529
Dichlorodifluoromethane	U		0.000916	0.00280	1	09/20/2018 01:24	WG1168529
1,1-Dichloroethane	U		0.000644	0.00280	1	09/20/2018 01:24	WG1168529
1,2-Dichloroethane	U		0.000532	0.00280	1	09/20/2018 01:24	WG1168529
1,1-Dichloroethene	U		0.000560	0.00280	1	09/20/2018 01:24	WG1168529
cis-1,2-Dichloroethene	0.282		0.000772	0.00280	1	09/20/2018 01:24	WG1168529
trans-1,2-Dichloroethene	0.00239	J J0	0.00160	0.00560	1	09/20/2018 01:24	WG1168529
1,2-Dichloropropane	U		0.0284	0.112	20	09/20/2018 17:53	WG1168808
1,1-Dichloropropene	U		0.000784	0.00280	1	09/20/2018 01:24	WG1168529
1,3-Dichloropropane	U		0.00196	0.00560	1	09/20/2018 01:24	WG1168529
cis-1,3-Dichloropropene	U		0.000759	0.00280	1	09/20/2018 01:24	WG1168529
trans-1,3-Dichloropropene	U	J0 J4	0.00171	0.00560	1	09/20/2018 01:24	WG1168529
trans-1,4-Dichloro-2-butene	U	J0	0.00157	0.00560	1	09/20/2018 01:24	WG1168529
2,2-Dichloropropane	U	J0	0.000888	0.00280	1	09/20/2018 01:24	WG1168529
Di-isopropyl ether	U		0.000392	0.00112	1	09/20/2018 01:24	WG1168529
Ethylbenzene	U		0.000593	0.00280	1	09/20/2018 01:24	WG1168529
Hexachloro-1,3-butadiene	U		0.0142	0.0280	1	09/20/2018 01:24	WG1168529
2-Hexanone	U		0.0112	0.0280	1	09/20/2018 01:24	WG1168529
n-Hexane	U	J4	0.0237	0.112	20	09/20/2018 17:53	WG1168808
Iodomethane	U		0.00677	0.0140	1	09/20/2018 01:24	WG1168529
Isopropylbenzene	U		0.000966	0.00280	1	09/20/2018 01:24	WG1168529
p-Isopropyltoluene	U	J4	0.00261	0.00560	1	09/20/2018 01:24	WG1168529
2-Butanone (MEK)	U		0.280	0.560	20	09/20/2018 17:53	WG1168808
Methylene Chloride	U		0.00743	0.0280	1	09/20/2018 01:24	WG1168529
4-Methyl-2-pentanone (MIBK)	U		0.0112	0.0280	1	09/20/2018 01:24	WG1168529

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000330	0.00112	1	09/20/2018 01:24	WG1168529
Naphthalene	U		0.00349	0.0140	1	09/20/2018 01:24	WG1168529
n-Propylbenzene	U		0.00132	0.00560	1	09/20/2018 01:24	WG1168529
Styrene	U	J4	0.0611	0.280	20	09/20/2018 17:53	WG1168808
1,1,1,2-Tetrachloroethane	U	J0 J4	0.000560	0.00280	1	09/20/2018 01:24	WG1168529
1,1,2,2-Tetrachloroethane	U		0.000437	0.00280	1	09/20/2018 01:24	WG1168529
1,1,2-Trichlorotrifluoroethane	U		0.000756	0.00280	1	09/20/2018 01:24	WG1168529
Tetrachloroethene	18.6		0.0157	0.0560	20	09/20/2018 17:53	WG1168808
Toluene	0.00223	J	0.00140	0.00560	1	09/20/2018 01:24	WG1168529
1,2,3-Trichlorobenzene	U		0.000700	0.00280	1	09/20/2018 01:24	WG1168529
1,2,4-Trichlorobenzene	U		0.00540	0.0140	1	09/20/2018 01:24	WG1168529
1,1,1-Trichloroethane	U		0.000308	0.00280	1	09/20/2018 01:24	WG1168529
1,1,2-Trichloroethane	U		0.000988	0.00280	1	09/20/2018 01:24	WG1168529
Trichloroethene	0.178		0.000448	0.00112	1	09/20/2018 01:24	WG1168529
Trichlorofluoromethane	U		0.000560	0.00280	1	09/20/2018 01:24	WG1168529
1,2,3-Trichloropropane	U		0.00571	0.0140	1	09/20/2018 01:24	WG1168529
1,2,4-Trimethylbenzene	0.00436	J	0.00130	0.00560	1	09/20/2018 01:24	WG1168529
1,2,3-Trimethylbenzene	U		0.00129	0.00560	1	09/20/2018 01:24	WG1168529
1,3,5-Trimethylbenzene	0.00144	J	0.00121	0.00560	1	09/20/2018 01:24	WG1168529
Vinyl acetate	U	J0	0.00394	0.0140	1	09/20/2018 01:24	WG1168529
Vinyl chloride	0.0297		0.000764	0.00280	1	09/20/2018 01:24	WG1168529
Xylenes, Total	U		0.00535	0.00728	1	09/20/2018 01:24	WG1168529
(S) Toluene-d8	*99.3*			*75.0-131*		*09/20/2018 01:24*	WG1168529
(S) Toluene-d8	*105*			*75.0-131*		*09/20/2018 17:53*	WG1168808
(S) Dibromofluoromethane	*103*			*65.0-129*		*09/20/2018 01:24*	WG1168529
(S) Dibromofluoromethane	*108*			*65.0-129*		*09/20/2018 17:53*	WG1168808
(S) 4-Bromofluorobenzene	*109*			*67.0-138*		*09/20/2018 01:24*	WG1168529
(S) 4-Bromofluorobenzene	*93.8*			*67.0-138*		*09/20/2018 17:53*	WG1168808

Sample Narrative:

L1025469-04 WG1168529, WG1168808: Not all compounds reportable from 1x dilution.

L1025469-04 WG1168529, WG1168808: Cannot be re-analyzed at a lower dilution due to high levels of target analytes.

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	95.4		1	09/17/2018 15:11	WG1166858

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0144	0.0262	1	09/20/2018 01:44	WG1168529
Acrylonitrile	U		0.00199	0.0131	1	09/20/2018 01:44	WG1168529
Benzene	U		0.000419	0.00105	1	09/20/2018 01:44	WG1168529
Bromobenzene	U		0.00110	0.0131	1	09/20/2018 01:44	WG1168529
Bromodichloromethane	U		0.000826	0.00262	1	09/20/2018 01:44	WG1168529
Bromochloromethane	U		0.00118	0.00524	1	09/20/2018 01:44	WG1168529
Bromoform	U		0.00627	0.0262	1	09/20/2018 01:44	WG1168529
Bromomethane	U		0.00388	0.0131	1	09/20/2018 01:44	WG1168529
n-Butylbenzene	U		0.00402	0.0131	1	09/20/2018 01:44	WG1168529
sec-Butylbenzene	U		0.00265	0.0131	1	09/20/2018 01:44	WG1168529
tert-Butylbenzene	U		0.00162	0.00524	1	09/20/2018 01:44	WG1168529
Carbon disulfide	U		0.00425	0.0131	1	09/20/2018 01:44	WG1168529
Carbon tetrachloride	U		0.00113	0.00524	1	09/20/2018 01:44	WG1168529
Chlorobenzene	U		0.000600	0.00262	1	09/20/2018 01:44	WG1168529
Chlorodibromomethane	U		0.000471	0.00262	1	09/20/2018 01:44	WG1168529
Chloroethane	0.0188		0.00113	0.00524	1	09/20/2018 01:44	WG1168529
Chloroform	U		0.000435	0.00262	1	09/20/2018 01:44	WG1168529
Chloromethane	U		0.00146	0.0131	1	09/20/2018 01:44	WG1168529
2-Chlorotoluene	U		0.000964	0.00262	1	09/20/2018 01:44	WG1168529
4-Chlorotoluene	U		0.00118	0.00524	1	09/20/2018 01:44	WG1168529
1,2-Dibromo-3-Chloropropane	U	J0	0.00534	0.0262	1	09/20/2018 01:44	WG1168529
1,2-Dibromoethane	U		0.000550	0.00262	1	09/20/2018 01:44	WG1168529
Dibromomethane	U		0.00105	0.00524	1	09/20/2018 01:44	WG1168529
1,2-Dichlorobenzene	U		0.00152	0.00524	1	09/20/2018 01:44	WG1168529
1,3-Dichlorobenzene	U		0.00178	0.00524	1	09/20/2018 01:44	WG1168529
1,4-Dichlorobenzene	U		0.00206	0.00524	1	09/20/2018 01:44	WG1168529
Dichlorodifluoromethane	U		0.000857	0.00262	1	09/20/2018 01:44	WG1168529
1,1-Dichloroethane	U		0.000602	0.00262	1	09/20/2018 01:44	WG1168529
1,2-Dichloroethane	U		0.000498	0.00262	1	09/20/2018 01:44	WG1168529
1,1-Dichloroethene	U		0.000524	0.00262	1	09/20/2018 01:44	WG1168529
cis-1,2-Dichloroethene	0.224		0.000723	0.00262	1	09/20/2018 01:44	WG1168529
trans-1,2-Dichloroethene	0.00591	J0	0.00150	0.00524	1	09/20/2018 01:44	WG1168529
1,2-Dichloropropane	U		0.00266	0.0105	2	09/20/2018 16:16	WG1168808
1,1-Dichloropropene	U		0.000733	0.00262	1	09/20/2018 01:44	WG1168529
1,3-Dichloropropane	U		0.00183	0.00524	1	09/20/2018 01:44	WG1168529
cis-1,3-Dichloropropene	U		0.000710	0.00262	1	09/20/2018 01:44	WG1168529
trans-1,3-Dichloropropene	U	J0 J4	0.00160	0.00524	1	09/20/2018 01:44	WG1168529
trans-1,4-Dichloro-2-butene	U	J0	0.00147	0.00524	1	09/20/2018 01:44	WG1168529
2,2-Dichloropropane	0.000981	J J0	0.000831	0.00262	1	09/20/2018 01:44	WG1168529
Di-isopropyl ether	U		0.000367	0.00105	1	09/20/2018 01:44	WG1168529
Ethylbenzene	U		0.000555	0.00262	1	09/20/2018 01:44	WG1168529
Hexachloro-1,3-butadiene	U		0.0133	0.0262	1	09/20/2018 01:44	WG1168529
2-Hexanone	U		0.0105	0.0262	1	09/20/2018 01:44	WG1168529
n-Hexane	0.00489	J J4	0.00222	0.0105	2	09/20/2018 16:16	WG1168808
Iodomethane	U		0.00634	0.0131	1	09/20/2018 01:44	WG1168529
Isopropylbenzene	U		0.000904	0.00262	1	09/20/2018 01:44	WG1168529
p-Isopropyltoluene	U	J4	0.00244	0.00524	1	09/20/2018 01:44	WG1168529
2-Butanone (MEK)	U		0.0262	0.0524	2	09/20/2018 16:16	WG1168808
Methylene Chloride	0.0112	B J	0.00696	0.0262	1	09/20/2018 01:44	WG1168529
4-Methyl-2-pentanone (MIBK)	U		0.0105	0.0262	1	09/20/2018 01:44	WG1168529

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000309	0.00105	1	09/20/2018 01:44	WG1168529
Naphthalene	U		0.00327	0.0131	1	09/20/2018 01:44	WG1168529
n-Propylbenzene	U		0.00124	0.00524	1	09/20/2018 01:44	WG1168529
Styrene	U	J0 J4	0.00572	0.0262	2	09/20/2018 16:16	WG1168808
1,1,1,2-Tetrachloroethane	U	J0 J4	0.000524	0.00262	1	09/20/2018 01:44	WG1168529
1,1,2,2-Tetrachloroethane	U		0.000409	0.00262	1	09/20/2018 01:44	WG1168529
1,1,2-Trichlorotrifluoroethane	U		0.000707	0.00262	1	09/20/2018 01:44	WG1168529
Tetrachloroethene	0.712		0.00147	0.00524	2	09/20/2018 16:16	WG1168808
Toluene	U		0.00131	0.00524	1	09/20/2018 01:44	WG1168529
1,2,3-Trichlorobenzene	U		0.000655	0.00262	1	09/20/2018 01:44	WG1168529
1,2,4-Trichlorobenzene	U		0.00505	0.0131	1	09/20/2018 01:44	WG1168529
1,1,1-Trichloroethane	U		0.000288	0.00262	1	09/20/2018 01:44	WG1168529
1,1,2-Trichloroethane	U		0.000925	0.00262	1	09/20/2018 01:44	WG1168529
Trichloroethene	0.0173		0.000419	0.00105	1	09/20/2018 01:44	WG1168529
Trichlorofluoromethane	U		0.000524	0.00262	1	09/20/2018 01:44	WG1168529
1,2,3-Trichloropropane	U		0.00534	0.0131	1	09/20/2018 01:44	WG1168529
1,2,4-Trimethylbenzene	U		0.00122	0.00524	1	09/20/2018 01:44	WG1168529
1,2,3-Trimethylbenzene	U		0.00120	0.00524	1	09/20/2018 01:44	WG1168529
1,3,5-Trimethylbenzene	U		0.00113	0.00524	1	09/20/2018 01:44	WG1168529
Vinyl acetate	U	J0	0.00369	0.0131	1	09/20/2018 01:44	WG1168529
Vinyl chloride	0.0146		0.000716	0.00262	1	09/20/2018 01:44	WG1168529
Xylenes, Total	U		0.00501	0.00681	1	09/20/2018 01:44	WG1168529
(S) Toluene-d8	*105*			*75.0-131*		*09/20/2018 01:44*	WG1168529
(S) Toluene-d8	*117*			*75.0-131*		*09/20/2018 16:16*	WG1168808
(S) Dibromofluoromethane	*103*			*65.0-129*		*09/20/2018 01:44*	WG1168529
(S) Dibromofluoromethane	*93.4*			*65.0-129*		*09/20/2018 16:16*	WG1168808
(S) 4-Bromofluorobenzene	*106*			*67.0-138*		*09/20/2018 01:44*	WG1168529
(S) 4-Bromofluorobenzene	*86.9*			*67.0-138*		*09/20/2018 16:16*	WG1168808

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	88.5		1	09/17/2018 15:11	WG1166858

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0155	0.0282	1	09/20/2018 02:04	WG1168529
Acrylonitrile	U		0.00215	0.0141	1	09/20/2018 02:04	WG1168529
Benzene	U		0.000452	0.00113	1	09/20/2018 02:04	WG1168529
Bromobenzene	U		0.00119	0.0141	1	09/20/2018 02:04	WG1168529
Bromodichloromethane	U		0.000890	0.00282	1	09/20/2018 02:04	WG1168529
Bromochloromethane	U		0.00128	0.00565	1	09/20/2018 02:04	WG1168529
Bromoform	U		0.00676	0.0282	1	09/20/2018 02:04	WG1168529
Bromomethane	U		0.00418	0.0141	1	09/20/2018 02:04	WG1168529
n-Butylbenzene	U		0.00434	0.0141	1	09/20/2018 02:04	WG1168529
sec-Butylbenzene	U		0.00286	0.0141	1	09/20/2018 02:04	WG1168529
tert-Butylbenzene	U		0.00175	0.00565	1	09/20/2018 02:04	WG1168529
Carbon disulfide	U		0.00459	0.0141	1	09/20/2018 02:04	WG1168529
Carbon tetrachloride	U		0.00122	0.00565	1	09/20/2018 02:04	WG1168529
Chlorobenzene	U		0.000647	0.00282	1	09/20/2018 02:04	WG1168529
Chlorodibromomethane	U		0.000508	0.00282	1	09/20/2018 02:04	WG1168529
Chloroethane	0.0149		0.00122	0.00565	1	09/20/2018 02:04	WG1168529
Chloroform	U		0.000469	0.00282	1	09/20/2018 02:04	WG1168529
Chloromethane	U		0.00157	0.0141	1	09/20/2018 02:04	WG1168529
2-Chlorotoluene	U		0.00104	0.00282	1	09/20/2018 02:04	WG1168529
4-Chlorotoluene	U		0.00128	0.00565	1	09/20/2018 02:04	WG1168529
1,2-Dibromo-3-Chloropropane	U	J0	0.00576	0.0282	1	09/20/2018 02:04	WG1168529
1,2-Dibromoethane	U		0.000593	0.00282	1	09/20/2018 02:04	WG1168529
Dibromomethane	U		0.00113	0.00565	1	09/20/2018 02:04	WG1168529
1,2-Dichlorobenzene	U		0.00164	0.00565	1	09/20/2018 02:04	WG1168529
1,3-Dichlorobenzene	U		0.00192	0.00565	1	09/20/2018 02:04	WG1168529
1,4-Dichlorobenzene	U		0.00223	0.00565	1	09/20/2018 02:04	WG1168529
Dichlorodifluoromethane	U		0.000924	0.00282	1	09/20/2018 02:04	WG1168529
1,1-Dichloroethane	U		0.000650	0.00282	1	09/20/2018 02:04	WG1168529
1,2-Dichloroethane	U		0.000537	0.00282	1	09/20/2018 02:04	WG1168529
1,1-Dichloroethene	0.0365		0.000565	0.00282	1	09/20/2018 02:04	WG1168529
cis-1,2-Dichloroethene	3.90		0.0312	0.113	40	09/20/2018 18:12	WG1168808
trans-1,2-Dichloroethene	0.0111	J0	0.00162	0.00565	1	09/20/2018 02:04	WG1168529
1,2-Dichloropropane	U		0.0574	0.226	40	09/20/2018 18:12	WG1168808
1,1-Dichloropropene	U		0.000791	0.00282	1	09/20/2018 02:04	WG1168529
1,3-Dichloropropane	U		0.00198	0.00565	1	09/20/2018 02:04	WG1168529
cis-1,3-Dichloropropene	U		0.000766	0.00282	1	09/20/2018 02:04	WG1168529
trans-1,3-Dichloropropene	U	J0 J4	0.00173	0.00565	1	09/20/2018 02:04	WG1168529
trans-1,4-Dichloro-2-butene	U	J0	0.00158	0.00565	1	09/20/2018 02:04	WG1168529
2,2-Dichloropropane	U	J0	0.000896	0.00282	1	09/20/2018 02:04	WG1168529
Di-isopropyl ether	U		0.000395	0.00113	1	09/20/2018 02:04	WG1168529
Ethylbenzene	0.000834	J	0.000599	0.00282	1	09/20/2018 02:04	WG1168529
Hexachloro-1,3-butadiene	U		0.0143	0.0282	1	09/20/2018 02:04	WG1168529
2-Hexanone	U		0.0113	0.0282	1	09/20/2018 02:04	WG1168529
n-Hexane	U	J4	0.0479	0.226	40	09/20/2018 18:12	WG1168808
Iodomethane	U		0.00684	0.0141	1	09/20/2018 02:04	WG1168529
Isopropylbenzene	U		0.000975	0.00282	1	09/20/2018 02:04	WG1168529
p-Isopropyltoluene	U	J4	0.00263	0.00565	1	09/20/2018 02:04	WG1168529
2-Butanone (MEK)	U		0.565	1.13	40	09/20/2018 18:12	WG1168808
Methylene Chloride	U		0.00750	0.0282	1	09/20/2018 02:04	WG1168529
4-Methyl-2-pentanone (MIBK)	U		0.0113	0.0282	1	09/20/2018 02:04	WG1168529

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000333	0.00113	1	09/20/2018 02:04	WG1168529
Naphthalene	U		0.00353	0.0141	1	09/20/2018 02:04	WG1168529
n-Propylbenzene	0.00287	J	0.00133	0.00565	1	09/20/2018 02:04	WG1168529
Styrene	U	J4	0.123	0.565	40	09/20/2018 18:12	WG1168808
1,1,1,2-Tetrachloroethane	U	J0 J4	0.000565	0.00282	1	09/20/2018 02:04	WG1168529
1,1,2,2-Tetrachloroethane	U		0.000441	0.00282	1	09/20/2018 02:04	WG1168529
1,1,2-Trichlorotrifluoroethane	U		0.000763	0.00282	1	09/20/2018 02:04	WG1168529
Tetrachloroethene	56.7		0.0316	0.113	40	09/20/2018 18:12	WG1168808
Toluene	0.00389	J	0.00141	0.00565	1	09/20/2018 02:04	WG1168529
1,2,3-Trichlorobenzene	U		0.000706	0.00282	1	09/20/2018 02:04	WG1168529
1,2,4-Trichlorobenzene	U		0.00545	0.0141	1	09/20/2018 02:04	WG1168529
1,1,1-Trichloroethane	U		0.000311	0.00282	1	09/20/2018 02:04	WG1168529
1,1,2-Trichloroethane	U		0.000998	0.00282	1	09/20/2018 02:04	WG1168529
Trichloroethene	4.36		0.0181	0.0452	40	09/20/2018 18:12	WG1168808
Trichlorofluoromethane	U		0.000565	0.00282	1	09/20/2018 02:04	WG1168529
1,2,3-Trichloropropane	U		0.00576	0.0141	1	09/20/2018 02:04	WG1168529
1,2,4-Trimethylbenzene	0.00887		0.00131	0.00565	1	09/20/2018 02:04	WG1168529
1,2,3-Trimethylbenzene	0.00267	J	0.00130	0.00565	1	09/20/2018 02:04	WG1168529
1,3,5-Trimethylbenzene	0.00398	J	0.00122	0.00565	1	09/20/2018 02:04	WG1168529
Vinyl acetate	U	J0	0.00398	0.0141	1	09/20/2018 02:04	WG1168529
Vinyl chloride	0.0180		0.000772	0.00282	1	09/20/2018 02:04	WG1168529
Xylenes, Total	U		0.00540	0.00734	1	09/20/2018 02:04	WG1168529
(S) Toluene-d8	*106*			*75.0-131*		*09/20/2018 02:04*	WG1168529
(S) Toluene-d8	*105*			*75.0-131*		*09/20/2018 18:12*	WG1168808
(S) Dibromofluoromethane	*101*			*65.0-129*		*09/20/2018 02:04*	WG1168529
(S) Dibromofluoromethane	*110*			*65.0-129*		*09/20/2018 18:12*	WG1168808
(S) 4-Bromofluorobenzene	*108*			*67.0-138*		*09/20/2018 02:04*	WG1168529
(S) 4-Bromofluorobenzene	*83.7*			*67.0-138*		*09/20/2018 18:12*	WG1168808

Sample Narrative:

L1025469-06 WG1168529, WG1168808: Not all compounds reportable from 1x dilution.

L1025469-06 WG1168529, WG1168808: Cannot be re-analyzed at a lower dilution due to high levels of target analytes.

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	89.1		1	09/17/2018 15:11	WG1166858

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0154	0.0281	1	09/20/2018 02:24	WG1168529
Acrylonitrile	U		0.00213	0.0140	1	09/20/2018 02:24	WG1168529
Benzene	U		0.000449	0.00112	1	09/20/2018 02:24	WG1168529
Bromobenzene	U		0.00118	0.0140	1	09/20/2018 02:24	WG1168529
Bromodichloromethane	U		0.000884	0.00281	1	09/20/2018 02:24	WG1168529
Bromochloromethane	U		0.00127	0.00561	1	09/20/2018 02:24	WG1168529
Bromoform	U		0.00671	0.0281	1	09/20/2018 02:24	WG1168529
Bromomethane	U		0.00415	0.0140	1	09/20/2018 02:24	WG1168529
n-Butylbenzene	U		0.00431	0.0140	1	09/20/2018 02:24	WG1168529
sec-Butylbenzene	U		0.00284	0.0140	1	09/20/2018 02:24	WG1168529
tert-Butylbenzene	U		0.00174	0.00561	1	09/20/2018 02:24	WG1168529
Carbon disulfide	U		0.00456	0.0140	1	09/20/2018 02:24	WG1168529
Carbon tetrachloride	U		0.00121	0.00561	1	09/20/2018 02:24	WG1168529
Chlorobenzene	U		0.000643	0.00281	1	09/20/2018 02:24	WG1168529
Chlorodibromomethane	U		0.000505	0.00281	1	09/20/2018 02:24	WG1168529
Chloroethane	U		0.00121	0.00561	1	09/20/2018 02:24	WG1168529
Chloroform	U		0.000466	0.00281	1	09/20/2018 02:24	WG1168529
Chloromethane	U		0.00156	0.0140	1	09/20/2018 02:24	WG1168529
2-Chlorotoluene	U		0.00103	0.00281	1	09/20/2018 02:24	WG1168529
4-Chlorotoluene	U		0.00127	0.00561	1	09/20/2018 02:24	WG1168529
1,2-Dibromo-3-Chloropropane	U	J0	0.00572	0.0281	1	09/20/2018 02:24	WG1168529
1,2-Dibromoethane	U		0.000589	0.00281	1	09/20/2018 02:24	WG1168529
Dibromomethane	U		0.00112	0.00561	1	09/20/2018 02:24	WG1168529
1,2-Dichlorobenzene	U		0.00163	0.00561	1	09/20/2018 02:24	WG1168529
1,3-Dichlorobenzene	U		0.00191	0.00561	1	09/20/2018 02:24	WG1168529
1,4-Dichlorobenzene	U		0.00221	0.00561	1	09/20/2018 02:24	WG1168529
Dichlorodifluoromethane	U		0.000918	0.00281	1	09/20/2018 02:24	WG1168529
1,1-Dichloroethane	U		0.000645	0.00281	1	09/20/2018 02:24	WG1168529
1,2-Dichloroethane	U		0.000533	0.00281	1	09/20/2018 02:24	WG1168529
1,1-Dichloroethene	U		0.000561	0.00281	1	09/20/2018 02:24	WG1168529
cis-1,2-Dichloroethene	0.244		0.000774	0.00281	1	09/20/2018 16:35	WG1168808
trans-1,2-Dichloroethene	0.00171	J J0	0.00160	0.00561	1	09/20/2018 02:24	WG1168529
1,2-Dichloropropane	U		0.00143	0.00561	1	09/20/2018 16:35	WG1168808
1,1-Dichloropropene	U		0.000786	0.00281	1	09/20/2018 02:24	WG1168529
1,3-Dichloropropane	U		0.00196	0.00561	1	09/20/2018 02:24	WG1168529
cis-1,3-Dichloropropene	U		0.000761	0.00281	1	09/20/2018 02:24	WG1168529
trans-1,3-Dichloropropene	U	J0 J4	0.00172	0.00561	1	09/20/2018 02:24	WG1168529
trans-1,4-Dichloro-2-butene	U	J0	0.00157	0.00561	1	09/20/2018 02:24	WG1168529
2,2-Dichloropropane	U	J0	0.000890	0.00281	1	09/20/2018 02:24	WG1168529
Di-isopropyl ether	U		0.000393	0.00112	1	09/20/2018 02:24	WG1168529
Ethylbenzene	U		0.000595	0.00281	1	09/20/2018 02:24	WG1168529
Hexachloro-1,3-butadiene	U		0.0143	0.0281	1	09/20/2018 02:24	WG1168529
2-Hexanone	U		0.0112	0.0281	1	09/20/2018 02:24	WG1168529
n-Hexane	0.00251	J J4	0.00119	0.00561	1	09/20/2018 16:35	WG1168808
Iodomethane	U		0.00679	0.0140	1	09/20/2018 02:24	WG1168529
Isopropylbenzene	U		0.000969	0.00281	1	09/20/2018 02:24	WG1168529
p-Isopropyltoluene	U	J4	0.00262	0.00561	1	09/20/2018 02:24	WG1168529
2-Butanone (MEK)	U		0.0140	0.0281	1	09/20/2018 16:35	WG1168808
Methylene Chloride	0.0102	B J	0.00745	0.0281	1	09/20/2018 02:24	WG1168529
4-Methyl-2-pentanone (MIBK)	U		0.0112	0.0281	1	09/20/2018 02:24	WG1168529

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000331	0.00112	1	09/20/2018 02:24	WG1168529
Naphthalene	U		0.00350	0.0140	1	09/20/2018 02:24	WG1168529
n-Propylbenzene	U		0.00132	0.00561	1	09/20/2018 02:24	WG1168529
Styrene	U	J0 J4	0.00306	0.0140	1	09/20/2018 16:35	WG1168808
1,1,1,2-Tetrachloroethane	U	J0 J4	0.000561	0.00281	1	09/20/2018 02:24	WG1168529
1,1,2,2-Tetrachloroethane	U		0.000438	0.00281	1	09/20/2018 02:24	WG1168529
1,1,2-Trichlorotrifluoroethane	U		0.000758	0.00281	1	09/20/2018 02:24	WG1168529
Tetrachloroethene	1.60		0.000786	0.00281	1	09/20/2018 16:35	WG1168808
Toluene	0.00166	J	0.00140	0.00561	1	09/20/2018 02:24	WG1168529
1,2,3-Trichlorobenzene	U		0.000701	0.00281	1	09/20/2018 02:24	WG1168529
1,2,4-Trichlorobenzene	U		0.00541	0.0140	1	09/20/2018 02:24	WG1168529
1,1,1-Trichloroethane	U		0.000309	0.00281	1	09/20/2018 02:24	WG1168529
1,1,2-Trichloroethane	U		0.000991	0.00281	1	09/20/2018 02:24	WG1168529
Trichloroethene	0.100		0.000449	0.00112	1	09/20/2018 16:35	WG1168808
Trichlorofluoromethane	U		0.000561	0.00281	1	09/20/2018 02:24	WG1168529
1,2,3-Trichloropropane	U		0.00572	0.0140	1	09/20/2018 02:24	WG1168529
1,2,4-Trimethylbenzene	U		0.00130	0.00561	1	09/20/2018 02:24	WG1168529
1,2,3-Trimethylbenzene	U		0.00129	0.00561	1	09/20/2018 02:24	WG1168529
1,3,5-Trimethylbenzene	U		0.00121	0.00561	1	09/20/2018 02:24	WG1168529
Vinyl acetate	U	J0	0.00395	0.0140	1	09/20/2018 02:24	WG1168529
Vinyl chloride	U		0.000767	0.00281	1	09/20/2018 02:24	WG1168529
Xylenes, Total	U		0.00536	0.00730	1	09/20/2018 02:24	WG1168529
(S) Toluene-d8	*104*			*75.0-131*		*09/20/2018 02:24*	WG1168529
(S) Toluene-d8	*119*			*75.0-131*		*09/20/2018 16:35*	WG1168808
(S) Dibromofluoromethane	*102*			*65.0-129*		*09/20/2018 02:24*	WG1168529
(S) Dibromofluoromethane	*87.3*			*65.0-129*		*09/20/2018 16:35*	WG1168808
(S) 4-Bromofluorobenzene	*107*			*67.0-138*		*09/20/2018 02:24*	WG1168529
(S) 4-Bromofluorobenzene	*88.7*			*67.0-138*		*09/20/2018 16:35*	WG1168808

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	89.1		1	09/17/2018 15:11	WG1166858

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	0.0671		0.0154	0.0280	1	09/20/2018 02:44	WG1168529
Acrylonitrile	U		0.00213	0.0140	1	09/20/2018 02:44	WG1168529
Benzene	0.000525	J	0.000449	0.00112	1	09/20/2018 02:44	WG1168529
Bromobenzene	U		0.00118	0.0140	1	09/20/2018 02:44	WG1168529
Bromodichloromethane	U		0.000884	0.00280	1	09/20/2018 02:44	WG1168529
Bromochloromethane	U		0.00127	0.00561	1	09/20/2018 02:44	WG1168529
Bromoform	U		0.00671	0.0280	1	09/20/2018 02:44	WG1168529
Bromomethane	U		0.00415	0.0140	1	09/20/2018 02:44	WG1168529
n-Butylbenzene	U		0.00431	0.0140	1	09/20/2018 02:44	WG1168529
sec-Butylbenzene	U		0.00284	0.0140	1	09/20/2018 02:44	WG1168529
tert-Butylbenzene	U		0.00174	0.00561	1	09/20/2018 02:44	WG1168529
Carbon disulfide	U		0.00455	0.0140	1	09/20/2018 02:44	WG1168529
Carbon tetrachloride	U		0.00121	0.00561	1	09/20/2018 02:44	WG1168529
Chlorobenzene	U		0.000643	0.00280	1	09/20/2018 02:44	WG1168529
Chlorodibromomethane	U		0.000505	0.00280	1	09/20/2018 02:44	WG1168529
Chloroethane	0.0282		0.00121	0.00561	1	09/20/2018 02:44	WG1168529
Chloroform	U		0.000466	0.00280	1	09/20/2018 02:44	WG1168529
Chloromethane	U		0.00156	0.0140	1	09/20/2018 02:44	WG1168529
2-Chlorotoluene	U		0.00103	0.00280	1	09/20/2018 02:44	WG1168529
4-Chlorotoluene	U		0.00127	0.00561	1	09/20/2018 02:44	WG1168529
1,2-Dibromo-3-Chloropropane	U	J0	0.00572	0.0280	1	09/20/2018 02:44	WG1168529
1,2-Dibromoethane	U		0.000589	0.00280	1	09/20/2018 02:44	WG1168529
Dibromomethane	U		0.00112	0.00561	1	09/20/2018 02:44	WG1168529
1,2-Dichlorobenzene	U		0.00163	0.00561	1	09/20/2018 02:44	WG1168529
1,3-Dichlorobenzene	U		0.00191	0.00561	1	09/20/2018 02:44	WG1168529
1,4-Dichlorobenzene	U		0.00221	0.00561	1	09/20/2018 02:44	WG1168529
Dichlorodifluoromethane	U		0.000918	0.00280	1	09/20/2018 02:44	WG1168529
1,1-Dichloroethane	U		0.000645	0.00280	1	09/20/2018 02:44	WG1168529
1,2-Dichloroethane	U		0.000533	0.00280	1	09/20/2018 02:44	WG1168529
1,1-Dichloroethene	U		0.000561	0.00280	1	09/20/2018 02:44	WG1168529
cis-1,2-Dichloroethene	0.00943		0.000774	0.00280	1	09/20/2018 17:14	WG1168808
trans-1,2-Dichloroethene	U	J0	0.00160	0.00561	1	09/20/2018 02:44	WG1168529
1,2-Dichloropropane	U		0.00142	0.00561	1	09/20/2018 17:14	WG1168808
1,1-Dichloropropene	U		0.000785	0.00280	1	09/20/2018 02:44	WG1168529
1,3-Dichloropropane	U		0.00196	0.00561	1	09/20/2018 02:44	WG1168529
cis-1,3-Dichloropropene	U		0.000761	0.00280	1	09/20/2018 02:44	WG1168529
trans-1,3-Dichloropropene	0.00600	J0 J4	0.00172	0.00561	1	09/20/2018 02:44	WG1168529
trans-1,4-Dichloro-2-butene	U	J0	0.00157	0.00561	1	09/20/2018 02:44	WG1168529
2,2-Dichloropropane	0.00171	J J0	0.000890	0.00280	1	09/20/2018 02:44	WG1168529
Di-isopropyl ether	U		0.000393	0.00112	1	09/20/2018 02:44	WG1168529
Ethylbenzene	U		0.000595	0.00280	1	09/20/2018 02:44	WG1168529
Hexachloro-1,3-butadiene	U		0.0142	0.0280	1	09/20/2018 02:44	WG1168529
2-Hexanone	U		0.0112	0.0280	1	09/20/2018 02:44	WG1168529
n-Hexane	0.00162	J J4	0.00119	0.00561	1	09/20/2018 17:14	WG1168808
Iodomethane	U		0.00679	0.0140	1	09/20/2018 02:44	WG1168529
Isopropylbenzene	U		0.000968	0.00280	1	09/20/2018 02:44	WG1168529
p-Isopropyltoluene	U	J4	0.00261	0.00561	1	09/20/2018 02:44	WG1168529
2-Butanone (MEK)	U		0.0140	0.0280	1	09/20/2018 17:14	WG1168808
Methylene Chloride	0.00858	B J	0.00745	0.0280	1	09/20/2018 02:44	WG1168529
4-Methyl-2-pentanone (MIBK)	U		0.0112	0.0280	1	09/20/2018 02:44	WG1168529

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	0.000562	J	0.000331	0.00112	1	09/20/2018 02:44	WG1168529
Naphthalene	U		0.00350	0.0140	1	09/20/2018 02:44	WG1168529
n-Propylbenzene	U		0.00132	0.00561	1	09/20/2018 02:44	WG1168529
Styrene	U	J4	0.00306	0.0140	1	09/20/2018 17:14	WG1168808
1,1,1,2-Tetrachloroethane	U	J0 J4	0.000561	0.00280	1	09/20/2018 02:44	WG1168529
1,1,2,2-Tetrachloroethane	U		0.000438	0.00280	1	09/20/2018 02:44	WG1168529
1,1,2-Trichlorotrifluoroethane	U		0.000757	0.00280	1	09/20/2018 02:44	WG1168529
Tetrachloroethene	0.0728		0.000785	0.00280	1	09/20/2018 17:14	WG1168808
Toluene	0.00304	J	0.00140	0.00561	1	09/20/2018 02:44	WG1168529
1,2,3-Trichlorobenzene	U		0.000701	0.00280	1	09/20/2018 02:44	WG1168529
1,2,4-Trichlorobenzene	U		0.00541	0.0140	1	09/20/2018 02:44	WG1168529
1,1,1-Trichloroethane	U		0.000309	0.00280	1	09/20/2018 02:44	WG1168529
1,1,2-Trichloroethane	U		0.000991	0.00280	1	09/20/2018 02:44	WG1168529
Trichloroethene	0.00797		0.000449	0.00112	1	09/20/2018 17:14	WG1168808
Trichlorofluoromethane	U		0.000561	0.00280	1	09/20/2018 02:44	WG1168529
1,2,3-Trichloropropane	U		0.00572	0.0140	1	09/20/2018 02:44	WG1168529
1,2,4-Trimethylbenzene	U		0.00130	0.00561	1	09/20/2018 02:44	WG1168529
1,2,3-Trimethylbenzene	U		0.00129	0.00561	1	09/20/2018 02:44	WG1168529
1,3,5-Trimethylbenzene	U		0.00121	0.00561	1	09/20/2018 02:44	WG1168529
Vinyl acetate	U	J0	0.00395	0.0140	1	09/20/2018 02:44	WG1168529
Vinyl chloride	U		0.000766	0.00280	1	09/20/2018 02:44	WG1168529
Xylenes, Total	U		0.00536	0.00729	1	09/20/2018 02:44	WG1168529
(S) Toluene-d8	*94.8*			*75.0-131*		*09/20/2018 02:44*	WG1168529
(S) Toluene-d8	*118*			*75.0-131*		*09/20/2018 17:14*	WG1168808
(S) Dibromofluoromethane	*107*			*65.0-129*		*09/20/2018 02:44*	WG1168529
(S) Dibromofluoromethane	*88.7*			*65.0-129*		*09/20/2018 17:14*	WG1168808
(S) 4-Bromofluorobenzene	*106*			*67.0-138*		*09/20/2018 02:44*	WG1168529
(S) 4-Bromofluorobenzene	*94.9*			*67.0-138*		*09/20/2018 17:14*	WG1168808

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	90.8		1	09/17/2018 15:11	WG1166858

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0151	0.0275	1	09/20/2018 03:04	WG1168529
Acrylonitrile	U		0.00209	0.0138	1	09/20/2018 03:04	WG1168529
Benzene	0.000604	J	0.000441	0.00110	1	09/20/2018 03:04	WG1168529
Bromobenzene	U		0.00116	0.0138	1	09/20/2018 03:04	WG1168529
Bromodichloromethane	U		0.000868	0.00275	1	09/20/2018 03:04	WG1168529
Bromochloromethane	U		0.00124	0.00551	1	09/20/2018 03:04	WG1168529
Bromoform	U		0.00659	0.0275	1	09/20/2018 03:04	WG1168529
Bromomethane	U		0.00408	0.0138	1	09/20/2018 03:04	WG1168529
n-Butylbenzene	U		0.00423	0.0138	1	09/20/2018 03:04	WG1168529
sec-Butylbenzene	U		0.00279	0.0138	1	09/20/2018 03:04	WG1168529
tert-Butylbenzene	U		0.00171	0.00551	1	09/20/2018 03:04	WG1168529
Carbon disulfide	U		0.00447	0.0138	1	09/20/2018 03:04	WG1168529
Carbon tetrachloride	U		0.00119	0.00551	1	09/20/2018 03:04	WG1168529
Chlorobenzene	U		0.000631	0.00275	1	09/20/2018 03:04	WG1168529
Chlorodibromomethane	U		0.000496	0.00275	1	09/20/2018 03:04	WG1168529
Chloroethane	U		0.00119	0.00551	1	09/20/2018 03:04	WG1168529
Chloroform	U		0.000457	0.00275	1	09/20/2018 03:04	WG1168529
Chloromethane	U		0.00153	0.0138	1	09/20/2018 03:04	WG1168529
2-Chlorotoluene	U		0.00101	0.00275	1	09/20/2018 03:04	WG1168529
4-Chlorotoluene	U		0.00124	0.00551	1	09/20/2018 03:04	WG1168529
1,2-Dibromo-3-Chloropropane	U	J0	0.00562	0.0275	1	09/20/2018 03:04	WG1168529
1,2-Dibromoethane	U		0.000578	0.00275	1	09/20/2018 03:04	WG1168529
Dibromomethane	U		0.00110	0.00551	1	09/20/2018 03:04	WG1168529
1,2-Dichlorobenzene	U		0.00160	0.00551	1	09/20/2018 03:04	WG1168529
1,3-Dichlorobenzene	U		0.00187	0.00551	1	09/20/2018 03:04	WG1168529
1,4-Dichlorobenzene	U		0.00217	0.00551	1	09/20/2018 03:04	WG1168529
Dichlorodifluoromethane	U		0.000901	0.00275	1	09/20/2018 03:04	WG1168529
1,1-Dichloroethane	U		0.000633	0.00275	1	09/20/2018 03:04	WG1168529
1,2-Dichloroethane	U		0.000523	0.00275	1	09/20/2018 03:04	WG1168529
1,1-Dichloroethene	0.00762		0.000551	0.00275	1	09/20/2018 03:04	WG1168529
cis-1,2-Dichloroethene	0.0189		0.000760	0.00275	1	09/20/2018 03:04	WG1168529
trans-1,2-Dichloroethene	0.00742	J0	0.00158	0.00551	1	09/20/2018 03:04	WG1168529
1,2-Dichloropropane	U		0.00140	0.00551	1	09/20/2018 23:35	WG1169029
1,1-Dichloropropene	U		0.000771	0.00275	1	09/20/2018 03:04	WG1168529
1,3-Dichloropropane	U		0.00193	0.00551	1	09/20/2018 03:04	WG1168529
cis-1,3-Dichloropropene	U		0.000747	0.00275	1	09/20/2018 03:04	WG1168529
trans-1,3-Dichloropropene	0.00731	J0 J4	0.00169	0.00551	1	09/20/2018 03:04	WG1168529
trans-1,4-Dichloro-2-butene	U	J0	0.00154	0.00551	1	09/20/2018 03:04	WG1168529
2,2-Dichloropropane	U	J0	0.000874	0.00275	1	09/20/2018 03:04	WG1168529
Di-isopropyl ether	U		0.000386	0.00110	1	09/20/2018 03:04	WG1168529
Ethylbenzene	U		0.000584	0.00275	1	09/20/2018 03:04	WG1168529
Hexachloro-1,3-butadiene	U		0.0140	0.0275	1	09/20/2018 03:04	WG1168529
2-Hexanone	U		0.0110	0.0275	1	09/20/2018 03:04	WG1168529
n-Hexane	0.00146	J	0.00117	0.00551	1	09/21/2018 15:32	WG1169450
Iodomethane	U		0.00666	0.0138	1	09/20/2018 03:04	WG1168529
Isopropylbenzene	U		0.000951	0.00275	1	09/20/2018 03:04	WG1168529
p-Isopropyltoluene	U	J4	0.00257	0.00551	1	09/20/2018 03:04	WG1168529
2-Butanone (MEK)	U		0.0138	0.0275	1	09/20/2018 23:35	WG1169029
Methylene Chloride	U		0.00731	0.0275	1	09/20/2018 03:04	WG1168529
4-Methyl-2-pentanone (MIBK)	U		0.0110	0.0275	1	09/20/2018 03:04	WG1168529

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000325	0.00110	1	09/20/2018 03:04	WG1168529
Naphthalene	U		0.00344	0.0138	1	09/20/2018 03:04	WG1168529
n-Propylbenzene	U		0.00130	0.00551	1	09/20/2018 03:04	WG1168529
Styrene	U		0.00301	0.0138	1	09/20/2018 23:35	WG1169029
1,1,1,2-Tetrachloroethane	U	J0 J4	0.000551	0.00275	1	09/20/2018 03:04	WG1168529
1,1,2,2-Tetrachloroethane	U		0.000430	0.00275	1	09/20/2018 03:04	WG1168529
1,1,2-Trichlorotrifluoroethane	U		0.000744	0.00275	1	09/20/2018 03:04	WG1168529
Tetrachloroethene	2.31		0.000771	0.00275	1	09/20/2018 03:04	WG1168529
Toluene	0.00291	J	0.00138	0.00551	1	09/20/2018 03:04	WG1168529
1,2,3-Trichlorobenzene	U		0.000689	0.00275	1	09/20/2018 03:04	WG1168529
1,2,4-Trichlorobenzene	U		0.00531	0.0138	1	09/20/2018 03:04	WG1168529
1,1,1-Trichloroethane	U		0.000303	0.00275	1	09/20/2018 03:04	WG1168529
1,1,2-Trichloroethane	U		0.000973	0.00275	1	09/20/2018 03:04	WG1168529
Trichloroethene	0.502		0.000441	0.00110	1	09/20/2018 03:04	WG1168529
Trichlorofluoromethane	U		0.000551	0.00275	1	09/20/2018 03:04	WG1168529
1,2,3-Trichloropropane	U		0.00562	0.0138	1	09/20/2018 03:04	WG1168529
1,2,4-Trimethylbenzene	U		0.00128	0.00551	1	09/20/2018 03:04	WG1168529
1,2,3-Trimethylbenzene	U		0.00127	0.00551	1	09/20/2018 03:04	WG1168529
1,3,5-Trimethylbenzene	U		0.00119	0.00551	1	09/20/2018 03:04	WG1168529
Vinyl acetate	U	J0	0.00388	0.0138	1	09/20/2018 03:04	WG1168529
Vinyl chloride	U		0.000752	0.00275	1	09/20/2018 03:04	WG1168529
Xylenes, Total	U		0.00527	0.00716	1	09/20/2018 03:04	WG1168529
(S) Toluene-d8	*105*			*75.0-131*		*09/20/2018 03:04*	WG1168529
(S) Toluene-d8	*102*			*75.0-131*		*09/20/2018 23:35*	WG1169029
(S) Toluene-d8	*116*			*75.0-131*		*09/21/2018 15:32*	WG1169450
(S) Dibromofluoromethane	*101*			*65.0-129*		*09/20/2018 03:04*	WG1168529
(S) Dibromofluoromethane	*107*			*65.0-129*		*09/20/2018 23:35*	WG1169029
(S) Dibromofluoromethane	*91.4*			*65.0-129*		*09/21/2018 15:32*	WG1169450
(S) 4-Bromofluorobenzene	*107*			*67.0-138*		*09/20/2018 03:04*	WG1168529
(S) 4-Bromofluorobenzene	*106*			*67.0-138*		*09/20/2018 23:35*	WG1169029
(S) 4-Bromofluorobenzene	*85.2*			*67.0-138*		*09/21/2018 15:32*	WG1169450

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	88.3		1	09/17/2018 15:11	WG1166858

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0155	0.0283	1	09/20/2018 03:24	WG1168529
Acrylonitrile	U		0.00215	0.0142	1	09/20/2018 03:24	WG1168529
Benzene	0.000701	J	0.000453	0.00113	1	09/20/2018 03:24	WG1168529
Bromobenzene	U		0.00119	0.0142	1	09/20/2018 03:24	WG1168529
Bromodichloromethane	U		0.000893	0.00283	1	09/20/2018 03:24	WG1168529
Bromochloromethane	U		0.00128	0.00566	1	09/20/2018 03:24	WG1168529
Bromoform	U		0.00677	0.0283	1	09/20/2018 03:24	WG1168529
Bromomethane	U		0.00419	0.0142	1	09/20/2018 03:24	WG1168529
n-Butylbenzene	U		0.00435	0.0142	1	09/20/2018 03:24	WG1168529
sec-Butylbenzene	U		0.00287	0.0142	1	09/20/2018 03:24	WG1168529
tert-Butylbenzene	U		0.00176	0.00566	1	09/20/2018 03:24	WG1168529
Carbon disulfide	U		0.00460	0.0142	1	09/20/2018 03:24	WG1168529
Carbon tetrachloride	U		0.00122	0.00566	1	09/20/2018 03:24	WG1168529
Chlorobenzene	U		0.000649	0.00283	1	09/20/2018 03:24	WG1168529
Chlorodibromomethane	U		0.000510	0.00283	1	09/20/2018 03:24	WG1168529
Chloroethane	0.0244		0.00122	0.00566	1	09/20/2018 03:24	WG1168529
Chloroform	U		0.000470	0.00283	1	09/20/2018 03:24	WG1168529
Chloromethane	U		0.00157	0.0142	1	09/20/2018 03:24	WG1168529
2-Chlorotoluene	U		0.00104	0.00283	1	09/20/2018 03:24	WG1168529
4-Chlorotoluene	U		0.00128	0.00566	1	09/20/2018 03:24	WG1168529
1,2-Dibromo-3-Chloropropane	U	J0	0.00578	0.0283	1	09/20/2018 03:24	WG1168529
1,2-Dibromoethane	U		0.000595	0.00283	1	09/20/2018 03:24	WG1168529
Dibromomethane	U		0.00113	0.00566	1	09/20/2018 03:24	WG1168529
1,2-Dichlorobenzene	U		0.00164	0.00566	1	09/20/2018 03:24	WG1168529
1,3-Dichlorobenzene	U		0.00193	0.00566	1	09/20/2018 03:24	WG1168529
1,4-Dichlorobenzene	U		0.00223	0.00566	1	09/20/2018 03:24	WG1168529
Dichlorodifluoromethane	U		0.000927	0.00283	1	09/20/2018 03:24	WG1168529
1,1-Dichloroethane	U		0.000651	0.00283	1	09/20/2018 03:24	WG1168529
1,2-Dichloroethane	U		0.000538	0.00283	1	09/20/2018 03:24	WG1168529
1,1-Dichloroethene	0.00354		0.000566	0.00283	1	09/20/2018 03:24	WG1168529
cis-1,2-Dichloroethene	0.0212		0.000782	0.00283	1	09/20/2018 03:24	WG1168529
trans-1,2-Dichloroethene	0.00528	J J0	0.00162	0.00566	1	09/20/2018 03:24	WG1168529
1,2-Dichloropropane	U		0.0116	0.0453	8	09/20/2018 23:53	WG1169029
1,1-Dichloropropene	U		0.000793	0.00283	1	09/20/2018 03:24	WG1168529
1,3-Dichloropropane	U		0.00198	0.00566	1	09/20/2018 03:24	WG1168529
cis-1,3-Dichloropropene	U		0.000768	0.00283	1	09/20/2018 03:24	WG1168529
trans-1,3-Dichloropropene	U	J0 J4	0.00173	0.00566	1	09/20/2018 03:24	WG1168529
trans-1,4-Dichloro-2-butene	U	J0	0.00159	0.00566	1	09/20/2018 03:24	WG1168529
2,2-Dichloropropane	0.00316	J0	0.000898	0.00283	1	09/20/2018 03:24	WG1168529
Di-isopropyl ether	U		0.000396	0.00113	1	09/20/2018 03:24	WG1168529
Ethylbenzene	0.000606	J	0.000600	0.00283	1	09/20/2018 03:24	WG1168529
Hexachloro-1,3-butadiene	U		0.0144	0.0283	1	09/20/2018 03:24	WG1168529
2-Hexanone	U		0.0113	0.0283	1	09/20/2018 03:24	WG1168529
n-Hexane	U		0.00961	0.0453	8	09/21/2018 15:52	WG1169450
Iodomethane	U		0.00685	0.0142	1	09/20/2018 03:24	WG1168529
Isopropylbenzene	U		0.000978	0.00283	1	09/20/2018 03:24	WG1168529
p-Isopropyltoluene	U	J4	0.00264	0.00566	1	09/20/2018 03:24	WG1168529
2-Butanone (MEK)	U		0.113	0.227	8	09/20/2018 23:53	WG1169029
Methylene Chloride	0.00858	B J	0.00752	0.0283	1	09/20/2018 03:24	WG1168529
4-Methyl-2-pentanone (MIBK)	U		0.0113	0.0283	1	09/20/2018 03:24	WG1168529

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	0.00135		0.000334	0.00113	1	09/20/2018 03:24	WG1168529
Naphthalene	U		0.00353	0.0142	1	09/20/2018 03:24	WG1168529
n-Propylbenzene	U		0.00134	0.00566	1	09/20/2018 03:24	WG1168529
Styrene	U		0.0247	0.113	8	09/20/2018 23:53	WG1169029
1,1,1,2-Tetrachloroethane	U	J0 J4	0.000566	0.00283	1	09/20/2018 03:24	WG1168529
1,1,2,2-Tetrachloroethane	U		0.000442	0.00283	1	09/20/2018 03:24	WG1168529
1,1,2-Trichlorotrifluoroethane	U		0.000765	0.00283	1	09/20/2018 03:24	WG1168529
Tetrachloroethene	5.03		0.00634	0.0227	8	09/20/2018 23:53	WG1169029
Toluene	0.00318	J	0.00142	0.00566	1	09/20/2018 03:24	WG1168529
1,2,3-Trichlorobenzene	0.00174	J	0.000708	0.00283	1	09/20/2018 03:24	WG1168529
1,2,4-Trichlorobenzene	U		0.00546	0.0142	1	09/20/2018 03:24	WG1168529
1,1,1-Trichloroethane	U		0.000312	0.00283	1	09/20/2018 03:24	WG1168529
1,1,2-Trichloroethane	U		0.00100	0.00283	1	09/20/2018 03:24	WG1168529
Trichloroethene	0.616		0.000453	0.00113	1	09/20/2018 03:24	WG1168529
Trichlorofluoromethane	U		0.000566	0.00283	1	09/20/2018 03:24	WG1168529
1,2,3-Trichloropropane	U		0.00578	0.0142	1	09/20/2018 03:24	WG1168529
1,2,4-Trimethylbenzene	0.00133	J	0.00131	0.00566	1	09/20/2018 03:24	WG1168529
1,2,3-Trimethylbenzene	U		0.00130	0.00566	1	09/20/2018 03:24	WG1168529
1,3,5-Trimethylbenzene	0.00133	J	0.00122	0.00566	1	09/20/2018 03:24	WG1168529
Vinyl acetate	U	J0	0.00399	0.0142	1	09/20/2018 03:24	WG1168529
Vinyl chloride	U		0.000774	0.00283	1	09/20/2018 03:24	WG1168529
Xylenes, Total	U		0.00541	0.00736	1	09/20/2018 03:24	WG1168529
(S) Toluene-d8	*108*			*75.0-131*		*09/20/2018 03:24*	WG1168529
(S) Toluene-d8	*100*			*75.0-131*		*09/20/2018 23:53*	WG1169029
(S) Toluene-d8	*108*			*75.0-131*		*09/21/2018 15:52*	WG1169450
(S) Dibromofluoromethane	*102*			*65.0-129*		*09/20/2018 03:24*	WG1168529
(S) Dibromofluoromethane	*109*			*65.0-129*		*09/20/2018 23:53*	WG1169029
(S) Dibromofluoromethane	*107*			*65.0-129*		*09/21/2018 15:52*	WG1169450
(S) 4-Bromofluorobenzene	*108*			*67.0-138*		*09/20/2018 03:24*	WG1168529
(S) 4-Bromofluorobenzene	*107*			*67.0-138*		*09/20/2018 23:53*	WG1169029
(S) 4-Bromofluorobenzene	*85.4*			*67.0-138*		*09/21/2018 15:52*	WG1169450

Sample Narrative:

L1025469-10 WG1168529, WG1169029: Not all compounds reportable from 1x dilution.

L1025469-10 WG1168529, WG1169029: Cannot be re-analyzed at a lower dilution due to high levels of target analytes.

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	93.5		1	09/17/2018 15:11	WG1166858

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	0.0590		0.0147	0.0268	1	09/20/2018 03:43	WG1168529
Acrylonitrile	U		0.00203	0.0134	1	09/20/2018 03:43	WG1168529
Benzene	0.000455	J	0.000428	0.00107	1	09/20/2018 03:43	WG1168529
Bromobenzene	U		0.00112	0.0134	1	09/20/2018 03:43	WG1168529
Bromodichloromethane	U		0.000843	0.00268	1	09/20/2018 03:43	WG1168529
Bromochloromethane	U		0.00121	0.00535	1	09/20/2018 03:43	WG1168529
Bromoform	U		0.00640	0.0268	1	09/20/2018 03:43	WG1168529
Bromomethane	U		0.00396	0.0134	1	09/20/2018 03:43	WG1168529
n-Butylbenzene	U		0.00411	0.0134	1	09/20/2018 03:43	WG1168529
sec-Butylbenzene	U		0.00271	0.0134	1	09/20/2018 03:43	WG1168529
tert-Butylbenzene	U		0.00166	0.00535	1	09/20/2018 03:43	WG1168529
Carbon disulfide	U		0.00434	0.0134	1	09/20/2018 03:43	WG1168529
Carbon tetrachloride	U		0.00116	0.00535	1	09/20/2018 03:43	WG1168529
Chlorobenzene	U		0.000613	0.00268	1	09/20/2018 03:43	WG1168529
Chlorodibromomethane	U		0.000482	0.00268	1	09/20/2018 03:43	WG1168529
Chloroethane	0.0265		0.00116	0.00535	1	09/20/2018 03:43	WG1168529
Chloroform	U		0.000444	0.00268	1	09/20/2018 03:43	WG1168529
Chloromethane	U		0.00149	0.0134	1	09/20/2018 03:43	WG1168529
2-Chlorotoluene	U		0.000984	0.00268	1	09/20/2018 03:43	WG1168529
4-Chlorotoluene	U		0.00121	0.00535	1	09/20/2018 03:43	WG1168529
1,2-Dibromo-3-Chloropropane	U	J0	0.00546	0.0268	1	09/20/2018 03:43	WG1168529
1,2-Dibromoethane	U		0.000562	0.00268	1	09/20/2018 03:43	WG1168529
Dibromomethane	U		0.00107	0.00535	1	09/20/2018 03:43	WG1168529
1,2-Dichlorobenzene	U		0.00155	0.00535	1	09/20/2018 03:43	WG1168529
1,3-Dichlorobenzene	U		0.00182	0.00535	1	09/20/2018 03:43	WG1168529
1,4-Dichlorobenzene	U		0.00211	0.00535	1	09/20/2018 03:43	WG1168529
Dichlorodifluoromethane	U		0.000875	0.00268	1	09/20/2018 03:43	WG1168529
1,1-Dichloroethane	U		0.000615	0.00268	1	09/20/2018 03:43	WG1168529
1,2-Dichloroethane	U		0.000508	0.00268	1	09/20/2018 03:43	WG1168529
1,1-Dichloroethene	0.00469		0.000535	0.00268	1	09/20/2018 03:43	WG1168529
cis-1,2-Dichloroethene	0.242		0.000738	0.00268	1	09/20/2018 03:43	WG1168529
trans-1,2-Dichloroethene	U	J0	0.00153	0.00535	1	09/20/2018 03:43	WG1168529
1,2-Dichloropropane	U		0.00544	0.0214	4	09/21/2018 00:12	WG1169029
1,1-Dichloropropene	U		0.000749	0.00268	1	09/20/2018 03:43	WG1168529
1,3-Dichloropropane	U		0.00187	0.00535	1	09/20/2018 03:43	WG1168529
cis-1,3-Dichloropropene	U		0.000725	0.00268	1	09/20/2018 03:43	WG1168529
trans-1,3-Dichloropropene	U	J0 J4	0.00164	0.00535	1	09/20/2018 03:43	WG1168529
trans-1,4-Dichloro-2-butene	U	J0	0.00150	0.00535	1	09/20/2018 03:43	WG1168529
2,2-Dichloropropane	U	J0	0.000849	0.00268	1	09/20/2018 03:43	WG1168529
Di-isopropyl ether	U		0.000375	0.00107	1	09/20/2018 03:43	WG1168529
Ethylbenzene	0.000628	J	0.000567	0.00268	1	09/20/2018 03:43	WG1168529
Hexachloro-1,3-butadiene	U		0.0136	0.0268	1	09/20/2018 03:43	WG1168529
2-Hexanone	U		0.0107	0.0268	1	09/20/2018 03:43	WG1168529
n-Hexane	U		0.00454	0.0214	4	09/21/2018 16:11	WG1169450
Iodomethane	U		0.00647	0.0134	1	09/20/2018 03:43	WG1168529
Isopropylbenzene	U		0.000923	0.00268	1	09/20/2018 03:43	WG1168529
p-Isopropyltoluene	U	J4	0.00249	0.00535	1	09/20/2018 03:43	WG1168529
2-Butanone (MEK)	U		0.0535	0.107	4	09/21/2018 00:12	WG1169029
Methylene Chloride	0.00833	B J	0.00710	0.0268	1	09/20/2018 03:43	WG1168529
4-Methyl-2-pentanone (MIBK)	U		0.0107	0.0268	1	09/20/2018 03:43	WG1168529

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	0.00144		0.000316	0.00107	1	09/20/2018 03:43	WG1168529
Naphthalene	U		0.00334	0.0134	1	09/20/2018 03:43	WG1168529
n-Propylbenzene	U		0.00126	0.00535	1	09/20/2018 03:43	WG1168529
Styrene	U		0.0117	0.0535	4	09/21/2018 00:12	WG1169029
1,1,1,2-Tetrachloroethane	U	J0 J4	0.000535	0.00268	1	09/20/2018 03:43	WG1168529
1,1,2,2-Tetrachloroethane	U		0.000417	0.00268	1	09/20/2018 03:43	WG1168529
1,1,2-Trichlorotrifluoroethane	U		0.000722	0.00268	1	09/20/2018 03:43	WG1168529
Tetrachloroethene	2.32		0.000749	0.00268	1	09/20/2018 03:43	WG1168529
Toluene	0.00333	J	0.00134	0.00535	1	09/20/2018 03:43	WG1168529
1,2,3-Trichlorobenzene	U		0.000669	0.00268	1	09/20/2018 03:43	WG1168529
1,2,4-Trichlorobenzene	U		0.00516	0.0134	1	09/20/2018 03:43	WG1168529
1,1,1-Trichloroethane	U		0.000294	0.00268	1	09/20/2018 03:43	WG1168529
1,1,2-Trichloroethane	U		0.000945	0.00268	1	09/20/2018 03:43	WG1168529
Trichloroethene	0.282		0.000428	0.00107	1	09/20/2018 03:43	WG1168529
Trichlorofluoromethane	U		0.000535	0.00268	1	09/20/2018 03:43	WG1168529
1,2,3-Trichloropropane	U		0.00546	0.0134	1	09/20/2018 03:43	WG1168529
1,2,4-Trimethylbenzene	0.00271	J	0.00124	0.00535	1	09/20/2018 03:43	WG1168529
1,2,3-Trimethylbenzene	U		0.00123	0.00535	1	09/20/2018 03:43	WG1168529
1,3,5-Trimethylbenzene	0.00118	J	0.00116	0.00535	1	09/20/2018 03:43	WG1168529
Vinyl acetate	U	J0	0.00377	0.0134	1	09/20/2018 03:43	WG1168529
Vinyl chloride	0.00390		0.000731	0.00268	1	09/20/2018 03:43	WG1168529
Xylenes, Total	U		0.00511	0.00696	1	09/20/2018 03:43	WG1168529
(S) Toluene-d8	*90.9*			*75.0-131*		*09/20/2018 03:43*	WG1168529
(S) Toluene-d8	*94.4*			*75.0-131*		*09/21/2018 00:12*	WG1169029
(S) Toluene-d8	*108*			*75.0-131*		*09/21/2018 16:11*	WG1169450
(S) Dibromofluoromethane	*104*			*65.0-129*		*09/20/2018 03:43*	WG1168529
(S) Dibromofluoromethane	*114*			*65.0-129*		*09/21/2018 00:12*	WG1169029
(S) Dibromofluoromethane	*105*			*65.0-129*		*09/21/2018 16:11*	WG1169450
(S) 4-Bromofluorobenzene	*105*			*67.0-138*		*09/20/2018 03:43*	WG1168529
(S) 4-Bromofluorobenzene	*105*			*67.0-138*		*09/21/2018 00:12*	WG1169029
(S) 4-Bromofluorobenzene	*93.0*			*67.0-138*		*09/21/2018 16:11*	WG1169450

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		1.05	25.0	1	09/14/2018 16:28	WG1166389
Acrylonitrile	U		0.873	5.00	1	09/14/2018 16:28	WG1166389
Benzene	U		0.0896	0.500	1	09/14/2018 16:28	WG1166389
Bromobenzene	U		0.133	0.500	1	09/14/2018 16:28	WG1166389
Bromodichloromethane	U		0.0800	0.500	1	09/14/2018 16:28	WG1166389
Bromochloromethane	U		0.145	0.500	1	09/14/2018 16:28	WG1166389
Bromoform	U		0.186	0.500	1	09/14/2018 16:28	WG1166389
Bromomethane	U		0.157	2.50	1	09/14/2018 16:28	WG1166389
n-Butylbenzene	U		0.143	0.500	1	09/14/2018 16:28	WG1166389
sec-Butylbenzene	U		0.134	0.500	1	09/14/2018 16:28	WG1166389
tert-Butylbenzene	U		0.183	0.500	1	09/14/2018 16:28	WG1166389
Carbon disulfide	U		0.101	0.500	1	09/14/2018 16:28	WG1166389
Carbon tetrachloride	U		0.159	0.500	1	09/14/2018 16:28	WG1166389
Chlorobenzene	U		0.140	0.500	1	09/14/2018 16:28	WG1166389
Chlorodibromomethane	U		0.128	0.500	1	09/14/2018 16:28	WG1166389
Chloroethane	U		0.141	2.50	1	09/14/2018 16:28	WG1166389
Chloroform	U		0.0860	0.500	1	09/14/2018 16:28	WG1166389
Chloromethane	U		0.153	1.25	1	09/14/2018 16:28	WG1166389
2-Chlorotoluene	U		0.111	0.500	1	09/14/2018 16:28	WG1166389
4-Chlorotoluene	U		0.0972	0.500	1	09/14/2018 16:28	WG1166389
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	09/14/2018 16:28	WG1166389
1,2-Dibromoethane	U		0.193	0.500	1	09/14/2018 16:28	WG1166389
Dibromomethane	U		0.117	0.500	1	09/14/2018 16:28	WG1166389
1,2-Dichlorobenzene	U		0.101	0.500	1	09/14/2018 16:28	WG1166389
1,3-Dichlorobenzene	U		0.130	0.500	1	09/14/2018 16:28	WG1166389
1,4-Dichlorobenzene	U		0.121	0.500	1	09/14/2018 16:28	WG1166389
Dichlorodifluoromethane	U		0.127	2.50	1	09/14/2018 16:28	WG1166389
1,1-Dichloroethane	U		0.114	0.500	1	09/14/2018 16:28	WG1166389
1,2-Dichloroethane	U		0.108	0.500	1	09/14/2018 16:28	WG1166389
1,1-Dichloroethene	U		0.188	0.500	1	09/14/2018 16:28	WG1166389
cis-1,2-Dichloroethene	U		0.0933	0.500	1	09/14/2018 16:28	WG1166389
trans-1,2-Dichloroethene	U		0.152	0.500	1	09/14/2018 16:28	WG1166389
1,2-Dichloropropane	U		0.190	0.500	1	09/14/2018 16:28	WG1166389
1,1-Dichloropropene	U		0.128	0.500	1	09/14/2018 16:28	WG1166389
1,3-Dichloropropane	U		0.147	1.00	1	09/14/2018 16:28	WG1166389
cis-1,3-Dichloropropene	U		0.0976	0.500	1	09/14/2018 16:28	WG1166389
trans-1,3-Dichloropropene	U		0.222	0.500	1	09/14/2018 16:28	WG1166389
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	09/14/2018 16:28	WG1166389
2,2-Dichloropropane	U		0.0929	0.500	1	09/14/2018 16:28	WG1166389
Di-isopropyl ether	U		0.0924	0.500	1	09/14/2018 16:28	WG1166389
Ethylbenzene	U		0.158	0.500	1	09/14/2018 16:28	WG1166389
Hexachloro-1,3-butadiene	U		0.157	1.00	1	09/14/2018 16:28	WG1166389
2-Hexanone	U		0.757	5.00	1	09/14/2018 16:28	WG1166389
n-Hexane	U		0.305	5.00	1	09/14/2018 16:28	WG1166389
Iodomethane	U		0.377	10.0	1	09/14/2018 16:28	WG1166389
Isopropylbenzene	U		0.126	0.500	1	09/14/2018 16:28	WG1166389
p-Isopropyltoluene	U		0.138	0.500	1	09/14/2018 16:28	WG1166389
2-Butanone (MEK)	U		1.28	5.00	1	09/14/2018 16:28	WG1166389
Methylene Chloride	U		1.07	2.50	1	09/14/2018 16:28	WG1166389
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	09/14/2018 16:28	WG1166389
Methyl tert-butyl ether	U		0.102	0.500	1	09/14/2018 16:28	WG1166389
Naphthalene	U		0.174	2.50	1	09/14/2018 16:28	WG1166389
n-Propylbenzene	U		0.162	0.500	1	09/14/2018 16:28	WG1166389
Styrene	U		0.117	0.500	1	09/14/2018 16:28	WG1166389
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	09/14/2018 16:28	WG1166389
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	09/14/2018 16:28	WG1166389

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	09/14/2018 16:28	WG1166389
Tetrachloroethene	U		0.199	0.500	1	09/14/2018 16:28	WG1166389
Toluene	U		0.412	0.500	1	09/14/2018 16:28	WG1166389
1,2,3-Trichlorobenzene	U		0.164	0.500	1	09/14/2018 16:28	WG1166389
1,2,4-Trichlorobenzene	U		0.355	0.500	1	09/14/2018 16:28	WG1166389
1,1,1-Trichloroethane	U		0.0940	0.500	1	09/14/2018 16:28	WG1166389
1,1,2-Trichloroethane	U		0.186	0.500	1	09/14/2018 16:28	WG1166389
Trichloroethene	U		0.153	0.500	1	09/14/2018 16:28	WG1166389
Trichlorofluoromethane	U		0.130	2.50	1	09/14/2018 16:28	WG1166389
1,2,3-Trichloropropane	U		0.247	2.50	1	09/14/2018 16:28	WG1166389
1,2,4-Trimethylbenzene	U		0.123	0.500	1	09/14/2018 16:28	WG1166389
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	09/14/2018 16:28	WG1166389
1,3,5-Trimethylbenzene	U		0.124	0.500	1	09/14/2018 16:28	WG1166389
Vinyl acetate	U		0.645	5.00	1	09/14/2018 16:28	WG1166389
Vinyl chloride	U		0.118	0.500	1	09/14/2018 16:28	WG1166389
Xylenes, Total	U		0.316	1.50	1	09/14/2018 16:28	WG1166389
(S) Toluene-d8	*103*			*80.0-120*		*09/14/2018 16:28*	WG1166389
(S) Dibromofluoromethane	*101*			*75.0-120*		*09/14/2018 16:28*	WG1166389
(S) 4-Bromofluorobenzene	*90.1*			*77.0-126*		*09/14/2018 16:28*	WG1166389

Method Blank (MB)

(MB) R3343054-1 09/18/18 10:05

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.00100			

L1025469-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1025469-03 09/18/18 10:05 • (DUP) R3343054-3 09/18/18 10:05

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	90.4	90.1	1	0.379		10

Laboratory Control Sample (LCS)

(LCS) R3343054-2 09/18/18 10:05

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85.0-115	

Method Blank (MB)

(MB) R3342670-1 09/17/18 15:11

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.000			

L1025469-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1025469-05 09/17/18 15:11 • (DUP) R3342670-3 09/17/18 15:11

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	95.4	94.9	1	0.571		10

Laboratory Control Sample (LCS)

(LCS) R3342670-2 09/17/18 15:11

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85.0-115	

Method Blank (MB)

(MB) R3342279-2 09/14/18 13:10

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Acetone	U		1.05	25.0
Acrylonitrile	U		0.873	5.00
Benzene	U		0.0896	0.500
Bromobenzene	U		0.133	0.500
Bromodichloromethane	U		0.0800	0.500
Bromochloromethane	U		0.145	0.500
Bromoform	U		0.186	0.500
Bromomethane	U		0.157	2.50
n-Butylbenzene	U		0.143	0.500
sec-Butylbenzene	U		0.134	0.500
tert-Butylbenzene	U		0.183	0.500
Carbon disulfide	U		0.101	0.500
Carbon tetrachloride	U		0.159	0.500
Chlorobenzene	U		0.140	0.500
Chlorodibromomethane	U		0.128	0.500
Chloroethane	U		0.141	2.50
Chloroform	U		0.0860	0.500
Chloromethane	U		0.153	1.25
2-Chlorotoluene	U		0.111	0.500
4-Chlorotoluene	U		0.0972	0.500
1,2-Dibromo-3-Chloropropane	U		0.325	2.50
1,2-Dibromoethane	U		0.193	0.500
Dibromomethane	U		0.117	0.500
1,2-Dichlorobenzene	U		0.101	0.500
1,3-Dichlorobenzene	U		0.130	0.500
1,4-Dichlorobenzene	U		0.121	0.500
Dichlorodifluoromethane	U		0.127	2.50
1,1-Dichloroethane	U		0.114	0.500
1,2-Dichloroethane	U		0.108	0.500
1,1-Dichloroethene	U		0.188	0.500
cis-1,2-Dichloroethene	U		0.0933	0.500
trans-1,2-Dichloroethene	U		0.152	0.500
1,2-Dichloropropane	U		0.190	0.500
1,1-Dichloropropene	U		0.128	0.500
1,3-Dichloropropane	U		0.147	1.00
cis-1,3-Dichloropropene	U		0.0976	0.500
trans-1,3-Dichloropropene	U		0.222	0.500
trans-1,4-Dichloro-2-butene	U		0.257	5.00
2,2-Dichloropropane	U		0.0929	0.500
Di-isopropyl ether	U		0.0924	0.500

Method Blank (MB)

(MB) R3342279-2 09/14/18 13:10

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Ethylbenzene	U		0.158	0.500
Hexachloro-1,3-butadiene	U		0.157	1.00
2-Hexanone	U		0.757	5.00
n-Hexane	U		0.305	5.00
Iodomethane	U		0.377	10.0
Isopropylbenzene	U		0.126	0.500
p-Isopropyltoluene	U		0.138	0.500
2-Butanone (MEK)	U		1.28	5.00
Methylene Chloride	U		1.07	2.50
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00
Methyl tert-butyl ether	U		0.102	0.500
Naphthalene	U		0.174	2.50
n-Propylbenzene	U		0.162	0.500
Styrene	U		0.117	0.500
1,1,1,2-Tetrachloroethane	U		0.120	0.500
1,1,2,2-Tetrachloroethane	U		0.130	0.500
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500
Tetrachloroethene	U		0.199	0.500
Toluene	U		0.412	0.500
1,2,3-Trichlorobenzene	U		0.164	0.500
1,2,4-Trichlorobenzene	U		0.355	0.500
1,1,1-Trichloroethane	U		0.0940	0.500
1,1,2-Trichloroethane	U		0.186	0.500
Trichloroethene	U		0.153	0.500
Trichlorofluoromethane	U		0.130	2.50
1,2,3-Trichloropropane	U		0.247	2.50
1,2,4-Trimethylbenzene	U		0.123	0.500
1,2,3-Trimethylbenzene	U		0.0739	0.500
1,3,5-Trimethylbenzene	U		0.124	0.500
Vinyl acetate	U		0.645	5.00
Vinyl chloride	U		0.118	0.500
Xylenes, Total	U		0.316	1.50
(S) Toluene-d8	*100*			*80.0-120*
(S) Dibromofluoromethane	*102*			*75.0-120*
(S) 4-Bromofluorobenzene	*90.6*			*77.0-126*

Laboratory Control Sample (LCS)

(LCS) R3342279-1 09/14/18 12:30

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acetone	125	117	93.5	19.0-160	
Acrylonitrile	125	109	87.5	55.0-149	
Benzene	25.0	22.6	90.5	70.0-123	
Bromobenzene	25.0	22.3	89.3	73.0-121	
Bromodichloromethane	25.0	24.7	98.6	75.0-120	
Bromochloromethane	25.0	25.5	102	76.0-122	
Bromoform	25.0	25.9	103	68.0-132	
Bromomethane	25.0	26.0	104	10.0-160	
n-Butylbenzene	25.0	22.7	90.7	73.0-125	
sec-Butylbenzene	25.0	24.0	96.1	75.0-125	
tert-Butylbenzene	25.0	23.3	93.0	76.0-124	
Carbon disulfide	25.0	21.3	85.4	61.0-128	
Carbon tetrachloride	25.0	24.6	98.4	68.0-126	
Chlorobenzene	25.0	25.2	101	80.0-121	
Chlorodibromomethane	25.0	27.1	108	77.0-125	
Chloroethane	25.0	21.4	85.7	47.0-150	
Chloroform	25.0	23.7	94.6	73.0-120	
Chloromethane	25.0	23.7	94.6	41.0-142	
2-Chlorotoluene	25.0	23.7	95.0	76.0-123	
4-Chlorotoluene	25.0	23.3	93.3	75.0-122	
1,2-Dibromo-3-Chloropropane	25.0	24.4	97.6	58.0-134	
1,2-Dibromoethane	25.0	26.1	104	80.0-122	
Dibromomethane	25.0	25.2	101	80.0-120	
1,2-Dichlorobenzene	25.0	25.1	100	79.0-121	
1,3-Dichlorobenzene	25.0	25.9	104	79.0-120	
1,4-Dichlorobenzene	25.0	23.2	92.6	79.0-120	
Dichlorodifluoromethane	25.0	32.5	130	51.0-149	
1,1-Dichloroethane	25.0	21.1	84.4	70.0-126	
1,2-Dichloroethane	25.0	28.0	112	70.0-128	
1,1-Dichloroethene	25.0	20.8	83.3	71.0-124	
cis-1,2-Dichloroethene	25.0	21.9	87.6	73.0-120	
trans-1,2-Dichloroethene	25.0	23.1	92.4	73.0-120	
1,2-Dichloropropane	25.0	22.4	89.5	77.0-125	
1,1-Dichloropropene	25.0	23.2	92.8	74.0-126	
1,3-Dichloropropane	25.0	25.5	102	80.0-120	
cis-1,3-Dichloropropene	25.0	25.3	101	80.0-123	
trans-1,3-Dichloropropene	25.0	25.8	103	78.0-124	
trans-1,4-Dichloro-2-butene	25.0	29.8	119	33.0-144	
2,2-Dichloropropane	25.0	25.3	101	58.0-130	
Di-isopropyl ether	25.0	22.7	90.8	58.0-138	

Laboratory Control Sample (LCS)

(LCS) R3342279-1 09/14/18 12:30

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Ethylbenzene	25.0	25.2	101	79.0-123	
Hexachloro-1,3-butadiene	25.0	23.0	91.9	54.0-138	
2-Hexanone	125	118	94.4	67.0-149	
n-Hexane	25.0	22.9	91.8	57.0-133	
Iodomethane	125	119	94.8	33.0-147	
Isopropylbenzene	25.0	22.4	89.7	76.0-127	
p-Isopropyltoluene	25.0	24.1	96.6	76.0-125	
2-Butanone (MEK)	125	112	89.4	44.0-160	
Methylene Chloride	25.0	23.2	92.6	67.0-120	
4-Methyl-2-pentanone (MIBK)	125	123	98.6	68.0-142	
Methyl tert-butyl ether	25.0	23.5	94.0	68.0-125	
Naphthalene	25.0	21.5	86.1	54.0-135	
n-Propylbenzene	25.0	23.6	94.3	77.0-124	
Styrene	25.0	22.1	88.5	73.0-130	
1,1,1,2-Tetrachloroethane	25.0	25.4	102	75.0-125	
1,1,2,2-Tetrachloroethane	25.0	22.0	87.8	65.0-130	
1,1,2-Trichlorotrifluoroethane	25.0	24.4	97.6	69.0-132	
Tetrachloroethene	25.0	25.9	104	72.0-132	
Toluene	25.0	24.3	97.4	79.0-120	
1,2,3-Trichlorobenzene	25.0	24.2	96.7	50.0-138	
1,2,4-Trichlorobenzene	25.0	25.9	104	57.0-137	
1,1,1-Trichloroethane	25.0	26.1	104	73.0-124	
1,1,2-Trichloroethane	25.0	25.8	103	80.0-120	
Trichloroethene	25.0	23.8	95.3	78.0-124	
Trichlorofluoromethane	25.0	28.0	112	59.0-147	
1,2,3-Trichloropropane	25.0	24.2	96.9	73.0-130	
1,2,4-Trimethylbenzene	25.0	23.9	95.6	76.0-121	
1,2,3-Trimethylbenzene	25.0	24.5	97.9	77.0-120	
1,3,5-Trimethylbenzene	25.0	21.9	87.6	76.0-122	
Vinyl acetate	125	149	119	11.0-160	
Vinyl chloride	25.0	22.6	90.5	67.0-131	
Xylenes, Total	75.0	73.3	97.7	79.0-123	
(S) Toluene-d8			*103*	*80.0-120*	
(S) Dibromofluoromethane			*101*	*75.0-120*	
(S) 4-Bromofluorobenzene			*93.0*	*77.0-126*	

Method Blank (MB)

(MB) R3343394-2 09/19/18 22:07

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acetone	U		0.0137	0.0250
Acrylonitrile	U		0.00190	0.0125
Benzene	U		0.000400	0.00100
Bromobenzene	U		0.00105	0.0125
Bromodichloromethane	U		0.000788	0.00250
Bromochloromethane	U		0.00113	0.00500
Bromoform	U		0.00598	0.0250
Bromomethane	U		0.00370	0.0125
n-Butylbenzene	U		0.00384	0.0125
sec-Butylbenzene	U		0.00253	0.0125
tert-Butylbenzene	U		0.00155	0.00500
Carbon disulfide	U		0.00406	0.0125
Carbon tetrachloride	U		0.00108	0.00500
Chlorobenzene	U		0.000573	0.00250
Chlorodibromomethane	U		0.000450	0.00250
Chloroethane	U		0.00108	0.00500
Chloroform	U		0.000415	0.00250
Chloromethane	U		0.00139	0.0125
2-Chlorotoluene	U		0.000920	0.00250
4-Chlorotoluene	U		0.00113	0.00500
1,2-Dibromo-3-Chloropropane	U		0.00510	0.0250
1,2-Dibromoethane	U		0.000525	0.00250
Dibromomethane	U		0.00100	0.00500
1,2-Dichlorobenzene	U		0.00145	0.00500
1,3-Dichlorobenzene	U		0.00170	0.00500
1,4-Dichlorobenzene	U		0.00197	0.00500
trans-1,4-Dichloro-2-butene	U		0.00140	0.00500
Dichlorodifluoromethane	U		0.000818	0.00250
1,1-Dichloroethane	U		0.000575	0.00250
1,2-Dichloroethane	U		0.000475	0.00250
1,1-Dichloroethene	U		0.000500	0.00250
cis-1,2-Dichloroethene	U		0.000690	0.00250
trans-1,2-Dichloroethene	U		0.00143	0.00500
1,1-Dichloropropene	U		0.000700	0.00250
1,3-Dichloropropane	U		0.00175	0.00500
cis-1,3-Dichloropropene	U		0.000678	0.00250
trans-1,3-Dichloropropene	U		0.00153	0.00500
2,2-Dichloropropane	U		0.000793	0.00250
Di-isopropyl ether	U		0.000350	0.00100
Ethylbenzene	U		0.000530	0.00250

Method Blank (MB)

(MB) R3343394-2 09/19/18 22:07

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Hexachloro-1,3-butadiene	U		0.0127	0.0250
2-Hexanone	U		0.0100	0.0250
Iodomethane	U		0.00605	0.0125
Isopropylbenzene	U		0.000863	0.00250
p-Isopropyltoluene	U		0.00233	0.00500
Methylene Chloride	0.0105	J	0.00664	0.0250
4-Methyl-2-pentanone (MIBK)	U		0.0100	0.0250
Methyl tert-butyl ether	U		0.000295	0.00100
Naphthalene	U		0.00312	0.0125
n-Propylbenzene	U		0.00118	0.00500
1,1,1,2-Tetrachloroethane	U		0.000500	0.00250
1,1,2,2-Tetrachloroethane	U		0.000390	0.00250
Tetrachloroethene	U		0.000700	0.00250
Toluene	U		0.00125	0.00500
1,1,2-Trichlorotrifluoroethane	U		0.000675	0.00250
1,2,3-Trichlorobenzene	U		0.000625	0.00250
1,2,4-Trichlorobenzene	U		0.00482	0.0125
1,1,1-Trichloroethane	U		0.000275	0.00250
1,1,2-Trichloroethane	U		0.000883	0.00250
Trichloroethene	U		0.000400	0.00100
Trichlorofluoromethane	0.000507	J	0.000500	0.00250
1,2,3-Trichloropropane	U		0.00510	0.0125
1,2,3-Trimethylbenzene	U		0.00115	0.00500
1,2,4-Trimethylbenzene	U		0.00116	0.00500
1,3,5-Trimethylbenzene	U		0.00108	0.00500
Vinyl acetate	U		0.00352	0.0125
Vinyl chloride	U		0.000683	0.00250
Xylenes, Total	U		0.00478	0.00650
(S) Toluene-d8	*107*			*75.0-131*
(S) Dibromofluoromethane	*99.4*			*65.0-129*
(S) 4-Bromofluorobenzene	*104*			*67.0-138*

Laboratory Control Sample (LCS)

(LCS) R3343394-1 09/19/18 20:33

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acetone	0.625	0.587	93.8	10.0-160	
Acrylonitrile	0.625	0.712	114	45.0-153	

Laboratory Control Sample (LCS)

(LCS) R3343394-1 09/19/18 20:33

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.125	0.102	81.7	70.0-123	
Bromobenzene	0.125	0.142	114	73.0-121	
Bromodichloromethane	0.125	0.0938	75.1	73.0-121	
Bromochloromethane	0.125	0.148	118	77.0-128	
Bromoform	0.125	0.127	102	64.0-132	
Bromomethane	0.125	0.121	96.8	56.0-147	
n-Butylbenzene	0.125	0.132	105	68.0-135	
sec-Butylbenzene	0.125	0.111	89.2	74.0-130	
tert-Butylbenzene	0.125	0.115	91.6	75.0-127	
Carbon disulfide	0.125	0.122	97.2	56.0-133	
Carbon tetrachloride	0.125	0.0876	70.0	66.0-128	
Chlorobenzene	0.125	0.121	97.2	76.0-128	
Chlorodibromomethane	0.125	0.0965	77.2	74.0-127	
Chloroethane	0.125	0.106	84.5	61.0-134	
Chloroform	0.125	0.102	81.5	72.0-123	
Chloromethane	0.125	0.132	106	51.0-138	
2-Chlorotoluene	0.125	0.125	100	75.0-124	
4-Chlorotoluene	0.125	0.115	91.8	75.0-124	
1,2-Dibromo-3-Chloropropane	0.125	0.102	81.8	59.0-130	
1,2-Dibromoethane	0.125	0.133	106	74.0-128	
Dibromomethane	0.125	0.142	113	75.0-122	
1,2-Dichlorobenzene	0.125	0.106	84.6	76.0-124	
1,3-Dichlorobenzene	0.125	0.0968	77.4	76.0-125	
1,4-Dichlorobenzene	0.125	0.108	86.2	77.0-121	
trans-1,4-Dichloro-2-butene	0.125	0.109	87.3	45.0-143	
Dichlorodifluoromethane	0.125	0.141	113	43.0-156	
1,1-Dichloroethane	0.125	0.144	115	70.0-127	
1,2-Dichloroethane	0.125	0.148	118	65.0-131	
1,1-Dichloroethene	0.125	0.139	111	65.0-131	
cis-1,2-Dichloroethene	0.125	0.0976	78.1	73.0-125	
trans-1,2-Dichloroethene	0.125	0.0922	73.7	71.0-125	
1,1-Dichloropropene	0.125	0.103	82.5	73.0-125	
1,3-Dichloropropane	0.125	0.110	88.3	80.0-125	
cis-1,3-Dichloropropene	0.125	0.0954	76.3	76.0-127	
trans-1,3-Dichloropropene	0.125	0.0830	66.4	73.0-127	J4
2,2-Dichloropropane	0.125	0.0794	63.5	59.0-135	
Di-isopropyl ether	0.125	0.113	90.7	60.0-136	
Ethylbenzene	0.125	0.106	84.6	74.0-126	
Hexachloro-1,3-butadiene	0.125	0.0960	76.8	57.0-150	
2-Hexanone	0.625	0.659	105	54.0-147	

Laboratory Control Sample (LCS)

(LCS) R3343394-1 09/19/18 20:33

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Iodomethane	0.625	0.683	109	74.0-134	
Isopropylbenzene	0.125	0.143	114	72.0-127	
p-Isopropyltoluene	0.125	0.0889	71.1	72.0-133	J4
Methylene Chloride	0.125	0.109	86.9	68.0-123	
4-Methyl-2-pentanone (MIBK)	0.625	0.571	91.4	56.0-143	
Methyl tert-butyl ether	0.125	0.102	81.4	66.0-132	
Naphthalene	0.125	0.114	91.5	59.0-130	
n-Propylbenzene	0.125	0.132	105	74.0-126	
1,1,1,2-Tetrachloroethane	0.125	0.0859	68.7	74.0-129	J4
1,1,2,2-Tetrachloroethane	0.125	0.130	104	68.0-128	
Tetrachloroethene	0.125	0.102	81.7	70.0-136	
Toluene	0.125	0.116	92.5	75.0-121	
1,1,2-Trichlorotrifluoroethane	0.125	0.135	108	61.0-139	
1,2,3-Trichlorobenzene	0.125	0.0923	73.8	59.0-139	
1,2,4-Trichlorobenzene	0.125	0.107	85.8	62.0-137	
1,1,1-Trichloroethane	0.125	0.106	85.1	69.0-126	
1,1,2-Trichloroethane	0.125	0.110	88.2	78.0-123	
Trichloroethene	0.125	0.113	90.2	76.0-126	
Trichlorofluoromethane	0.125	0.128	103	61.0-142	
1,2,3-Trichloropropane	0.125	0.128	102	67.0-129	
1,2,3-Trimethylbenzene	0.125	0.101	80.7	74.0-124	
1,2,4-Trimethylbenzene	0.125	0.118	94.8	70.0-126	
1,3,5-Trimethylbenzene	0.125	0.138	110	73.0-127	
Vinyl acetate	0.625	0.462	73.9	43.0-159	
Vinyl chloride	0.125	0.120	96.3	63.0-134	
Xylenes, Total	0.375	0.347	92.5	72.0-127	
(S) Toluene-d8			*105*	*75.0-131*	
(S) Dibromofluoromethane			*105*	*65.0-129*	
(S) 4-Bromofluorobenzene			*104*	*67.0-138*	

L1025616-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1025616-05 09/20/18 05:24 • (MS) R3343394-3 09/19/18 22:26 • (MSD) R3343394-4 09/19/18 22:46

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acetone	0.707	U	0.125	0.176	17.6	24.8	1	10.0-160			34.1	40
Acrylonitrile	0.707	U	0.456	0.551	64.5	77.9	1	10.0-160			18.8	40
Benzene	0.141	0.000573	0.0940	0.102	66.0	71.9	1	10.0-149			8.44	37
Bromobenzene	0.141	0.0129	0.139	0.158	89.0	102	1	10.0-156			12.8	38

L1025616-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1025616-05 09/20/18 05:24 • (MS) R3343394-3 09/19/18 22:26 • (MSD) R3343394-4 09/19/18 22:46

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Bromodichloromethane	0.141	U	0.0922	0.0999	65.2	70.6	1	10.0-143			7.98	37
Bromoform	0.141	U	0.111	0.128	78.7	90.6	1	10.0-146			14.0	36
Bromochloromethane	0.141	U	0.132	0.142	93.2	100	1	10.0-155			7.46	33
Bromomethane	0.141	U	0.112	0.109	79.2	76.8	1	10.0-149			3.01	38
n-Butylbenzene	0.141	U	0.154	0.175	109	123	1	10.0-160			12.3	40
sec-Butylbenzene	0.141	U	0.120	0.137	84.6	96.5	1	10.0-159			13.2	39
tert-Butylbenzene	0.141	U	0.121	0.132	85.7	93.6	1	10.0-156			8.88	39
Carbon tetrachloride	0.141	U	0.0865	0.0891	61.1	63.0	1	10.0-145			2.99	37
Carbon disulfide	0.141	U	0.111	0.121	78.8	85.2	1	10.0-145			7.85	39
Chlorobenzene	0.141	U	0.112	0.118	79.4	83.4	1	10.0-152			4.94	39
Chlorodibromomethane	0.141	0.00224	0.0878	0.101	60.5	70.0	1	10.0-146			14.2	37
Chloroethane	0.141	0.0230	0.0859	0.106	44.5	59.0	1	10.0-146			21.3	40
Chloroform	0.141	U	0.0921	0.105	65.1	74.1	1	10.0-146			13.0	37
Chloromethane	0.141	U	0.154	0.151	109	107	1	10.0-159			1.68	37
2-Chlorotoluene	0.141	U	0.122	0.135	86.3	95.7	1	10.0-159			10.4	38
4-Chlorotoluene	0.141	U	0.108	0.125	76.1	88.3	1	10.0-155			14.8	39
1,2-Dibromo-3-Chloropropane	0.141	U	0.0705	0.0913	49.8	64.5	1	10.0-151			25.7	39
1,2-Dibromoethane	0.141	U	0.120	0.130	84.6	91.9	1	10.0-148			8.32	34
Dibromomethane	0.141	U	0.133	0.145	94.2	102	1	10.0-147			8.29	35
1,2-Dichlorobenzene	0.141	U	0.103	0.113	72.7	79.9	1	10.0-155			9.45	37
1,3-Dichlorobenzene	0.141	U	0.104	0.116	73.2	82.0	1	10.0-153			11.3	38
1,4-Dichlorobenzene	0.141	U	0.109	0.119	76.8	84.0	1	10.0-151			8.91	38
Dichlorodifluoromethane	0.141	U	0.180	0.180	127	128	1	10.0-160			0.220	35
trans-1,4-Dichloro-2-butene	0.141	U	0.111	0.126	78.7	89.2	1	10.0-152			12.4	36
1,1-Dichloroethane	0.141	U	0.134	0.147	94.7	104	1	10.0-147			9.36	37
1,2-Dichloroethane	0.141	U	0.130	0.145	91.8	103	1	10.0-148			11.3	35
1,1-Dichloroethene	0.141	U	0.136	0.152	96.0	107	1	10.0-155			11.0	37
cis-1,2-Dichloroethene	0.141	U	0.0897	0.0998	63.4	70.6	1	10.0-149			10.7	37
trans-1,2-Dichloroethene	0.141	U	0.0815	0.0910	57.6	64.3	1	10.0-150			11.0	37
1,1-Dichloropropene	0.141	U	0.0953	0.106	67.3	74.8	1	10.0-153			10.5	35
1,3-Dichloropropane	0.141	U	0.100	0.111	70.9	78.4	1	10.0-154			10.1	35
cis-1,3-Dichloropropene	0.141	U	0.0864	0.0925	61.1	65.4	1	10.0-151			6.80	37
trans-1,3-Dichloropropene	0.141	0.00702	0.0789	0.0870	50.8	56.6	1	10.0-148			9.85	37
2,2-Dichloropropane	0.141	U	0.0651	0.0660	46.0	46.6	1	10.0-138			1.38	36
Di-isopropyl ether	0.141	U	0.101	0.120	71.2	85.1	1	10.0-147			17.7	36
Ethylbenzene	0.141	U	0.103	0.107	73.0	75.9	1	10.0-160			3.76	38
Hexachloro-1,3-butadiene	0.141	U	0.105	0.131	74.1	92.8	1	10.0-160			22.4	40
2-Hexanone	0.707	U	0.444	0.506	62.8	71.5	1	10.0-160			12.9	36
Isopropylbenzene	0.141	U	0.152	0.166	107	117	1	10.0-155			9.14	38

L1025616-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1025616-05 09/20/18 05:24 • (MS) R3343394-3 09/19/18 22:26 • (MSD) R3343394-4 09/19/18 22:46

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Iodomethane	0.707	U	0.595	0.619	84.1	87.6	1	10.0-160			4.03	38
p-Isopropyltoluene	0.141	U	0.0972	0.106	68.7	74.7	1	10.0-160			8.31	40
Methylene Chloride	0.141	U	0.0954	0.104	67.5	73.8	1	10.0-141			9.05	37
4-Methyl-2-pentanone (MIBK)	0.707	U	0.417	0.487	59.0	68.8	1	10.0-160			15.3	35
Methyl tert-butyl ether	0.141	U	0.0733	0.0847	51.8	59.9	1	11.0-147			14.5	35
Naphthalene	0.141	0.0227	0.0943	0.103	50.6	56.5	1	10.0-160			8.46	36
n-Propylbenzene	0.141	0.00165	0.136	0.149	94.9	104	1	10.0-158			9.33	38
1,1,1,2-Tetrachloroethane	0.141	U	0.0787	0.0827	55.6	58.4	1	10.0-149			4.96	39
1,1,2,2-Tetrachloroethane	0.141	0.00368	0.120	0.131	82.1	89.9	1	10.0-160			8.75	35
Tetrachloroethene	0.141	U	0.101	0.104	71.3	73.6	1	10.0-156			3.23	39
Toluene	0.141	0.00153	0.113	0.120	78.9	83.8	1	10.0-156			5.88	38
1,1,2-Trichlorotrifluoroethane	0.141	U	0.134	0.125	94.8	88.6	1	10.0-160			6.74	36
1,2,3-Trichlorobenzene	0.141	U	0.0866	0.104	61.2	73.3	1	10.0-160			18.0	40
1,2,4-Trichlorobenzene	0.141	U	0.113	0.120	79.7	84.5	1	10.0-160			5.85	40
1,1,1-Trichloroethane	0.141	U	0.0949	0.104	67.1	73.6	1	10.0-144			9.27	35
1,1,2-Trichloroethane	0.141	U	0.0967	0.110	68.3	78.1	1	10.0-160			13.3	35
Trichloroethene	0.141	U	0.102	0.114	72.2	80.6	1	10.0-156			10.9	38
Trichlorofluoromethane	0.141	0.000651	0.0890	0.0882	62.5	61.9	1	10.0-160			0.982	40
1,2,3-Trichloropropane	0.141	U	0.115	0.124	81.6	87.9	1	10.0-156			7.48	35
1,2,3-Trimethylbenzene	0.141	0.00174	0.0985	0.112	68.4	77.8	1	10.0-160			12.7	36
1,2,4-Trimethylbenzene	0.141	U	0.121	0.135	85.5	95.4	1	10.0-160			11.0	36
1,3,5-Trimethylbenzene	0.141	U	0.139	0.150	97.9	106	1	10.0-160			7.69	38
Vinyl chloride	0.141	U	0.123	0.115	86.8	81.5	1	10.0-160			6.31	37
Vinyl acetate	0.707	U	0.352	0.327	49.7	46.2	1	10.0-128			7.31	40
Xylenes, Total	0.424	U	0.325	0.358	76.5	84.3	1	10.0-160			9.62	38
(S) Toluene-d8					*104*	*104*		*75.0-131*				
(S) Dibromofluoromethane					*100*	*103*		*65.0-129*				
(S) 4-Bromofluorobenzene					*106*	*109*		*67.0-138*				

Method Blank (MB)

(MB) R3343576-2 09/20/18 10:22

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acetone	U		0.0137	0.0250
Acrylonitrile	U		0.00190	0.0125
Benzene	U		0.000400	0.00100
Bromobenzene	U		0.00105	0.0125
Bromochloromethane	U		0.00113	0.00500
Bromoform	U		0.00598	0.0250
n-Butylbenzene	U		0.00384	0.0125
sec-Butylbenzene	U		0.00253	0.0125
tert-Butylbenzene	U		0.00155	0.00500
Carbon disulfide	U		0.00406	0.0125
Carbon tetrachloride	U		0.00108	0.00500
Chlorobenzene	U		0.000573	0.00250
Chlorodibromomethane	U		0.000450	0.00250
Chloroethane	U		0.00108	0.00500
Chloroform	U		0.000415	0.00250
Chloromethane	U		0.00139	0.0125
2-Chlorotoluene	U		0.000920	0.00250
4-Chlorotoluene	U		0.00113	0.00500
1,2-Dibromo-3-Chloropropane	U		0.00510	0.0250
1,2-Dibromoethane	U		0.000525	0.00250
Dibromomethane	U		0.00100	0.00500
1,2-Dichlorobenzene	U		0.00145	0.00500
1,3-Dichlorobenzene	U		0.00170	0.00500
1,4-Dichlorobenzene	U		0.00197	0.00500
trans-1,4-Dichloro-2-butene	U		0.00140	0.00500
Dichlorodifluoromethane	U		0.000818	0.00250
1,1-Dichloroethane	U		0.000575	0.00250
1,2-Dichloroethane	U		0.000475	0.00250
1,1-Dichloroethene	U		0.000500	0.00250
trans-1,2-Dichloroethene	U		0.00143	0.00500
1,2-Dichloropropane	U		0.00127	0.00500
1,1-Dichloropropene	U		0.000700	0.00250
1,3-Dichloropropane	U		0.00175	0.00500
cis-1,3-Dichloropropene	U		0.000678	0.00250
trans-1,3-Dichloropropene	U		0.00153	0.00500
2,2-Dichloropropane	U		0.000793	0.00250
Di-isopropyl ether	U		0.000350	0.00100
Hexachloro-1,3-butadiene	U		0.0127	0.0250
n-Hexane	U		0.00106	0.00500
2-Hexanone	U		0.0100	0.0250

Method Blank (MB)

(MB) R3343576-2 09/20/18 10:22

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Iodomethane	0.0737		0.00605	0.0125
Isopropylbenzene	U		0.000863	0.00250
p-Isopropyltoluene	U		0.00233	0.00500
2-Butanone (MEK)	U		0.0125	0.0250
Methylene Chloride	0.0114	J	0.00664	0.0250
4-Methyl-2-pentanone (MIBK)	U		0.0100	0.0250
Methyl tert-butyl ether	U		0.000295	0.00100
Naphthalene	U		0.00312	0.0125
n-Propylbenzene	U		0.00118	0.00500
Styrene	U		0.00273	0.0125
1,1,1,2-Tetrachloroethane	U		0.000500	0.00250
1,1,2,2-Tetrachloroethane	U		0.000390	0.00250
1,1,2-Trichlorotrifluoroethane	U		0.000675	0.00250
1,2,3-Trichlorobenzene	U		0.000625	0.00250
1,2,4-Trichlorobenzene	U		0.00482	0.0125
1,1,1-Trichloroethane	U		0.000275	0.00250
1,1,2-Trichloroethane	U		0.000883	0.00250
Trichlorofluoromethane	U		0.000500	0.00250
1,2,3-Trichloropropane	U		0.00510	0.0125
1,2,3-Trimethylbenzene	U		0.00115	0.00500
1,2,4-Trimethylbenzene	U		0.00116	0.00500
1,3,5-Trimethylbenzene	U		0.00108	0.00500
Vinyl acetate	U		0.00352	0.0125
Vinyl chloride	U		0.000683	0.00250
Xylenes, Total	U		0.00478	0.00650
(S) Toluene-d8	*112*			*75.0-131*
(S) Dibromofluoromethane	*96.3*			*65.0-129*
(S) 4-Bromofluorobenzene	*99.5*			*67.0-138*

Laboratory Control Sample (LCS)

(LCS) R3343576-1 09/20/18 08:50

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acetone	0.625	0.563	90.1	10.0-160	
Acrylonitrile	0.625	0.858	137	45.0-153	
Benzene	0.125	0.101	81.0	70.0-123	
Bromobenzene	0.125	0.133	106	73.0-121	
Bromochloromethane	0.125	0.101	80.9	77.0-128	

Laboratory Control Sample (LCS)

(LCS) R3343576-1 09/20/18 08:50

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Bromoform	0.125	0.135	108	64.0-132	
n-Butylbenzene	0.125	0.127	101	68.0-135	
sec-Butylbenzene	0.125	0.135	108	74.0-130	
tert-Butylbenzene	0.125	0.122	97.6	75.0-127	
Carbon disulfide	0.125	0.112	89.6	56.0-133	
Carbon tetrachloride	0.125	0.136	109	66.0-128	
Chlorobenzene	0.125	0.125	99.8	76.0-128	
Chlorodibromomethane	0.125	0.115	92.4	74.0-127	
Chloroethane	0.125	0.116	92.6	61.0-134	
Chloroform	0.125	0.104	83.0	72.0-123	
Chloromethane	0.125	0.105	83.8	51.0-138	
2-Chlorotoluene	0.125	0.118	94.6	75.0-124	
4-Chlorotoluene	0.125	0.129	103	75.0-124	
1,2-Dibromo-3-Chloropropane	0.125	0.128	103	59.0-130	
1,2-Dibromoethane	0.125	0.0985	78.8	74.0-128	
Dibromomethane	0.125	0.143	114	75.0-122	
1,2-Dichlorobenzene	0.125	0.114	90.9	76.0-124	
1,3-Dichlorobenzene	0.125	0.105	84.0	76.0-125	
1,4-Dichlorobenzene	0.125	0.0943	75.4	77.0-121	J4
trans-1,4-Dichloro-2-butene	0.125	0.135	108	45.0-143	
Dichlorodifluoromethane	0.125	0.152	122	43.0-156	
1,1-Dichloroethane	0.125	0.146	117	70.0-127	
1,2-Dichloroethane	0.125	0.121	96.9	65.0-131	
1,1-Dichloroethene	0.125	0.0993	79.5	65.0-131	
trans-1,2-Dichloroethene	0.125	0.115	92.4	71.0-125	
1,2-Dichloropropane	0.125	0.120	96.1	74.0-125	
1,1-Dichloropropene	0.125	0.125	99.8	73.0-125	
1,3-Dichloropropane	0.125	0.146	117	80.0-125	
cis-1,3-Dichloropropene	0.125	0.161	129	76.0-127	J4
trans-1,3-Dichloropropene	0.125	0.141	113	73.0-127	
2,2-Dichloropropane	0.125	0.144	115	59.0-135	
Di-isopropyl ether	0.125	0.115	91.6	60.0-136	
Hexachloro-1,3-butadiene	0.125	0.129	103	57.0-150	
2-Hexanone	0.625	0.712	114	54.0-147	
n-Hexane	0.125	0.158	127	55.0-137	
Iodomethane	0.625	0.614	98.2	74.0-134	
Isopropylbenzene	0.125	0.101	80.5	72.0-127	
p-Isopropyltoluene	0.125	0.113	90.2	72.0-133	
2-Butanone (MEK)	0.625	0.751	120	30.0-160	
Methylene Chloride	0.125	0.118	94.0	68.0-123	

Laboratory Control Sample (LCS)

(LCS) R3343576-1 09/20/18 08:50

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
4-Methyl-2-pentanone (MIBK)	0.625	0.831	133	56.0-143	
Methyl tert-butyl ether	0.125	0.122	97.2	66.0-132	
Naphthalene	0.125	0.116	92.6	59.0-130	
n-Propylbenzene	0.125	0.103	82.7	74.0-126	
Styrene	0.125	0.0823	65.8	72.0-127	J4
1,1,1,2-Tetrachloroethane	0.125	0.110	87.6	74.0-129	
1,1,2,2-Tetrachloroethane	0.125	0.179	144	68.0-128	J4
1,1,2-Trichlorotrifluoroethane	0.125	0.150	120	61.0-139	
1,2,3-Trichlorobenzene	0.125	0.119	95.3	59.0-139	
1,2,4-Trichlorobenzene	0.125	0.125	100	62.0-137	
1,1,1-Trichloroethane	0.125	0.154	123	69.0-126	
1,1,2-Trichloroethane	0.125	0.127	102	78.0-123	
Trichlorofluoromethane	0.125	0.157	126	61.0-142	
1,2,3-Trichloropropane	0.125	0.152	122	67.0-129	
1,2,3-Trimethylbenzene	0.125	0.124	99.6	74.0-124	
1,2,4-Trimethylbenzene	0.125	0.110	87.6	70.0-126	
1,3,5-Trimethylbenzene	0.125	0.120	96.3	73.0-127	
Vinyl acetate	0.625	0.801	128	43.0-159	
Vinyl chloride	0.125	0.123	98.7	63.0-134	
Xylenes, Total	0.375	0.297	79.2	72.0-127	
(S) Toluene-d8			*105*	*75.0-131*	
(S) Dibromofluoromethane			*95.5*	*65.0-129*	
(S) 4-Bromofluorobenzene			*101*	*67.0-138*	

L1026042-08 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1026042-08 09/20/18 17:41 • (MS) R3343576-3 09/20/18 19:16 • (MSD) R3343576-4 09/20/18 19:39

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acetone	0.652	U	0.636	0.719	82.7	93.4	1.18	10.0-160			12.2	40
Acrylonitrile	0.652	U	0.894	0.918	116	119	1.18	10.0-160			2.68	40
Benzene	0.130	0.000586	0.0999	0.112	64.6	72.6	1.18	10.0-149			11.7	37
Bromobenzene	0.130	U	0.129	0.145	84.0	94.3	1.18	10.0-156			11.5	38
Bromoform	0.130	U	0.125	0.133	81.2	86.6	1.18	10.0-146			6.44	36
Bromochloromethane	0.130	U	0.0936	0.108	60.8	70.5	1.18	10.0-155			14.7	33
n-Butylbenzene	0.130	U	0.124	0.148	80.7	96.1	1.18	10.0-160			17.5	40
sec-Butylbenzene	0.130	U	0.133	0.158	86.5	103	1.18	10.0-159			17.0	39
tert-Butylbenzene	0.130	U	0.117	0.139	76.3	90.1	1.18	10.0-156			16.5	39
Carbon tetrachloride	0.130	U	0.122	0.140	79.5	91.3	1.18	10.0-145			13.8	37

L1026042-08 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1026042-08 09/20/18 17:41 • (MS) R3343576-3 09/20/18 19:16 • (MSD) R3343576-4 09/20/18 19:39

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Carbon disulfide	0.130	U	0.111	0.129	72.1	83.6	1.18	10.0-145			14.7	39
Chlorobenzene	0.130	U	0.121	0.139	78.5	90.1	1.18	10.0-152			13.8	39
Chlorodibromomethane	0.130	U	0.109	0.118	71.0	77.0	1.18	10.0-146			8.17	37
Chloroethane	0.130	U	0.112	0.129	72.9	83.7	1.18	10.0-146			13.7	40
Chloroform	0.130	U	0.0994	0.111	64.6	72.1	1.18	10.0-146			11.0	37
Chloromethane	0.130	U	0.109	0.131	71.1	85.5	1.18	10.0-159			18.4	37
2-Chlorotoluene	0.130	U	0.113	0.130	73.2	84.7	1.18	10.0-159			14.6	38
4-Chlorotoluene	0.130	U	0.123	0.142	79.9	92.1	1.18	10.0-155			14.2	39
1,2-Dibromo-3-Chloropropane	0.130	U	0.111	0.119	72.5	77.3	1.18	10.0-151			6.41	39
1,2-Dibromoethane	0.130	U	0.0963	0.103	62.6	67.0	1.18	10.0-148			6.74	34
Dibromomethane	0.130	U	0.143	0.150	92.8	97.4	1.18	10.0-147			4.90	35
1,2-Dichlorobenzene	0.130	U	0.112	0.125	72.8	81.1	1.18	10.0-155			10.8	37
1,3-Dichlorobenzene	0.130	U	0.104	0.116	67.6	75.6	1.18	10.0-153			11.1	38
1,4-Dichlorobenzene	0.130	U	0.0935	0.106	60.8	68.6	1.18	10.0-151			12.1	38
Dichlorodifluoromethane	0.130	U	0.187	0.224	121	145	1.18	10.0-160			18.1	35
trans-1,4-Dichloro-2-butene	0.130	U	0.126	0.133	82.0	86.6	1.18	10.0-152			5.43	36
1,1-Dichloroethane	0.130	U	0.140	0.160	91.0	104	1.18	10.0-147			13.1	37
1,2-Dichloroethane	0.130	U	0.119	0.128	77.6	83.2	1.18	10.0-148			6.98	35
1,1-Dichloroethene	0.130	U	0.103	0.121	66.9	78.6	1.18	10.0-155			16.1	37
trans-1,2-Dichloroethene	0.130	U	0.103	0.124	67.2	80.9	1.18	10.0-150			18.5	37
1,2-Dichloropropane	0.130	U	0.117	0.128	76.4	83.3	1.18	10.0-148			8.74	37
1,1-Dichloropropene	0.130	U	0.119	0.144	77.3	93.4	1.18	10.0-153			18.9	35
1,3-Dichloropropane	0.130	U	0.148	0.160	96.2	104	1.18	10.0-154			7.59	35
cis-1,3-Dichloropropene	0.130	U	0.149	0.166	96.9	108	1.18	10.0-151			11.0	37
trans-1,3-Dichloropropene	0.130	U	0.131	0.139	85.1	90.4	1.18	10.0-148			6.06	37
2,2-Dichloropropane	0.130	U	0.124	0.144	80.7	93.7	1.18	10.0-138			14.9	36
Di-isopropyl ether	0.130	U	0.113	0.126	73.7	82.2	1.18	10.0-147			10.9	36
Hexachloro-1,3-butadiene	0.130	U	0.128	0.153	83.4	99.4	1.18	10.0-160			17.5	40
2-Hexanone	0.652	U	0.734	0.783	95.5	102	1.18	10.0-160			6.40	36
Isopropylbenzene	0.130	U	0.0969	0.114	63.0	74.2	1.18	10.0-155			16.4	38
n-Hexane	0.130	0.0176	0.172	0.199	100	118	1.18	10.0-157			14.7	37
Iodomethane	0.652	U	0.446	0.572	58.0	74.3	1.18	10.0-160			24.7	38
p-Isopropyltoluene	0.130	U	0.109	0.129	71.2	83.8	1.18	10.0-160			16.3	40
2-Butanone (MEK)	0.652	U	0.817	0.886	106	115	1.18	10.0-160			8.09	40
Methylene Chloride	0.130	U	0.108	0.118	70.5	76.4	1.18	10.0-141			8.15	37
4-Methyl-2-pentanone (MIBK)	0.652	U	0.812	0.855	106	111	1.18	10.0-160			5.14	35
Methyl tert-butyl ether	0.130	U	0.127	0.129	82.2	83.9	1.18	11.0-147			2.03	35
Naphthalene	0.130	U	0.121	0.128	78.5	83.4	1.18	10.0-160			6.01	36
n-Propylbenzene	0.130	U	0.100	0.118	65.0	76.7	1.18	10.0-158			16.5	38

L1026042-08 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1026042-08 09/20/18 17:41 • (MS) R3343576-3 09/20/18 19:16 • (MSD) R3343576-4 09/20/18 19:39

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Styrene	0.130	U	0.0816	0.0939	53.1	61.0	1.18	10.0-160			13.9	40
1,1,1,2-Tetrachloroethane	0.130	U	0.100	0.113	65.3	73.3	1.18	10.0-149			11.5	39
1,1,2,2-Tetrachloroethane	0.130	U	0.153	0.157	99.5	102	1.18	10.0-160			2.79	35
1,1,2-Trichlorotrifluoroethane	0.130	U	0.133	0.157	86.2	102	1.18	10.0-160			17.0	36
1,2,3-Trichlorobenzene	0.130	U	0.124	0.135	80.9	87.8	1.18	10.0-160			8.22	40
1,2,4-Trichlorobenzene	0.130	U	0.129	0.142	84.0	92.2	1.18	10.0-160			9.34	40
1,1,1-Trichloroethane	0.130	U	0.143	0.166	93.1	108	1.18	10.0-144			14.5	35
1,1,2-Trichloroethane	0.130	U	0.126	0.128	82.0	83.3	1.18	10.0-160			1.57	35
Trichlorofluoromethane	0.130	U	0.161	0.189	104	123	1.18	10.0-160			16.0	40
1,2,3-Trichloropropane	0.130	U	0.148	0.155	96.2	101	1.18	10.0-156			4.92	35
1,2,4-Trimethylbenzene	0.130	0.00153	0.106	0.124	67.8	79.4	1.18	10.0-160			15.5	36
1,2,3-Trimethylbenzene	0.130	U	0.115	0.132	74.6	85.6	1.18	10.0-160			13.7	36
1,3,5-Trimethylbenzene	0.130	U	0.118	0.137	76.5	88.8	1.18	10.0-160			14.8	38
Vinyl chloride	0.130	U	0.00831	0.00884	5.40	5.75	1.18	10.0-160	J6	J6	6.15	37
Vinyl acetate	0.652	U	0.0751	0.0616	9.77	8.01	1.18	10.0-128	J6	J6	19.8	40
Xylenes, Total	0.391	U	0.290	0.338	62.8	73.2	1.18	10.0-160			15.4	38
(S) Toluene-d8					*107*	*108*		*75.0-131*				
(S) Dibromofluoromethane					*96.7*	*95.0*		*65.0-129*				
(S) 4-Bromofluorobenzene					*101*	*101*		*67.0-138*				

Method Blank (MB)

(MB) R3343601-2 09/20/18 11:39

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
cis-1,2-Dichloroethene	U		0.000690	0.00250
1,2-Dichloropropane	U		0.00127	0.00500
n-Hexane	U		0.00106	0.00500
2-Butanone (MEK)	U		0.0125	0.0250
Styrene	U		0.00273	0.0125
Tetrachloroethene	U		0.000700	0.00250
Trichloroethene	U		0.000400	0.00100
(S) Toluene-d8	*114*			*75.0-131*
(S) Dibromofluoromethane	*93.1*			*65.0-129*
(S) 4-Bromofluorobenzene	*85.9*			*67.0-138*

Laboratory Control Sample (LCS)

(LCS) R3343601-1 09/20/18 10:40

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
cis-1,2-Dichloroethene	0.125	0.138	110	73.0-125	
1,2-Dichloropropane	0.125	0.117	93.5	74.0-125	
n-Hexane	0.125	0.179	143	55.0-137	J4
2-Butanone (MEK)	0.625	0.777	124	30.0-160	
Styrene	0.125	0.0869	69.5	72.0-127	J4
Tetrachloroethene	0.125	0.156	125	70.0-136	
Trichloroethene	0.125	0.133	106	76.0-126	
(S) Toluene-d8			*104*	*75.0-131*	
(S) Dibromofluoromethane			*110*	*65.0-129*	
(S) 4-Bromofluorobenzene			*86.4*	*67.0-138*	

Method Blank (MB)

(MB) R3343784-2 09/20/18 23:16

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
1,2-Dichloropropane	U		0.00127	0.00500
2-Butanone (MEK)	U		0.0125	0.0250
Styrene	U		0.00273	0.0125
Tetrachloroethene	U		0.000700	0.00250
(S) Toluene-d8	*106*			*75.0-131*
(S) Dibromofluoromethane	*93.4*			*65.0-129*
(S) 4-Bromofluorobenzene	*110*			*67.0-138*

Laboratory Control Sample (LCS)

(LCS) R3343784-1 09/20/18 21:56

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
1,2-Dichloropropane	0.125	0.139	111	74.0-125	
2-Butanone (MEK)	0.625	0.898	144	30.0-160	
Styrene	0.125	0.143	114	72.0-127	
Tetrachloroethene	0.125	0.124	99.1	70.0-136	
(S) Toluene-d8			*100*	*75.0-131*	
(S) Dibromofluoromethane			*109*	*65.0-129*	
(S) 4-Bromofluorobenzene			*108*	*67.0-138*	

Method Blank (MB)

(MB) R3344040-2 09/21/18 11:29

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
n-Hexane	U		0.00106	0.00500
(S) Toluene-d8	*118*			*75.0-131*
(S) Dibromofluoromethane	*89.7*			*65.0-129*
(S) 4-Bromofluorobenzene	*88.4*			*67.0-138*

Laboratory Control Sample (LCS)

(LCS) R3344040-1 09/21/18 09:33

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
n-Hexane	0.125	0.164	131	55.0-137	
(S) Toluene-d8			*107*	*75.0-131*	
(S) Dibromofluoromethane			*105*	*65.0-129*	
(S) 4-Bromofluorobenzene			*100*	*67.0-138*	

Method Blank (MB)

(MB) R3343934-2 09/21/18 09:55

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Bromodichloromethane	U		0.000788	0.00250
Bromomethane	U		0.00370	0.0125
cis-1,2-Dichloroethene	U		0.000690	0.00250
Ethylbenzene	U		0.000530	0.00250
Tetrachloroethene	U		0.000700	0.00250
Toluene	U		0.00125	0.00500
Trichloroethene	U		0.000400	0.00100
(S) Toluene-d8	*108*			*75.0-131*
(S) Dibromofluoromethane	*108*			*65.0-129*
(S) 4-Bromofluorobenzene	*108*			*67.0-138*

Laboratory Control Sample (LCS)

(LCS) R3343934-1 09/21/18 08:54

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Bromodichloromethane	0.125	0.0985	78.8	73.0-121	
Bromomethane	0.125	0.109	87.4	56.0-147	
cis-1,2-Dichloroethene	0.125	0.104	83.3	73.0-125	
Ethylbenzene	0.125	0.112	89.6	74.0-126	
Tetrachloroethene	0.125	0.0983	78.6	70.0-136	
Toluene	0.125	0.122	97.3	75.0-121	
Trichloroethene	0.125	0.111	88.4	76.0-126	
(S) Toluene-d8			*103*	*75.0-131*	
(S) Dibromofluoromethane			*105*	*65.0-129*	
(S) 4-Bromofluorobenzene			*108*	*67.0-138*	

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Abbreviations and Definitions

(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
MDL	Method Detection Limit.
MDL (dry)	Method Detection Limit.
RDL	Reported Detection Limit.
RDL (dry)	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(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.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
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.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.
J0	J0: Calibration verification outside of acceptance limits. Result is estimated.
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.

Pace National 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.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T 104704245-17-14
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

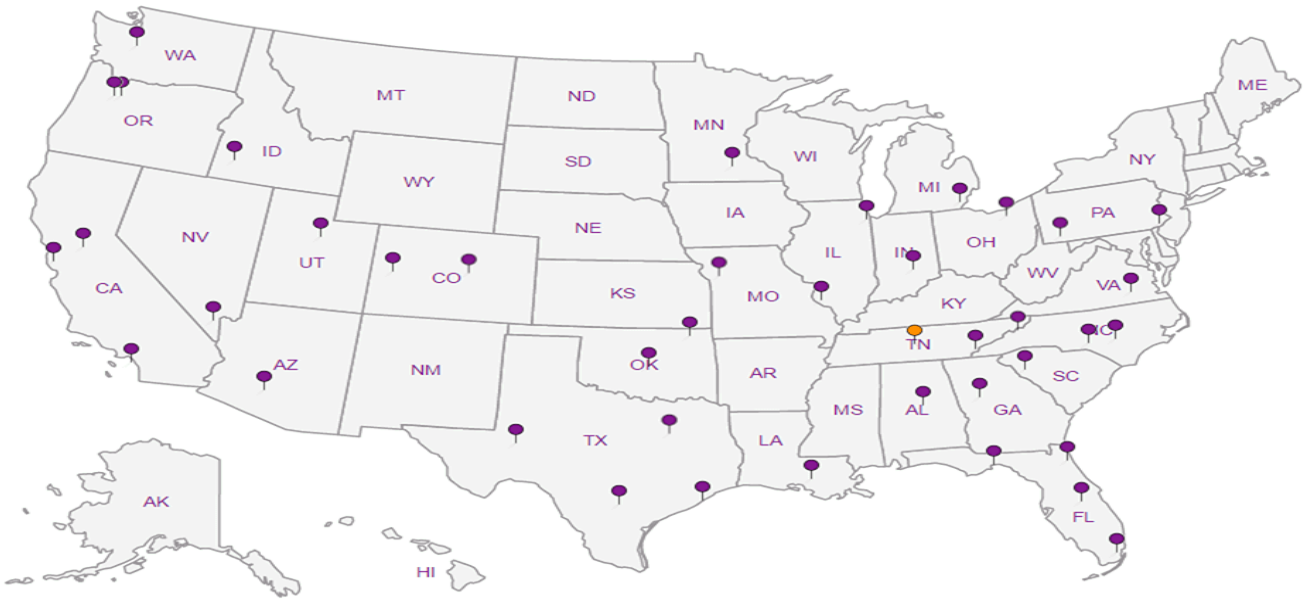
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

Our Locations

Pace National 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. Pace National performs all testing at our central laboratory.



PES Environmental, Inc.- WA

1215 Fourth Ave., Suite 1350
Seattle, WA 98161

Billing Information:
Attn: Accounts Payable
1215 Fourth Ave., Ste. 1350
Seattle, WA 98161

Pres Chk

Report to: Brian O'Neal/Bill Haldeman

Email To: boneal@pesenv.com; bhaldeman@pesenv.com

Project Description: American Linen

City/State Collected: SEATTLE, WA

Phone: 206-529-3980
Fax: 206-529-3985

Client Project # 1413.001.05.304

Lab Project # PESENVSWA-ALP

Collected by (print): S. McKERNAN

Site/Facility ID # 1413.001.05.304

P.O. #

Collected by (signature):

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Immediately
Packed on Ice N ___ Y 1

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOCs V8260C 40mlAmb/MeOH5ml/Syr	dry weight 2oz Clr-NoPres	trip blk V8260LLC 40mlAmb-HCl-Blk	Remarks	Sample # (lab only)
IW-24C-66	GRAB	SS	66	9/10/18	1030	2	X	X	X		-01
IW-24C-75		SS	75		1000	2	X	X	X		02
IW-24C-80		SS	80		1100	2	X	X	X		03
IW-27C-45		SS	45		1155	2	X	X	X		04
~~IW-14D-32~~ IW-14d-32		SS	32		1600	2	X	X	X	HOLD	
IW-14d-45		SS	45	9/11/18	0855		X	X	X		05
IW-14d-47		SS	47		0945		X	X	X	HOLD	
IW-14d-55		SS	55		0950		X	X	X		06
IW-14d-60		SS	60		1015		X	X	X	HOLD	
IW-14d-65		SS	65		1100		X	X	X		07

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other ___

Remarks:
RAD SCREEN: <0.5 mR/hr

pH ___ Temp ___
Flow ___ Other ___

Samples returned via:
___ UPS ___ FedEx ___ Courier ___

Tracking # 4510 1654 1027

Trip Blank Received: Yes / No
HCl / MeOH
TBR

Temp: 1.0 °C Bottles Received: 34

If preservation required by Login: Date/Time

Relinquished by: (Signature) Date: 9/12/18 Time: 1220
Received by: (Signature) 9/12/18 1220

Relinquished by: (Signature) Date: 9/12/18 Time: 1220
Received by: (Signature)

Relinquished by: (Signature) Date: Time:
Received for lab by: (Signature) 801
Date: 9/13/18 Time: 5:45

09-0043

Condition: NCF / OK

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

Chain of Custody Page 1 of 2

Pace Analytical®
National Center for Testing & Innovation

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

L# L1025469

E091

Acctnum: PESENVSWA
Template: T139825
Prelogin: P668288
TSR: 110 - Brian Ford
PB:
Shipped Via: FedEX Ground

PES Environmental, Inc.- WA

1215 Fourth Ave., Suite 1350
Seattle, WA 98161

Billing Information:
Attn: Accounts Payable
1215 Fourth Ave., Ste. 1350
Seattle, WA 98161

Pres Chk

Report to: Brian O'Neal/Bill Haldeman

Email To: boneal@pesenv.com; bhaldeman@pesenv.com

Project Description: American Linen

City/State Collected: SEATTLE, WA

Phone: 206-529-3980
Fax: 206-529-3985

Client Project # 1413.001.05.304

Lab Project # PESENVSWA-ALP

Collected by (print): S. McKERNAN

Site/Facility ID # 1413-001.05.304

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOCs V8260C 40mlAmb/MeOH5ml/Syr	dry weight 2ozClr-NoPres	trip blk V8260LLC 40mlAmb-HCl-Blk	Remarks	Sample # (lab only)
1W-14d-70	GRAB	SS	70	9/11/18	1135	2	X	X		HOLD	
1W-14d-75		SS	75		1200		X	X			-08
1W-14d-80		SS	80		1245		X	X		HOLD	
1W-14d-86		SS	86		1235		X	X			09
1W-14d-89		SS	89		1230		X	X		HOLD	
1W-14d-95		SS	95		1430		X	X			10
~~1W-15d-54~~		SS	54		1630		X	X			11
TRIP BLANK	—	SS	—	—	—	1			X		12
		SS									
		SS									

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: RAD SCREEN: <0.5 mR/hr

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
___ UPS ___ FedEx ___ Courier _____

Tracking #

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)
	9/12/18	1220	9/12/18 12:20
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)
	9/12/18	1300	
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)
			SCI

Trip Blank Received: Yes / No
HCL / MeoH
TBR

Temp: 1.6 °C Bottles Received: 34

Date: 9/13/18 Time: 8:45

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

Chain of Custody Page 2 of 2

Pace Analytical
National Center for Testing & Innovation

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

L# L1025469

Table #

Acctnum: PESENVSWA
Template: T139825
Prelogin: P668288
TSR: 110 - Brian Ford
PB:

Shipped Via: FedEX Ground

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

September 24, 2018

PES Environmental, Inc.- WA

Sample Delivery Group:	L1026432
Samples Received:	09/15/2018
Project Number:	1413.001.05.304
Description:	American Linen
Site:	1413.001.05.304
Report To:	Brian O'Neal/Bill Haldeman 1215 Fourth Ave., Suite 1350 Seattle, WA 98161

Entire Report Reviewed By:

Brian Ford

Project Manager

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 Pace National is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

TABLE OF CONTENTS

Cp: Cover Page 1

Tc: Table of Contents 2

Ss: Sample Summary 3

Cn: Case Narrative 5

Sr: Sample Results 6

- IW-54A-8 L1026432-01 6
- IW-54A-49 L1026432-02 8
- IW-55B-43 L1026432-03 10
- IW-55B-39 L1026432-04 12
- IW-55B-61 L1026432-05 14
- IW-12D-42 L1026432-06 16
- B-928-42 L1026432-07 18
- IW-12D-50 L1026432-08 20
- IW-12D-60 L1026432-09 22
- BLANK-091418 L1026432-10 24

Qc: Quality Control Summary 26

- Total Solids by Method 2540 G-2011 26
- Volatile Organic Compounds (GC/MS) by Method 8260C 28

Gl: Glossary of Terms 39

Al: Accreditations & Locations 40

Sc: Sample Chain of Custody 41

IW-54A-8 L1026432-01 Solid

Collected by: S. McKernan | Collected date/time: 09/12/18 13:40 | Received date/time: 09/15/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1168410	1	09/20/18 11:10	09/20/18 11:19	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1169827	1	09/12/18 13:40	09/21/18 22:18	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1170348	200	09/12/18 13:40	09/23/18 20:01	DWR

IW-54A-49 L1026432-02 Solid

Collected by: S. McKernan | Collected date/time: 09/12/18 17:40 | Received date/time: 09/15/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1168410	1	09/20/18 11:10	09/20/18 11:19	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1169827	1	09/12/18 17:40	09/21/18 22:37	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1170348	1	09/12/18 17:40	09/23/18 16:50	DWR

IW-55B-43 L1026432-03 Solid

Collected by: S. McKernan | Collected date/time: 09/13/18 15:15 | Received date/time: 09/15/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1168410	1	09/20/18 11:10	09/20/18 11:19	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1169827	1	09/13/18 15:15	09/21/18 22:56	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1170348	80	09/13/18 15:15	09/23/18 20:25	DWR

IW-55B-39 L1026432-04 Solid

Collected by: S. McKernan | Collected date/time: 09/13/18 14:40 | Received date/time: 09/15/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1168410	1	09/20/18 11:10	09/20/18 11:19	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1169827	1	09/13/18 14:40	09/21/18 23:15	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1170348	1	09/13/18 14:40	09/23/18 17:14	DWR

IW-55B-61 L1026432-05 Solid

Collected by: S. McKernan | Collected date/time: 09/13/18 18:00 | Received date/time: 09/15/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1168411	1	09/20/18 09:41	09/20/18 09:51	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1169827	1	09/13/18 18:00	09/21/18 23:34	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1170348	8	09/13/18 18:00	09/23/18 20:49	DWR

IW-12D-42 L1026432-06 Solid

Collected by: S. McKernan | Collected date/time: 09/14/18 12:35 | Received date/time: 09/15/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1168411	1	09/20/18 09:41	09/20/18 09:51	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1169827	1	09/14/18 12:35	09/21/18 23:52	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1170348	100	09/14/18 12:35	09/23/18 21:13	DWR

B-928-42 L1026432-07 Solid

Collected by: S. McKernan | Collected date/time: 09/14/18 12:55 | Received date/time: 09/15/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1168411	1	09/20/18 09:41	09/20/18 09:51	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1169827	1	09/14/18 12:55	09/22/18 00:11	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1170348	100	09/14/18 12:55	09/23/18 21:37	DWR

IW-12D-50 L1026432-08 Solid

Collected by: S. McKernan | Collected date/time: 09/14/18 13:40 | Received date/time: 09/15/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1168411	1	09/20/18 09:41	09/20/18 09:51	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1169827	1	09/14/18 13:40	09/22/18 00:30	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1170348	200	09/14/18 13:40	09/23/18 22:01	DWR

IW-12D-60 L1026432-09 Solid

Collected by: S. McKernan | Collected date/time: 09/14/18 14:20 | Received date/time: 09/15/18 08:45

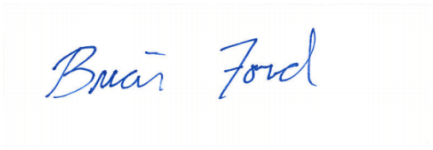
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1168411	1	09/20/18 09:41	09/20/18 09:51	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1169827	1	09/14/18 14:20	09/22/18 00:49	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1170348	20	09/14/18 14:20	09/23/18 22:24	DWR

BLANK-091418 L1026432-10 GW

Collected by: S. McKernan | Collected date/time: 09/14/18 00:00 | Received date/time: 09/15/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1167535	1	09/18/18 13:29	09/18/18 13:29	RAS

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, 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.



Brian Ford
Project Manager

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	86.6		1	09/20/2018 11:19	WG1168410

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		3.16	5.77	200	09/23/2018 20:01	WG1170348
Acrylonitrile	U		0.00219	0.0144	1	09/21/2018 22:18	WG1169827
Benzene	U		0.000462	0.00115	1	09/21/2018 22:18	WG1169827
Bromobenzene	U		0.00121	0.0144	1	09/21/2018 22:18	WG1169827
Bromodichloromethane	U		0.000910	0.00289	1	09/21/2018 22:18	WG1169827
Bromochloromethane	U		0.00130	0.00577	1	09/21/2018 22:18	WG1169827
Bromoform	U		0.00690	0.0289	1	09/21/2018 22:18	WG1169827
Bromomethane	U		0.00427	0.0144	1	09/21/2018 22:18	WG1169827
n-Butylbenzene	U		0.00443	0.0144	1	09/21/2018 22:18	WG1169827
sec-Butylbenzene	U		0.00292	0.0144	1	09/21/2018 22:18	WG1169827
tert-Butylbenzene	U		0.00179	0.00577	1	09/21/2018 22:18	WG1169827
Carbon disulfide	U		0.00469	0.0144	1	09/21/2018 22:18	WG1169827
Carbon tetrachloride	U		0.00125	0.00577	1	09/21/2018 22:18	WG1169827
Chlorobenzene	U		0.000661	0.00289	1	09/21/2018 22:18	WG1169827
Chlorodibromomethane	U		0.000519	0.00289	1	09/21/2018 22:18	WG1169827
Chloroethane	U		0.249	1.15	200	09/23/2018 20:01	WG1170348
Chloroform	U		0.000479	0.00289	1	09/21/2018 22:18	WG1169827
Chloromethane	U		0.00160	0.0144	1	09/21/2018 22:18	WG1169827
2-Chlorotoluene	U		0.00106	0.00289	1	09/21/2018 22:18	WG1169827
4-Chlorotoluene	U		0.00130	0.00577	1	09/21/2018 22:18	WG1169827
1,2-Dibromo-3-Chloropropane	U	J0	0.00589	0.0289	1	09/21/2018 22:18	WG1169827
1,2-Dibromoethane	U		0.000606	0.00289	1	09/21/2018 22:18	WG1169827
Dibromomethane	U		0.00115	0.00577	1	09/21/2018 22:18	WG1169827
1,2-Dichlorobenzene	U		0.00167	0.00577	1	09/21/2018 22:18	WG1169827
1,3-Dichlorobenzene	U		0.00196	0.00577	1	09/21/2018 22:18	WG1169827
1,4-Dichlorobenzene	U		0.00227	0.00577	1	09/21/2018 22:18	WG1169827
Dichlorodifluoromethane	U		0.000944	0.00289	1	09/21/2018 22:18	WG1169827
1,1-Dichloroethane	U		0.000664	0.00289	1	09/21/2018 22:18	WG1169827
1,2-Dichloroethane	U		0.000548	0.00289	1	09/21/2018 22:18	WG1169827
1,1-Dichloroethene	U		0.000577	0.00289	1	09/21/2018 22:18	WG1169827
cis-1,2-Dichloroethene	0.00700		0.000796	0.00289	1	09/21/2018 22:18	WG1169827
trans-1,2-Dichloroethene	U		0.00165	0.00577	1	09/21/2018 22:18	WG1169827
1,2-Dichloropropane	U		0.293	1.15	200	09/23/2018 20:01	WG1170348
1,1-Dichloropropene	U		0.000808	0.00289	1	09/21/2018 22:18	WG1169827
1,3-Dichloropropane	U		0.00202	0.00577	1	09/21/2018 22:18	WG1169827
cis-1,3-Dichloropropene	U		0.000783	0.00289	1	09/21/2018 22:18	WG1169827
trans-1,3-Dichloropropene	U		0.00177	0.00577	1	09/21/2018 22:18	WG1169827
trans-1,4-Dichloro-2-butene	U	J0	0.00162	0.00577	1	09/21/2018 22:18	WG1169827
2,2-Dichloropropane	U		0.000915	0.00289	1	09/21/2018 22:18	WG1169827
Di-isopropyl ether	U		0.000404	0.00115	1	09/21/2018 22:18	WG1169827
Ethylbenzene	U		0.000612	0.00289	1	09/21/2018 22:18	WG1169827
Hexachloro-1,3-butadiene	U		0.0147	0.0289	1	09/21/2018 22:18	WG1169827
2-Hexanone	U		0.0115	0.0289	1	09/21/2018 22:18	WG1169827
n-Hexane	U		0.00122	0.00577	1	09/21/2018 22:18	WG1169827
Iodomethane	U	J4	0.00698	0.0144	1	09/21/2018 22:18	WG1169827
Isopropylbenzene	U		0.000996	0.00289	1	09/21/2018 22:18	WG1169827
p-Isopropyltoluene	U		0.00269	0.00577	1	09/21/2018 22:18	WG1169827
2-Butanone (MEK)	0.0472		0.0144	0.0289	1	09/21/2018 22:18	WG1169827
Methylene Chloride	U		0.00766	0.0289	1	09/21/2018 22:18	WG1169827
4-Methyl-2-pentanone (MIBK)	U		0.0115	0.0289	1	09/21/2018 22:18	WG1169827

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000340	0.00115	1	09/21/2018 22:18	WG1169827
Naphthalene	U		0.00360	0.0144	1	09/21/2018 22:18	WG1169827
n-Propylbenzene	U		0.00136	0.00577	1	09/21/2018 22:18	WG1169827
Styrene	U		0.00315	0.0144	1	09/21/2018 22:18	WG1169827
1,1,1,2-Tetrachloroethane	U		0.000577	0.00289	1	09/21/2018 22:18	WG1169827
1,1,2,2-Tetrachloroethane	U		0.000450	0.00289	1	09/21/2018 22:18	WG1169827
1,1,2-Trichlorotrifluoroethane	U		0.000779	0.00289	1	09/21/2018 22:18	WG1169827
Tetrachloroethene	48.1		0.162	0.577	200	09/23/2018 20:01	WG1170348
Toluene	0.00424	J	0.00144	0.00577	1	09/21/2018 22:18	WG1169827
1,2,3-Trichlorobenzene	U		0.144	0.577	200	09/23/2018 20:01	WG1170348
1,2,4-Trichlorobenzene	U		0.00556	0.0144	1	09/21/2018 22:18	WG1169827
1,1,1-Trichloroethane	U		0.000317	0.00289	1	09/21/2018 22:18	WG1169827
1,1,2-Trichloroethane	U		0.00102	0.00289	1	09/21/2018 22:18	WG1169827
Trichloroethene	0.0503		0.000462	0.00115	1	09/21/2018 22:18	WG1169827
Trichlorofluoromethane	U		0.000577	0.00289	1	09/21/2018 22:18	WG1169827
1,2,3-Trichloropropane	U		0.00589	0.0144	1	09/21/2018 22:18	WG1169827
1,2,4-Trimethylbenzene	0.00204	J	0.00134	0.00577	1	09/21/2018 22:18	WG1169827
1,2,3-Trimethylbenzene	U		0.00133	0.00577	1	09/21/2018 22:18	WG1169827
1,3,5-Trimethylbenzene	U		0.00125	0.00577	1	09/21/2018 22:18	WG1169827
Vinyl acetate	U	J0	0.00406	0.0144	1	09/21/2018 22:18	WG1169827
Vinyl chloride	U		0.000788	0.00289	1	09/21/2018 22:18	WG1169827
Xylenes, Total	U		0.00552	0.00750	1	09/21/2018 22:18	WG1169827
(S) Toluene-d8	*117*			*75.0-131*		*09/21/2018 22:18*	WG1169827
(S) Toluene-d8	*122*			*75.0-131*		*09/23/2018 20:01*	WG1170348
(S) Dibromofluoromethane	*102*			*65.0-129*		*09/21/2018 22:18*	WG1169827
(S) Dibromofluoromethane	*99.1*			*65.0-129*		*09/23/2018 20:01*	WG1170348
(S) 4-Bromofluorobenzene	*95.5*			*67.0-138*		*09/21/2018 22:18*	WG1169827
(S) 4-Bromofluorobenzene	*103*			*67.0-138*		*09/23/2018 20:01*	WG1170348

Sample Narrative:

L1026432-01 WG1170348, WG1169827: Cannot be reanalyzed at a lower dilution due to high levels of target analytes.

L1026432-01 WG1170348, WG1169827: Not all compounds reportable at lower dilution.

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	86.3		1	09/20/2018 11:19	WG1168410

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0159	0.0290	1	09/23/2018 16:50	WG1170348
Acrylonitrile	U		0.00220	0.0145	1	09/21/2018 22:37	WG1169827
Benzene	U		0.000463	0.00116	1	09/21/2018 22:37	WG1169827
Bromobenzene	U		0.00122	0.0145	1	09/21/2018 22:37	WG1169827
Bromodichloromethane	U		0.000913	0.00290	1	09/21/2018 22:37	WG1169827
Bromochloromethane	U		0.00131	0.00579	1	09/21/2018 22:37	WG1169827
Bromoform	U		0.00693	0.0290	1	09/21/2018 22:37	WG1169827
Bromomethane	U		0.00429	0.0145	1	09/21/2018 22:37	WG1169827
n-Butylbenzene	U		0.00445	0.0145	1	09/21/2018 22:37	WG1169827
sec-Butylbenzene	U		0.00293	0.0145	1	09/21/2018 22:37	WG1169827
tert-Butylbenzene	U		0.00180	0.00579	1	09/21/2018 22:37	WG1169827
Carbon disulfide	U		0.00470	0.0145	1	09/21/2018 22:37	WG1169827
Carbon tetrachloride	U		0.00125	0.00579	1	09/21/2018 22:37	WG1169827
Chlorobenzene	U		0.000664	0.00290	1	09/21/2018 22:37	WG1169827
Chlorodibromomethane	U		0.000521	0.00290	1	09/21/2018 22:37	WG1169827
Chloroethane	U		0.00125	0.00579	1	09/23/2018 16:50	WG1170348
Chloroform	U		0.000481	0.00290	1	09/21/2018 22:37	WG1169827
Chloromethane	U		0.00161	0.0145	1	09/21/2018 22:37	WG1169827
2-Chlorotoluene	U		0.00107	0.00290	1	09/21/2018 22:37	WG1169827
4-Chlorotoluene	U		0.00131	0.00579	1	09/21/2018 22:37	WG1169827
1,2-Dibromo-3-Chloropropane	U	J0	0.00591	0.0290	1	09/21/2018 22:37	WG1169827
1,2-Dibromoethane	U		0.000608	0.00290	1	09/21/2018 22:37	WG1169827
Dibromomethane	U		0.00116	0.00579	1	09/21/2018 22:37	WG1169827
1,2-Dichlorobenzene	U		0.00168	0.00579	1	09/21/2018 22:37	WG1169827
1,3-Dichlorobenzene	U		0.00197	0.00579	1	09/21/2018 22:37	WG1169827
1,4-Dichlorobenzene	U		0.00228	0.00579	1	09/21/2018 22:37	WG1169827
Dichlorodifluoromethane	U		0.000947	0.00290	1	09/21/2018 22:37	WG1169827
1,1-Dichloroethane	U		0.000666	0.00290	1	09/21/2018 22:37	WG1169827
1,2-Dichloroethane	U		0.000550	0.00290	1	09/21/2018 22:37	WG1169827
1,1-Dichloroethene	U		0.000579	0.00290	1	09/21/2018 22:37	WG1169827
cis-1,2-Dichloroethene	U		0.000799	0.00290	1	09/21/2018 22:37	WG1169827
trans-1,2-Dichloroethene	U		0.00166	0.00579	1	09/21/2018 22:37	WG1169827
1,2-Dichloropropane	U		0.00147	0.00579	1	09/23/2018 16:50	WG1170348
1,1-Dichloropropene	U		0.000811	0.00290	1	09/21/2018 22:37	WG1169827
1,3-Dichloropropane	U		0.00203	0.00579	1	09/21/2018 22:37	WG1169827
cis-1,3-Dichloropropene	U		0.000785	0.00290	1	09/21/2018 22:37	WG1169827
trans-1,3-Dichloropropene	U		0.00177	0.00579	1	09/21/2018 22:37	WG1169827
trans-1,4-Dichloro-2-butene	U	J0	0.00162	0.00579	1	09/21/2018 22:37	WG1169827
2,2-Dichloropropane	U		0.000918	0.00290	1	09/21/2018 22:37	WG1169827
Di-isopropyl ether	U		0.000405	0.00116	1	09/21/2018 22:37	WG1169827
Ethylbenzene	U		0.000614	0.00290	1	09/21/2018 22:37	WG1169827
Hexachloro-1,3-butadiene	U		0.0147	0.0290	1	09/21/2018 22:37	WG1169827
2-Hexanone	U		0.0116	0.0290	1	09/21/2018 22:37	WG1169827
n-Hexane	U		0.00123	0.00579	1	09/21/2018 22:37	WG1169827
Iodomethane	U	J4	0.00701	0.0145	1	09/21/2018 22:37	WG1169827
Isopropylbenzene	U		0.00100	0.00290	1	09/21/2018 22:37	WG1169827
p-Isopropyltoluene	U		0.00270	0.00579	1	09/21/2018 22:37	WG1169827
2-Butanone (MEK)	U		0.0145	0.0290	1	09/21/2018 22:37	WG1169827
Methylene Chloride	0.00867	J	0.00769	0.0290	1	09/21/2018 22:37	WG1169827
4-Methyl-2-pentanone (MIBK)	U		0.0116	0.0290	1	09/21/2018 22:37	WG1169827

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000342	0.00116	1	09/21/2018 22:37	WG1169827
Naphthalene	U		0.00361	0.0145	1	09/21/2018 22:37	WG1169827
n-Propylbenzene	U		0.00137	0.00579	1	09/21/2018 22:37	WG1169827
Styrene	U		0.00316	0.0145	1	09/21/2018 22:37	WG1169827
1,1,1,2-Tetrachloroethane	U		0.000579	0.00290	1	09/21/2018 22:37	WG1169827
1,1,2,2-Tetrachloroethane	U		0.000452	0.00290	1	09/21/2018 22:37	WG1169827
1,1,2-Trichlorotrifluoroethane	U		0.000782	0.00290	1	09/21/2018 22:37	WG1169827
Tetrachloroethene	0.0827		0.000811	0.00290	1	09/23/2018 16:50	WG1170348
Toluene	0.00537	J	0.00145	0.00579	1	09/21/2018 22:37	WG1169827
1,2,3-Trichlorobenzene	U		0.000724	0.00290	1	09/23/2018 16:50	WG1170348
1,2,4-Trichlorobenzene	U		0.00558	0.0145	1	09/21/2018 22:37	WG1169827
1,1,1-Trichloroethane	U		0.000319	0.00290	1	09/21/2018 22:37	WG1169827
1,1,2-Trichloroethane	U		0.00102	0.00290	1	09/21/2018 22:37	WG1169827
Trichloroethene	U		0.000463	0.00116	1	09/21/2018 22:37	WG1169827
Trichlorofluoromethane	U		0.000579	0.00290	1	09/21/2018 22:37	WG1169827
1,2,3-Trichloropropane	U		0.00591	0.0145	1	09/21/2018 22:37	WG1169827
1,2,4-Trimethylbenzene	0.00160	J	0.00134	0.00579	1	09/21/2018 22:37	WG1169827
1,2,3-Trimethylbenzene	U		0.00133	0.00579	1	09/21/2018 22:37	WG1169827
1,3,5-Trimethylbenzene	U		0.00125	0.00579	1	09/21/2018 22:37	WG1169827
Vinyl acetate	U	J0	0.00408	0.0145	1	09/21/2018 22:37	WG1169827
Vinyl chloride	U		0.000791	0.00290	1	09/21/2018 22:37	WG1169827
Xylenes, Total	U		0.00554	0.00753	1	09/21/2018 22:37	WG1169827
(S) Toluene-d8	*87.9*			*75.0-131*		*09/21/2018 22:37*	WG1169827
(S) Toluene-d8	*106*			*75.0-131*		*09/23/2018 16:50*	WG1170348
(S) Dibromofluoromethane	*102*			*65.0-129*		*09/21/2018 22:37*	WG1169827
(S) Dibromofluoromethane	*101*			*65.0-129*		*09/23/2018 16:50*	WG1170348
(S) 4-Bromofluorobenzene	*102*			*67.0-138*		*09/21/2018 22:37*	WG1169827
(S) 4-Bromofluorobenzene	*100*			*67.0-138*		*09/23/2018 16:50*	WG1170348

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	88.4		1	09/20/2018 11:19	WG1168410

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		1.24	2.26	80	09/23/2018 20:25	WG1170348
Acrylonitrile	U		0.00215	0.0141	1	09/21/2018 22:56	WG1169827
Benzene	U		0.000452	0.00113	1	09/21/2018 22:56	WG1169827
Bromobenzene	U		0.00119	0.0141	1	09/21/2018 22:56	WG1169827
Bromodichloromethane	U		0.000891	0.00283	1	09/21/2018 22:56	WG1169827
Bromochloromethane	U		0.00128	0.00566	1	09/21/2018 22:56	WG1169827
Bromoform	U		0.00676	0.0283	1	09/21/2018 22:56	WG1169827
Bromomethane	U		0.00419	0.0141	1	09/21/2018 22:56	WG1169827
n-Butylbenzene	U		0.00434	0.0141	1	09/21/2018 22:56	WG1169827
sec-Butylbenzene	U		0.00286	0.0141	1	09/21/2018 22:56	WG1169827
tert-Butylbenzene	U		0.00175	0.00566	1	09/21/2018 22:56	WG1169827
Carbon disulfide	U		0.00459	0.0141	1	09/21/2018 22:56	WG1169827
Carbon tetrachloride	U		0.00122	0.00566	1	09/21/2018 22:56	WG1169827
Chlorobenzene	U		0.000648	0.00283	1	09/21/2018 22:56	WG1169827
Chlorodibromomethane	U		0.000509	0.00283	1	09/21/2018 22:56	WG1169827
Chloroethane	U		0.0977	0.452	80	09/23/2018 20:25	WG1170348
Chloroform	U		0.000469	0.00283	1	09/21/2018 22:56	WG1169827
Chloromethane	U		0.00157	0.0141	1	09/21/2018 22:56	WG1169827
2-Chlorotoluene	U		0.00104	0.00283	1	09/21/2018 22:56	WG1169827
4-Chlorotoluene	U		0.00128	0.00566	1	09/21/2018 22:56	WG1169827
1,2-Dibromo-3-Chloropropane	U	J0	0.00577	0.0283	1	09/21/2018 22:56	WG1169827
1,2-Dibromoethane	U		0.000594	0.00283	1	09/21/2018 22:56	WG1169827
Dibromomethane	U		0.00113	0.00566	1	09/21/2018 22:56	WG1169827
1,2-Dichlorobenzene	U		0.00164	0.00566	1	09/21/2018 22:56	WG1169827
1,3-Dichlorobenzene	U		0.00192	0.00566	1	09/21/2018 22:56	WG1169827
1,4-Dichlorobenzene	U		0.00223	0.00566	1	09/21/2018 22:56	WG1169827
Dichlorodifluoromethane	U		0.000925	0.00283	1	09/21/2018 22:56	WG1169827
1,1-Dichloroethane	U		0.000650	0.00283	1	09/21/2018 22:56	WG1169827
1,2-Dichloroethane	U		0.000537	0.00283	1	09/21/2018 22:56	WG1169827
1,1-Dichloroethene	U		0.000566	0.00283	1	09/21/2018 22:56	WG1169827
cis-1,2-Dichloroethene	1.06		0.000781	0.00283	1	09/21/2018 22:56	WG1169827
trans-1,2-Dichloroethene	U		0.00162	0.00566	1	09/21/2018 22:56	WG1169827
1,2-Dichloropropane	U		0.115	0.452	80	09/23/2018 20:25	WG1170348
1,1-Dichloropropene	U		0.000792	0.00283	1	09/21/2018 22:56	WG1169827
1,3-Dichloropropane	U		0.00198	0.00566	1	09/21/2018 22:56	WG1169827
cis-1,3-Dichloropropene	U		0.000767	0.00283	1	09/21/2018 22:56	WG1169827
trans-1,3-Dichloropropene	U		0.00173	0.00566	1	09/21/2018 22:56	WG1169827
trans-1,4-Dichloro-2-butene	U	J0	0.00158	0.00566	1	09/21/2018 22:56	WG1169827
2,2-Dichloropropane	U		0.000897	0.00283	1	09/21/2018 22:56	WG1169827
Di-isopropyl ether	U		0.000396	0.00113	1	09/21/2018 22:56	WG1169827
Ethylbenzene	U		0.000600	0.00283	1	09/21/2018 22:56	WG1169827
Hexachloro-1,3-butadiene	U		0.0144	0.0283	1	09/21/2018 22:56	WG1169827
2-Hexanone	U		0.0113	0.0283	1	09/21/2018 22:56	WG1169827
n-Hexane	U		0.00120	0.00566	1	09/21/2018 22:56	WG1169827
Iodomethane	U	J4	0.00684	0.0141	1	09/21/2018 22:56	WG1169827
Isopropylbenzene	U		0.000976	0.00283	1	09/21/2018 22:56	WG1169827
p-Isopropyltoluene	U		0.00264	0.00566	1	09/21/2018 22:56	WG1169827
2-Butanone (MEK)	0.0163	J	0.0141	0.0283	1	09/21/2018 22:56	WG1169827
Methylene Chloride	U		0.00751	0.0283	1	09/21/2018 22:56	WG1169827
4-Methyl-2-pentanone (MIBK)	U		0.0113	0.0283	1	09/21/2018 22:56	WG1169827

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000334	0.00113	1	09/21/2018 22:56	WG1169827
Naphthalene	U		0.00353	0.0141	1	09/21/2018 22:56	WG1169827
n-Propylbenzene	U		0.00133	0.00566	1	09/21/2018 22:56	WG1169827
Styrene	U		0.00309	0.0141	1	09/21/2018 22:56	WG1169827
1,1,1,2-Tetrachloroethane	U		0.000566	0.00283	1	09/21/2018 22:56	WG1169827
1,1,2,2-Tetrachloroethane	U		0.000441	0.00283	1	09/21/2018 22:56	WG1169827
1,1,2-Trichlorotrifluoroethane	U		0.000764	0.00283	1	09/21/2018 22:56	WG1169827
Tetrachloroethene	47.1		0.0633	0.226	80	09/23/2018 20:25	WG1170348
Toluene	U		0.00141	0.00566	1	09/21/2018 22:56	WG1169827
1,2,3-Trichlorobenzene	U		0.0566	0.226	80	09/23/2018 20:25	WG1170348
1,2,4-Trichlorobenzene	U		0.00545	0.0141	1	09/21/2018 22:56	WG1169827
1,1,1-Trichloroethane	U		0.000311	0.00283	1	09/21/2018 22:56	WG1169827
1,1,2-Trichloroethane	U		0.000999	0.00283	1	09/21/2018 22:56	WG1169827
Trichloroethene	1.04		0.000452	0.00113	1	09/21/2018 22:56	WG1169827
Trichlorofluoromethane	U		0.000566	0.00283	1	09/21/2018 22:56	WG1169827
1,2,3-Trichloropropane	U		0.00577	0.0141	1	09/21/2018 22:56	WG1169827
1,2,4-Trimethylbenzene	0.00711		0.00131	0.00566	1	09/21/2018 22:56	WG1169827
1,2,3-Trimethylbenzene	0.00306	J	0.00130	0.00566	1	09/21/2018 22:56	WG1169827
1,3,5-Trimethylbenzene	0.00241	J	0.00122	0.00566	1	09/21/2018 22:56	WG1169827
Vinyl acetate	U	J0	0.00398	0.0141	1	09/21/2018 22:56	WG1169827
Vinyl chloride	0.0522		0.000773	0.00283	1	09/21/2018 22:56	WG1169827
Xylenes, Total	U		0.00541	0.00735	1	09/21/2018 22:56	WG1169827
(S) Toluene-d8	*88.7*			*75.0-131*		*09/21/2018 22:56*	WG1169827
(S) Toluene-d8	*103*			*75.0-131*		*09/23/2018 20:25*	WG1170348
(S) Dibromofluoromethane	*101*			*65.0-129*		*09/21/2018 22:56*	WG1169827
(S) Dibromofluoromethane	*98.8*			*65.0-129*		*09/23/2018 20:25*	WG1170348
(S) 4-Bromofluorobenzene	*90.8*			*67.0-138*		*09/21/2018 22:56*	WG1169827
(S) 4-Bromofluorobenzene	*100*			*67.0-138*		*09/23/2018 20:25*	WG1170348

Sample Narrative:

L1026432-03 WG1170348, WG1169827: Cannot be reanalyzed at a lower dilution due to high levels of target analytes.

L1026432-03 WG1170348, WG1169827: Not all compounds reportable at lower dilution.

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	94.2		1	09/20/2018 11:19	WG1168410

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	0.0413		0.0145	0.0265	1	09/23/2018 17:14	WG1170348
Acrylonitrile	U		0.00202	0.0133	1	09/21/2018 23:15	WG1169827
Benzene	U		0.000425	0.00106	1	09/21/2018 23:15	WG1169827
Bromobenzene	U		0.00111	0.0133	1	09/21/2018 23:15	WG1169827
Bromodichloromethane	U		0.000837	0.00265	1	09/21/2018 23:15	WG1169827
Bromochloromethane	U		0.00120	0.00531	1	09/21/2018 23:15	WG1169827
Bromoform	U		0.00635	0.0265	1	09/21/2018 23:15	WG1169827
Bromomethane	U		0.00393	0.0133	1	09/21/2018 23:15	WG1169827
n-Butylbenzene	U		0.00408	0.0133	1	09/21/2018 23:15	WG1169827
sec-Butylbenzene	U		0.00269	0.0133	1	09/21/2018 23:15	WG1169827
tert-Butylbenzene	U		0.00165	0.00531	1	09/21/2018 23:15	WG1169827
Carbon disulfide	U		0.00431	0.0133	1	09/21/2018 23:15	WG1169827
Carbon tetrachloride	U		0.00115	0.00531	1	09/21/2018 23:15	WG1169827
Chlorobenzene	U		0.000608	0.00265	1	09/21/2018 23:15	WG1169827
Chlorodibromomethane	U		0.000478	0.00265	1	09/21/2018 23:15	WG1169827
Chloroethane	U		0.00115	0.00531	1	09/23/2018 17:14	WG1170348
Chloroform	U		0.000441	0.00265	1	09/21/2018 23:15	WG1169827
Chloromethane	U		0.00148	0.0133	1	09/21/2018 23:15	WG1169827
2-Chlorotoluene	U		0.000977	0.00265	1	09/21/2018 23:15	WG1169827
4-Chlorotoluene	U		0.00120	0.00531	1	09/21/2018 23:15	WG1169827
1,2-Dibromo-3-Chloropropane	U	J0	0.00542	0.0265	1	09/21/2018 23:15	WG1169827
1,2-Dibromoethane	U		0.000557	0.00265	1	09/21/2018 23:15	WG1169827
Dibromomethane	U		0.00106	0.00531	1	09/21/2018 23:15	WG1169827
1,2-Dichlorobenzene	U		0.00154	0.00531	1	09/21/2018 23:15	WG1169827
1,3-Dichlorobenzene	U		0.00181	0.00531	1	09/21/2018 23:15	WG1169827
1,4-Dichlorobenzene	U		0.00209	0.00531	1	09/21/2018 23:15	WG1169827
Dichlorodifluoromethane	U		0.000869	0.00265	1	09/21/2018 23:15	WG1169827
1,1-Dichloroethane	U		0.000611	0.00265	1	09/21/2018 23:15	WG1169827
1,2-Dichloroethane	U		0.000504	0.00265	1	09/21/2018 23:15	WG1169827
1,1-Dichloroethene	U		0.000531	0.00265	1	09/21/2018 23:15	WG1169827
cis-1,2-Dichloroethene	0.0320		0.000733	0.00265	1	09/21/2018 23:15	WG1169827
trans-1,2-Dichloroethene	U		0.00152	0.00531	1	09/21/2018 23:15	WG1169827
1,2-Dichloropropane	U		0.00135	0.00531	1	09/23/2018 17:14	WG1170348
1,1-Dichloropropene	U		0.000743	0.00265	1	09/21/2018 23:15	WG1169827
1,3-Dichloropropane	U		0.00186	0.00531	1	09/21/2018 23:15	WG1169827
cis-1,3-Dichloropropene	U		0.000720	0.00265	1	09/21/2018 23:15	WG1169827
trans-1,3-Dichloropropene	U		0.00162	0.00531	1	09/21/2018 23:15	WG1169827
trans-1,4-Dichloro-2-butene	U	J0	0.00149	0.00531	1	09/21/2018 23:15	WG1169827
2,2-Dichloropropane	U		0.000842	0.00265	1	09/21/2018 23:15	WG1169827
Di-isopropyl ether	U		0.000372	0.00106	1	09/21/2018 23:15	WG1169827
Ethylbenzene	U		0.000563	0.00265	1	09/21/2018 23:15	WG1169827
Hexachloro-1,3-butadiene	U		0.0135	0.0265	1	09/21/2018 23:15	WG1169827
2-Hexanone	U		0.0106	0.0265	1	09/21/2018 23:15	WG1169827
n-Hexane	U		0.00113	0.00531	1	09/21/2018 23:15	WG1169827
Iodomethane	U	J4	0.00642	0.0133	1	09/21/2018 23:15	WG1169827
Isopropylbenzene	U		0.000916	0.00265	1	09/21/2018 23:15	WG1169827
p-Isopropyltoluene	U		0.00247	0.00531	1	09/21/2018 23:15	WG1169827
2-Butanone (MEK)	U		0.0133	0.0265	1	09/21/2018 23:15	WG1169827
Methylene Chloride	0.00906	J	0.00705	0.0265	1	09/21/2018 23:15	WG1169827
4-Methyl-2-pentanone (MIBK)	U		0.0106	0.0265	1	09/21/2018 23:15	WG1169827

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000313	0.00106	1	09/21/2018 23:15	WG1169827
Naphthalene	U		0.00331	0.0133	1	09/21/2018 23:15	WG1169827
n-Propylbenzene	U		0.00125	0.00531	1	09/21/2018 23:15	WG1169827
Styrene	U		0.00290	0.0133	1	09/21/2018 23:15	WG1169827
1,1,1,2-Tetrachloroethane	U		0.000531	0.00265	1	09/21/2018 23:15	WG1169827
1,1,2,2-Tetrachloroethane	U		0.000414	0.00265	1	09/21/2018 23:15	WG1169827
1,1,2-Trichlorotrifluoroethane	U		0.000717	0.00265	1	09/21/2018 23:15	WG1169827
Tetrachloroethene	1.13		0.000743	0.00265	1	09/21/2018 23:15	WG1169827
Toluene	0.00173	J	0.00133	0.00531	1	09/21/2018 23:15	WG1169827
1,2,3-Trichlorobenzene	U		0.000664	0.00265	1	09/23/2018 17:14	WG1170348
1,2,4-Trichlorobenzene	U		0.00512	0.0133	1	09/21/2018 23:15	WG1169827
1,1,1-Trichloroethane	U		0.000292	0.00265	1	09/21/2018 23:15	WG1169827
1,1,2-Trichloroethane	U		0.000938	0.00265	1	09/21/2018 23:15	WG1169827
Trichloroethene	0.0340		0.000425	0.00106	1	09/21/2018 23:15	WG1169827
Trichlorofluoromethane	U		0.000531	0.00265	1	09/21/2018 23:15	WG1169827
1,2,3-Trichloropropane	U		0.00542	0.0133	1	09/21/2018 23:15	WG1169827
1,2,4-Trimethylbenzene	U		0.00123	0.00531	1	09/21/2018 23:15	WG1169827
1,2,3-Trimethylbenzene	U		0.00122	0.00531	1	09/21/2018 23:15	WG1169827
1,3,5-Trimethylbenzene	U		0.00115	0.00531	1	09/21/2018 23:15	WG1169827
Vinyl acetate	U	J0	0.00374	0.0133	1	09/21/2018 23:15	WG1169827
Vinyl chloride	U		0.000725	0.00265	1	09/21/2018 23:15	WG1169827
Xylenes, Total	U		0.00508	0.00690	1	09/21/2018 23:15	WG1169827
(S) Toluene-d8	*90.5*			*75.0-131*		*09/21/2018 23:15*	WG1169827
(S) Toluene-d8	*107*			*75.0-131*		*09/23/2018 17:14*	WG1170348
(S) Dibromofluoromethane	*98.4*			*65.0-129*		*09/21/2018 23:15*	WG1169827
(S) Dibromofluoromethane	*101*			*65.0-129*		*09/23/2018 17:14*	WG1170348
(S) 4-Bromofluorobenzene	*99.2*			*67.0-138*		*09/21/2018 23:15*	WG1169827
(S) 4-Bromofluorobenzene	*98.1*			*67.0-138*		*09/23/2018 17:14*	WG1170348

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	84.2		1	09/20/2018 09:51	WG1168411

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	0.152	J	0.131	0.238	8	09/23/2018 20:49	WG1170348
Acrylonitrile	U		0.00226	0.0148	1	09/21/2018 23:34	WG1169827
Benzene	U		0.000475	0.00119	1	09/21/2018 23:34	WG1169827
Bromobenzene	U		0.00125	0.0148	1	09/21/2018 23:34	WG1169827
Bromodichloromethane	U		0.000936	0.00297	1	09/21/2018 23:34	WG1169827
Bromochloromethane	U		0.00134	0.00594	1	09/21/2018 23:34	WG1169827
Bromoform	U		0.00710	0.0297	1	09/21/2018 23:34	WG1169827
Bromomethane	U		0.00440	0.0148	1	09/21/2018 23:34	WG1169827
n-Butylbenzene	U		0.00456	0.0148	1	09/21/2018 23:34	WG1169827
sec-Butylbenzene	U		0.00301	0.0148	1	09/21/2018 23:34	WG1169827
tert-Butylbenzene	U		0.00184	0.00594	1	09/21/2018 23:34	WG1169827
Carbon disulfide	0.00631	J	0.00482	0.0148	1	09/21/2018 23:34	WG1169827
Carbon tetrachloride	U		0.00128	0.00594	1	09/21/2018 23:34	WG1169827
Chlorobenzene	U		0.000681	0.00297	1	09/21/2018 23:34	WG1169827
Chlorodibromomethane	U		0.000535	0.00297	1	09/21/2018 23:34	WG1169827
Chloroethane	U		0.0103	0.0475	8	09/23/2018 20:49	WG1170348
Chloroform	U		0.000493	0.00297	1	09/21/2018 23:34	WG1169827
Chloromethane	U		0.00165	0.0148	1	09/21/2018 23:34	WG1169827
2-Chlorotoluene	U		0.00109	0.00297	1	09/21/2018 23:34	WG1169827
4-Chlorotoluene	U		0.00134	0.00594	1	09/21/2018 23:34	WG1169827
1,2-Dibromo-3-Chloropropane	U	J0	0.00606	0.0297	1	09/21/2018 23:34	WG1169827
1,2-Dibromoethane	U		0.000624	0.00297	1	09/21/2018 23:34	WG1169827
Dibromomethane	U		0.00119	0.00594	1	09/21/2018 23:34	WG1169827
1,2-Dichlorobenzene	U		0.00172	0.00594	1	09/21/2018 23:34	WG1169827
1,3-Dichlorobenzene	U		0.00202	0.00594	1	09/21/2018 23:34	WG1169827
1,4-Dichlorobenzene	U		0.00234	0.00594	1	09/21/2018 23:34	WG1169827
Dichlorodifluoromethane	U		0.000972	0.00297	1	09/21/2018 23:34	WG1169827
1,1-Dichloroethane	U		0.000683	0.00297	1	09/21/2018 23:34	WG1169827
1,2-Dichloroethane	U		0.000564	0.00297	1	09/21/2018 23:34	WG1169827
1,1-Dichloroethene	0.0204		0.000594	0.00297	1	09/21/2018 23:34	WG1169827
cis-1,2-Dichloroethene	3.42		0.00656	0.0238	8	09/23/2018 20:49	WG1170348
trans-1,2-Dichloroethene	0.0213		0.00170	0.00594	1	09/21/2018 23:34	WG1169827
1,2-Dichloropropane	U		0.0121	0.0475	8	09/23/2018 20:49	WG1170348
1,1-Dichloropropene	U		0.000832	0.00297	1	09/21/2018 23:34	WG1169827
1,3-Dichloropropane	U		0.00208	0.00594	1	09/21/2018 23:34	WG1169827
cis-1,3-Dichloropropene	U		0.000805	0.00297	1	09/21/2018 23:34	WG1169827
trans-1,3-Dichloropropene	U		0.00182	0.00594	1	09/21/2018 23:34	WG1169827
trans-1,4-Dichloro-2-butene	U	J0	0.00166	0.00594	1	09/21/2018 23:34	WG1169827
2,2-Dichloropropane	U		0.000942	0.00297	1	09/21/2018 23:34	WG1169827
Di-isopropyl ether	U		0.000416	0.00119	1	09/21/2018 23:34	WG1169827
Ethylbenzene	0.000966	J	0.000630	0.00297	1	09/21/2018 23:34	WG1169827
Hexachloro-1,3-butadiene	U		0.0151	0.0297	1	09/21/2018 23:34	WG1169827
2-Hexanone	U		0.0119	0.0297	1	09/21/2018 23:34	WG1169827
n-Hexane	U		0.00126	0.00594	1	09/21/2018 23:34	WG1169827
Iodomethane	U	J4	0.00719	0.0148	1	09/21/2018 23:34	WG1169827
Isopropylbenzene	U		0.00103	0.00297	1	09/21/2018 23:34	WG1169827
p-Isopropyltoluene	U		0.00277	0.00594	1	09/21/2018 23:34	WG1169827
2-Butanone (MEK)	0.0167	J	0.0148	0.0297	1	09/21/2018 23:34	WG1169827
Methylene Chloride	U		0.00789	0.0297	1	09/21/2018 23:34	WG1169827
4-Methyl-2-pentanone (MIBK)	U		0.0119	0.0297	1	09/21/2018 23:34	WG1169827

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

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000350	0.00119	1	09/21/2018 23:34	WG1169827
Naphthalene	U		0.00371	0.0148	1	09/21/2018 23:34	WG1169827
n-Propylbenzene	U		0.00140	0.00594	1	09/21/2018 23:34	WG1169827
Styrene	U		0.00324	0.0148	1	09/21/2018 23:34	WG1169827
1,1,1,2-Tetrachloroethane	U		0.000594	0.00297	1	09/21/2018 23:34	WG1169827
1,1,2,2-Tetrachloroethane	U		0.000463	0.00297	1	09/21/2018 23:34	WG1169827
1,1,2-Trichlorotrifluoroethane	U		0.000802	0.00297	1	09/21/2018 23:34	WG1169827
Tetrachloroethene	0.343		0.000832	0.00297	1	09/21/2018 23:34	WG1169827
Toluene	0.00745		0.00148	0.00594	1	09/21/2018 23:34	WG1169827
1,2,3-Trichlorobenzene	U		0.00594	0.0238	8	09/23/2018 20:49	WG1170348
1,2,4-Trichlorobenzene	U		0.00573	0.0148	1	09/21/2018 23:34	WG1169827
1,1,1-Trichloroethane	U		0.000327	0.00297	1	09/21/2018 23:34	WG1169827
1,1,2-Trichloroethane	U		0.00105	0.00297	1	09/21/2018 23:34	WG1169827
Trichloroethene	0.0155		0.000475	0.00119	1	09/21/2018 23:34	WG1169827
Trichlorofluoromethane	U		0.000594	0.00297	1	09/21/2018 23:34	WG1169827
1,2,3-Trichloropropane	U		0.00606	0.0148	1	09/21/2018 23:34	WG1169827
1,2,4-Trimethylbenzene	0.00156	J	0.00138	0.00594	1	09/21/2018 23:34	WG1169827
1,2,3-Trimethylbenzene	0.00145	J	0.00137	0.00594	1	09/21/2018 23:34	WG1169827
1,3,5-Trimethylbenzene	U		0.00128	0.00594	1	09/21/2018 23:34	WG1169827
Vinyl acetate	U	J0	0.00418	0.0148	1	09/21/2018 23:34	WG1169827
Vinyl chloride	0.341		0.000811	0.00297	1	09/21/2018 23:34	WG1169827
Xylenes, Total	U		0.00568	0.00772	1	09/21/2018 23:34	WG1169827
(S) Toluene-d8	*88.1*			*75.0-131*		*09/21/2018 23:34*	WG1169827
(S) Toluene-d8	*104*			*75.0-131*		*09/23/2018 20:49*	WG1170348
(S) Dibromofluoromethane	*97.2*			*65.0-129*		*09/21/2018 23:34*	WG1169827
(S) Dibromofluoromethane	*99.2*			*65.0-129*		*09/23/2018 20:49*	WG1170348
(S) 4-Bromofluorobenzene	*102*			*67.0-138*		*09/21/2018 23:34*	WG1169827
(S) 4-Bromofluorobenzene	*100*			*67.0-138*		*09/23/2018 20:49*	WG1170348

Sample Narrative:

L1026432-05 WG1170348, WG1169827: Cannot be reanalyzed at a lower dilution due to high levels of target analytes.

L1026432-05 WG1170348, WG1169827: Not all compounds reportable at lower dilution.

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	92.1		1	09/20/2018 09:51	WG1168411

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		1.49	2.71	100	09/23/2018 21:13	WG1170348
Acrylonitrile	U		0.00206	0.0136	1	09/21/2018 23:52	WG1169827
Benzene	U		0.000434	0.00109	1	09/21/2018 23:52	WG1169827
Bromobenzene	U		0.00114	0.0136	1	09/21/2018 23:52	WG1169827
Bromodichloromethane	U		0.000855	0.00271	1	09/21/2018 23:52	WG1169827
Bromochloromethane	U		0.00123	0.00543	1	09/21/2018 23:52	WG1169827
Bromoform	U		0.00649	0.0271	1	09/21/2018 23:52	WG1169827
Bromomethane	U		0.00402	0.0136	1	09/21/2018 23:52	WG1169827
n-Butylbenzene	U		0.00417	0.0136	1	09/21/2018 23:52	WG1169827
sec-Butylbenzene	U		0.00275	0.0136	1	09/21/2018 23:52	WG1169827
tert-Butylbenzene	U		0.00168	0.00543	1	09/21/2018 23:52	WG1169827
Carbon disulfide	U		0.00441	0.0136	1	09/21/2018 23:52	WG1169827
Carbon tetrachloride	U		0.00117	0.00543	1	09/21/2018 23:52	WG1169827
Chlorobenzene	U		0.000622	0.00271	1	09/21/2018 23:52	WG1169827
Chlorodibromomethane	U		0.000488	0.00271	1	09/21/2018 23:52	WG1169827
Chloroethane	U		0.117	0.543	100	09/23/2018 21:13	WG1170348
Chloroform	U		0.000450	0.00271	1	09/21/2018 23:52	WG1169827
Chloromethane	U		0.00151	0.0136	1	09/21/2018 23:52	WG1169827
2-Chlorotoluene	U		0.000999	0.00271	1	09/21/2018 23:52	WG1169827
4-Chlorotoluene	U		0.00123	0.00543	1	09/21/2018 23:52	WG1169827
1,2-Dibromo-3-Chloropropane	U	J0	0.00554	0.0271	1	09/21/2018 23:52	WG1169827
1,2-Dibromoethane	U		0.000570	0.00271	1	09/21/2018 23:52	WG1169827
Dibromomethane	U		0.00109	0.00543	1	09/21/2018 23:52	WG1169827
1,2-Dichlorobenzene	U		0.00157	0.00543	1	09/21/2018 23:52	WG1169827
1,3-Dichlorobenzene	U		0.00185	0.00543	1	09/21/2018 23:52	WG1169827
1,4-Dichlorobenzene	U		0.00214	0.00543	1	09/21/2018 23:52	WG1169827
Dichlorodifluoromethane	U		0.000888	0.00271	1	09/21/2018 23:52	WG1169827
1,1-Dichloroethane	U		0.000624	0.00271	1	09/21/2018 23:52	WG1169827
1,2-Dichloroethane	U		0.000516	0.00271	1	09/21/2018 23:52	WG1169827
1,1-Dichloroethene	0.00651		0.000543	0.00271	1	09/21/2018 23:52	WG1169827
cis-1,2-Dichloroethene	2.16		0.0749	0.271	100	09/23/2018 21:13	WG1170348
trans-1,2-Dichloroethene	U		0.00155	0.00543	1	09/21/2018 23:52	WG1169827
1,2-Dichloropropane	U		0.138	0.543	100	09/23/2018 21:13	WG1170348
1,1-Dichloropropene	U		0.000760	0.00271	1	09/21/2018 23:52	WG1169827
1,3-Dichloropropane	U		0.00190	0.00543	1	09/21/2018 23:52	WG1169827
cis-1,3-Dichloropropene	U		0.000736	0.00271	1	09/21/2018 23:52	WG1169827
trans-1,3-Dichloropropene	U		0.00166	0.00543	1	09/21/2018 23:52	WG1169827
trans-1,4-Dichloro-2-butene	U	J0	0.00152	0.00543	1	09/21/2018 23:52	WG1169827
2,2-Dichloropropane	U		0.000861	0.00271	1	09/21/2018 23:52	WG1169827
Di-isopropyl ether	U		0.000380	0.00109	1	09/21/2018 23:52	WG1169827
Ethylbenzene	U		0.000575	0.00271	1	09/21/2018 23:52	WG1169827
Hexachloro-1,3-butadiene	U		0.0138	0.0271	1	09/21/2018 23:52	WG1169827
2-Hexanone	U		0.0109	0.0271	1	09/21/2018 23:52	WG1169827
n-Hexane	U		0.00115	0.00543	1	09/21/2018 23:52	WG1169827
Iodomethane	U	J4	0.00657	0.0136	1	09/21/2018 23:52	WG1169827
Isopropylbenzene	U		0.000937	0.00271	1	09/21/2018 23:52	WG1169827
p-Isopropyltoluene	U		0.00253	0.00543	1	09/21/2018 23:52	WG1169827
2-Butanone (MEK)	U		0.0136	0.0271	1	09/21/2018 23:52	WG1169827
Methylene Chloride	U		0.00721	0.0271	1	09/21/2018 23:52	WG1169827
4-Methyl-2-pentanone (MIBK)	U		0.0109	0.0271	1	09/21/2018 23:52	WG1169827

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000320	0.00109	1	09/21/2018 23:52	WG1169827
Naphthalene	U		0.00339	0.0136	1	09/21/2018 23:52	WG1169827
n-Propylbenzene	U		0.00128	0.00543	1	09/21/2018 23:52	WG1169827
Styrene	U		0.00296	0.0136	1	09/21/2018 23:52	WG1169827
1,1,1,2-Tetrachloroethane	U		0.000543	0.00271	1	09/21/2018 23:52	WG1169827
1,1,2,2-Tetrachloroethane	U		0.000423	0.00271	1	09/21/2018 23:52	WG1169827
1,1,2-Trichlorotrifluoroethane	U		0.000733	0.00271	1	09/21/2018 23:52	WG1169827
Tetrachloroethene	55.8		0.0760	0.271	100	09/23/2018 21:13	WG1170348
Toluene	0.00188	J	0.00136	0.00543	1	09/21/2018 23:52	WG1169827
1,2,3-Trichlorobenzene	U		0.0678	0.271	100	09/23/2018 21:13	WG1170348
1,2,4-Trichlorobenzene	U		0.00523	0.0136	1	09/21/2018 23:52	WG1169827
1,1,1-Trichloroethane	U		0.000298	0.00271	1	09/21/2018 23:52	WG1169827
1,1,2-Trichloroethane	U		0.000958	0.00271	1	09/21/2018 23:52	WG1169827
Trichloroethene	0.491		0.000434	0.00109	1	09/21/2018 23:52	WG1169827
Trichlorofluoromethane	U		0.000543	0.00271	1	09/21/2018 23:52	WG1169827
1,2,3-Trichloropropane	U		0.00554	0.0136	1	09/21/2018 23:52	WG1169827
1,2,4-Trimethylbenzene	0.00460	J	0.00126	0.00543	1	09/21/2018 23:52	WG1169827
1,2,3-Trimethylbenzene	0.00197	J	0.00125	0.00543	1	09/21/2018 23:52	WG1169827
1,3,5-Trimethylbenzene	0.00184	J	0.00117	0.00543	1	09/21/2018 23:52	WG1169827
Vinyl acetate	U	J0	0.00382	0.0136	1	09/21/2018 23:52	WG1169827
Vinyl chloride	0.132		0.000741	0.00271	1	09/21/2018 23:52	WG1169827
Xylenes, Total	U		0.00519	0.00706	1	09/21/2018 23:52	WG1169827
(S) Toluene-d8	*114*			*75.0-131*		*09/21/2018 23:52*	WG1169827
(S) Toluene-d8	*103*			*75.0-131*		*09/23/2018 21:13*	WG1170348
(S) Dibromofluoromethane	*99.5*			*65.0-129*		*09/21/2018 23:52*	WG1169827
(S) Dibromofluoromethane	*99.8*			*65.0-129*		*09/23/2018 21:13*	WG1170348
(S) 4-Bromofluorobenzene	*94.8*			*67.0-138*		*09/21/2018 23:52*	WG1169827
(S) 4-Bromofluorobenzene	*101*			*67.0-138*		*09/23/2018 21:13*	WG1170348

Sample Narrative:

L1026432-06 WG1170348, WG1169827: Cannot be reanalyzed at a lower dilution due to high levels of target analytes.

L1026432-06 WG1170348, WG1169827: Not all compounds reportable at lower dilution.

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	92.0		1	09/20/2018 09:51	WG1168411

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		1.49	2.72	100	09/23/2018 21:37	WG1170348
Acrylonitrile	U		0.00206	0.0136	1	09/22/2018 00:11	WG1169827
Benzene	U		0.000435	0.00109	1	09/22/2018 00:11	WG1169827
Bromobenzene	U		0.00114	0.0136	1	09/22/2018 00:11	WG1169827
Bromodichloromethane	U		0.000856	0.00272	1	09/22/2018 00:11	WG1169827
Bromochloromethane	U		0.00123	0.00543	1	09/22/2018 00:11	WG1169827
Bromoform	U		0.00650	0.0272	1	09/22/2018 00:11	WG1169827
Bromomethane	U		0.00402	0.0136	1	09/22/2018 00:11	WG1169827
n-Butylbenzene	U		0.00417	0.0136	1	09/22/2018 00:11	WG1169827
sec-Butylbenzene	U		0.00275	0.0136	1	09/22/2018 00:11	WG1169827
tert-Butylbenzene	U		0.00168	0.00543	1	09/22/2018 00:11	WG1169827
Carbon disulfide	U		0.00441	0.0136	1	09/22/2018 00:11	WG1169827
Carbon tetrachloride	U		0.00117	0.00543	1	09/22/2018 00:11	WG1169827
Chlorobenzene	U		0.000623	0.00272	1	09/22/2018 00:11	WG1169827
Chlorodibromomethane	U		0.000489	0.00272	1	09/22/2018 00:11	WG1169827
Chloroethane	U		0.117	0.543	100	09/23/2018 21:37	WG1170348
Chloroform	U		0.000451	0.00272	1	09/22/2018 00:11	WG1169827
Chloromethane	U		0.00151	0.0136	1	09/22/2018 00:11	WG1169827
2-Chlorotoluene	U		0.00100	0.00272	1	09/22/2018 00:11	WG1169827
4-Chlorotoluene	U		0.00123	0.00543	1	09/22/2018 00:11	WG1169827
1,2-Dibromo-3-Chloropropane	U	J0	0.00554	0.0272	1	09/22/2018 00:11	WG1169827
1,2-Dibromoethane	U		0.000570	0.00272	1	09/22/2018 00:11	WG1169827
Dibromomethane	U		0.00109	0.00543	1	09/22/2018 00:11	WG1169827
1,2-Dichlorobenzene	U		0.00158	0.00543	1	09/22/2018 00:11	WG1169827
1,3-Dichlorobenzene	U		0.00185	0.00543	1	09/22/2018 00:11	WG1169827
1,4-Dichlorobenzene	U		0.00214	0.00543	1	09/22/2018 00:11	WG1169827
Dichlorodifluoromethane	U		0.000889	0.00272	1	09/22/2018 00:11	WG1169827
1,1-Dichloroethane	U		0.000625	0.00272	1	09/22/2018 00:11	WG1169827
1,2-Dichloroethane	U		0.000516	0.00272	1	09/22/2018 00:11	WG1169827
1,1-Dichloroethene	0.00321		0.000543	0.00272	1	09/22/2018 00:11	WG1169827
cis-1,2-Dichloroethene	1.88		0.000750	0.00272	1	09/22/2018 00:11	WG1169827
trans-1,2-Dichloroethene	U		0.00155	0.00543	1	09/22/2018 00:11	WG1169827
1,2-Dichloropropane	U		0.138	0.543	100	09/23/2018 21:37	WG1170348
1,1-Dichloropropene	U		0.000761	0.00272	1	09/22/2018 00:11	WG1169827
1,3-Dichloropropane	U		0.00190	0.00543	1	09/22/2018 00:11	WG1169827
cis-1,3-Dichloropropene	U		0.000737	0.00272	1	09/22/2018 00:11	WG1169827
trans-1,3-Dichloropropene	U		0.00166	0.00543	1	09/22/2018 00:11	WG1169827
trans-1,4-Dichloro-2-butene	U	J0	0.00152	0.00543	1	09/22/2018 00:11	WG1169827
2,2-Dichloropropane	U		0.000862	0.00272	1	09/22/2018 00:11	WG1169827
Di-isopropyl ether	U		0.000380	0.00109	1	09/22/2018 00:11	WG1169827
Ethylbenzene	U		0.000576	0.00272	1	09/22/2018 00:11	WG1169827
Hexachloro-1,3-butadiene	U		0.0138	0.0272	1	09/22/2018 00:11	WG1169827
2-Hexanone	U		0.0109	0.0272	1	09/22/2018 00:11	WG1169827
n-Hexane	U		0.00115	0.00543	1	09/22/2018 00:11	WG1169827
Iodomethane	U	J4	0.00657	0.0136	1	09/22/2018 00:11	WG1169827
Isopropylbenzene	U		0.000938	0.00272	1	09/22/2018 00:11	WG1169827
p-Isopropyltoluene	U		0.00253	0.00543	1	09/22/2018 00:11	WG1169827
2-Butanone (MEK)	U		0.0136	0.0272	1	09/22/2018 00:11	WG1169827
Methylene Chloride	U		0.00721	0.0272	1	09/22/2018 00:11	WG1169827
4-Methyl-2-pentanone (MIBK)	U		0.0109	0.0272	1	09/22/2018 00:11	WG1169827

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000320	0.00109	1	09/22/2018 00:11	WG1169827
Naphthalene	U		0.00339	0.0136	1	09/22/2018 00:11	WG1169827
n-Propylbenzene	U		0.00128	0.00543	1	09/22/2018 00:11	WG1169827
Styrene	U		0.00297	0.0136	1	09/22/2018 00:11	WG1169827
1,1,1,2-Tetrachloroethane	U		0.000543	0.00272	1	09/22/2018 00:11	WG1169827
1,1,2,2-Tetrachloroethane	U		0.000424	0.00272	1	09/22/2018 00:11	WG1169827
1,1,2-Trichlorotrifluoroethane	U		0.000733	0.00272	1	09/22/2018 00:11	WG1169827
Tetrachloroethene	50.8		0.0761	0.272	100	09/23/2018 21:37	WG1170348
Toluene	0.00326	J	0.00136	0.00543	1	09/22/2018 00:11	WG1169827
1,2,3-Trichlorobenzene	U		0.0679	0.272	100	09/23/2018 21:37	WG1170348
1,2,4-Trichlorobenzene	U		0.00524	0.0136	1	09/22/2018 00:11	WG1169827
1,1,1-Trichloroethane	U		0.000299	0.00272	1	09/22/2018 00:11	WG1169827
1,1,2-Trichloroethane	U		0.000959	0.00272	1	09/22/2018 00:11	WG1169827
Trichloroethene	0.401		0.000435	0.00109	1	09/22/2018 00:11	WG1169827
Trichlorofluoromethane	U		0.000543	0.00272	1	09/22/2018 00:11	WG1169827
1,2,3-Trichloropropane	U		0.00554	0.0136	1	09/22/2018 00:11	WG1169827
1,2,4-Trimethylbenzene	0.00425	J	0.00126	0.00543	1	09/22/2018 00:11	WG1169827
1,2,3-Trimethylbenzene	0.00215	J	0.00125	0.00543	1	09/22/2018 00:11	WG1169827
1,3,5-Trimethylbenzene	U		0.00117	0.00543	1	09/22/2018 00:11	WG1169827
Vinyl acetate	U	J0	0.00382	0.0136	1	09/22/2018 00:11	WG1169827
Vinyl chloride	0.105		0.000742	0.00272	1	09/22/2018 00:11	WG1169827
Xylenes, Total	U		0.00519	0.00706	1	09/22/2018 00:11	WG1169827
(S) Toluene-d8	*103*			*75.0-131*		*09/22/2018 00:11*	WG1169827
(S) Toluene-d8	*102*			*75.0-131*		*09/23/2018 21:37*	WG1170348
(S) Dibromofluoromethane	*96.5*			*65.0-129*		*09/22/2018 00:11*	WG1169827
(S) Dibromofluoromethane	*100*			*65.0-129*		*09/23/2018 21:37*	WG1170348
(S) 4-Bromofluorobenzene	*98.8*			*67.0-138*		*09/22/2018 00:11*	WG1169827
(S) 4-Bromofluorobenzene	*101*			*67.0-138*		*09/23/2018 21:37*	WG1170348

Sample Narrative:

L1026432-07 WG1170348, WG1169827: Cannot be reanalyzed at a lower dilution due to high levels of target analytes.

L1026432-07 WG1170348, WG1169827: Not all compounds reportable at lower dilution.

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	91.4		1	09/20/2018 09:51	WG1168411

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		3.00	5.47	200	09/23/2018 22:01	WG1170348
Acrylonitrile	U		0.00208	0.0137	1	09/22/2018 00:30	WG1169827
Benzene	U		0.000437	0.00109	1	09/22/2018 00:30	WG1169827
Bromobenzene	U		0.00115	0.0137	1	09/22/2018 00:30	WG1169827
Bromodichloromethane	U		0.000862	0.00273	1	09/22/2018 00:30	WG1169827
Bromochloromethane	U		0.00124	0.00547	1	09/22/2018 00:30	WG1169827
Bromoform	U		0.00654	0.0273	1	09/22/2018 00:30	WG1169827
Bromomethane	U		0.00405	0.0137	1	09/22/2018 00:30	WG1169827
n-Butylbenzene	U		0.00420	0.0137	1	09/22/2018 00:30	WG1169827
sec-Butylbenzene	U		0.00277	0.0137	1	09/22/2018 00:30	WG1169827
tert-Butylbenzene	U		0.00170	0.00547	1	09/22/2018 00:30	WG1169827
Carbon disulfide	U		0.00444	0.0137	1	09/22/2018 00:30	WG1169827
Carbon tetrachloride	U		0.00118	0.00547	1	09/22/2018 00:30	WG1169827
Chlorobenzene	U		0.000627	0.00273	1	09/22/2018 00:30	WG1169827
Chlorodibromomethane	U		0.000492	0.00273	1	09/22/2018 00:30	WG1169827
Chloroethane	U		0.236	1.09	200	09/23/2018 22:01	WG1170348
Chloroform	U		0.000454	0.00273	1	09/22/2018 00:30	WG1169827
Chloromethane	U		0.00152	0.0137	1	09/22/2018 00:30	WG1169827
2-Chlorotoluene	U		0.00101	0.00273	1	09/22/2018 00:30	WG1169827
4-Chlorotoluene	U		0.00124	0.00547	1	09/22/2018 00:30	WG1169827
1,2-Dibromo-3-Chloropropane	U	J0	0.00558	0.0273	1	09/22/2018 00:30	WG1169827
1,2-Dibromoethane	U		0.000574	0.00273	1	09/22/2018 00:30	WG1169827
Dibromomethane	U		0.00109	0.00547	1	09/22/2018 00:30	WG1169827
1,2-Dichlorobenzene	U		0.00159	0.00547	1	09/22/2018 00:30	WG1169827
1,3-Dichlorobenzene	U		0.00186	0.00547	1	09/22/2018 00:30	WG1169827
1,4-Dichlorobenzene	U		0.00215	0.00547	1	09/22/2018 00:30	WG1169827
Dichlorodifluoromethane	U		0.000895	0.00273	1	09/22/2018 00:30	WG1169827
1,1-Dichloroethane	U		0.000629	0.00273	1	09/22/2018 00:30	WG1169827
1,2-Dichloroethane	U		0.000519	0.00273	1	09/22/2018 00:30	WG1169827
1,1-Dichloroethene	0.0102		0.000547	0.00273	1	09/22/2018 00:30	WG1169827
cis-1,2-Dichloroethene	1.04		0.000755	0.00273	1	09/22/2018 00:30	WG1169827
trans-1,2-Dichloroethene	0.0126		0.00156	0.00547	1	09/22/2018 00:30	WG1169827
1,2-Dichloropropane	U		0.278	1.09	200	09/23/2018 22:01	WG1170348
1,1-Dichloropropene	U		0.000766	0.00273	1	09/22/2018 00:30	WG1169827
1,3-Dichloropropane	U		0.00191	0.00547	1	09/22/2018 00:30	WG1169827
cis-1,3-Dichloropropene	U		0.000741	0.00273	1	09/22/2018 00:30	WG1169827
trans-1,3-Dichloropropene	U		0.00167	0.00547	1	09/22/2018 00:30	WG1169827
trans-1,4-Dichloro-2-butene	U	J0	0.00153	0.00547	1	09/22/2018 00:30	WG1169827
2,2-Dichloropropane	U		0.000867	0.00273	1	09/22/2018 00:30	WG1169827
Di-isopropyl ether	U		0.000383	0.00109	1	09/22/2018 00:30	WG1169827
Ethylbenzene	U		0.000580	0.00273	1	09/22/2018 00:30	WG1169827
Hexachloro-1,3-butadiene	U		0.0139	0.0273	1	09/22/2018 00:30	WG1169827
2-Hexanone	U		0.0109	0.0273	1	09/22/2018 00:30	WG1169827
n-Hexane	U		0.00116	0.00547	1	09/22/2018 00:30	WG1169827
Iodomethane	U	J4	0.00662	0.0137	1	09/22/2018 00:30	WG1169827
Isopropylbenzene	U		0.000944	0.00273	1	09/22/2018 00:30	WG1169827
p-Isopropyltoluene	U		0.00255	0.00547	1	09/22/2018 00:30	WG1169827
2-Butanone (MEK)	U		0.0137	0.0273	1	09/22/2018 00:30	WG1169827
Methylene Chloride	0.00902	J	0.00726	0.0273	1	09/22/2018 00:30	WG1169827
4-Methyl-2-pentanone (MIBK)	U		0.0109	0.0273	1	09/22/2018 00:30	WG1169827

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000323	0.00109	1	09/22/2018 00:30	WG1169827
Naphthalene	U		0.00341	0.0137	1	09/22/2018 00:30	WG1169827
n-Propylbenzene	U		0.00129	0.00547	1	09/22/2018 00:30	WG1169827
Styrene	U		0.00299	0.0137	1	09/22/2018 00:30	WG1169827
1,1,1,2-Tetrachloroethane	U		0.000547	0.00273	1	09/22/2018 00:30	WG1169827
1,1,2,2-Tetrachloroethane	U		0.000427	0.00273	1	09/22/2018 00:30	WG1169827
1,1,2-Trichlorotrifluoroethane	U		0.000738	0.00273	1	09/22/2018 00:30	WG1169827
Tetrachloroethene	54.4		0.153	0.547	200	09/23/2018 22:01	WG1170348
Toluene	0.00427	J	0.00137	0.00547	1	09/22/2018 00:30	WG1169827
1,2,3-Trichlorobenzene	U		0.137	0.547	200	09/23/2018 22:01	WG1170348
1,2,4-Trichlorobenzene	U		0.00527	0.0137	1	09/22/2018 00:30	WG1169827
1,1,1-Trichloroethane	U		0.000301	0.00273	1	09/22/2018 00:30	WG1169827
1,1,2-Trichloroethane	U		0.000966	0.00273	1	09/22/2018 00:30	WG1169827
Trichloroethene	1.51		0.000437	0.00109	1	09/22/2018 00:30	WG1169827
Trichlorofluoromethane	U		0.000547	0.00273	1	09/22/2018 00:30	WG1169827
1,2,3-Trichloropropane	U		0.00558	0.0137	1	09/22/2018 00:30	WG1169827
1,2,4-Trimethylbenzene	0.00512	J	0.00127	0.00547	1	09/22/2018 00:30	WG1169827
1,2,3-Trimethylbenzene	0.00233	J	0.00126	0.00547	1	09/22/2018 00:30	WG1169827
1,3,5-Trimethylbenzene	0.00197	J	0.00118	0.00547	1	09/22/2018 00:30	WG1169827
Vinyl acetate	U	J0	0.00385	0.0137	1	09/22/2018 00:30	WG1169827
Vinyl chloride	0.0585		0.000747	0.00273	1	09/22/2018 00:30	WG1169827
Xylenes, Total	U		0.00523	0.00711	1	09/22/2018 00:30	WG1169827
(S) Toluene-d8	*112*			*75.0-131*		*09/22/2018 00:30*	WG1169827
(S) Toluene-d8	*102*			*75.0-131*		*09/23/2018 22:01*	WG1170348
(S) Dibromofluoromethane	*96.2*			*65.0-129*		*09/22/2018 00:30*	WG1169827
(S) Dibromofluoromethane	*99.9*			*65.0-129*		*09/23/2018 22:01*	WG1170348
(S) 4-Bromofluorobenzene	*98.1*			*67.0-138*		*09/22/2018 00:30*	WG1169827
(S) 4-Bromofluorobenzene	*100*			*67.0-138*		*09/23/2018 22:01*	WG1170348

Sample Narrative:

L1026432-08 WG1170348, WG1169827: Cannot be reanalyzed at a lower dilution due to high levels of target analytes.

L1026432-08 WG1170348, WG1169827: Not all compounds reportable at lower dilution.

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	88.8		1	09/20/2018 09:51	WG1168411

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.309	0.563	20	09/23/2018 22:24	WG1170348
Acrylonitrile	U		0.00214	0.0141	1	09/22/2018 00:49	WG1169827
Benzene	U		0.000451	0.00113	1	09/22/2018 00:49	WG1169827
Bromobenzene	U		0.00118	0.0141	1	09/22/2018 00:49	WG1169827
Bromodichloromethane	U		0.000888	0.00282	1	09/22/2018 00:49	WG1169827
Bromochloromethane	U		0.00127	0.00563	1	09/22/2018 00:49	WG1169827
Bromoform	U		0.00674	0.0282	1	09/22/2018 00:49	WG1169827
Bromomethane	U		0.00417	0.0141	1	09/22/2018 00:49	WG1169827
n-Butylbenzene	U		0.00433	0.0141	1	09/22/2018 00:49	WG1169827
sec-Butylbenzene	U		0.00285	0.0141	1	09/22/2018 00:49	WG1169827
tert-Butylbenzene	U		0.00175	0.00563	1	09/22/2018 00:49	WG1169827
Carbon disulfide	U		0.00457	0.0141	1	09/22/2018 00:49	WG1169827
Carbon tetrachloride	U		0.00122	0.00563	1	09/22/2018 00:49	WG1169827
Chlorobenzene	U		0.000645	0.00282	1	09/22/2018 00:49	WG1169827
Chlorodibromomethane	U		0.000507	0.00282	1	09/22/2018 00:49	WG1169827
Chloroethane	U		0.0243	0.113	20	09/23/2018 22:24	WG1170348
Chloroform	U		0.000467	0.00282	1	09/22/2018 00:49	WG1169827
Chloromethane	U		0.00157	0.0141	1	09/22/2018 00:49	WG1169827
2-Chlorotoluene	U		0.00104	0.00282	1	09/22/2018 00:49	WG1169827
4-Chlorotoluene	U		0.00127	0.00563	1	09/22/2018 00:49	WG1169827
1,2-Dibromo-3-Chloropropane	U	J0	0.00574	0.0282	1	09/22/2018 00:49	WG1169827
1,2-Dibromoethane	U		0.000591	0.00282	1	09/22/2018 00:49	WG1169827
Dibromomethane	U		0.00113	0.00563	1	09/22/2018 00:49	WG1169827
1,2-Dichlorobenzene	U		0.00163	0.00563	1	09/22/2018 00:49	WG1169827
1,3-Dichlorobenzene	U		0.00191	0.00563	1	09/22/2018 00:49	WG1169827
1,4-Dichlorobenzene	U		0.00222	0.00563	1	09/22/2018 00:49	WG1169827
Dichlorodifluoromethane	U		0.000921	0.00282	1	09/22/2018 00:49	WG1169827
1,1-Dichloroethane	U		0.000648	0.00282	1	09/22/2018 00:49	WG1169827
1,2-Dichloroethane	U		0.000535	0.00282	1	09/22/2018 00:49	WG1169827
1,1-Dichloroethene	U		0.000563	0.00282	1	09/22/2018 00:49	WG1169827
cis-1,2-Dichloroethene	0.566		0.000777	0.00282	1	09/22/2018 00:49	WG1169827
trans-1,2-Dichloroethene	U		0.00161	0.00563	1	09/22/2018 00:49	WG1169827
1,2-Dichloropropane	U		0.0286	0.113	20	09/23/2018 22:24	WG1170348
1,1-Dichloropropene	U		0.000788	0.00282	1	09/22/2018 00:49	WG1169827
1,3-Dichloropropane	U		0.00197	0.00563	1	09/22/2018 00:49	WG1169827
cis-1,3-Dichloropropene	U		0.000764	0.00282	1	09/22/2018 00:49	WG1169827
trans-1,3-Dichloropropene	U		0.00172	0.00563	1	09/22/2018 00:49	WG1169827
trans-1,4-Dichloro-2-butene	U	J0	0.00158	0.00563	1	09/22/2018 00:49	WG1169827
2,2-Dichloropropane	U		0.000893	0.00282	1	09/22/2018 00:49	WG1169827
Di-isopropyl ether	U		0.000394	0.00113	1	09/22/2018 00:49	WG1169827
Ethylbenzene	U		0.000597	0.00282	1	09/22/2018 00:49	WG1169827
Hexachloro-1,3-butadiene	U		0.0143	0.0282	1	09/22/2018 00:49	WG1169827
2-Hexanone	U		0.0113	0.0282	1	09/22/2018 00:49	WG1169827
n-Hexane	U		0.00119	0.00563	1	09/22/2018 00:49	WG1169827
Iodomethane	U	J4	0.00681	0.0141	1	09/22/2018 00:49	WG1169827
Isopropylbenzene	U		0.000972	0.00282	1	09/22/2018 00:49	WG1169827
p-Isopropyltoluene	U		0.00262	0.00563	1	09/22/2018 00:49	WG1169827
2-Butanone (MEK)	U		0.0141	0.0282	1	09/22/2018 00:49	WG1169827
Methylene Chloride	0.0109	J	0.00748	0.0282	1	09/22/2018 00:49	WG1169827
4-Methyl-2-pentanone (MIBK)	U		0.0113	0.0282	1	09/22/2018 00:49	WG1169827

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000332	0.00113	1	09/22/2018 00:49	WG1169827
Naphthalene	U		0.00351	0.0141	1	09/22/2018 00:49	WG1169827
n-Propylbenzene	U		0.00133	0.00563	1	09/22/2018 00:49	WG1169827
Styrene	U		0.00307	0.0141	1	09/22/2018 00:49	WG1169827
1,1,1,2-Tetrachloroethane	U		0.000563	0.00282	1	09/22/2018 00:49	WG1169827
1,1,2,2-Tetrachloroethane	U		0.000439	0.00282	1	09/22/2018 00:49	WG1169827
1,1,2-Trichlorotrifluoroethane	U		0.000760	0.00282	1	09/22/2018 00:49	WG1169827
Tetrachloroethene	9.63		0.0158	0.0563	20	09/23/2018 22:24	WG1170348
Toluene	0.00436	J	0.00141	0.00563	1	09/22/2018 00:49	WG1169827
1,2,3-Trichlorobenzene	U		0.0141	0.0563	20	09/23/2018 22:24	WG1170348
1,2,4-Trichlorobenzene	U		0.00543	0.0141	1	09/22/2018 00:49	WG1169827
1,1,1-Trichloroethane	U		0.000310	0.00282	1	09/22/2018 00:49	WG1169827
1,1,2-Trichloroethane	U		0.000995	0.00282	1	09/22/2018 00:49	WG1169827
Trichloroethene	0.347		0.000451	0.00113	1	09/22/2018 00:49	WG1169827
Trichlorofluoromethane	U		0.000563	0.00282	1	09/22/2018 00:49	WG1169827
1,2,3-Trichloropropane	U		0.00574	0.0141	1	09/22/2018 00:49	WG1169827
1,2,4-Trimethylbenzene	U		0.00131	0.00563	1	09/22/2018 00:49	WG1169827
1,2,3-Trimethylbenzene	U		0.00130	0.00563	1	09/22/2018 00:49	WG1169827
1,3,5-Trimethylbenzene	U		0.00122	0.00563	1	09/22/2018 00:49	WG1169827
Vinyl acetate	U	J0	0.00396	0.0141	1	09/22/2018 00:49	WG1169827
Vinyl chloride	0.0123		0.000769	0.00282	1	09/22/2018 00:49	WG1169827
Xylenes, Total	U		0.00538	0.00732	1	09/22/2018 00:49	WG1169827
(S) Toluene-d8	*102*			*75.0-131*		*09/22/2018 00:49*	WG1169827
(S) Toluene-d8	*101*			*75.0-131*		*09/23/2018 22:24*	WG1170348
(S) Dibromofluoromethane	*97.5*			*65.0-129*		*09/22/2018 00:49*	WG1169827
(S) Dibromofluoromethane	*102*			*65.0-129*		*09/23/2018 22:24*	WG1170348
(S) 4-Bromofluorobenzene	*98.4*			*67.0-138*		*09/22/2018 00:49*	WG1169827
(S) 4-Bromofluorobenzene	*101*			*67.0-138*		*09/23/2018 22:24*	WG1170348

Sample Narrative:

L1026432-09 WG1170348, WG1169827: Cannot be reanalyzed at a lower dilution due to high levels of target analytes.

L1026432-09 WG1170348, WG1169827: Not all compounds reportable at lower dilution.

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	5.26	J	1.05	25.0	1	09/18/2018 13:29	WG1167535
Acrylonitrile	U		0.873	5.00	1	09/18/2018 13:29	WG1167535
Benzene	U		0.0896	0.500	1	09/18/2018 13:29	WG1167535
Bromobenzene	U		0.133	0.500	1	09/18/2018 13:29	WG1167535
Bromodichloromethane	U		0.0800	0.500	1	09/18/2018 13:29	WG1167535
Bromochloromethane	U		0.145	0.500	1	09/18/2018 13:29	WG1167535
Bromoform	U		0.186	0.500	1	09/18/2018 13:29	WG1167535
Bromomethane	U		0.157	2.50	1	09/18/2018 13:29	WG1167535
n-Butylbenzene	U		0.143	0.500	1	09/18/2018 13:29	WG1167535
sec-Butylbenzene	U		0.134	0.500	1	09/18/2018 13:29	WG1167535
tert-Butylbenzene	U		0.183	0.500	1	09/18/2018 13:29	WG1167535
Carbon disulfide	U		0.101	0.500	1	09/18/2018 13:29	WG1167535
Carbon tetrachloride	U		0.159	0.500	1	09/18/2018 13:29	WG1167535
Chlorobenzene	U		0.140	0.500	1	09/18/2018 13:29	WG1167535
Chlorodibromomethane	U		0.128	0.500	1	09/18/2018 13:29	WG1167535
Chloroethane	U		0.141	2.50	1	09/18/2018 13:29	WG1167535
Chloroform	U		0.0860	0.500	1	09/18/2018 13:29	WG1167535
Chloromethane	U		0.153	1.25	1	09/18/2018 13:29	WG1167535
2-Chlorotoluene	U		0.111	0.500	1	09/18/2018 13:29	WG1167535
4-Chlorotoluene	U		0.0972	0.500	1	09/18/2018 13:29	WG1167535
1,2-Dibromo-3-Chloropropane	U		0.325	2.50	1	09/18/2018 13:29	WG1167535
1,2-Dibromoethane	U		0.193	0.500	1	09/18/2018 13:29	WG1167535
Dibromomethane	U		0.117	0.500	1	09/18/2018 13:29	WG1167535
1,2-Dichlorobenzene	U		0.101	0.500	1	09/18/2018 13:29	WG1167535
1,3-Dichlorobenzene	U		0.130	0.500	1	09/18/2018 13:29	WG1167535
1,4-Dichlorobenzene	U		0.121	0.500	1	09/18/2018 13:29	WG1167535
Dichlorodifluoromethane	U		0.127	2.50	1	09/18/2018 13:29	WG1167535
1,1-Dichloroethane	U		0.114	0.500	1	09/18/2018 13:29	WG1167535
1,2-Dichloroethane	U		0.108	0.500	1	09/18/2018 13:29	WG1167535
1,1-Dichloroethene	U		0.188	0.500	1	09/18/2018 13:29	WG1167535
cis-1,2-Dichloroethene	U		0.0933	0.500	1	09/18/2018 13:29	WG1167535
trans-1,2-Dichloroethene	U		0.152	0.500	1	09/18/2018 13:29	WG1167535
1,2-Dichloropropane	U		0.190	0.500	1	09/18/2018 13:29	WG1167535
1,1-Dichloropropene	U		0.128	0.500	1	09/18/2018 13:29	WG1167535
1,3-Dichloropropane	U		0.147	1.00	1	09/18/2018 13:29	WG1167535
cis-1,3-Dichloropropene	U		0.0976	0.500	1	09/18/2018 13:29	WG1167535
trans-1,3-Dichloropropene	U		0.222	0.500	1	09/18/2018 13:29	WG1167535
trans-1,4-Dichloro-2-butene	U		0.257	5.00	1	09/18/2018 13:29	WG1167535
2,2-Dichloropropane	U		0.0929	0.500	1	09/18/2018 13:29	WG1167535
Di-isopropyl ether	U		0.0924	0.500	1	09/18/2018 13:29	WG1167535
Ethylbenzene	U		0.158	0.500	1	09/18/2018 13:29	WG1167535
Hexachloro-1,3-butadiene	U		0.157	1.00	1	09/18/2018 13:29	WG1167535
2-Hexanone	U		0.757	5.00	1	09/18/2018 13:29	WG1167535
n-Hexane	U		0.305	5.00	1	09/18/2018 13:29	WG1167535
Iodomethane	U		0.377	10.0	1	09/18/2018 13:29	WG1167535
Isopropylbenzene	U		0.126	0.500	1	09/18/2018 13:29	WG1167535
p-Isopropyltoluene	U		0.138	0.500	1	09/18/2018 13:29	WG1167535
2-Butanone (MEK)	U		1.28	5.00	1	09/18/2018 13:29	WG1167535
Methylene Chloride	U		1.07	2.50	1	09/18/2018 13:29	WG1167535
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00	1	09/18/2018 13:29	WG1167535
Methyl tert-butyl ether	U		0.102	0.500	1	09/18/2018 13:29	WG1167535
Naphthalene	U		0.174	2.50	1	09/18/2018 13:29	WG1167535
n-Propylbenzene	U		0.162	0.500	1	09/18/2018 13:29	WG1167535
Styrene	U		0.117	0.500	1	09/18/2018 13:29	WG1167535
1,1,1,2-Tetrachloroethane	U		0.120	0.500	1	09/18/2018 13:29	WG1167535
1,1,2,2-Tetrachloroethane	U		0.130	0.500	1	09/18/2018 13:29	WG1167535

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500	1	09/18/2018 13:29	WG1167535
Tetrachloroethene	U		0.199	0.500	1	09/18/2018 13:29	WG1167535
Toluene	U		0.412	0.500	1	09/18/2018 13:29	WG1167535
1,2,3-Trichlorobenzene	U		0.164	0.500	1	09/18/2018 13:29	WG1167535
1,2,4-Trichlorobenzene	U		0.355	0.500	1	09/18/2018 13:29	WG1167535
1,1,1-Trichloroethane	U		0.0940	0.500	1	09/18/2018 13:29	WG1167535
1,1,2-Trichloroethane	U		0.186	0.500	1	09/18/2018 13:29	WG1167535
Trichloroethene	U		0.153	0.500	1	09/18/2018 13:29	WG1167535
Trichlorofluoromethane	U		0.130	2.50	1	09/18/2018 13:29	WG1167535
1,2,3-Trichloropropane	U		0.247	2.50	1	09/18/2018 13:29	WG1167535
1,2,4-Trimethylbenzene	U		0.123	0.500	1	09/18/2018 13:29	WG1167535
1,2,3-Trimethylbenzene	U		0.0739	0.500	1	09/18/2018 13:29	WG1167535
1,3,5-Trimethylbenzene	U		0.124	0.500	1	09/18/2018 13:29	WG1167535
Vinyl acetate	U		0.645	5.00	1	09/18/2018 13:29	WG1167535
Vinyl chloride	U		0.118	0.500	1	09/18/2018 13:29	WG1167535
Xylenes, Total	U		0.316	1.50	1	09/18/2018 13:29	WG1167535
(S) Toluene-d8	*103*			*80.0-120*		*09/18/2018 13:29*	WG1167535
(S) Dibromofluoromethane	*101*			*75.0-120*		*09/18/2018 13:29*	WG1167535
(S) 4-Bromofluorobenzene	*86.4*			*77.0-126*		*09/18/2018 13:29*	WG1167535

Method Blank (MB)

(MB) R3343822-1 09/20/18 11:19

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.00100			

L1026430-27 Original Sample (OS) • Duplicate (DUP)

(OS) L1026430-27 09/20/18 11:19 • (DUP) R3343822-3 09/20/18 11:19

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	82.0	81.9	1	0.185		10

Laboratory Control Sample (LCS)

(LCS) R3343822-2 09/20/18 11:19

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85.0-115	

Method Blank (MB)

(MB) R3343810-1 09/20/18 09:51

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.000			

L1026437-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1026437-01 09/20/18 09:51 • (DUP) R3343810-3 09/20/18 09:51

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	85.5	84.2	1	1.54		10

Laboratory Control Sample (LCS)

(LCS) R3343810-2 09/20/18 09:51

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85.0-115	

Method Blank (MB)

(MB) R3344194-3 09/18/18 10:12

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Acetone	U		1.05	25.0
Acrylonitrile	U		0.873	5.00
Benzene	U		0.0896	0.500
Bromobenzene	U		0.133	0.500
Bromodichloromethane	U		0.0800	0.500
Bromochloromethane	U		0.145	0.500
Bromoform	U		0.186	0.500
Bromomethane	U		0.157	2.50
n-Butylbenzene	U		0.143	0.500
sec-Butylbenzene	U		0.134	0.500
tert-Butylbenzene	U		0.183	0.500
Carbon disulfide	U		0.101	0.500
Carbon tetrachloride	U		0.159	0.500
Chlorobenzene	U		0.140	0.500
Chlorodibromomethane	U		0.128	0.500
Chloroethane	U		0.141	2.50
Chloroform	U		0.0860	0.500
Chloromethane	U		0.153	1.25
2-Chlorotoluene	U		0.111	0.500
4-Chlorotoluene	U		0.0972	0.500
1,2-Dibromo-3-Chloropropane	U		0.325	2.50
1,2-Dibromoethane	U		0.193	0.500
Dibromomethane	U		0.117	0.500
1,2-Dichlorobenzene	U		0.101	0.500
1,3-Dichlorobenzene	U		0.130	0.500
1,4-Dichlorobenzene	U		0.121	0.500
Dichlorodifluoromethane	U		0.127	2.50
1,1-Dichloroethane	U		0.114	0.500
1,2-Dichloroethane	U		0.108	0.500
1,1-Dichloroethene	U		0.188	0.500
cis-1,2-Dichloroethene	U		0.0933	0.500
trans-1,2-Dichloroethene	U		0.152	0.500
1,2-Dichloropropane	U		0.190	0.500
1,1-Dichloropropene	U		0.128	0.500
1,3-Dichloropropane	U		0.147	1.00
cis-1,3-Dichloropropene	U		0.0976	0.500
trans-1,3-Dichloropropene	U		0.222	0.500
trans-1,4-Dichloro-2-butene	U		0.257	5.00
2,2-Dichloropropane	U		0.0929	0.500
Di-isopropyl ether	U		0.0924	0.500

Method Blank (MB)

(MB) R3344194-3 09/18/18 10:12

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Ethylbenzene	U		0.158	0.500
Hexachloro-1,3-butadiene	0.219	J	0.157	1.00
2-Hexanone	U		0.757	5.00
n-Hexane	U		0.305	5.00
Iodomethane	U		0.377	10.0
Isopropylbenzene	U		0.126	0.500
p-Isopropyltoluene	U		0.138	0.500
2-Butanone (MEK)	U		1.28	5.00
Methylene Chloride	U		1.07	2.50
4-Methyl-2-pentanone (MIBK)	U		0.823	5.00
Methyl tert-butyl ether	U		0.102	0.500
Naphthalene	U		0.174	2.50
n-Propylbenzene	U		0.162	0.500
Styrene	U		0.117	0.500
1,1,1,2-Tetrachloroethane	U		0.120	0.500
1,1,2,2-Tetrachloroethane	U		0.130	0.500
1,1,2-Trichlorotrifluoroethane	U		0.164	0.500
Tetrachloroethene	U		0.199	0.500
Toluene	U		0.412	0.500
1,2,3-Trichlorobenzene	0.190	J	0.164	0.500
1,2,4-Trichlorobenzene	U		0.355	0.500
1,1,1-Trichloroethane	U		0.0940	0.500
1,1,2-Trichloroethane	U		0.186	0.500
Trichloroethene	U		0.153	0.500
Trichlorofluoromethane	U		0.130	2.50
1,2,3-Trichloropropane	U		0.247	2.50
1,2,4-Trimethylbenzene	U		0.123	0.500
1,2,3-Trimethylbenzene	U		0.0739	0.500
1,3,5-Trimethylbenzene	U		0.124	0.500
Vinyl acetate	U		0.645	5.00
Vinyl chloride	U		0.118	0.500
Xylenes, Total	U		0.316	1.50
(S) Toluene-d8	*102*			*80.0-120*
(S) Dibromofluoromethane	*103*			*75.0-120*
(S) 4-Bromofluorobenzene	*93.2*			*77.0-126*

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

(LCS) R3344194-1 09/18/18 09:12 • (LCSD) R3344194-2 09/18/18 09:32

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	135	136	108	109	19.0-160			0.668	27
Acrylonitrile	125	104	111	83.6	89.0	55.0-149			6.35	20
Benzene	25.0	22.2	23.9	88.9	95.5	70.0-123			7.17	20
Bromobenzene	25.0	20.8	22.5	83.0	90.2	73.0-121			8.30	20
Bromodichloromethane	25.0	25.5	25.7	102	103	75.0-120			0.745	20
Bromochloromethane	25.0	24.3	26.3	97.2	105	76.0-122			7.85	20
Bromoform	25.0	23.8	24.8	95.0	99.2	68.0-132			4.29	20
Bromomethane	25.0	25.7	26.2	103	105	10.0-160			1.65	25
n-Butylbenzene	25.0	21.7	23.5	86.8	94.1	73.0-125			8.06	20
sec-Butylbenzene	25.0	22.7	24.2	90.8	96.7	75.0-125			6.29	20
tert-Butylbenzene	25.0	23.0	24.2	92.1	96.9	76.0-124			5.14	20
Carbon disulfide	25.0	22.8	24.2	91.2	96.8	61.0-128			6.04	20
Carbon tetrachloride	25.0	25.8	27.4	103	110	68.0-126			5.87	20
Chlorobenzene	25.0	27.3	27.6	109	111	80.0-121			1.34	20
Chlorodibromomethane	25.0	28.0	28.0	112	112	77.0-125			0.0771	20
Chloroethane	25.0	21.5	21.0	86.0	84.0	47.0-150			2.39	20
Chloroform	25.0	23.8	24.7	95.2	98.8	73.0-120			3.66	20
Chloromethane	25.0	22.6	23.6	90.3	94.3	41.0-142			4.36	20
2-Chlorotoluene	25.0	22.6	23.5	90.2	94.1	76.0-123			4.20	20
4-Chlorotoluene	25.0	21.3	23.4	85.2	93.7	75.0-122			9.47	20
1,2-Dibromo-3-Chloropropane	25.0	19.2	21.7	77.0	86.7	58.0-134			11.9	20
1,2-Dibromoethane	25.0	26.4	26.6	106	106	80.0-122			0.612	20
Dibromomethane	25.0	25.4	25.1	101	100	80.0-120			1.05	20
1,2-Dichlorobenzene	25.0	23.7	24.3	94.7	97.1	79.0-121			2.46	20
1,3-Dichlorobenzene	25.0	26.1	27.0	104	108	79.0-120			3.65	20
1,4-Dichlorobenzene	25.0	21.5	23.0	86.0	92.1	79.0-120			6.86	20
Dichlorodifluoromethane	25.0	24.3	27.1	97.2	108	51.0-149			10.7	20
1,1-Dichloroethane	25.0	21.1	22.3	84.5	89.3	70.0-126			5.59	20
1,2-Dichloroethane	25.0	25.9	27.6	104	110	70.0-128			6.01	20
1,1-Dichloroethene	25.0	23.2	23.1	92.9	92.3	71.0-124			0.624	20
cis-1,2-Dichloroethene	25.0	21.4	23.6	85.7	94.2	73.0-120			9.45	20
trans-1,2-Dichloroethene	25.0	23.4	24.4	93.7	97.5	73.0-120			3.91	20
1,2-Dichloropropane	25.0	22.0	21.6	88.0	86.3	77.0-125			2.01	20
1,1-Dichloropropene	25.0	23.5	25.9	94.1	104	74.0-126			9.54	20
1,3-Dichloropropane	25.0	26.5	26.0	106	104	80.0-120			1.78	20
cis-1,3-Dichloropropene	25.0	26.2	26.6	105	106	80.0-123			1.62	20
trans-1,3-Dichloropropene	25.0	27.7	26.9	111	108	78.0-124			2.91	20
trans-1,4-Dichloro-2-butene	25.0	25.2	25.3	101	101	33.0-144			0.101	20
2,2-Dichloropropane	25.0	23.6	24.9	94.5	99.5	58.0-130			5.13	20
Di-isopropyl ether	25.0	22.0	23.0	88.1	92.1	58.0-138			4.50	20

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

(LCS) R3344194-1 09/18/18 09:12 • (LCSD) R3344194-2 09/18/18 09:32

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 %
Ethylbenzene	25.0	28.1	27.8	113	111	79.0-123			1.30	20
Hexachloro-1,3-butadiene	25.0	23.8	24.4	95.3	97.5	54.0-138			2.27	20
2-Hexanone	125	122	121	98.0	96.8	67.0-149			1.21	20
n-Hexane	25.0	21.5	22.6	86.1	90.5	57.0-133			4.98	20
Iodomethane	125	126	132	100	106	33.0-147			5.32	26
Isopropylbenzene	25.0	21.8	23.2	87.1	92.8	76.0-127			6.36	20
p-Isopropyltoluene	25.0	23.3	25.1	93.2	100	76.0-125			7.41	20
2-Butanone (MEK)	125	110	111	87.9	89.0	44.0-160			1.30	20
Methylene Chloride	25.0	22.4	23.2	89.4	92.8	67.0-120			3.71	20
4-Methyl-2-pentanone (MIBK)	125	125	124	100	99.6	68.0-142			0.771	20
Methyl tert-butyl ether	25.0	23.5	24.8	94.2	99.1	68.0-125			5.12	20
Naphthalene	25.0	17.9	20.0	71.8	80.0	54.0-135			10.8	20
n-Propylbenzene	25.0	22.6	24.8	90.3	99.2	77.0-124			9.39	20
Styrene	25.0	20.2	21.8	80.6	87.1	73.0-130			7.66	20
1,1,1,2-Tetrachloroethane	25.0	27.7	28.4	111	114	75.0-125			2.62	20
1,1,2,2-Tetrachloroethane	25.0	19.3	20.2	77.3	81.0	65.0-130			4.70	20
1,1,2-Trichlorotrifluoroethane	25.0	25.2	26.8	101	107	69.0-132			6.27	20
Tetrachloroethene	25.0	29.2	27.5	117	110	72.0-132			5.78	20
Toluene	25.0	25.8	25.6	103	103	79.0-120			0.672	20
1,2,3-Trichlorobenzene	25.0	19.7	21.9	78.8	87.7	50.0-138			10.7	20
1,2,4-Trichlorobenzene	25.0	22.8	24.1	91.3	96.5	57.0-137			5.45	20
1,1,1-Trichloroethane	25.0	26.1	27.3	105	109	73.0-124			4.49	20
1,1,2-Trichloroethane	25.0	25.4	26.8	101	107	80.0-120			5.65	20
Trichloroethene	25.0	25.7	26.3	103	105	78.0-124			2.18	20
Trichlorofluoromethane	25.0	28.3	29.5	113	118	59.0-147			4.40	20
1,2,3-Trichloropropane	25.0	24.4	25.4	97.7	102	73.0-130			4.08	20
1,2,4-Trimethylbenzene	25.0	23.1	24.1	92.4	96.4	76.0-121			4.23	20
1,2,3-Trimethylbenzene	25.0	23.2	24.2	92.6	96.9	77.0-120			4.53	20
1,3,5-Trimethylbenzene	25.0	23.0	22.0	92.0	87.9	76.0-122			4.64	20
Vinyl acetate	125	60.8	64.0	48.6	51.2	11.0-160			5.19	20
Vinyl chloride	25.0	21.7	23.5	86.9	93.9	67.0-131			7.79	20
Xylenes, Total	75.0	81.9	82.0	109	109	79.0-123			0.122	20
(S) Toluene-d8				*105*	*104*	*80.0-120*				
(S) Dibromofluoromethane				*98.2*	*105*	*75.0-120*				
(S) 4-Bromofluorobenzene				*84.4*	*89.5*	*77.0-126*				

Method Blank (MB)

(MB) R3344298-2 09/21/18 19:19

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acrylonitrile	U		0.00190	0.0125
Benzene	U		0.000400	0.00100
Bromobenzene	U		0.00105	0.0125
Bromodichloromethane	U		0.000788	0.00250
Bromochloromethane	U		0.00113	0.00500
Bromoform	U		0.00598	0.0250
Bromomethane	U		0.00370	0.0125
n-Butylbenzene	U		0.00384	0.0125
sec-Butylbenzene	U		0.00253	0.0125
tert-Butylbenzene	U		0.00155	0.00500
Carbon disulfide	U		0.00406	0.0125
Carbon tetrachloride	U		0.00108	0.00500
Chlorobenzene	U		0.000573	0.00250
Chlorodibromomethane	U		0.000450	0.00250
Chloroform	U		0.000415	0.00250
Chloromethane	U		0.00139	0.0125
2-Chlorotoluene	U		0.000920	0.00250
4-Chlorotoluene	U		0.00113	0.00500
1,2-Dibromo-3-Chloropropane	U		0.00510	0.0250
1,2-Dibromoethane	U		0.000525	0.00250
Dibromomethane	U		0.00100	0.00500
1,2-Dichlorobenzene	U		0.00145	0.00500
1,3-Dichlorobenzene	U		0.00170	0.00500
1,4-Dichlorobenzene	U		0.00197	0.00500
trans-1,4-Dichloro-2-butene	U		0.00140	0.00500
Dichlorodifluoromethane	U		0.000818	0.00250
1,1-Dichloroethane	U		0.000575	0.00250
1,2-Dichloroethane	U		0.000475	0.00250
1,1-Dichloroethene	U		0.000500	0.00250
cis-1,2-Dichloroethene	U		0.000690	0.00250
trans-1,2-Dichloroethene	U		0.00143	0.00500
1,1-Dichloropropene	U		0.000700	0.00250
1,3-Dichloropropane	U		0.00175	0.00500
cis-1,3-Dichloropropene	U		0.000678	0.00250
trans-1,3-Dichloropropene	U		0.00153	0.00500
2,2-Dichloropropane	U		0.000793	0.00250
Di-isopropyl ether	U		0.000350	0.00100
Ethylbenzene	U		0.000530	0.00250
Hexachloro-1,3-butadiene	U		0.0127	0.0250
n-Hexane	U		0.00106	0.00500

Method Blank (MB)

(MB) R3344298-2 09/21/18 19:19

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
2-Hexanone	U		0.0100	0.0250
Iodomethane	U		0.00605	0.0125
Isopropylbenzene	U		0.000863	0.00250
p-Isopropyltoluene	U		0.00233	0.00500
2-Butanone (MEK)	U		0.0125	0.0250
Methylene Chloride	U		0.00664	0.0250
4-Methyl-2-pentanone (MIBK)	U		0.0100	0.0250
Methyl tert-butyl ether	U		0.000295	0.00100
Naphthalene	U		0.00312	0.0125
n-Propylbenzene	U		0.00118	0.00500
Styrene	U		0.00273	0.0125
1,1,1,2-Tetrachloroethane	U		0.000500	0.00250
1,1,2,2-Tetrachloroethane	U		0.000390	0.00250
Tetrachloroethene	U		0.000700	0.00250
Toluene	U		0.00125	0.00500
1,1,2-Trichlorotrifluoroethane	U		0.000675	0.00250
1,2,4-Trichlorobenzene	U		0.00482	0.0125
1,1,1-Trichloroethane	U		0.000275	0.00250
1,1,2-Trichloroethane	U		0.000883	0.00250
Trichloroethene	U		0.000400	0.00100
Trichlorofluoromethane	U		0.000500	0.00250
1,2,3-Trichloropropane	U		0.00510	0.0125
1,2,3-Trimethylbenzene	U		0.00115	0.00500
1,2,4-Trimethylbenzene	U		0.00116	0.00500
1,3,5-Trimethylbenzene	U		0.00108	0.00500
Vinyl acetate	U		0.00352	0.0125
Vinyl chloride	U		0.000683	0.00250
Xylenes, Total	U		0.00478	0.00650
(S) Toluene-d8	*114*			*75.0-131*
(S) Dibromofluoromethane	*96.8*			*65.0-129*
(S) 4-Bromofluorobenzene	*98.3*			*67.0-138*

Laboratory Control Sample (LCS)

(LCS) R3344298-1 09/21/18 17:46

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acrylonitrile	0.625	0.616	98.6	45.0-153	
Benzene	0.125	0.124	98.9	70.0-123	

Laboratory Control Sample (LCS)

(LCS) R3344298-1 09/21/18 17:46

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Bromobenzene	0.125	0.130	104	73.0-121	
Bromodichloromethane	0.125	0.135	108	73.0-121	
Bromochloromethane	0.125	0.126	101	77.0-128	
Bromoform	0.125	0.120	95.8	64.0-132	
Bromomethane	0.125	0.149	120	56.0-147	
n-Butylbenzene	0.125	0.133	106	68.0-135	
sec-Butylbenzene	0.125	0.133	106	74.0-130	
tert-Butylbenzene	0.125	0.142	113	75.0-127	
Carbon disulfide	0.125	0.131	104	56.0-133	
Carbon tetrachloride	0.125	0.146	117	66.0-128	
Chlorobenzene	0.125	0.120	96.0	76.0-128	
Chlorodibromomethane	0.125	0.135	108	74.0-127	
Chloroform	0.125	0.113	90.3	72.0-123	
Chloromethane	0.125	0.132	106	51.0-138	
2-Chlorotoluene	0.125	0.141	113	75.0-124	
4-Chlorotoluene	0.125	0.131	105	75.0-124	
1,2-Dibromo-3-Chloropropane	0.125	0.111	89.0	59.0-130	
1,2-Dibromoethane	0.125	0.141	113	74.0-128	
Dibromomethane	0.125	0.134	107	75.0-122	
1,2-Dichlorobenzene	0.125	0.134	107	76.0-124	
1,3-Dichlorobenzene	0.125	0.135	108	76.0-125	
1,4-Dichlorobenzene	0.125	0.130	104	77.0-121	
trans-1,4-Dichloro-2-butene	0.125	0.112	89.5	45.0-143	
Dichlorodifluoromethane	0.125	0.131	105	43.0-156	
1,1-Dichloroethane	0.125	0.127	102	70.0-127	
1,2-Dichloroethane	0.125	0.116	92.5	65.0-131	
1,1-Dichloroethene	0.125	0.126	101	65.0-131	
cis-1,2-Dichloroethene	0.125	0.143	115	73.0-125	
trans-1,2-Dichloroethene	0.125	0.135	108	71.0-125	
1,1-Dichloropropene	0.125	0.135	108	73.0-125	
1,3-Dichloropropane	0.125	0.132	106	80.0-125	
cis-1,3-Dichloropropene	0.125	0.130	104	76.0-127	
trans-1,3-Dichloropropene	0.125	0.133	107	73.0-127	
2,2-Dichloropropane	0.125	0.165	132	59.0-135	
Di-isopropyl ether	0.125	0.102	81.5	60.0-136	
Ethylbenzene	0.125	0.147	118	74.0-126	
Hexachloro-1,3-butadiene	0.125	0.119	94.9	57.0-150	
2-Hexanone	0.625	0.539	86.3	54.0-147	
n-Hexane	0.125	0.117	93.9	55.0-137	
Iodomethane	0.625	0.881	141	74.0-134	J4

Laboratory Control Sample (LCS)

(LCS) R3344298-1 09/21/18 17:46

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Isopropylbenzene	0.125	0.141	113	72.0-127	
p-Isopropyltoluene	0.125	0.139	111	72.0-133	
2-Butanone (MEK)	0.625	0.555	88.8	30.0-160	
Methylene Chloride	0.125	0.128	102	68.0-123	
4-Methyl-2-pentanone (MIBK)	0.625	0.508	81.3	56.0-143	
Methyl tert-butyl ether	0.125	0.125	99.7	66.0-132	
Naphthalene	0.125	0.131	105	59.0-130	
n-Propylbenzene	0.125	0.135	108	74.0-126	
Styrene	0.125	0.126	101	72.0-127	
1,1,1,2-Tetrachloroethane	0.125	0.148	118	74.0-129	
1,1,2,2-Tetrachloroethane	0.125	0.114	90.9	68.0-128	
Tetrachloroethene	0.125	0.131	105	70.0-136	
Toluene	0.125	0.137	110	75.0-121	
1,1,2-Trichlorotrifluoroethane	0.125	0.148	119	61.0-139	
1,2,4-Trichlorobenzene	0.125	0.121	96.6	62.0-137	
1,1,1-Trichloroethane	0.125	0.135	108	69.0-126	
1,1,2-Trichloroethane	0.125	0.126	101	78.0-123	
Trichloroethene	0.125	0.143	115	76.0-126	
Trichlorofluoromethane	0.125	0.149	119	61.0-142	
1,2,3-Trichloropropane	0.125	0.121	96.9	67.0-129	
1,2,3-Trimethylbenzene	0.125	0.127	101	74.0-124	
1,2,4-Trimethylbenzene	0.125	0.130	104	70.0-126	
1,3,5-Trimethylbenzene	0.125	0.130	104	73.0-127	
Vinyl acetate	0.625	0.341	54.5	43.0-159	
Vinyl chloride	0.125	0.123	98.4	63.0-134	
Xylenes, Total	0.375	0.419	112	72.0-127	
(S) Toluene-d8			*111*	*75.0-131*	
(S) Dibromofluoromethane			*99.2*	*65.0-129*	
(S) 4-Bromofluorobenzene			*97.3*	*67.0-138*	

L1026432-09 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1026432-09 09/22/18 00:49 • (MS) R3344298-3 09/21/18 19:46 • (MSD) R3344298-4 09/21/18 20:05

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acrylonitrile	0.704	U	0.608	0.417	86.4	59.2	1	10.0-160			37.3	40
Benzene	0.141	U	0.114	0.115	80.7	81.6	1	10.0-149			1.09	37
Bromobenzene	0.141	U	0.117	0.131	83.2	93.1	1	10.0-156			11.1	38
Bromodichloromethane	0.141	U	0.126	0.129	89.4	91.9	1	10.0-143			2.74	37

L1026432-09 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1026432-09 09/22/18 00:49 • (MS) R3344298-3 09/21/18 19:46 • (MSD) R3344298-4 09/21/18 20:05

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Bromochloromethane	0.141	U	0.117	0.111	83.2	79.1	1	10.0-155			5.03	33
Bromoform	0.141	U	0.112	0.119	79.6	84.3	1	10.0-146			5.65	36
Bromomethane	0.141	U	0.0790	0.0736	56.1	52.3	1	10.0-149			7.13	38
n-Butylbenzene	0.141	U	0.120	0.143	84.9	102	1	10.0-160			17.9	40
sec-Butylbenzene	0.141	U	0.116	0.143	82.6	102	1	10.0-159			20.9	39
tert-Butylbenzene	0.141	U	0.123	0.150	87.5	107	1	10.0-156			19.6	39
Carbon disulfide	0.141	U	0.0980	0.0984	69.6	69.9	1	10.0-145			0.391	39
Carbon tetrachloride	0.141	U	0.132	0.140	94.0	99.3	1	10.0-145			5.47	37
Chlorobenzene	0.141	U	0.0862	0.101	61.2	71.7	1	10.0-152			15.7	39
Chlorodibromomethane	0.141	U	0.102	0.119	72.7	84.6	1	10.0-146			15.1	37
Chloroform	0.141	U	0.110	0.105	77.9	74.8	1	10.0-146			4.04	37
Chloromethane	0.141	U	0.111	0.112	78.9	79.7	1	10.0-159			0.939	37
2-Chlorotoluene	0.141	U	0.121	0.136	85.9	96.9	1	10.0-159			12.0	38
4-Chlorotoluene	0.141	U	0.112	0.130	79.5	92.5	1	10.0-155			15.1	39
1,2-Dibromo-3-Chloropropane	0.141	U	0.0884	0.0897	62.8	63.7	1	10.0-151			1.43	39
1,2-Dibromoethane	0.141	U	0.107	0.121	75.9	85.8	1	10.0-148			12.3	34
Dibromomethane	0.141	U	0.126	0.119	89.2	84.2	1	10.0-147			5.71	35
1,2-Dichlorobenzene	0.141	U	0.114	0.130	81.1	92.3	1	10.0-155			12.9	37
1,3-Dichlorobenzene	0.141	U	0.113	0.134	80.3	95.3	1	10.0-153			17.1	38
1,4-Dichlorobenzene	0.141	U	0.115	0.130	81.7	92.0	1	10.0-151			11.9	38
trans-1,4-Dichloro-2-butene	0.141	U	0.105	0.110	74.7	78.1	1	10.0-152			4.43	36
Dichlorodifluoromethane	0.141	U	0.143	0.140	102	99.2	1	10.0-160			2.42	35
1,1-Dichloroethane	0.141	U	0.123	0.119	87.3	84.3	1	10.0-147			3.39	37
1,2-Dichloroethane	0.141	U	0.112	0.106	79.9	75.4	1	10.0-148			5.78	35
1,1-Dichloroethene	0.141	U	0.114	0.116	81.2	82.4	1	10.0-155			1.43	37
cis-1,2-Dichloroethene	0.141	0.566	0.750	0.683	130	82.7	1	10.0-149			9.35	37
trans-1,2-Dichloroethene	0.141	U	0.123	0.126	87.3	89.6	1	10.0-150			2.58	37
1,1-Dichloropropene	0.141	U	0.120	0.119	85.5	84.5	1	10.0-153			1.19	35
1,3-Dichloropropane	0.141	U	0.0991	0.118	70.4	84.0	1	10.0-154			17.6	35
cis-1,3-Dichloropropene	0.141	U	0.0976	0.112	69.3	79.9	1	10.0-151			14.2	37
trans-1,3-Dichloropropene	0.141	U	0.101	0.116	71.9	82.4	1	10.0-148			13.6	37
2,2-Dichloropropane	0.141	U	0.150	0.151	107	107	1	10.0-138			0.627	36
Di-isopropyl ether	0.141	U	0.0961	0.0939	68.2	66.7	1	10.0-147			2.26	36
Ethylbenzene	0.141	U	0.108	0.125	76.4	88.5	1	10.0-160			14.7	38
Hexachloro-1,3-butadiene	0.141	U	0.0985	0.133	70.0	94.5	1	10.0-160			29.8	40
2-Hexanone	0.704	U	0.352	0.371	50.0	52.7	1	10.0-160			5.35	36
n-Hexane	0.141	U	0.121	0.106	85.8	75.6	1	10.0-157			12.7	37
Iodomethane	0.704	U	0.758	0.742	108	105	1	10.0-160			2.20	38
Isopropylbenzene	0.141	U	0.120	0.142	85.1	101	1	10.0-155			17.3	38

L1026432-09 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1026432-09 09/22/18 00:49 • (MS) R3344298-3 09/21/18 19:46 • (MSD) R3344298-4 09/21/18 20:05

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
p-Isopropyltoluene	0.141	U	0.115	0.140	81.4	99.2	1	10.0-160			19.7	40
2-Butanone (MEK)	0.704	U	0.688	0.577	97.8	82.0	1	10.0-160			17.5	40
Methylene Chloride	0.141	0.0109	0.126	0.122	81.7	78.6	1	10.0-141			3.46	37
4-Methyl-2-pentanone (MIBK)	0.704	U	0.371	0.394	52.7	56.0	1	10.0-160			6.08	35
Methyl tert-butyl ether	0.141	U	0.0959	0.100	68.1	71.1	1	11.0-147			4.35	35
Naphthalene	0.141	U	0.111	0.118	78.7	83.5	1	10.0-160			5.95	36
n-Propylbenzene	0.141	U	0.116	0.137	82.2	97.5	1	10.0-158			17.0	38
Styrene	0.141	U	0.115	0.130	81.8	92.6	1	10.0-160			12.4	40
1,1,1,2-Tetrachloroethane	0.141	U	0.109	0.127	77.6	90.1	1	10.0-149			14.9	39
1,1,2,2-Tetrachloroethane	0.141	U	0.111	0.113	79.0	80.5	1	10.0-160			1.82	35
Tetrachloroethene	0.141	8.66	7.66	8.45	0.000	0.000	1	10.0-156	E V	E V	9.81	39
Toluene	0.141	0.00436	0.104	0.123	70.9	84.0	1	10.0-156			16.2	38
1,1,2-Trichlorotrifluoroethane	0.141	U	0.136	0.148	96.6	105	1	10.0-160			8.34	36
1,2,4-Trichlorobenzene	0.141	U	0.0999	0.127	71.0	89.9	1	10.0-160			23.5	40
1,1,1-Trichloroethane	0.141	U	0.121	0.127	85.9	90.1	1	10.0-144			4.80	35
1,1,2-Trichloroethane	0.141	U	0.0960	0.112	68.2	79.2	1	10.0-160			15.0	35
Trichloroethene	0.141	0.347	0.464	0.469	82.9	86.6	1	10.0-156			1.12	38
Trichlorofluoromethane	0.141	U	0.0805	0.0721	57.2	51.2	1	10.0-160			11.1	40
1,2,3-Trichloropropane	0.141	U	0.105	0.106	74.4	75.6	1	10.0-156			1.59	35
1,2,3-Trimethylbenzene	0.141	U	0.106	0.123	75.3	87.2	1	10.0-160			14.6	36
1,2,4-Trimethylbenzene	0.141	U	0.113	0.132	80.4	93.7	1	10.0-160			15.3	36
1,3,5-Trimethylbenzene	0.141	U	0.110	0.132	78.4	94.1	1	10.0-160			18.3	38
Vinyl acetate	0.704	U	0.413	0.416	58.7	59.1	1	10.0-128			0.661	40
Vinyl chloride	0.141	0.0123	0.112	0.105	70.5	66.1	1	10.0-160			5.70	37
Xylenes, Total	0.422	U	0.317	0.364	75.1	86.1	1	10.0-160			13.7	38
(S) Toluene-d8					*93.9*	*100*		*75.0-131*				
(S) Dibromofluoromethane					*112*	*95.8*		*65.0-129*				
(S) 4-Bromofluorobenzene					*95.9*	*97.6*		*67.0-138*				

Sample Narrative:

OS: Not all compounds reportable at lower dilution.

Method Blank (MB)

(MB) R3344378-3 09/23/18 14:06

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acetone	U		0.0137	0.0250
Chloroethane	U		0.00108	0.00500
cis-1,2-Dichloroethene	U		0.000690	0.00250
1,2-Dichloropropane	U		0.00127	0.00500
Tetrachloroethene	U		0.000700	0.00250
1,2,3-Trichlorobenzene	U		0.000625	0.00250
(S) Toluene-d8	*107*			*75.0-131*
(S) Dibromofluoromethane	*98.2*			*65.0-129*
(S) 4-Bromofluorobenzene	*99.9*			*67.0-138*

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

(LCS) R3344378-1 09/23/18 11:12 • (LCSD) R3344378-2 09/23/18 11:41

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	0.625	0.597	0.522	95.6	83.5	10.0-160			13.5	31
Chloroethane	0.125	0.111	0.101	89.1	80.6	61.0-134			10.0	20
cis-1,2-Dichloroethene	0.125	0.125	0.113	100	90.5	73.0-125			10.3	20
1,2-Dichloropropane	0.125	0.117	0.106	93.5	84.9	74.0-125			9.56	20
Tetrachloroethene	0.125	0.145	0.132	116	105	70.0-136			9.98	20
1,2,3-Trichlorobenzene	0.125	0.117	0.109	93.7	86.9	59.0-139			7.52	20
(S) Toluene-d8				*101*	*102*	*75.0-131*				
(S) Dibromofluoromethane				*94.9*	*94.1*	*65.0-129*				
(S) 4-Bromofluorobenzene				*102*	*104*	*67.0-138*				

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Abbreviations and Definitions

(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
MDL	Method Detection Limit.
MDL (dry)	Method Detection Limit.
RDL	Reported Detection Limit.
RDL (dry)	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(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.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
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.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

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.
J0	J0: Calibration verification outside of acceptance limits. Result is estimated.
J4	The associated batch QC was outside the established quality control range for accuracy.
V	The sample concentration is too high to evaluate accurate spike recoveries.

Pace National 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.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T 104704245-17-14
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

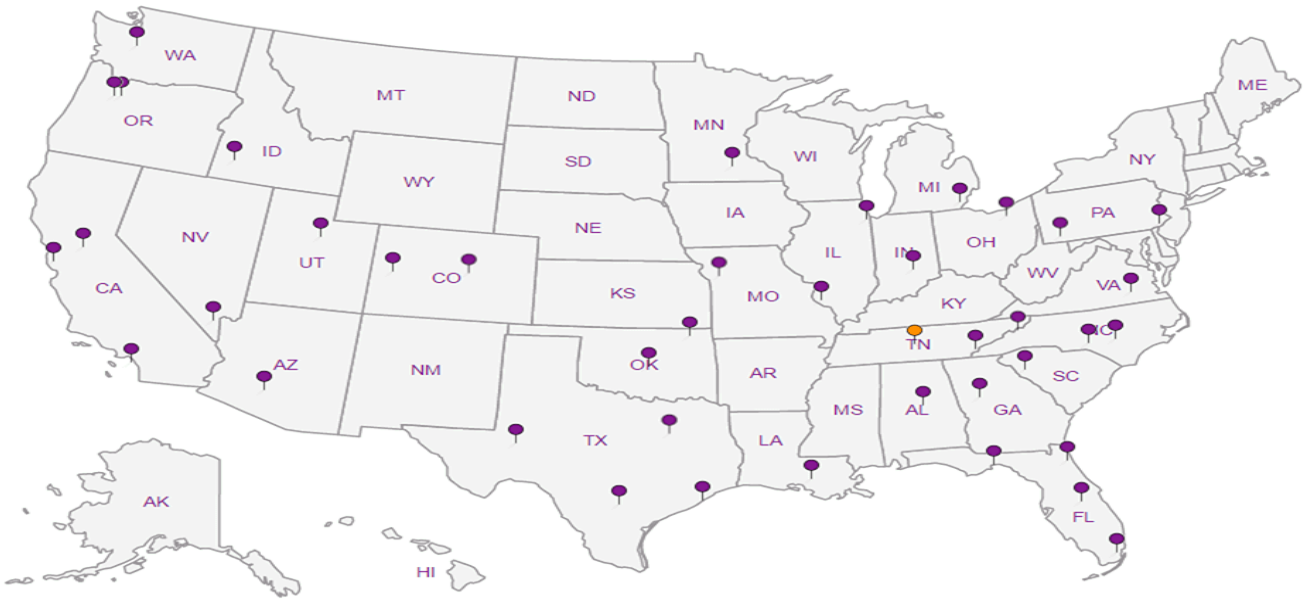
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

Our Locations

Pace National 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. Pace National performs all testing at our central laboratory.



Chain of Custody Page 1 of 3

Pace Analytical®
National Center for Testing & Innovation
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L1026432

C035

Acctnum: PESENVSWA
Template: T139825
Prelogin: P668288
TSR: 110 - Brian Ford
PB:

Shipped Via: FedEX Ground

S Environmental, Inc.- WA

1215 Fourth Ave., Suite 1350
Seattle, WA 98161

Billing information:
Attn: Accounts Payable
1215 Fourth Ave., Ste. 1350
Seattle, WA 98161

Pres Chk

Report to: Brian O'Neal/Bill Haldeman

Email To: boneal@pesenv.com; bhaldeman@pesenv.com

Project Description: American Linen

City/State Collected: Seattle, WA

Phone: 206-529-3980
Fax: 206-529-3985

Client Project # 1413.001.05.304

Lab Project # PESENVSWA-ALP

Collected by (print): S. McKERNAN

Site/Facility ID # 1413.001.05.304

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOCs V8260C 40mlAmb/MeOH5ml/Syr	dry weight 2ozClr-NoPres	trip blk V8260LLC 40mlAmb-HCl-Blk	Remarks	Sample # (lab only)
IW-54A-8	GRAB	SS GW	8	9/12/18	1340	2	X	X			-01
IW-54A-49		GW	49	↓	1740	2	X	X			-02
IW-55B-43		GW	43	9/13/18	1515	2	X	X			-03
IW-55B-39		GW	39	↓	1440	2	X	X			-04
IW-55B-61	↓	↓	61	↓	1800	2	X	X			-05
IW-12d-42	GRAB	SS	42	9/14/18	1235	2	X	X			-06
B-928-42			42	9/14/18	1255	2	X	X			-07
IW-12d-50			50		1340	2	X	X			-08
IW-12d-55			55		1410	2	X	X		HOLD	
IW-12d-60	↓	↓	60	↓	1420	2	X	X	X		-09
BLANK-091418	Remarks:	—	—	—	—	1					

Analysis / Container / Preservative

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other

pH ___ Temp ___
Flow ___ Other ___

RAD SCREEN: <0.5 mR/hr

Samples returned via: ✓ UPS ___ FedEx ___ Courier ___

Tracking # 4510 1654 1910

Trip Blank Received: Yes / No HCl / MeoH TBR

Sample Receipt Checklist

COC Seal Present/Intact:	NP	Y N
COC Signed/Accurate:		Y N
Bottles arrive intact:		Y N
Correct bottles used:		Y N
Sufficient volume sent:		Y N
If Applicable		
VOA Zero Headspace:		Y N
Preservation Correct/Checked:		Y N

	Date:	Time:		
Relinquished by: (Signature)	9/14/18	1600	Received by: (Signature)	
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 1.0+0.2=1.2 °C Bottles Received: 20
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 9/15/18 Time: 845

If preservation required by Login: Date/Time

09-0071

Condition: NCF / OK

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

October 05, 2018

PES Environmental, Inc.- WA

Sample Delivery Group:	L1029197
Samples Received:	09/22/2018
Project Number:	1413.001.05.304
Description:	American Linen
Site:	1413.001.05.304
Report To:	Brian O'Neal/Bill Haldeman 1215 Fourth Ave., Suite 1350 Seattle, WA 98161

Entire Report Reviewed By:

Brian Ford
Project Manager

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 Pace National is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

TABLE OF CONTENTS

Cp: Cover Page 1

Tc: Table of Contents 2

Ss: Sample Summary 3

Cn: Case Narrative 5

Sr: Sample Results 6

- IW-13D-80 L1029197-01 6
- IW-13D-85 L1029197-02 8
- IW-13D-95 L1029197-03 10
- IW-28C-92 L1029197-04 12
- IW-53B-30 L1029197-05 14
- IW-12D-85 L1029197-06 16
- IW-12D-95 L1029197-07 18

Qc: Quality Control Summary 20

- Total Solids by Method 2540 G-2011 20
- Volatile Organic Compounds (GC/MS) by Method 8260C 21

Gl: Glossary of Terms 29

Al: Accreditations & Locations 30

Sc: Sample Chain of Custody 31

IW-13D-80 L1029197-01 Solid

Collected by: Ben Hecht | Collected date/time: 09/18/18 16:00 | Received date/time: 09/22/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1172388	1	09/27/18 14:15	09/27/18 14:37	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1173458	1	09/18/18 16:00	09/29/18 15:46	BMB
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1173651	80	09/18/18 16:00	10/01/18 17:18	BMB
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1174156	80	09/18/18 16:00	10/01/18 22:09	JAH

IW-13D-85 L1029197-02 Solid

Collected by: Ben Hecht | Collected date/time: 09/18/18 16:40 | Received date/time: 09/22/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1172388	1	09/27/18 14:15	09/27/18 14:37	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1173458	1	09/18/18 16:40	09/29/18 16:06	BMB
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1173651	1	09/18/18 16:40	10/01/18 16:38	BMB
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1174156	1	09/18/18 16:40	10/01/18 21:29	JAH

IW-13D-95 L1029197-03 Solid

Collected by: Ben Hecht | Collected date/time: 09/18/18 17:20 | Received date/time: 09/22/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1172388	1	09/27/18 14:15	09/27/18 14:37	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1173458	1	09/18/18 17:20	09/29/18 16:27	BMB
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1173651	1	09/18/18 17:20	10/01/18 16:58	BMB
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1174156	1	09/18/18 17:20	10/01/18 21:49	JAH

IW-28C-92 L1029197-04 Solid

Collected by: Ben Hecht | Collected date/time: 09/18/18 16:02 | Received date/time: 09/22/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1172388	1	09/27/18 14:15	09/27/18 14:37	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1173458	1	09/18/18 16:02	09/29/18 16:47	BMB
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1173651	4	09/18/18 16:02	10/01/18 17:38	BMB
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1174156	4	09/18/18 16:02	10/01/18 22:29	JAH

IW-53B-30 L1029197-05 Solid

Collected by: Ben Hecht | Collected date/time: 09/20/18 15:30 | Received date/time: 09/22/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1172388	1	09/27/18 14:15	09/27/18 14:37	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1173458	1	09/20/18 15:30	09/29/18 17:08	BMB
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1173651	10	09/20/18 15:30	10/01/18 17:57	BMB

IW-12D-85 L1029197-06 Solid

Collected by: Ben Hecht | Collected date/time: 09/17/18 11:25 | Received date/time: 09/22/18 08:45

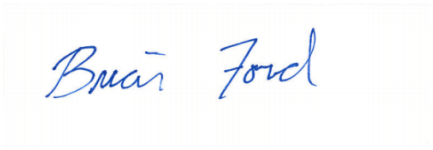
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1172388	1	09/27/18 14:15	09/27/18 14:37	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1173458	1	09/17/18 11:25	09/29/18 17:28	BMB
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1173651	20	09/17/18 11:25	10/01/18 12:57	BMB

IW-12D-95 L1029197-07 Solid

Collected by	Collected date/time	Received date/time
Ben Hecht	09/17/18 12:40	09/22/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1172388	1	09/27/18 14:15	09/27/18 14:37	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1173458	1	09/17/18 12:40	09/29/18 17:49	BMB
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1173651	4	09/17/18 12:40	10/01/18 13:17	BMB

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, 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.



Brian Ford
Project Manager

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	90.6		1	09/27/2018 14:37	WG1172388

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		1.21	2.21	80	10/01/2018 17:18	WG1173651
Acrylonitrile	U		0.00210	0.0138	1	09/29/2018 15:46	WG1173458
Benzene	U		0.000441	0.00110	1	09/29/2018 15:46	WG1173458
Bromobenzene	U		0.00116	0.0138	1	09/29/2018 15:46	WG1173458
Bromodichloromethane	U		0.000869	0.00276	1	09/29/2018 15:46	WG1173458
Bromochloromethane	U		0.00125	0.00552	1	09/29/2018 15:46	WG1173458
Bromoform	U		0.00660	0.0276	1	09/29/2018 15:46	WG1173458
Bromomethane	U		0.00408	0.0138	1	09/29/2018 15:46	WG1173458
n-Butylbenzene	U		0.00424	0.0138	1	09/29/2018 15:46	WG1173458
sec-Butylbenzene	U		0.00279	0.0138	1	09/29/2018 15:46	WG1173458
tert-Butylbenzene	U		0.00171	0.00552	1	09/29/2018 15:46	WG1173458
Carbon disulfide	U		0.00448	0.0138	1	09/29/2018 15:46	WG1173458
Carbon tetrachloride	U		0.00119	0.00552	1	09/29/2018 15:46	WG1173458
Chlorobenzene	U		0.000632	0.00276	1	09/29/2018 15:46	WG1173458
Chlorodibromomethane	U		0.000496	0.00276	1	09/29/2018 15:46	WG1173458
Chloroethane	U		0.00119	0.00552	1	09/29/2018 15:46	WG1173458
Chloroform	U		0.000458	0.00276	1	09/29/2018 15:46	WG1173458
Chloromethane	U		0.00153	0.0138	1	09/29/2018 15:46	WG1173458
2-Chlorotoluene	U		0.00102	0.00276	1	09/29/2018 15:46	WG1173458
4-Chlorotoluene	U		0.00125	0.00552	1	09/29/2018 15:46	WG1173458
1,2-Dibromo-3-Chloropropane	U		0.00563	0.0276	1	09/29/2018 15:46	WG1173458
1,2-Dibromoethane	U		0.000579	0.00276	1	09/29/2018 15:46	WG1173458
Dibromomethane	U		0.00110	0.00552	1	09/29/2018 15:46	WG1173458
1,2-Dichlorobenzene	U		0.00160	0.00552	1	09/29/2018 15:46	WG1173458
1,3-Dichlorobenzene	U		0.00188	0.00552	1	09/29/2018 15:46	WG1173458
1,4-Dichlorobenzene	U		0.00217	0.00552	1	09/29/2018 15:46	WG1173458
Dichlorodifluoromethane	U		0.000903	0.00276	1	09/29/2018 15:46	WG1173458
1,1-Dichloroethane	U		0.000634	0.00276	1	09/29/2018 15:46	WG1173458
1,2-Dichloroethane	U	J4	0.000524	0.00276	1	09/29/2018 15:46	WG1173458
1,1-Dichloroethene	0.0362		0.000552	0.00276	1	09/29/2018 15:46	WG1173458
cis-1,2-Dichloroethene	0.157		0.000761	0.00276	1	09/29/2018 15:46	WG1173458
trans-1,2-Dichloroethene	0.00404	J	0.00158	0.00552	1	09/29/2018 15:46	WG1173458
1,2-Dichloropropane	U		0.113	0.441	80	10/01/2018 17:18	WG1173651
1,1-Dichloropropene	U		0.000772	0.00276	1	09/29/2018 15:46	WG1173458
1,3-Dichloropropane	U		0.00193	0.00552	1	09/29/2018 15:46	WG1173458
cis-1,3-Dichloropropene	U		0.000748	0.00276	1	09/29/2018 15:46	WG1173458
trans-1,3-Dichloropropene	U		0.00169	0.00552	1	09/29/2018 15:46	WG1173458
trans-1,4-Dichloro-2-butene	U		0.00154	0.00552	1	09/29/2018 15:46	WG1173458
2,2-Dichloropropane	U		0.000875	0.00276	1	09/29/2018 15:46	WG1173458
Di-isopropyl ether	U		0.000386	0.00110	1	09/29/2018 15:46	WG1173458
Ethylbenzene	0.000719	J	0.000585	0.00276	1	09/29/2018 15:46	WG1173458
Hexachloro-1,3-butadiene	U		1.13	2.21	80	10/01/2018 17:18	WG1173651
2-Hexanone	U		0.0110	0.0276	1	09/29/2018 15:46	WG1173458
n-Hexane	0.00405	J J0	0.00117	0.00552	1	09/29/2018 15:46	WG1173458
Iodomethane	U		0.00668	0.0138	1	09/29/2018 15:46	WG1173458
Isopropylbenzene	U		0.000952	0.00276	1	09/29/2018 15:46	WG1173458
p-Isopropyltoluene	U		0.00257	0.00552	1	09/29/2018 15:46	WG1173458
2-Butanone (MEK)	U		1.10	2.21	80	10/01/2018 17:18	WG1173651
Methylene Chloride	U		0.00733	0.0276	1	09/29/2018 15:46	WG1173458
4-Methyl-2-pentanone (MIBK)	U		0.0110	0.0276	1	09/29/2018 15:46	WG1173458

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000325	0.00110	1	09/29/2018 15:46	WG1173458
Naphthalene	U		0.00344	0.0138	1	09/29/2018 15:46	WG1173458
n-Propylbenzene	U		0.00130	0.00552	1	09/29/2018 15:46	WG1173458
Styrene	U		0.00301	0.0138	1	09/29/2018 15:46	WG1173458
1,1,1,2-Tetrachloroethane	U		0.000552	0.00276	1	09/29/2018 15:46	WG1173458
1,1,2,2-Tetrachloroethane	U		0.000430	0.00276	1	09/29/2018 15:46	WG1173458
1,1,2-Trichlorotrifluoroethane	U		0.000745	0.00276	1	09/29/2018 15:46	WG1173458
Tetrachloroethene	31.4		0.0618	0.221	80	10/01/2018 17:18	WG1173651
Toluene	0.00447	J	0.00138	0.00552	1	09/29/2018 15:46	WG1173458
1,2,3-Trichlorobenzene	U		0.000690	0.00276	1	09/29/2018 15:46	WG1173458
1,2,4-Trichlorobenzene	U		0.00532	0.0138	1	09/29/2018 15:46	WG1173458
1,1,1-Trichloroethane	U		0.000303	0.00276	1	09/29/2018 15:46	WG1173458
1,1,2-Trichloroethane	U		0.0779	0.221	80	10/01/2018 17:18	WG1173651
Trichloroethene	1.21		0.0353	0.0883	80	10/01/2018 22:09	WG1174156
Trichlorofluoromethane	U		0.000552	0.00276	1	09/29/2018 15:46	WG1173458
1,2,3-Trichloropropane	U		0.00563	0.0138	1	09/29/2018 15:46	WG1173458
1,2,4-Trimethylbenzene	0.00240	J	0.00128	0.00552	1	09/29/2018 15:46	WG1173458
1,2,3-Trimethylbenzene	0.00129	J	0.00127	0.00552	1	09/29/2018 15:46	WG1173458
1,3,5-Trimethylbenzene	U		0.00119	0.00552	1	09/29/2018 15:46	WG1173458
Vinyl acetate	U	J0 J4	0.00388	0.0138	1	09/29/2018 15:46	WG1173458
Vinyl chloride	0.0191		0.000754	0.00276	1	09/29/2018 15:46	WG1173458
Xylenes, Total	0.00585	J	0.00527	0.00717	1	09/29/2018 15:46	WG1173458
(S) Toluene-d8	*117*			*75.0-131*		*09/29/2018 15:46*	WG1173458
(S) Toluene-d8	*106*			*75.0-131*		*10/01/2018 17:18*	WG1173651
(S) Toluene-d8	*106*			*75.0-131*		*10/01/2018 22:09*	WG1174156
(S) Dibromofluoromethane	*106*			*65.0-129*		*09/29/2018 15:46*	WG1173458
(S) Dibromofluoromethane	*109*			*65.0-129*		*10/01/2018 17:18*	WG1173651
(S) Dibromofluoromethane	*99.5*			*65.0-129*		*10/01/2018 22:09*	WG1174156
(S) 4-Bromofluorobenzene	*107*			*67.0-138*		*09/29/2018 15:46*	WG1173458
(S) 4-Bromofluorobenzene	*108*			*67.0-138*		*10/01/2018 17:18*	WG1173651
(S) 4-Bromofluorobenzene	*110*			*67.0-138*		*10/01/2018 22:09*	WG1174156

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	86.9		1	09/27/2018 14:37	WG1172388

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0158	0.0288	1	10/01/2018 16:38	WG1173651
Acrylonitrile	U		0.00219	0.0144	1	09/29/2018 16:06	WG1173458
Benzene	U		0.000460	0.00115	1	09/29/2018 16:06	WG1173458
Bromobenzene	U		0.00121	0.0144	1	09/29/2018 16:06	WG1173458
Bromodichloromethane	U		0.000907	0.00288	1	09/29/2018 16:06	WG1173458
Bromochloromethane	U		0.00130	0.00576	1	09/29/2018 16:06	WG1173458
Bromoform	U		0.00688	0.0288	1	09/29/2018 16:06	WG1173458
Bromomethane	U		0.00426	0.0144	1	09/29/2018 16:06	WG1173458
n-Butylbenzene	U		0.00442	0.0144	1	09/29/2018 16:06	WG1173458
sec-Butylbenzene	U		0.00291	0.0144	1	09/29/2018 16:06	WG1173458
tert-Butylbenzene	U		0.00178	0.00576	1	09/29/2018 16:06	WG1173458
Carbon disulfide	U		0.00467	0.0144	1	09/29/2018 16:06	WG1173458
Carbon tetrachloride	U		0.00124	0.00576	1	09/29/2018 16:06	WG1173458
Chlorobenzene	U		0.000660	0.00288	1	09/29/2018 16:06	WG1173458
Chlorodibromomethane	U		0.000518	0.00288	1	09/29/2018 16:06	WG1173458
Chloroethane	U		0.00124	0.00576	1	09/29/2018 16:06	WG1173458
Chloroform	U		0.000478	0.00288	1	09/29/2018 16:06	WG1173458
Chloromethane	U		0.00160	0.0144	1	09/29/2018 16:06	WG1173458
2-Chlorotoluene	U		0.00106	0.00288	1	09/29/2018 16:06	WG1173458
4-Chlorotoluene	U		0.00130	0.00576	1	09/29/2018 16:06	WG1173458
1,2-Dibromo-3-Chloropropane	U		0.00587	0.0288	1	09/29/2018 16:06	WG1173458
1,2-Dibromoethane	U		0.000604	0.00288	1	09/29/2018 16:06	WG1173458
Dibromomethane	U		0.00115	0.00576	1	09/29/2018 16:06	WG1173458
1,2-Dichlorobenzene	U		0.00167	0.00576	1	09/29/2018 16:06	WG1173458
1,3-Dichlorobenzene	U		0.00196	0.00576	1	09/29/2018 16:06	WG1173458
1,4-Dichlorobenzene	U		0.00227	0.00576	1	09/29/2018 16:06	WG1173458
Dichlorodifluoromethane	U		0.000942	0.00288	1	09/29/2018 16:06	WG1173458
1,1-Dichloroethane	U		0.000662	0.00288	1	09/29/2018 16:06	WG1173458
1,2-Dichloroethane	U	J4	0.000547	0.00288	1	09/29/2018 16:06	WG1173458
1,1-Dichloroethene	0.00620		0.000576	0.00288	1	09/29/2018 16:06	WG1173458
cis-1,2-Dichloroethene	0.0220		0.000794	0.00288	1	09/29/2018 16:06	WG1173458
trans-1,2-Dichloroethene	0.00499	J	0.00165	0.00576	1	09/29/2018 16:06	WG1173458
1,2-Dichloropropane	U		0.00146	0.00576	1	10/01/2018 16:38	WG1173651
1,1-Dichloropropene	U		0.000806	0.00288	1	09/29/2018 16:06	WG1173458
1,3-Dichloropropane	U		0.00201	0.00576	1	09/29/2018 16:06	WG1173458
cis-1,3-Dichloropropene	U		0.000780	0.00288	1	09/29/2018 16:06	WG1173458
trans-1,3-Dichloropropene	U		0.00176	0.00576	1	09/29/2018 16:06	WG1173458
trans-1,4-Dichloro-2-butene	U		0.00161	0.00576	1	09/29/2018 16:06	WG1173458
2,2-Dichloropropane	U		0.000913	0.00288	1	09/29/2018 16:06	WG1173458
Di-isopropyl ether	U		0.000403	0.00115	1	09/29/2018 16:06	WG1173458
Ethylbenzene	U		0.000610	0.00288	1	09/29/2018 16:06	WG1173458
Hexachloro-1,3-butadiene	U		0.0146	0.0288	1	10/01/2018 16:38	WG1173651
2-Hexanone	U		0.0115	0.0288	1	09/29/2018 16:06	WG1173458
n-Hexane	U	J0	0.00122	0.00576	1	09/29/2018 16:06	WG1173458
Iodomethane	U		0.00696	0.0144	1	09/29/2018 16:06	WG1173458
Isopropylbenzene	U		0.000993	0.00288	1	09/29/2018 16:06	WG1173458
p-Isopropyltoluene	U		0.00268	0.00576	1	09/29/2018 16:06	WG1173458
2-Butanone (MEK)	0.0211	J	0.0144	0.0288	1	10/01/2018 16:38	WG1173651
Methylene Chloride	U		0.00764	0.0288	1	09/29/2018 16:06	WG1173458
4-Methyl-2-pentanone (MIBK)	U		0.0115	0.0288	1	09/29/2018 16:06	WG1173458

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000340	0.00115	1	09/29/2018 16:06	WG1173458
Naphthalene	U		0.00359	0.0144	1	09/29/2018 16:06	WG1173458
n-Propylbenzene	U		0.00136	0.00576	1	09/29/2018 16:06	WG1173458
Styrene	U		0.00314	0.0144	1	09/29/2018 16:06	WG1173458
1,1,1,2-Tetrachloroethane	U		0.000576	0.00288	1	09/29/2018 16:06	WG1173458
1,1,2,2-Tetrachloroethane	U		0.000449	0.00288	1	09/29/2018 16:06	WG1173458
1,1,2-Trichlorotrifluoroethane	U		0.000777	0.00288	1	09/29/2018 16:06	WG1173458
Tetrachloroethene	0.205		0.000806	0.00288	1	10/01/2018 16:38	WG1173651
Toluene	0.00178	J	0.00144	0.00576	1	09/29/2018 16:06	WG1173458
1,2,3-Trichlorobenzene	U		0.000719	0.00288	1	09/29/2018 16:06	WG1173458
1,2,4-Trichlorobenzene	U		0.00555	0.0144	1	09/29/2018 16:06	WG1173458
1,1,1-Trichloroethane	U		0.000317	0.00288	1	09/29/2018 16:06	WG1173458
1,1,2-Trichloroethane	U		0.00102	0.00288	1	10/01/2018 16:38	WG1173651
Trichloroethene	0.202		0.000460	0.00115	1	10/01/2018 21:29	WG1174156
Trichlorofluoromethane	U		0.000576	0.00288	1	09/29/2018 16:06	WG1173458
1,2,3-Trichloropropane	U		0.00587	0.0144	1	09/29/2018 16:06	WG1173458
1,2,4-Trimethylbenzene	U		0.00134	0.00576	1	09/29/2018 16:06	WG1173458
1,2,3-Trimethylbenzene	U		0.00132	0.00576	1	09/29/2018 16:06	WG1173458
1,3,5-Trimethylbenzene	U		0.00124	0.00576	1	09/29/2018 16:06	WG1173458
Vinyl acetate	U	J0 J4	0.00405	0.0144	1	09/29/2018 16:06	WG1173458
Vinyl chloride	U		0.000786	0.00288	1	09/29/2018 16:06	WG1173458
Xylenes, Total	U		0.00550	0.00748	1	09/29/2018 16:06	WG1173458
(S) Toluene-d8	*111*			*75.0-131*		*09/29/2018 16:06*	WG1173458
(S) Toluene-d8	*104*			*75.0-131*		*10/01/2018 16:38*	WG1173651
(S) Toluene-d8	*104*			*75.0-131*		*10/01/2018 21:29*	WG1174156
(S) Dibromofluoromethane	*108*			*65.0-129*		*09/29/2018 16:06*	WG1173458
(S) Dibromofluoromethane	*107*			*65.0-129*		*10/01/2018 16:38*	WG1173651
(S) Dibromofluoromethane	*99.8*			*65.0-129*		*10/01/2018 21:29*	WG1174156
(S) 4-Bromofluorobenzene	*108*			*67.0-138*		*09/29/2018 16:06*	WG1173458
(S) 4-Bromofluorobenzene	*108*			*67.0-138*		*10/01/2018 16:38*	WG1173651
(S) 4-Bromofluorobenzene	*104*			*67.0-138*		*10/01/2018 21:29*	WG1174156

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	83.1		1	09/27/2018 14:37	WG1172388

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0165	0.0301	1	10/01/2018 16:58	WG1173651
Acrylonitrile	U		0.00229	0.0150	1	09/29/2018 16:27	WG1173458
Benzene	U		0.000481	0.00120	1	09/29/2018 16:27	WG1173458
Bromobenzene	U		0.00126	0.0150	1	09/29/2018 16:27	WG1173458
Bromodichloromethane	U		0.000948	0.00301	1	09/29/2018 16:27	WG1173458
Bromochloromethane	U		0.00136	0.00602	1	09/29/2018 16:27	WG1173458
Bromoform	U		0.00720	0.0301	1	09/29/2018 16:27	WG1173458
Bromomethane	U		0.00445	0.0150	1	09/29/2018 16:27	WG1173458
n-Butylbenzene	U		0.00462	0.0150	1	09/29/2018 16:27	WG1173458
sec-Butylbenzene	U		0.00304	0.0150	1	09/29/2018 16:27	WG1173458
tert-Butylbenzene	U		0.00187	0.00602	1	09/29/2018 16:27	WG1173458
Carbon disulfide	U		0.00489	0.0150	1	09/29/2018 16:27	WG1173458
Carbon tetrachloride	U		0.00130	0.00602	1	09/29/2018 16:27	WG1173458
Chlorobenzene	U		0.000690	0.00301	1	09/29/2018 16:27	WG1173458
Chlorodibromomethane	U		0.000542	0.00301	1	09/29/2018 16:27	WG1173458
Chloroethane	U		0.00130	0.00602	1	09/29/2018 16:27	WG1173458
Chloroform	U		0.000499	0.00301	1	09/29/2018 16:27	WG1173458
Chloromethane	U		0.00167	0.0150	1	09/29/2018 16:27	WG1173458
2-Chlorotoluene	U		0.00111	0.00301	1	09/29/2018 16:27	WG1173458
4-Chlorotoluene	U		0.00136	0.00602	1	09/29/2018 16:27	WG1173458
1,2-Dibromo-3-Chloropropane	U		0.00614	0.0301	1	09/29/2018 16:27	WG1173458
1,2-Dibromoethane	U		0.000632	0.00301	1	09/29/2018 16:27	WG1173458
Dibromomethane	U		0.00120	0.00602	1	09/29/2018 16:27	WG1173458
1,2-Dichlorobenzene	U		0.00175	0.00602	1	09/29/2018 16:27	WG1173458
1,3-Dichlorobenzene	U		0.00205	0.00602	1	09/29/2018 16:27	WG1173458
1,4-Dichlorobenzene	U		0.00237	0.00602	1	09/29/2018 16:27	WG1173458
Dichlorodifluoromethane	U		0.000984	0.00301	1	09/29/2018 16:27	WG1173458
1,1-Dichloroethane	U		0.000692	0.00301	1	09/29/2018 16:27	WG1173458
1,2-Dichloroethane	U	J4	0.000572	0.00301	1	09/29/2018 16:27	WG1173458
1,1-Dichloroethene	U		0.000602	0.00301	1	09/29/2018 16:27	WG1173458
cis-1,2-Dichloroethene	0.00113	J	0.000830	0.00301	1	09/29/2018 16:27	WG1173458
trans-1,2-Dichloroethene	U		0.00172	0.00602	1	09/29/2018 16:27	WG1173458
1,2-Dichloropropane	U		0.00153	0.00602	1	10/01/2018 16:58	WG1173651
1,1-Dichloropropene	U		0.000842	0.00301	1	09/29/2018 16:27	WG1173458
1,3-Dichloropropane	U		0.00211	0.00602	1	09/29/2018 16:27	WG1173458
cis-1,3-Dichloropropene	U		0.000816	0.00301	1	09/29/2018 16:27	WG1173458
trans-1,3-Dichloropropene	U		0.00184	0.00602	1	09/29/2018 16:27	WG1173458
trans-1,4-Dichloro-2-butene	U		0.00168	0.00602	1	09/29/2018 16:27	WG1173458
2,2-Dichloropropane	U		0.000954	0.00301	1	09/29/2018 16:27	WG1173458
Di-isopropyl ether	U		0.000421	0.00120	1	09/29/2018 16:27	WG1173458
Ethylbenzene	U		0.000638	0.00301	1	09/29/2018 16:27	WG1173458
Hexachloro-1,3-butadiene	U		0.0153	0.0301	1	10/01/2018 16:58	WG1173651
2-Hexanone	U		0.0120	0.0301	1	09/29/2018 16:27	WG1173458
n-Hexane	U	J0	0.00128	0.00602	1	09/29/2018 16:27	WG1173458
Iodomethane	U		0.00728	0.0150	1	09/29/2018 16:27	WG1173458
Isopropylbenzene	U		0.00104	0.00301	1	09/29/2018 16:27	WG1173458
p-Isopropyltoluene	U		0.00280	0.00602	1	09/29/2018 16:27	WG1173458
2-Butanone (MEK)	0.0213	J	0.0150	0.0301	1	10/01/2018 16:58	WG1173651
Methylene Chloride	U		0.00799	0.0301	1	09/29/2018 16:27	WG1173458
4-Methyl-2-pentanone (MIBK)	U		0.0120	0.0301	1	09/29/2018 16:27	WG1173458

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000355	0.00120	1	09/29/2018 16:27	WG1173458
Naphthalene	U		0.00376	0.0150	1	09/29/2018 16:27	WG1173458
n-Propylbenzene	U		0.00142	0.00602	1	09/29/2018 16:27	WG1173458
Styrene	U		0.00329	0.0150	1	09/29/2018 16:27	WG1173458
1,1,1,2-Tetrachloroethane	U		0.000602	0.00301	1	09/29/2018 16:27	WG1173458
1,1,2,2-Tetrachloroethane	U		0.000469	0.00301	1	09/29/2018 16:27	WG1173458
1,1,2-Trichlorotrifluoroethane	U		0.000812	0.00301	1	09/29/2018 16:27	WG1173458
Tetrachloroethene	0.00194	J	0.000842	0.00301	1	10/01/2018 16:58	WG1173651
Toluene	0.00171	J	0.00150	0.00602	1	09/29/2018 16:27	WG1173458
1,2,3-Trichlorobenzene	U		0.000752	0.00301	1	09/29/2018 16:27	WG1173458
1,2,4-Trichlorobenzene	U		0.00580	0.0150	1	09/29/2018 16:27	WG1173458
1,1,1-Trichloroethane	U		0.000331	0.00301	1	09/29/2018 16:27	WG1173458
1,1,2-Trichloroethane	U		0.00106	0.00301	1	10/01/2018 16:58	WG1173651
Trichloroethene	0.00168		0.000481	0.00120	1	10/01/2018 21:49	WG1174156
Trichlorofluoromethane	U		0.000602	0.00301	1	09/29/2018 16:27	WG1173458
1,2,3-Trichloropropane	U		0.00614	0.0150	1	09/29/2018 16:27	WG1173458
1,2,4-Trimethylbenzene	U		0.00140	0.00602	1	09/29/2018 16:27	WG1173458
1,2,3-Trimethylbenzene	U		0.00138	0.00602	1	09/29/2018 16:27	WG1173458
1,3,5-Trimethylbenzene	U		0.00130	0.00602	1	09/29/2018 16:27	WG1173458
Vinyl acetate	U	J0 J4	0.00424	0.0150	1	09/29/2018 16:27	WG1173458
Vinyl chloride	U		0.000822	0.00301	1	09/29/2018 16:27	WG1173458
Xylenes, Total	U		0.00575	0.00782	1	09/29/2018 16:27	WG1173458
(S) Toluene-d8	*111*			*75.0-131*		*09/29/2018 16:27*	WG1173458
(S) Toluene-d8	*108*			*75.0-131*		*10/01/2018 16:58*	WG1173651
(S) Toluene-d8	*98.8*			*75.0-131*		*10/01/2018 21:49*	WG1174156
(S) Dibromofluoromethane	*106*			*65.0-129*		*09/29/2018 16:27*	WG1173458
(S) Dibromofluoromethane	*105*			*65.0-129*		*10/01/2018 16:58*	WG1173651
(S) Dibromofluoromethane	*104*			*65.0-129*		*10/01/2018 21:49*	WG1174156
(S) 4-Bromofluorobenzene	*105*			*67.0-138*		*09/29/2018 16:27*	WG1173458
(S) 4-Bromofluorobenzene	*112*			*67.0-138*		*10/01/2018 16:58*	WG1173651
(S) 4-Bromofluorobenzene	*108*			*67.0-138*		*10/01/2018 21:49*	WG1174156

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	92.0		1	09/27/2018 14:37	WG1172388

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0596	0.109	4	10/01/2018 17:38	WG1173651
Acrylonitrile	U		0.00207	0.0136	1	09/29/2018 16:47	WG1173458
Benzene	U		0.000435	0.00109	1	09/29/2018 16:47	WG1173458
Bromobenzene	U		0.00114	0.0136	1	09/29/2018 16:47	WG1173458
Bromodichloromethane	U		0.000857	0.00272	1	09/29/2018 16:47	WG1173458
Bromochloromethane	U		0.00123	0.00544	1	09/29/2018 16:47	WG1173458
Bromoform	U		0.00650	0.0272	1	09/29/2018 16:47	WG1173458
Bromomethane	U		0.00402	0.0136	1	09/29/2018 16:47	WG1173458
n-Butylbenzene	U		0.00417	0.0136	1	09/29/2018 16:47	WG1173458
sec-Butylbenzene	U		0.00275	0.0136	1	09/29/2018 16:47	WG1173458
tert-Butylbenzene	U		0.00168	0.00544	1	09/29/2018 16:47	WG1173458
Carbon disulfide	U		0.00441	0.0136	1	09/29/2018 16:47	WG1173458
Carbon tetrachloride	U		0.00117	0.00544	1	09/29/2018 16:47	WG1173458
Chlorobenzene	U		0.000623	0.00272	1	09/29/2018 16:47	WG1173458
Chlorodibromomethane	U		0.000489	0.00272	1	09/29/2018 16:47	WG1173458
Chloroethane	U		0.00117	0.00544	1	09/29/2018 16:47	WG1173458
Chloroform	U		0.000451	0.00272	1	09/29/2018 16:47	WG1173458
Chloromethane	U		0.00151	0.0136	1	09/29/2018 16:47	WG1173458
2-Chlorotoluene	U		0.00100	0.00272	1	09/29/2018 16:47	WG1173458
4-Chlorotoluene	U		0.00123	0.00544	1	09/29/2018 16:47	WG1173458
1,2-Dibromo-3-Chloropropane	U		0.00554	0.0272	1	09/29/2018 16:47	WG1173458
1,2-Dibromoethane	U		0.000571	0.00272	1	09/29/2018 16:47	WG1173458
Dibromomethane	U		0.00109	0.00544	1	09/29/2018 16:47	WG1173458
1,2-Dichlorobenzene	U		0.00158	0.00544	1	09/29/2018 16:47	WG1173458
1,3-Dichlorobenzene	U		0.00185	0.00544	1	09/29/2018 16:47	WG1173458
1,4-Dichlorobenzene	U		0.00214	0.00544	1	09/29/2018 16:47	WG1173458
Dichlorodifluoromethane	U		0.000889	0.00272	1	09/29/2018 16:47	WG1173458
1,1-Dichloroethane	U		0.000625	0.00272	1	09/29/2018 16:47	WG1173458
1,2-Dichloroethane	U	J4	0.000516	0.00272	1	09/29/2018 16:47	WG1173458
1,1-Dichloroethene	U		0.000544	0.00272	1	09/29/2018 16:47	WG1173458
cis-1,2-Dichloroethene	0.0103		0.000750	0.00272	1	09/29/2018 16:47	WG1173458
trans-1,2-Dichloroethene	U		0.00155	0.00544	1	09/29/2018 16:47	WG1173458
1,2-Dichloropropane	U		0.00552	0.0217	4	10/01/2018 17:38	WG1173651
1,1-Dichloropropene	U		0.000761	0.00272	1	09/29/2018 16:47	WG1173458
1,3-Dichloropropane	U		0.00190	0.00544	1	09/29/2018 16:47	WG1173458
cis-1,3-Dichloropropene	U		0.000737	0.00272	1	09/29/2018 16:47	WG1173458
trans-1,3-Dichloropropene	U		0.00166	0.00544	1	09/29/2018 16:47	WG1173458
trans-1,4-Dichloro-2-butene	U		0.00152	0.00544	1	09/29/2018 16:47	WG1173458
2,2-Dichloropropane	U		0.000862	0.00272	1	09/29/2018 16:47	WG1173458
Di-isopropyl ether	U		0.000380	0.00109	1	09/29/2018 16:47	WG1173458
Ethylbenzene	U		0.000576	0.00272	1	09/29/2018 16:47	WG1173458
Hexachloro-1,3-butadiene	U		0.0552	0.109	4	10/01/2018 17:38	WG1173651
2-Hexanone	U		0.0109	0.0272	1	09/29/2018 16:47	WG1173458
n-Hexane	0.00228	J J0	0.00115	0.00544	1	09/29/2018 16:47	WG1173458
Iodomethane	U		0.00658	0.0136	1	09/29/2018 16:47	WG1173458
Isopropylbenzene	U		0.000938	0.00272	1	09/29/2018 16:47	WG1173458
p-Isopropyltoluene	U		0.00253	0.00544	1	09/29/2018 16:47	WG1173458
2-Butanone (MEK)	U		0.0544	0.109	4	10/01/2018 17:38	WG1173651
Methylene Chloride	U		0.00722	0.0272	1	09/29/2018 16:47	WG1173458
4-Methyl-2-pentanone (MIBK)	U		0.0109	0.0272	1	09/29/2018 16:47	WG1173458

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000321	0.00109	1	09/29/2018 16:47	WG1173458
Naphthalene	U		0.00339	0.0136	1	09/29/2018 16:47	WG1173458
n-Propylbenzene	U		0.00128	0.00544	1	09/29/2018 16:47	WG1173458
Styrene	U		0.00297	0.0136	1	09/29/2018 16:47	WG1173458
1,1,1,2-Tetrachloroethane	U		0.000544	0.00272	1	09/29/2018 16:47	WG1173458
1,1,2,2-Tetrachloroethane	U		0.000424	0.00272	1	09/29/2018 16:47	WG1173458
1,1,2-Trichlorotrifluoroethane	U		0.000734	0.00272	1	09/29/2018 16:47	WG1173458
Tetrachloroethene	0.983		0.00304	0.0109	4	10/01/2018 17:38	WG1173651
Toluene	0.00168	J	0.00136	0.00544	1	09/29/2018 16:47	WG1173458
1,2,3-Trichlorobenzene	U		0.000679	0.00272	1	09/29/2018 16:47	WG1173458
1,2,4-Trichlorobenzene	U		0.00524	0.0136	1	09/29/2018 16:47	WG1173458
1,1,1-Trichloroethane	U		0.000299	0.00272	1	09/29/2018 16:47	WG1173458
1,1,2-Trichloroethane	U		0.00384	0.0109	4	10/01/2018 17:38	WG1173651
Trichloroethene	0.00290	J	0.00174	0.00435	4	10/01/2018 22:29	WG1174156
Trichlorofluoromethane	U		0.000544	0.00272	1	09/29/2018 16:47	WG1173458
1,2,3-Trichloropropane	U		0.00554	0.0136	1	09/29/2018 16:47	WG1173458
1,2,4-Trimethylbenzene	U		0.00126	0.00544	1	09/29/2018 16:47	WG1173458
1,2,3-Trimethylbenzene	U		0.00125	0.00544	1	09/29/2018 16:47	WG1173458
1,3,5-Trimethylbenzene	U		0.00117	0.00544	1	09/29/2018 16:47	WG1173458
Vinyl acetate	U	J0 J4	0.00383	0.0136	1	09/29/2018 16:47	WG1173458
Vinyl chloride	U		0.000742	0.00272	1	09/29/2018 16:47	WG1173458
Xylenes, Total	U		0.00520	0.00707	1	09/29/2018 16:47	WG1173458
(S) Toluene-d8	*111*			*75.0-131*		*09/29/2018 16:47*	WG1173458
(S) Toluene-d8	*92.9*			*75.0-131*		*10/01/2018 17:38*	WG1173651
(S) Toluene-d8	*92.7*			*75.0-131*		*10/01/2018 22:29*	WG1174156
(S) Dibromofluoromethane	*109*			*65.0-129*		*09/29/2018 16:47*	WG1173458
(S) Dibromofluoromethane	*111*			*65.0-129*		*10/01/2018 17:38*	WG1173651
(S) Dibromofluoromethane	*103*			*65.0-129*		*10/01/2018 22:29*	WG1174156
(S) 4-Bromofluorobenzene	*105*			*67.0-138*		*09/29/2018 16:47*	WG1173458
(S) 4-Bromofluorobenzene	*108*			*67.0-138*		*10/01/2018 17:38*	WG1173651
(S) 4-Bromofluorobenzene	*115*			*67.0-138*		*10/01/2018 22:29*	WG1174156

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	91.9		1	09/27/2018 14:37	WG1172388

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.149	0.272	10	10/01/2018 17:57	WG1173651
Acrylonitrile	U		0.00207	0.0136	1	09/29/2018 17:08	WG1173458
Benzene	0.000505	J	0.000435	0.00109	1	09/29/2018 17:08	WG1173458
Bromobenzene	U		0.00114	0.0136	1	09/29/2018 17:08	WG1173458
Bromodichloromethane	U		0.000857	0.00272	1	09/29/2018 17:08	WG1173458
Bromochloromethane	U		0.00123	0.00544	1	09/29/2018 17:08	WG1173458
Bromoform	U		0.00651	0.0272	1	09/29/2018 17:08	WG1173458
Bromomethane	U		0.00402	0.0136	1	09/29/2018 17:08	WG1173458
n-Butylbenzene	U		0.00418	0.0136	1	09/29/2018 17:08	WG1173458
sec-Butylbenzene	U		0.00275	0.0136	1	09/29/2018 17:08	WG1173458
tert-Butylbenzene	U		0.00169	0.00544	1	09/29/2018 17:08	WG1173458
Carbon disulfide	U		0.00442	0.0136	1	09/29/2018 17:08	WG1173458
Carbon tetrachloride	U		0.00117	0.00544	1	09/29/2018 17:08	WG1173458
Chlorobenzene	U		0.000623	0.00272	1	09/29/2018 17:08	WG1173458
Chlorodibromomethane	U		0.000490	0.00272	1	09/29/2018 17:08	WG1173458
Chloroethane	U		0.00117	0.00544	1	09/29/2018 17:08	WG1173458
Chloroform	U		0.000451	0.00272	1	09/29/2018 17:08	WG1173458
Chloromethane	U		0.00151	0.0136	1	09/29/2018 17:08	WG1173458
2-Chlorotoluene	U		0.00100	0.00272	1	09/29/2018 17:08	WG1173458
4-Chlorotoluene	U		0.00123	0.00544	1	09/29/2018 17:08	WG1173458
1,2-Dibromo-3-Chloropropane	U		0.00555	0.0272	1	09/29/2018 17:08	WG1173458
1,2-Dibromoethane	U		0.000571	0.00272	1	09/29/2018 17:08	WG1173458
Dibromomethane	U		0.00109	0.00544	1	09/29/2018 17:08	WG1173458
1,2-Dichlorobenzene	U		0.00158	0.00544	1	09/29/2018 17:08	WG1173458
1,3-Dichlorobenzene	U		0.00185	0.00544	1	09/29/2018 17:08	WG1173458
1,4-Dichlorobenzene	U		0.00214	0.00544	1	09/29/2018 17:08	WG1173458
Dichlorodifluoromethane	U		0.000890	0.00272	1	09/29/2018 17:08	WG1173458
1,1-Dichloroethane	U		0.000626	0.00272	1	09/29/2018 17:08	WG1173458
1,2-Dichloroethane	U	J4	0.000517	0.00272	1	09/29/2018 17:08	WG1173458
1,1-Dichloroethene	0.000563	J	0.000544	0.00272	1	09/29/2018 17:08	WG1173458
cis-1,2-Dichloroethene	0.171		0.000751	0.00272	1	09/29/2018 17:08	WG1173458
trans-1,2-Dichloroethene	0.00381	J	0.00156	0.00544	1	09/29/2018 17:08	WG1173458
1,2-Dichloropropane	U		0.0138	0.0544	10	10/01/2018 17:57	WG1173651
1,1-Dichloropropene	U		0.000761	0.00272	1	09/29/2018 17:08	WG1173458
1,3-Dichloropropane	U		0.00190	0.00544	1	09/29/2018 17:08	WG1173458
cis-1,3-Dichloropropene	U		0.000738	0.00272	1	09/29/2018 17:08	WG1173458
trans-1,3-Dichloropropene	U		0.00166	0.00544	1	09/29/2018 17:08	WG1173458
trans-1,4-Dichloro-2-butene	U		0.00152	0.00544	1	09/29/2018 17:08	WG1173458
2,2-Dichloropropane	U		0.000863	0.00272	1	09/29/2018 17:08	WG1173458
Di-isopropyl ether	U		0.000381	0.00109	1	09/29/2018 17:08	WG1173458
Ethylbenzene	0.000610	J	0.000577	0.00272	1	09/29/2018 17:08	WG1173458
Hexachloro-1,3-butadiene	U		0.138	0.272	10	10/01/2018 17:57	WG1173651
2-Hexanone	U		0.0109	0.0272	1	09/29/2018 17:08	WG1173458
n-Hexane	0.00339	J J0	0.00115	0.00544	1	09/29/2018 17:08	WG1173458
Iodomethane	U		0.00658	0.0136	1	09/29/2018 17:08	WG1173458
Isopropylbenzene	U		0.000939	0.00272	1	09/29/2018 17:08	WG1173458
p-Isopropyltoluene	U		0.00253	0.00544	1	09/29/2018 17:08	WG1173458
2-Butanone (MEK)	U		0.136	0.272	10	10/01/2018 17:57	WG1173651
Methylene Chloride	U		0.00722	0.0272	1	09/29/2018 17:08	WG1173458
4-Methyl-2-pentanone (MIBK)	U		0.0109	0.0272	1	09/29/2018 17:08	WG1173458

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000321	0.00109	1	09/29/2018 17:08	WG1173458
Naphthalene	U		0.00339	0.0136	1	09/29/2018 17:08	WG1173458
n-Propylbenzene	U		0.00128	0.00544	1	09/29/2018 17:08	WG1173458
Styrene	U		0.00297	0.0136	1	09/29/2018 17:08	WG1173458
1,1,1,2-Tetrachloroethane	U		0.000544	0.00272	1	09/29/2018 17:08	WG1173458
1,1,2,2-Tetrachloroethane	U		0.000424	0.00272	1	09/29/2018 17:08	WG1173458
1,1,2-Trichlorotrifluoroethane	U		0.000734	0.00272	1	09/29/2018 17:08	WG1173458
Tetrachloroethene	1.74		0.00761	0.0272	10	10/01/2018 17:57	WG1173651
Toluene	0.00303	J	0.00136	0.00544	1	09/29/2018 17:08	WG1173458
1,2,3-Trichlorobenzene	U		0.000680	0.00272	1	09/29/2018 17:08	WG1173458
1,2,4-Trichlorobenzene	U		0.00524	0.0136	1	09/29/2018 17:08	WG1173458
1,1,1-Trichloroethane	U		0.000299	0.00272	1	09/29/2018 17:08	WG1173458
1,1,2-Trichloroethane	U		0.00961	0.0272	10	10/01/2018 17:57	WG1173651
Trichloroethene	0.152		0.000435	0.00109	1	09/29/2018 17:08	WG1173458
Trichlorofluoromethane	U		0.000544	0.00272	1	09/29/2018 17:08	WG1173458
1,2,3-Trichloropropane	U		0.00555	0.0136	1	09/29/2018 17:08	WG1173458
1,2,4-Trimethylbenzene	U		0.00126	0.00544	1	09/29/2018 17:08	WG1173458
1,2,3-Trimethylbenzene	U		0.00125	0.00544	1	09/29/2018 17:08	WG1173458
1,3,5-Trimethylbenzene	U		0.00117	0.00544	1	09/29/2018 17:08	WG1173458
Vinyl acetate	U	J0 J4	0.00383	0.0136	1	09/29/2018 17:08	WG1173458
Vinyl chloride	0.00790		0.000743	0.00272	1	09/29/2018 17:08	WG1173458
Xylenes, Total	U		0.00520	0.00707	1	09/29/2018 17:08	WG1173458
(S) Toluene-d8	*112*			*75.0-131*		*09/29/2018 17:08*	WG1173458
(S) Toluene-d8	*97.0*			*75.0-131*		*10/01/2018 17:57*	WG1173651
(S) Dibromofluoromethane	*105*			*65.0-129*		*09/29/2018 17:08*	WG1173458
(S) Dibromofluoromethane	*110*			*65.0-129*		*10/01/2018 17:57*	WG1173651
(S) 4-Bromofluorobenzene	*106*			*67.0-138*		*09/29/2018 17:08*	WG1173458
(S) 4-Bromofluorobenzene	*109*			*67.0-138*		*10/01/2018 17:57*	WG1173651

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	89.5		1	09/27/2018 14:37	WG1172388

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.306	0.559	20	10/01/2018 12:57	WG1173651
Acrylonitrile	U		0.00212	0.0140	1	09/29/2018 17:28	WG1173458
Benzene	0.000458	J	0.000447	0.00112	1	09/29/2018 17:28	WG1173458
Bromobenzene	U		0.00117	0.0140	1	09/29/2018 17:28	WG1173458
Bromodichloromethane	U		0.000881	0.00279	1	09/29/2018 17:28	WG1173458
Bromochloromethane	U		0.00126	0.00559	1	09/29/2018 17:28	WG1173458
Bromoform	U		0.00668	0.0279	1	09/29/2018 17:28	WG1173458
Bromomethane	U		0.00414	0.0140	1	09/29/2018 17:28	WG1173458
n-Butylbenzene	U		0.00429	0.0140	1	09/29/2018 17:28	WG1173458
sec-Butylbenzene	U		0.00283	0.0140	1	09/29/2018 17:28	WG1173458
tert-Butylbenzene	U		0.00173	0.00559	1	09/29/2018 17:28	WG1173458
Carbon disulfide	U		0.00454	0.0140	1	09/29/2018 17:28	WG1173458
Carbon tetrachloride	U		0.00121	0.00559	1	09/29/2018 17:28	WG1173458
Chlorobenzene	U		0.000640	0.00279	1	09/29/2018 17:28	WG1173458
Chlorodibromomethane	U		0.000503	0.00279	1	09/29/2018 17:28	WG1173458
Chloroethane	U		0.00121	0.00559	1	09/29/2018 17:28	WG1173458
Chloroform	U		0.000464	0.00279	1	09/29/2018 17:28	WG1173458
Chloromethane	U		0.00155	0.0140	1	09/29/2018 17:28	WG1173458
2-Chlorotoluene	U		0.00103	0.00279	1	09/29/2018 17:28	WG1173458
4-Chlorotoluene	U		0.00126	0.00559	1	09/29/2018 17:28	WG1173458
1,2-Dibromo-3-Chloropropane	U		0.00570	0.0279	1	09/29/2018 17:28	WG1173458
1,2-Dibromoethane	U		0.000587	0.00279	1	09/29/2018 17:28	WG1173458
Dibromomethane	U		0.00112	0.00559	1	09/29/2018 17:28	WG1173458
1,2-Dichlorobenzene	U		0.00162	0.00559	1	09/29/2018 17:28	WG1173458
1,3-Dichlorobenzene	U		0.00190	0.00559	1	09/29/2018 17:28	WG1173458
1,4-Dichlorobenzene	U		0.00220	0.00559	1	09/29/2018 17:28	WG1173458
Dichlorodifluoromethane	U		0.000914	0.00279	1	09/29/2018 17:28	WG1173458
1,1-Dichloroethane	U		0.000643	0.00279	1	09/29/2018 17:28	WG1173458
1,2-Dichloroethane	U	J4	0.000531	0.00279	1	09/29/2018 17:28	WG1173458
1,1-Dichloroethene	U		0.000559	0.00279	1	09/29/2018 17:28	WG1173458
cis-1,2-Dichloroethene	0.0596		0.000771	0.00279	1	09/29/2018 17:28	WG1173458
trans-1,2-Dichloroethene	U		0.00160	0.00559	1	09/29/2018 17:28	WG1173458
1,2-Dichloropropane	U		0.0284	0.112	20	10/01/2018 12:57	WG1173651
1,1-Dichloropropene	U		0.000782	0.00279	1	09/29/2018 17:28	WG1173458
1,3-Dichloropropane	U		0.00196	0.00559	1	09/29/2018 17:28	WG1173458
cis-1,3-Dichloropropene	U		0.000758	0.00279	1	09/29/2018 17:28	WG1173458
trans-1,3-Dichloropropene	U		0.00171	0.00559	1	09/29/2018 17:28	WG1173458
trans-1,4-Dichloro-2-butene	U		0.00156	0.00559	1	09/29/2018 17:28	WG1173458
2,2-Dichloropropane	U		0.000886	0.00279	1	09/29/2018 17:28	WG1173458
Di-isopropyl ether	U		0.000391	0.00112	1	09/29/2018 17:28	WG1173458
Ethylbenzene	U		0.000592	0.00279	1	09/29/2018 17:28	WG1173458
Hexachloro-1,3-butadiene	U		0.284	0.559	20	10/01/2018 12:57	WG1173651
2-Hexanone	U		0.0112	0.0279	1	09/29/2018 17:28	WG1173458
n-Hexane	U	J0	0.00118	0.00559	1	09/29/2018 17:28	WG1173458
Iodomethane	U		0.00676	0.0140	1	09/29/2018 17:28	WG1173458
Isopropylbenzene	U		0.000965	0.00279	1	09/29/2018 17:28	WG1173458
p-Isopropyltoluene	U		0.00260	0.00559	1	09/29/2018 17:28	WG1173458
2-Butanone (MEK)	U		0.279	0.559	20	10/01/2018 12:57	WG1173651
Methylene Chloride	U		0.00742	0.0279	1	09/29/2018 17:28	WG1173458
4-Methyl-2-pentanone (MIBK)	U		0.0112	0.0279	1	09/29/2018 17:28	WG1173458

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000330	0.00112	1	09/29/2018 17:28	WG1173458
Naphthalene	U		0.00349	0.0140	1	09/29/2018 17:28	WG1173458
n-Propylbenzene	U		0.00132	0.00559	1	09/29/2018 17:28	WG1173458
Styrene	U		0.00305	0.0140	1	09/29/2018 17:28	WG1173458
1,1,1,2-Tetrachloroethane	U		0.000559	0.00279	1	09/29/2018 17:28	WG1173458
1,1,2,2-Tetrachloroethane	U		0.000436	0.00279	1	09/29/2018 17:28	WG1173458
1,1,2-Trichlorotrifluoroethane	U		0.000754	0.00279	1	09/29/2018 17:28	WG1173458
Tetrachloroethene	8.01		0.0156	0.0559	20	10/01/2018 12:57	WG1173651
Toluene	0.00194	J	0.00140	0.00559	1	09/29/2018 17:28	WG1173458
1,2,3-Trichlorobenzene	U		0.000699	0.00279	1	09/29/2018 17:28	WG1173458
1,2,4-Trichlorobenzene	U		0.00539	0.0140	1	09/29/2018 17:28	WG1173458
1,1,1-Trichloroethane	U		0.000307	0.00279	1	09/29/2018 17:28	WG1173458
1,1,2-Trichloroethane	U		0.0198	0.0559	20	10/01/2018 12:57	WG1173651
Trichloroethene	0.0451		0.000447	0.00112	1	09/29/2018 17:28	WG1173458
Trichlorofluoromethane	U		0.000559	0.00279	1	09/29/2018 17:28	WG1173458
1,2,3-Trichloropropane	U		0.00570	0.0140	1	09/29/2018 17:28	WG1173458
1,2,4-Trimethylbenzene	0.00173	J	0.00130	0.00559	1	09/29/2018 17:28	WG1173458
1,2,3-Trimethylbenzene	U		0.00129	0.00559	1	09/29/2018 17:28	WG1173458
1,3,5-Trimethylbenzene	U		0.00121	0.00559	1	09/29/2018 17:28	WG1173458
Vinyl acetate	U	J0 J4	0.00393	0.0140	1	09/29/2018 17:28	WG1173458
Vinyl chloride	U		0.000763	0.00279	1	09/29/2018 17:28	WG1173458
Xylenes, Total	U		0.00534	0.00727	1	09/29/2018 17:28	WG1173458
(S) Toluene-d8	*111*			*75.0-131*		*09/29/2018 17:28*	WG1173458
(S) Toluene-d8	*103*			*75.0-131*		*10/01/2018 12:57*	WG1173651
(S) Dibromofluoromethane	*107*			*65.0-129*		*09/29/2018 17:28*	WG1173458
(S) Dibromofluoromethane	*105*			*65.0-129*		*10/01/2018 12:57*	WG1173651
(S) 4-Bromofluorobenzene	*107*			*67.0-138*		*09/29/2018 17:28*	WG1173458
(S) 4-Bromofluorobenzene	*110*			*67.0-138*		*10/01/2018 12:57*	WG1173651

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	83.1		1	09/27/2018 14:37	WG1172388

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0659	0.120	4	10/01/2018 13:17	WG1173651
Acrylonitrile	U		0.00229	0.0150	1	09/29/2018 17:49	WG1173458
Benzene	U		0.000481	0.00120	1	09/29/2018 17:49	WG1173458
Bromobenzene	U		0.00126	0.0150	1	09/29/2018 17:49	WG1173458
Bromodichloromethane	U		0.000948	0.00301	1	09/29/2018 17:49	WG1173458
Bromochloromethane	U		0.00136	0.00601	1	09/29/2018 17:49	WG1173458
Bromoform	U		0.00719	0.0301	1	09/29/2018 17:49	WG1173458
Bromomethane	U		0.00445	0.0150	1	09/29/2018 17:49	WG1173458
n-Butylbenzene	U		0.00462	0.0150	1	09/29/2018 17:49	WG1173458
sec-Butylbenzene	U		0.00304	0.0150	1	09/29/2018 17:49	WG1173458
tert-Butylbenzene	U		0.00186	0.00601	1	09/29/2018 17:49	WG1173458
Carbon disulfide	U		0.00488	0.0150	1	09/29/2018 17:49	WG1173458
Carbon tetrachloride	U		0.00130	0.00601	1	09/29/2018 17:49	WG1173458
Chlorobenzene	U		0.000689	0.00301	1	09/29/2018 17:49	WG1173458
Chlorodibromomethane	U		0.000541	0.00301	1	09/29/2018 17:49	WG1173458
Chloroethane	U		0.00130	0.00601	1	09/29/2018 17:49	WG1173458
Chloroform	U		0.000499	0.00301	1	09/29/2018 17:49	WG1173458
Chloromethane	U		0.00167	0.0150	1	09/29/2018 17:49	WG1173458
2-Chlorotoluene	U		0.00111	0.00301	1	09/29/2018 17:49	WG1173458
4-Chlorotoluene	U		0.00136	0.00601	1	09/29/2018 17:49	WG1173458
1,2-Dibromo-3-Chloropropane	U		0.00613	0.0301	1	09/29/2018 17:49	WG1173458
1,2-Dibromoethane	U		0.000631	0.00301	1	09/29/2018 17:49	WG1173458
Dibromomethane	U		0.00120	0.00601	1	09/29/2018 17:49	WG1173458
1,2-Dichlorobenzene	U		0.00174	0.00601	1	09/29/2018 17:49	WG1173458
1,3-Dichlorobenzene	U		0.00204	0.00601	1	09/29/2018 17:49	WG1173458
1,4-Dichlorobenzene	U		0.00237	0.00601	1	09/29/2018 17:49	WG1173458
Dichlorodifluoromethane	U		0.000984	0.00301	1	09/29/2018 17:49	WG1173458
1,1-Dichloroethane	U		0.000692	0.00301	1	09/29/2018 17:49	WG1173458
1,2-Dichloroethane	U	J4	0.000571	0.00301	1	09/29/2018 17:49	WG1173458
1,1-Dichloroethene	U		0.000601	0.00301	1	09/29/2018 17:49	WG1173458
cis-1,2-Dichloroethene	0.00818		0.000830	0.00301	1	09/29/2018 17:49	WG1173458
trans-1,2-Dichloroethene	U		0.00172	0.00601	1	09/29/2018 17:49	WG1173458
1,2-Dichloropropane	U		0.00611	0.0241	4	10/01/2018 13:17	WG1173651
1,1-Dichloropropene	U		0.000842	0.00301	1	09/29/2018 17:49	WG1173458
1,3-Dichloropropane	U		0.00210	0.00601	1	09/29/2018 17:49	WG1173458
cis-1,3-Dichloropropene	U		0.000815	0.00301	1	09/29/2018 17:49	WG1173458
trans-1,3-Dichloropropene	U		0.00184	0.00601	1	09/29/2018 17:49	WG1173458
trans-1,4-Dichloro-2-butene	U		0.00168	0.00601	1	09/29/2018 17:49	WG1173458
2,2-Dichloropropane	U		0.000954	0.00301	1	09/29/2018 17:49	WG1173458
Di-isopropyl ether	U		0.000421	0.00120	1	09/29/2018 17:49	WG1173458
Ethylbenzene	U		0.000637	0.00301	1	09/29/2018 17:49	WG1173458
Hexachloro-1,3-butadiene	U		0.0611	0.120	4	10/01/2018 13:17	WG1173651
2-Hexanone	U		0.0120	0.0301	1	09/29/2018 17:49	WG1173458
n-Hexane	0.00282	J J0	0.00127	0.00601	1	09/29/2018 17:49	WG1173458
Iodomethane	U		0.00728	0.0150	1	09/29/2018 17:49	WG1173458
Isopropylbenzene	U		0.00104	0.00301	1	09/29/2018 17:49	WG1173458
p-Isopropyltoluene	U		0.00280	0.00601	1	09/29/2018 17:49	WG1173458
2-Butanone (MEK)	U		0.0601	0.120	4	10/01/2018 13:17	WG1173651
Methylene Chloride	U		0.00799	0.0301	1	09/29/2018 17:49	WG1173458
4-Methyl-2-pentanone (MIBK)	U		0.0120	0.0301	1	09/29/2018 17:49	WG1173458

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000355	0.00120	1	09/29/2018 17:49	WG1173458
Naphthalene	U		0.00375	0.0150	1	09/29/2018 17:49	WG1173458
n-Propylbenzene	U		0.00142	0.00601	1	09/29/2018 17:49	WG1173458
Styrene	U		0.00328	0.0150	1	09/29/2018 17:49	WG1173458
1,1,1,2-Tetrachloroethane	U		0.000601	0.00301	1	09/29/2018 17:49	WG1173458
1,1,2,2-Tetrachloroethane	U		0.000469	0.00301	1	09/29/2018 17:49	WG1173458
1,1,2-Trichlorotrifluoroethane	U		0.000812	0.00301	1	09/29/2018 17:49	WG1173458
Tetrachloroethene	0.942		0.00337	0.0120	4	10/01/2018 13:17	WG1173651
Toluene	U		0.00150	0.00601	1	09/29/2018 17:49	WG1173458
1,2,3-Trichlorobenzene	U		0.000752	0.00301	1	09/29/2018 17:49	WG1173458
1,2,4-Trichlorobenzene	U		0.00580	0.0150	1	09/29/2018 17:49	WG1173458
1,1,1-Trichloroethane	U		0.000331	0.00301	1	09/29/2018 17:49	WG1173458
1,1,2-Trichloroethane	U		0.00425	0.0120	4	10/01/2018 13:17	WG1173651
Trichloroethene	0.00512		0.000481	0.00120	1	09/29/2018 17:49	WG1173458
Trichlorofluoromethane	U		0.000601	0.00301	1	09/29/2018 17:49	WG1173458
1,2,3-Trichloropropane	U		0.00613	0.0150	1	09/29/2018 17:49	WG1173458
1,2,4-Trimethylbenzene	U		0.00140	0.00601	1	09/29/2018 17:49	WG1173458
1,2,3-Trimethylbenzene	U		0.00138	0.00601	1	09/29/2018 17:49	WG1173458
1,3,5-Trimethylbenzene	U		0.00130	0.00601	1	09/29/2018 17:49	WG1173458
Vinyl acetate	U	J0 J4	0.00423	0.0150	1	09/29/2018 17:49	WG1173458
Vinyl chloride	0.00139	J	0.000821	0.00301	1	09/29/2018 17:49	WG1173458
Xylenes, Total	U		0.00575	0.00782	1	09/29/2018 17:49	WG1173458
(S) Toluene-d8	*107*			*75.0-131*		*09/29/2018 17:49*	WG1173458
(S) Toluene-d8	*106*			*75.0-131*		*10/01/2018 13:17*	WG1173651
(S) Dibromofluoromethane	*103*			*65.0-129*		*09/29/2018 17:49*	WG1173458
(S) Dibromofluoromethane	*105*			*65.0-129*		*10/01/2018 13:17*	WG1173651
(S) 4-Bromofluorobenzene	*108*			*67.0-138*		*09/29/2018 17:49*	WG1173458
(S) 4-Bromofluorobenzene	*110*			*67.0-138*		*10/01/2018 13:17*	WG1173651

Method Blank (MB)

(MB) R3345959-1 09/27/18 14:37

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.00100			

L1029242-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1029242-01 09/27/18 14:37 • (DUP) R3345959-3 09/27/18 14:37

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	84.2	83.5	1	0.817		10

Laboratory Control Sample (LCS)

(LCS) R3345959-2 09/27/18 14:37

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85.0-115	

Method Blank (MB)

(MB) R3346331-2 09/29/18 11:35

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acrylonitrile	U		0.00190	0.0125
Benzene	U		0.000400	0.00100
Bromobenzene	U		0.00105	0.0125
Bromodichloromethane	U		0.000788	0.00250
Bromochloromethane	U		0.00113	0.00500
Bromoform	U		0.00598	0.0250
Bromomethane	U		0.00370	0.0125
n-Butylbenzene	U		0.00384	0.0125
sec-Butylbenzene	U		0.00253	0.0125
tert-Butylbenzene	U		0.00155	0.00500
Carbon disulfide	U		0.00406	0.0125
Carbon tetrachloride	U		0.00108	0.00500
Chlorobenzene	U		0.000573	0.00250
Chlorodibromomethane	U		0.000450	0.00250
Chloroethane	U		0.00108	0.00500
Chloroform	U		0.000415	0.00250
Chloromethane	U		0.00139	0.0125
2-Chlorotoluene	U		0.000920	0.00250
4-Chlorotoluene	U		0.00113	0.00500
1,2-Dibromo-3-Chloropropane	U		0.00510	0.0250
1,2-Dibromoethane	U		0.000525	0.00250
Dibromomethane	U		0.00100	0.00500
1,2-Dichlorobenzene	U		0.00145	0.00500
1,3-Dichlorobenzene	U		0.00170	0.00500
1,4-Dichlorobenzene	U		0.00197	0.00500
trans-1,4-Dichloro-2-butene	U		0.00140	0.00500
Dichlorodifluoromethane	U		0.000818	0.00250
1,1-Dichloroethane	U		0.000575	0.00250
1,2-Dichloroethane	U		0.000475	0.00250
1,1-Dichloroethene	U		0.000500	0.00250
cis-1,2-Dichloroethene	U		0.000690	0.00250
trans-1,2-Dichloroethene	U		0.00143	0.00500
1,1-Dichloropropene	U		0.000700	0.00250
1,3-Dichloropropane	U		0.00175	0.00500
cis-1,3-Dichloropropene	U		0.000678	0.00250
trans-1,3-Dichloropropene	U		0.00153	0.00500
2,2-Dichloropropane	U		0.000793	0.00250
Di-isopropyl ether	U		0.000350	0.00100
Ethylbenzene	U		0.000530	0.00250
n-Hexane	U		0.00106	0.00500

Method Blank (MB)

(MB) R3346331-2 09/29/18 11:35

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
2-Hexanone	U		0.0100	0.0250
Iodomethane	U		0.00605	0.0125
Isopropylbenzene	U		0.000863	0.00250
p-Isopropyltoluene	U		0.00233	0.00500
Methylene Chloride	U		0.00664	0.0250
4-Methyl-2-pentanone (MIBK)	U		0.0100	0.0250
Methyl tert-butyl ether	U		0.000295	0.00100
Naphthalene	U		0.00312	0.0125
n-Propylbenzene	U		0.00118	0.00500
Styrene	U		0.00273	0.0125
1,1,1,2-Tetrachloroethane	U		0.000500	0.00250
1,1,2,2-Tetrachloroethane	U		0.000390	0.00250
Toluene	U		0.00125	0.00500
1,1,2-Trichlorotrifluoroethane	U		0.000675	0.00250
1,2,3-Trichlorobenzene	U		0.000625	0.00250
1,2,4-Trichlorobenzene	U		0.00482	0.0125
1,1,1-Trichloroethane	U		0.000275	0.00250
Trichloroethene	U		0.000400	0.00100
Trichlorofluoromethane	U		0.000500	0.00250
1,2,3-Trichloropropane	U		0.00510	0.0125
1,2,3-Trimethylbenzene	U		0.00115	0.00500
1,2,4-Trimethylbenzene	U		0.00116	0.00500
1,3,5-Trimethylbenzene	U		0.00108	0.00500
Vinyl acetate	U		0.00352	0.0125
Vinyl chloride	U		0.000683	0.00250
Xylenes, Total	U		0.00478	0.00650
(S) Toluene-d8	*117*			*75.0-131*
(S) Dibromofluoromethane	*106*			*65.0-129*
(S) 4-Bromofluorobenzene	*106*			*67.0-138*

Laboratory Control Sample (LCS)

(LCS) R3346331-1 09/29/18 10:19

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acrylonitrile	0.625	0.734	118	45.0-153	
Benzene	0.125	0.121	96.5	70.0-123	
Bromobenzene	0.125	0.125	99.6	73.0-121	
Bromodichloromethane	0.125	0.143	114	73.0-121	

Laboratory Control Sample (LCS)

(LCS) R3346331-1 09/29/18 10:19

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Bromochloromethane	0.125	0.131	105	77.0-128	
Bromoform	0.125	0.120	95.7	64.0-132	
Bromomethane	0.125	0.128	102	56.0-147	
n-Butylbenzene	0.125	0.114	91.5	68.0-135	
sec-Butylbenzene	0.125	0.117	93.9	74.0-130	
tert-Butylbenzene	0.125	0.114	91.6	75.0-127	
Carbon disulfide	0.125	0.106	85.0	56.0-133	
Carbon tetrachloride	0.125	0.113	90.6	66.0-128	
Chlorobenzene	0.125	0.110	88.2	76.0-128	
Chlorodibromomethane	0.125	0.119	95.1	74.0-127	
Chloroethane	0.125	0.121	96.8	61.0-134	
Chloroform	0.125	0.134	107	72.0-123	
Chloromethane	0.125	0.132	106	51.0-138	
2-Chlorotoluene	0.125	0.113	90.1	75.0-124	
4-Chlorotoluene	0.125	0.131	105	75.0-124	
1,2-Dibromo-3-Chloropropane	0.125	0.120	96.2	59.0-130	
1,2-Dibromoethane	0.125	0.130	104	74.0-128	
Dibromomethane	0.125	0.116	93.0	75.0-122	
1,2-Dichlorobenzene	0.125	0.128	102	76.0-124	
1,3-Dichlorobenzene	0.125	0.122	97.7	76.0-125	
1,4-Dichlorobenzene	0.125	0.116	93.1	77.0-121	
trans-1,4-Dichloro-2-butene	0.125	0.145	116	45.0-143	
Dichlorodifluoromethane	0.125	0.164	131	43.0-156	
1,1-Dichloroethane	0.125	0.128	102	70.0-127	
1,2-Dichloroethane	0.125	0.168	134	65.0-131	J4
1,1-Dichloroethene	0.125	0.119	95.2	65.0-131	
cis-1,2-Dichloroethene	0.125	0.129	104	73.0-125	
trans-1,2-Dichloroethene	0.125	0.113	90.7	71.0-125	
1,1-Dichloropropene	0.125	0.120	96.2	73.0-125	
1,3-Dichloropropane	0.125	0.141	112	80.0-125	
cis-1,3-Dichloropropene	0.125	0.116	92.5	76.0-127	
trans-1,3-Dichloropropene	0.125	0.116	92.8	73.0-127	
2,2-Dichloropropane	0.125	0.109	87.2	59.0-135	
Di-isopropyl ether	0.125	0.132	106	60.0-136	
Ethylbenzene	0.125	0.116	92.5	74.0-126	
2-Hexanone	0.625	0.740	118	54.0-147	
n-Hexane	0.125	0.102	81.4	55.0-137	
Iodomethane	0.625	0.587	93.9	74.0-134	
Isopropylbenzene	0.125	0.112	89.4	72.0-127	
p-Isopropyltoluene	0.125	0.116	93.0	72.0-133	

Laboratory Control Sample (LCS)

(LCS) R3346331-1 09/29/18 10:19

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Methylene Chloride	0.125	0.123	98.5	68.0-123	
4-Methyl-2-pentanone (MIBK)	0.625	0.784	126	56.0-143	
Methyl tert-butyl ether	0.125	0.151	121	66.0-132	
Naphthalene	0.125	0.133	107	59.0-130	
n-Propylbenzene	0.125	0.120	96.1	74.0-126	
Styrene	0.125	0.106	84.9	72.0-127	
1,1,1,2-Tetrachloroethane	0.125	0.119	95.4	74.0-129	
1,1,2,2-Tetrachloroethane	0.125	0.123	98.5	68.0-128	
Toluene	0.125	0.118	94.1	75.0-121	
1,1,2-Trichlorotrifluoroethane	0.125	0.105	84.0	61.0-139	
1,2,3-Trichlorobenzene	0.125	0.125	100	59.0-139	
1,2,4-Trichlorobenzene	0.125	0.111	89.2	62.0-137	
1,1,1-Trichloroethane	0.125	0.112	89.8	69.0-126	
Trichloroethene	0.125	0.105	83.7	76.0-126	
Trichlorofluoromethane	0.125	0.133	106	61.0-142	
1,2,3-Trichloropropane	0.125	0.153	122	67.0-129	
1,2,3-Trimethylbenzene	0.125	0.130	104	74.0-124	
1,2,4-Trimethylbenzene	0.125	0.123	98.0	70.0-126	
1,3,5-Trimethylbenzene	0.125	0.117	93.2	73.0-127	
Vinyl acetate	0.625	0.122	19.6	43.0-159	J4
Vinyl chloride	0.125	0.121	97.0	63.0-134	
Xylenes, Total	0.375	0.318	84.8	72.0-127	
(S) Toluene-d8			*104*	*75.0-131*	
(S) Dibromofluoromethane			*114*	*65.0-129*	
(S) 4-Bromofluorobenzene			*108*	*67.0-138*	

L1028934-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1028934-01 09/29/18 14:03 • (MS) R3346331-3 09/29/18 19:51 • (MSD) R3346331-4 09/29/18 20:12

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acrylonitrile	0.700	U	0.416	0.447	59.5	63.8	1	10.0-160			7.05	40
Benzene	0.140	U	0.0391	0.0679	27.9	48.5	1	10.0-149		J3	53.9	37
Bromobenzene	0.140	U	0.0764	0.121	54.6	86.4	1	10.0-156		J3	45.1	38
Bromodichloromethane	0.140	U	0.0851	0.124	60.8	88.7	1	10.0-143		J3	37.4	37
Bromoform	0.140	U	0.0701	0.105	50.1	74.8	1	10.0-146		J3	39.6	36
Bromochloromethane	0.140	U	0.0552	0.0737	39.5	52.6	1	10.0-155			28.6	33
Bromomethane	0.140	U	0.0114	0.0237	8.13	17.0	1	10.0-149	J6	J3	70.4	38
n-Butylbenzene	0.140	U	0.0642	0.129	45.9	92.1	1	10.0-160		J3	67.0	40

L1028934-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1028934-01 09/29/18 14:03 • (MS) R3346331-3 09/29/18 19:51 • (MSD) R3346331-4 09/29/18 20:12

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
sec-Butylbenzene	0.140	U	0.0559	0.128	39.9	91.3	1	10.0-159		J3	78.4	39
tert-Butylbenzene	0.140	U	0.0548	0.122	39.2	87.2	1	10.0-156		J3	76.1	39
Carbon tetrachloride	0.140	U	0.0274	0.0683	19.6	48.8	1	10.0-145		J3	85.4	37
Carbon disulfide	0.140	U	ND	0.00476	0.000	3.40	1	10.0-145	J6	J3 J6	200	39
Chlorobenzene	0.140	U	0.0609	0.0932	43.5	66.6	1	10.0-152		J3	41.8	39
Chlorodibromomethane	0.140	U	0.0789	0.104	56.4	74.4	1	10.0-146			27.6	37
Chloroethane	0.140	U	0.0157	0.0331	11.2	23.7	1	10.0-146		J3	71.5	40
Chloroform	0.140	U	0.0671	0.108	47.9	77.2	1	10.0-146		J3	46.7	37
Chloromethane	0.140	U	0.0130	0.0288	9.27	20.6	1	10.0-159	J6	J3	75.9	37
2-Chlorotoluene	0.140	U	0.0601	0.109	42.9	78.0	1	10.0-159		J3	57.9	38
4-Chlorotoluene	0.140	U	0.0709	0.127	50.6	90.4	1	10.0-155		J3	56.4	39
1,2-Dibromo-3-Chloropropane	0.140	U	0.0818	0.0950	58.5	67.8	1	10.0-151			14.9	39
1,2-Dibromoethane	0.140	U	0.0832	0.0985	59.4	70.4	1	10.0-148			16.8	34
Dibromomethane	0.140	U	0.0622	0.0755	44.4	54.0	1	10.0-147			19.3	35
1,2-Dichlorobenzene	0.140	U	0.0842	0.121	60.1	86.5	1	10.0-155			35.9	37
1,3-Dichlorobenzene	0.140	U	0.0715	0.119	51.1	84.7	1	10.0-153		J3	49.5	38
1,4-Dichlorobenzene	0.140	U	0.0740	0.114	52.8	81.6	1	10.0-151		J3	42.8	38
Dichlorodifluoromethane	0.140	U	0.0184	0.0571	13.2	40.8	1	10.0-160		J3	102	35
trans-1,4-Dichloro-2-butene	0.140	U	0.0959	0.132	68.5	94.2	1	10.0-152			31.5	36
1,1-Dichloroethane	0.140	U	0.0496	0.0905	35.4	64.7	1	10.0-147		J3	58.5	37
1,2-Dichloroethane	0.140	U	0.0839	0.0996	60.0	71.1	1	10.0-148			17.1	35
1,1-Dichloroethene	0.140	U	0.0189	0.0440	13.5	31.4	1	10.0-155		J3	79.5	37
cis-1,2-Dichloroethene	0.140	U	0.0498	0.0789	35.6	56.4	1	10.0-149		J3	45.3	37
trans-1,2-Dichloroethene	0.140	U	0.0175	0.0345	12.5	24.6	1	10.0-150		J3	65.4	37
1,1-Dichloropropene	0.140	U	0.0205	0.0503	14.6	36.0	1	10.0-153		J3	84.2	35
1,3-Dichloropropane	0.140	U	0.0965	0.0108	69.0	7.72	1	10.0-154		J3 J6	160	35
cis-1,3-Dichloropropene	0.140	U	0.0652	0.0869	46.6	62.1	1	10.0-151			28.6	37
trans-1,3-Dichloropropene	0.140	U	0.0731	0.0907	52.2	64.8	1	10.0-148			21.4	37
2,2-Dichloropropane	0.140	U	0.0399	0.0995	28.5	71.1	1	10.0-138		J3	85.4	36
Di-isopropyl ether	0.140	U	0.0811	0.114	57.9	81.8	1	10.0-147			34.2	36
Ethylbenzene	0.140	U	0.0513	0.0951	36.6	67.9	1	10.0-160		J3	59.9	38
2-Hexanone	0.700	U	0.567	0.595	81.1	85.1	1	10.0-160			4.80	36
Isopropylbenzene	0.140	U	0.0508	0.108	36.3	77.0	1	10.0-155		J3	71.8	38
n-Hexane	0.140	0.00762	0.00750	0.00949	0.000	1.34	1	10.0-157	J6	J6	23.4	37
Iodomethane	0.700	U	0.103	0.189	14.7	26.9	1	10.0-160		J3	58.7	38
p-Isopropyltoluene	0.140	U	0.0594	0.122	42.4	87.2	1	10.0-160		J3	69.1	40
Methylene Chloride	0.140	0.0134	0.0535	0.0745	28.7	43.7	1	10.0-141			32.7	37
4-Methyl-2-pentanone (MIBK)	0.700	U	0.599	0.696	85.7	99.4	1	10.0-160			14.9	35
Methyl tert-butyl ether	0.140	U	0.0976	0.119	69.7	85.0	1	11.0-147			19.8	35

L1028934-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1028934-01 09/29/18 14:03 • (MS) R3346331-3 09/29/18 19:51 • (MSD) R3346331-4 09/29/18 20:12

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Naphthalene	0.140	U	0.131	0.128	93.4	91.6	1	10.0-160			1.92	36
n-Propylbenzene	0.140	U	0.0541	0.116	38.6	82.8	1	10.0-158		J3	72.8	38
Styrene	0.140	0.00307	0.0698	0.107	47.7	74.2	1	10.0-160		J3	42.1	40
1,1,1,2-Tetrachloroethane	0.140	U	0.0747	0.116	53.4	83.2	1	10.0-149		J3	43.7	39
1,1,2,2-Tetrachloroethane	0.140	U	0.102	0.128	72.6	91.6	1	10.0-160			23.1	35
Toluene	0.140	U	0.0470	0.0834	33.6	59.6	1	10.0-156		J3	55.9	38
1,1,2-Trichlorotrifluoroethane	0.140	U	0.0211	0.0571	15.1	40.8	1	10.0-160		J3	91.9	36
1,2,3-Trichlorobenzene	0.140	U	0.101	0.130	72.5	92.7	1	10.0-160			24.6	40
1,2,4-Trichlorobenzene	0.140	U	0.0784	0.110	56.0	78.7	1	10.0-160			33.8	40
1,1,1-Trichloroethane	0.140	0.000485	0.0382	0.0821	26.9	58.3	1	10.0-144		J3	73.1	35
Trichloroethene	0.140	0.00214	0.0464	0.0795	31.6	55.3	1	10.0-156		J3	52.5	38
Trichlorofluoromethane	0.140	U	0.0203	0.0563	14.5	40.2	1	10.0-160		J3	94.1	40
1,2,3-Trichloropropane	0.140	U	0.107	0.139	76.5	99.3	1	10.0-156			25.9	35
1,2,3-Trimethylbenzene	0.140	U	0.0735	0.115	52.5	82.3	1	10.0-160		J3	44.2	36
1,2,4-Trimethylbenzene	0.140	U	0.0726	0.118	51.9	84.1	1	10.0-160		J3	47.4	36
1,3,5-Trimethylbenzene	0.140	U	0.0585	0.108	41.8	77.4	1	10.0-160		J3	59.7	38
Vinyl chloride	0.140	U	0.00849	0.0226	6.07	16.2	1	10.0-160	J6	J3	90.9	37
Vinyl acetate	0.700	U	0.103	0.142	14.7	20.3	1	10.0-128			32.4	40
Xylenes, Total	0.420	U	0.157	0.283	37.5	67.4	1	10.0-160		J3	57.0	38
(S) Toluene-d8					*108*	*111*		*75.0-131*				
(S) Dibromofluoromethane					*106*	*105*		*65.0-129*				
(S) 4-Bromofluorobenzene					*107*	*108*		*67.0-138*				

Method Blank (MB)

(MB) R3346880-3 10/01/18 10:36

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acetone	U		0.0137	0.0250
1,2-Dichloropropane	U		0.00127	0.00500
Hexachloro-1,3-butadiene	U		0.0127	0.0250
2-Butanone (MEK)	U		0.0125	0.0250
Tetrachloroethene	U		0.000700	0.00250
1,1,2-Trichloroethane	U		0.000883	0.00250
(S) Toluene-d8	*111*			*75.0-131*
(S) Dibromofluoromethane	*99.3*			*65.0-129*
(S) 4-Bromofluorobenzene	*111*			*67.0-138*

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

(LCS) R3346880-1 10/01/18 09:16 • (LCSD) R3346880-2 10/01/18 09:36

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	0.625	0.652	0.593	104	94.9	10.0-160			9.35	31
1,2-Dichloropropane	0.125	0.128	0.125	102	100	74.0-125			2.17	20
Hexachloro-1,3-butadiene	0.125	0.120	0.123	96.2	98.2	57.0-150			2.04	20
2-Butanone (MEK)	0.625	0.721	0.709	115	114	30.0-160			1.57	24
Tetrachloroethene	0.125	0.131	0.130	105	104	70.0-136			0.582	20
1,1,2-Trichloroethane	0.125	0.126	0.127	101	102	78.0-123			1.06	20
(S) Toluene-d8				*103*	*101*	*75.0-131*				
(S) Dibromofluoromethane				*106*	*107*	*65.0-129*				
(S) 4-Bromofluorobenzene				*107*	*110*	*67.0-138*				

Method Blank (MB)

(MB) R3346800-2 10/01/18 21:09

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Trichloroethene	U		0.000400	0.00100
(S) Toluene-d8	*104*			*75.0-131*
(S) Dibromofluoromethane	*98.5*			*65.0-129*
(S) 4-Bromofluorobenzene	*102*			*67.0-138*

Laboratory Control Sample (LCS)

(LCS) R3346800-1 10/01/18 18:34

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Trichloroethene	0.125	0.133	106	76.0-126	
(S) Toluene-d8			*106*	*75.0-131*	
(S) Dibromofluoromethane			*101*	*65.0-129*	
(S) 4-Bromofluorobenzene			*111*	*67.0-138*	

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Abbreviations and Definitions

(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
MDL	Method Detection Limit.
MDL (dry)	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
RDL (dry)	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(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.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
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.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
J0	J0: Calibration verification outside of acceptance limits. Result is estimated.
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.

Pace National 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.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T 104704245-17-14
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

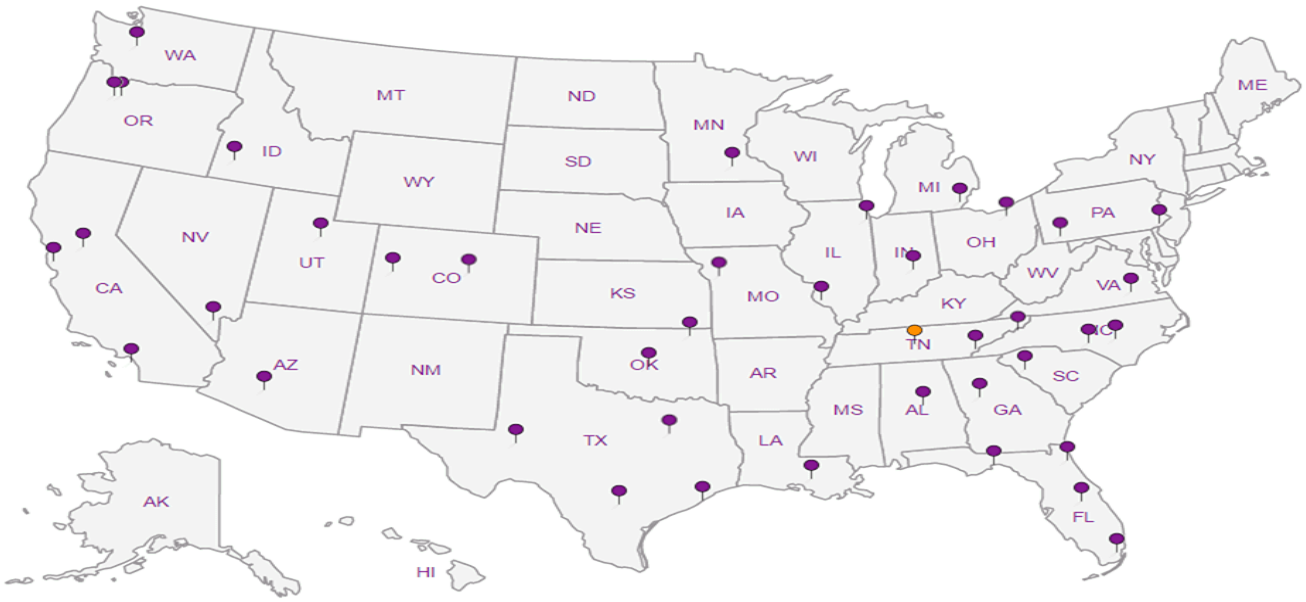
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

Our Locations

Pace National 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. Pace National performs all testing at our central laboratory.



PES Environmental, Inc. - WA

1215 Fourth Ave., Suite 1350
Seattle, WA 98161

Billing Information:
Attn: Accounts Payable
1215 Fourth Ave., Ste.1350
Seattle, WA 98161

Pres Chk

Analysis / Container / Preservative

Chain of Custody Page ___ of ___

Pace Analytical

Report to: Brian O'Neal/Bill Haldeman

Email To: boneal@pesenv.com,

Project Description: American Linen

City/State Collected: Seattle, WA

Phone: 206-529-3980
Fax: 206-529-3985

Client Project #: 1413.001.05.304

Lab Project #: PESENVSWA-ALP

L# L1029197

B062

Collected by (print): Ben Hecht

Site/Facility ID #: 1413.001.05.304

P.O. #

Acctnum: PESENVSWA
Template: T139825
Prelogin: P668288
TSR: 110 - Brian Ford
PB:

Collected by (signature):

Immediately Packed on Ice: N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOCs V8260C 40mlAmb/MeOH5ml/Syr	dry weight 2ozClr-NoPres	trip blk V8260LLC 40mlAmb-HCl-Blk						Remarks	Sample # (lab only)
IW-130-61	Grab	SS		9/18/18	1510	2						HOLD				
IW-130-66	Grab				1430	2										
IW-130-75					1550	2										
IW-130-80					1600	2										-01
IW-130-85					1540	2										02
IW-130-90					1635	2										
IW-130-95					1720	2										-03
IW-25C-41				9/19	1152	2										
IW-25C-42				9/18	1602	2										04
IW-533-30				9/20	1530	2						↓				05

ANALYZE

Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other ___

Remarks: RAD SCREEN: <0.5 mR/hr

pH ___ Temp ___
Flow ___ Other ___

Samples returned via:
__ UPS __ FedEx __ Courier __ ___

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCl / MeoH TBR	If preservation required by Login: Date/Time
	9/21/18	1630		2	
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 5.4/5.0 °C Bottles Received: 48	
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 9/22/18 Time: 845	Hold: Condition: NCF / OK

PES Environmental, Inc. - WA

1215 Fourth Ave., Suite 1350
Seattle, WA 98161

Billing Information:
Attn: Accounts Payable
1215 Fourth Ave., Ste.1350
Seattle, WA 98161

Pres Chk

Report to: Brian O'Neal/Bill Haldeman

Email To: bhaldeman@pesenv.com; boneal@pesenv.com;

Project Description: American Linen

City/State Collected: Seattle, WA

Phone: 206-529-3980
Fax: 206-529-3985

Client Project # 1413.001.05.304

Lab Project # PESENVSWA-ALP

Collected by (print): Ben Hecht

Site/Facility ID # 1413.001.05.304

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No of Cntrs	VOCs V8260C 40mlAmb/MeOH5ml/Syr	dry weight 2ozClr-NoPres	trip blk V8260LLC 40mlAmb-HCl-Blk								Remarks	Sample # (lab only)
IW-120-65	Grab	SS		9/17/18	0935	2						HOLD						
IW-120-70	Grab				0940	2												
IW-120-75					~~0945~~	2												
IW-120-80					1040	2												
IW-120-85					1125	2												06
IW-120-90					1120	2												
IW-120-95				↓	1240	2												07
IW-130-45				9/18/18	1135	2												
IW-130-50					1215	2												
IW-130-55				↓	1220	2						↓						

ANALYZE

Analysis / Container / Preservative

Chain of Custody Page ___ of ___

Pace Analytical®

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

L# L1079197

Table #

Acctnum: PESENVSWA

Template: T139825

Prelogin: P668288

TSR: 110 - Brian Ford

PB:

Shipped Via:

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Biosolids
WW - WasteWater
DW - Drinking Water
OT - Other

Remarks: PID SCREEN: <0.5 MR/HR

pH ___ Temp ___

Flow ___ Other ___

Samples returned via: __ UPS __ FedEx __ Courier ___

Tracking # 4361 6932 4047

Sample Receipt Checklist

COC Seal Present/Intact:	NP ___Y ___N
COC Signed/Accurate:	___Y ___N
Bottles arrive intact:	___Y ___N
Correct bottles used:	___Y ___N
Sufficient volume sent:	___Y ___N
If Applicable	
VOA Zero Headspace:	___Y ___N
Preservation Correct/Checked:	___Y ___N

	Date:	Time:			
Relinquished by: (Signature)	9/21/18	16:30	Received by: (Signature)	Trip Blank Received: Yes / No HCl / MeoH TBR	If preservation required by Login: Date/Time
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 5.0+1.0 °C Bottles Received: 49	
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 9/22/18 Time: 845	Condition: NCF / OK

09-0111

PES Environmental, Inc. - WA

1215 Fourth Ave., Suite 1350
Seattle, WA 98161

Billing Information:
Attn: Accounts Payable
1215 Fourth Ave., Ste.1350
Seattle, WA 98161

Pres Chk

Analysis / Container / Preservative

Chain of Custody Page __ of __

Pace Analytical

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

Report to: Brian O'Neal/Bill Haldeman

Email To: boneal@pesenv.com;

Project Description: American Linen

City/State Collected: Seattle, WA

Phone: 206-529-3980
Fax: 206-529-3985

Client Project # 1413.001.05.304

Lab Project # PESENVSWA-ALP

Collected by (print): Ben Hecht

Site/Facility ID # 1413.001.05.304

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Date Results Needed

Quote #

Lab # L1029197

Table #

Acctnum: PESENVSWA

Template: T139825

Prelogin: P668288

TSR: 110 - Brian Ford

PM:

Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOCs V8260C 40mlAmb/MeOH5ml/Syr	dry weight 2ozClr-NoPres	trip blk V8260LLC 40mlAmb-HCl-Blk								Remarks	Sample # (lab only)
IW-533-45	Grab	SS		9/20/18	1615	2					HOLD							
IW-533-60	Grab			9/20/18	1725	2												
IW-57A-60				9/19/18	1220	2												
IW-57A-62				9/19/18	1255	2					↓							

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Biosassy
WW - WasteWater
DW - Drinking Water
OT - Other

Remarks: RAD SCREEN: <0.5 mR/hr

pH ___ Temp ___

Flow ___ Other ___

Samples returned via:
__ UPS __ FedEx __ Courier __ ____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: ___Y ___N
COC Signed/Accurate: ___Y ___N
Bottles arrive intact: ___Y ___N
Correct bottles used: ___Y ___N
Sufficient volume sent: ___Y ___N
If Applicable
VOA Zero Headspace: ___Y ___N
Preservation Correct/Checked: ___Y ___N

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCl / MeOH TBR	
	9/21/18	16:30		2	
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 5.4 °C	Bottles Received: 48
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 9/22/18	Time: 845

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

Andy Vann

From: Jason Romer
Sent: Tuesday, September 25, 2018 8:51 AM
To: Login
Cc: Brian Ford; Jared N. Starkey
Subject: RE: PESEMVSWA HOLD COC (09-0111) - log for analysis
Attachments: 3666_001.pdf

Per client request, please use the attached revised COC and log the samples marked for analysis. **Please log as R5 due Tuesday, 10/02**

Thanks,

Jason Romer
Project Manager
Pace Analytical National Center for Testing & Innovation
12065 Lebanon Road | Mt. Juliet, TN 37122
615.773.9713
jromer@pacenational.com | pacenational.com

From: Jeremy W. Watkins
Sent: Tuesday, September 25, 2018 8:48 AM
To: Jason Romer
Subject: FW: PESEMVSWA HOLD COC (09-0111)

From: Matt Shacklock
Sent: Saturday, September 22, 2018 6:47 PM
To: Login; Brian Ford
Subject: PESEMVSWA HOLD COC (09-0111)

Notice: This communication and any attached files may contain privileged or other confidential information. If you have received this in error, please contact the sender immediately via reply email and immediately delete the message and any attachments without copying or disclosing the contents. Thank you.

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

October 03, 2018

PES Environmental, Inc.- WA

Sample Delivery Group:	L1030304
Samples Received:	09/29/2018
Project Number:	
Description:	American Linen
Site:	AMERICAN LINEN
Report To:	Brian O'Neal/Bill Haldeman 1215 Fourth Ave., Suite 1350 Seattle, WA 98161

Entire Report Reviewed By:

Brian Ford
Project Manager

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 Pace National is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

TABLE OF CONTENTS

Cp: Cover Page 1

Tc: Table of Contents 2

Ss: Sample Summary 3

Cn: Case Narrative 4

Sr: Sample Results 5

SV01-092518 L1030304-01 5

SV01-092518-D L1030304-02 7

SV02-092518 L1030304-03 9

SV03-092518 L1030304-04 11

Qc: Quality Control Summary 13

Volatile Organic Compounds (MS) by Method TO-15 13

Gl: Glossary of Terms 17

Al: Accreditations & Locations 18

Sc: Sample Chain of Custody 19

SV01-092518 L1030304-01 Air

Collected by	Collected date/time	Received date/time
Chris D.	09/25/18 13:35	09/29/18 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG1174010	2	10/01/18 23:01	10/01/18 23:01	MBF

SV01-092518-D L1030304-02 Air

Collected by	Collected date/time	Received date/time
Chris D.	09/25/18 13:35	09/29/18 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG1174010	2	10/01/18 23:53	10/01/18 23:53	MBF

SV02-092518 L1030304-03 Air

Collected by	Collected date/time	Received date/time
Chris D.	09/25/18 15:20	09/29/18 09:00

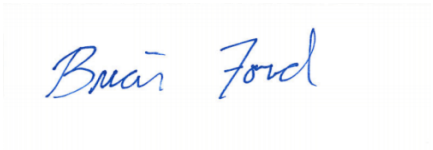
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG1174010	2	10/02/18 00:43	10/02/18 00:43	MBF

SV03-092518 L1030304-04 Air

Collected by	Collected date/time	Received date/time
Chris D.	09/25/18 17:25	09/29/18 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG1174010	2	10/02/18 01:34	10/02/18 01:34	MBF

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, 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.



Brian Ford
Project Manager

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	2.50	5.94	11.5	27.4		2	WG1174010
Allyl chloride	107-05-1	76.53	0.400	1.25	ND	ND		2	WG1174010
Benzene	71-43-2	78.10	0.400	1.28	ND	ND		2	WG1174010
Benzyl Chloride	100-44-7	127	0.400	2.08	ND	ND		2	WG1174010
Bromodichloromethane	75-27-4	164	0.400	2.68	ND	ND		2	WG1174010
Bromoform	75-25-2	253	1.20	12.4	ND	ND		2	WG1174010
Bromomethane	74-83-9	94.90	0.400	1.55	ND	ND		2	WG1174010
1,3-Butadiene	106-99-0	54.10	4.00	8.85	ND	ND		2	WG1174010
Carbon disulfide	75-15-0	76.10	0.400	1.24	ND	ND		2	WG1174010
Carbon tetrachloride	56-23-5	154	0.400	2.52	ND	ND		2	WG1174010
Chlorobenzene	108-90-7	113	0.400	1.85	ND	ND		2	WG1174010
Chloroethane	75-00-3	64.50	0.400	1.06	ND	ND		2	WG1174010
Chloroform	67-66-3	119	0.400	1.95	0.476	2.32		2	WG1174010
Chloromethane	74-87-3	50.50	0.400	0.826	ND	ND		2	WG1174010
2-Chlorotoluene	95-49-8	126	0.400	2.06	ND	ND		2	WG1174010
Cyclohexane	110-82-7	84.20	0.400	1.38	ND	ND		2	WG1174010
Dibromochloromethane	124-48-1	208	0.400	3.40	ND	ND		2	WG1174010
1,2-Dibromoethane	106-93-4	188	0.400	3.08	ND	ND		2	WG1174010
1,2-Dichlorobenzene	95-50-1	147	0.400	2.40	ND	ND		2	WG1174010
1,3-Dichlorobenzene	541-73-1	147	0.400	2.40	ND	ND		2	WG1174010
1,4-Dichlorobenzene	106-46-7	147	0.400	2.40	ND	ND		2	WG1174010
1,2-Dichloroethane	107-06-2	99	0.400	1.62	ND	ND		2	WG1174010
1,1-Dichloroethane	75-34-3	98	0.400	1.60	1.73	6.92		2	WG1174010
1,1-Dichloroethene	75-35-4	96.90	0.400	1.59	ND	ND		2	WG1174010
cis-1,2-Dichloroethene	156-59-2	96.90	0.400	1.59	ND	ND		2	WG1174010
trans-1,2-Dichloroethene	156-60-5	96.90	0.400	1.59	ND	ND		2	WG1174010
1,2-Dichloropropane	78-87-5	113	0.400	1.85	ND	ND		2	WG1174010
cis-1,3-Dichloropropene	10061-01-5	111	0.400	1.82	ND	ND		2	WG1174010
trans-1,3-Dichloropropene	10061-02-6	111	0.400	1.82	ND	ND		2	WG1174010
1,4-Dioxane	123-91-1	88.10	0.400	1.44	1.83	6.59		2	WG1174010
Ethanol	64-17-5	46.10	1.26	2.38	14.6	27.5		2	WG1174010
Ethylbenzene	100-41-4	106	0.400	1.73	ND	ND		2	WG1174010
4-Ethyltoluene	622-96-8	120	0.400	1.96	ND	ND		2	WG1174010
Trichlorofluoromethane	75-69-4	137.40	0.400	2.25	ND	ND		2	WG1174010
Dichlorodifluoromethane	75-71-8	120.92	0.400	1.98	ND	ND		2	WG1174010
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.400	3.07	ND	ND		2	WG1174010
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.400	2.80	ND	ND	J4	2	WG1174010
Heptane	142-82-5	100	0.400	1.64	ND	ND		2	WG1174010
Hexachloro-1,3-butadiene	87-68-3	261	1.26	13.5	ND	ND		2	WG1174010
n-Hexane	110-54-3	86.20	0.400	1.41	ND	ND		2	WG1174010
Isopropylbenzene	98-82-8	120.20	0.400	1.97	ND	ND		2	WG1174010
Methylene Chloride	75-09-2	84.90	0.400	1.39	0.404	1.40		2	WG1174010
Methyl Butyl Ketone	591-78-6	100	2.50	10.2	ND	ND		2	WG1174010
2-Butanone (MEK)	78-93-3	72.10	2.50	7.37	ND	ND		2	WG1174010
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	2.50	10.2	ND	ND		2	WG1174010
Methyl methacrylate	80-62-6	100.12	0.400	1.64	ND	ND		2	WG1174010
MTBE	1634-04-4	88.10	0.400	1.44	ND	ND		2	WG1174010
Naphthalene	91-20-3	128	1.26	6.60	ND	ND		2	WG1174010
2-Propanol	67-63-0	60.10	2.50	6.15	ND	ND		2	WG1174010
Propene	115-07-1	42.10	0.800	1.38	ND	ND		2	WG1174010
Styrene	100-42-5	104	0.400	1.70	ND	ND		2	WG1174010
1,1,2,2-Tetrachloroethane	79-34-5	168	0.400	2.75	ND	ND		2	WG1174010
Tetrachloroethylene	127-18-4	166	0.400	2.72	ND	ND		2	WG1174010
Tetrahydrofuran	109-99-9	72.10	0.400	1.18	1.24	3.64		2	WG1174010
Toluene	108-88-3	92.10	0.400	1.51	ND	ND		2	WG1174010
1,2,4-Trichlorobenzene	120-82-1	181	1.26	9.33	ND	ND		2	WG1174010

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.400	2.18	17.8	96.7		2	WG1174010
1,1,2-Trichloroethane	79-00-5	133	0.400	2.18	ND	ND		2	WG1174010
Trichloroethylene	79-01-6	131	0.400	2.14	ND	ND		2	WG1174010
1,2,4-Trimethylbenzene	95-63-6	120	0.400	1.96	ND	ND		2	WG1174010
1,3,5-Trimethylbenzene	108-67-8	120	0.400	1.96	ND	ND		2	WG1174010
2,2,4-Trimethylpentane	540-84-1	114.22	0.400	1.87	ND	ND		2	WG1174010
Vinyl chloride	75-01-4	62.50	0.400	1.02	ND	ND		2	WG1174010
Vinyl Bromide	593-60-2	106.95	0.400	1.75	ND	ND		2	WG1174010
Vinyl acetate	108-05-4	86.10	0.400	1.41	ND	ND		2	WG1174010
m&p-Xylene	1330-20-7	106	0.800	3.47	ND	ND		2	WG1174010
o-Xylene	95-47-6	106	0.400	1.73	ND	ND		2	WG1174010
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*101*				WG1174010

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	2.50	5.94	8.56	20.3		2	WG1174010
Allyl chloride	107-05-1	76.53	0.400	1.25	ND	ND		2	WG1174010
Benzene	71-43-2	78.10	0.400	1.28	ND	ND		2	WG1174010
Benzyl Chloride	100-44-7	127	0.400	2.08	ND	ND		2	WG1174010
Bromodichloromethane	75-27-4	164	0.400	2.68	ND	ND		2	WG1174010
Bromoform	75-25-2	253	1.20	12.4	ND	ND		2	WG1174010
Bromomethane	74-83-9	94.90	0.400	1.55	ND	ND		2	WG1174010
1,3-Butadiene	106-99-0	54.10	4.00	8.85	ND	ND		2	WG1174010
Carbon disulfide	75-15-0	76.10	0.400	1.24	ND	ND		2	WG1174010
Carbon tetrachloride	56-23-5	154	0.400	2.52	ND	ND		2	WG1174010
Chlorobenzene	108-90-7	113	0.400	1.85	ND	ND		2	WG1174010
Chloroethane	75-00-3	64.50	0.400	1.06	ND	ND		2	WG1174010
Chloroform	67-66-3	119	0.400	1.95	0.420	2.04		2	WG1174010
Chloromethane	74-87-3	50.50	0.400	0.826	ND	ND		2	WG1174010
2-Chlorotoluene	95-49-8	126	0.400	2.06	ND	ND		2	WG1174010
Cyclohexane	110-82-7	84.20	0.400	1.38	ND	ND		2	WG1174010
Dibromochloromethane	124-48-1	208	0.400	3.40	ND	ND		2	WG1174010
1,2-Dibromoethane	106-93-4	188	0.400	3.08	ND	ND		2	WG1174010
1,2-Dichlorobenzene	95-50-1	147	0.400	2.40	ND	ND		2	WG1174010
1,3-Dichlorobenzene	541-73-1	147	0.400	2.40	ND	ND		2	WG1174010
1,4-Dichlorobenzene	106-46-7	147	0.400	2.40	ND	ND		2	WG1174010
1,2-Dichloroethane	107-06-2	99	0.400	1.62	ND	ND		2	WG1174010
1,1-Dichloroethane	75-34-3	98	0.400	1.60	1.63	6.54		2	WG1174010
1,1-Dichloroethene	75-35-4	96.90	0.400	1.59	ND	ND		2	WG1174010
cis-1,2-Dichloroethene	156-59-2	96.90	0.400	1.59	ND	ND		2	WG1174010
trans-1,2-Dichloroethene	156-60-5	96.90	0.400	1.59	ND	ND		2	WG1174010
1,2-Dichloropropane	78-87-5	113	0.400	1.85	ND	ND		2	WG1174010
cis-1,3-Dichloropropene	10061-01-5	111	0.400	1.82	ND	ND		2	WG1174010
trans-1,3-Dichloropropene	10061-02-6	111	0.400	1.82	ND	ND		2	WG1174010
1,4-Dioxane	123-91-1	88.10	0.400	1.44	ND	ND		2	WG1174010
Ethanol	64-17-5	46.10	1.26	2.38	12.3	23.2		2	WG1174010
Ethylbenzene	100-41-4	106	0.400	1.73	ND	ND		2	WG1174010
4-Ethyltoluene	622-96-8	120	0.400	1.96	ND	ND		2	WG1174010
Trichlorofluoromethane	75-69-4	137.40	0.400	2.25	ND	ND		2	WG1174010
Dichlorodifluoromethane	75-71-8	120.92	0.400	1.98	ND	ND		2	WG1174010
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.400	3.07	ND	ND		2	WG1174010
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.400	2.80	ND	ND	J4	2	WG1174010
Heptane	142-82-5	100	0.400	1.64	ND	ND		2	WG1174010
Hexachloro-1,3-butadiene	87-68-3	261	1.26	13.5	ND	ND		2	WG1174010
n-Hexane	110-54-3	86.20	0.400	1.41	ND	ND		2	WG1174010
Isopropylbenzene	98-82-8	120.20	0.400	1.97	ND	ND		2	WG1174010
Methylene Chloride	75-09-2	84.90	0.400	1.39	ND	ND		2	WG1174010
Methyl Butyl Ketone	591-78-6	100	2.50	10.2	ND	ND		2	WG1174010
2-Butanone (MEK)	78-93-3	72.10	2.50	7.37	ND	ND		2	WG1174010
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	2.50	10.2	ND	ND		2	WG1174010
Methyl methacrylate	80-62-6	100.12	0.400	1.64	ND	ND		2	WG1174010
MTBE	1634-04-4	88.10	0.400	1.44	ND	ND		2	WG1174010
Naphthalene	91-20-3	128	1.26	6.60	ND	ND		2	WG1174010
2-Propanol	67-63-0	60.10	2.50	6.15	ND	ND		2	WG1174010
Propene	115-07-1	42.10	0.800	1.38	ND	ND		2	WG1174010
Styrene	100-42-5	104	0.400	1.70	ND	ND		2	WG1174010
1,1,2,2-Tetrachloroethane	79-34-5	168	0.400	2.75	ND	ND		2	WG1174010
Tetrachloroethylene	127-18-4	166	0.400	2.72	20.2	137		2	WG1174010
Tetrahydrofuran	109-99-9	72.10	0.400	1.18	ND	ND		2	WG1174010
Toluene	108-88-3	92.10	0.400	1.51	ND	ND		2	WG1174010
1,2,4-Trichlorobenzene	120-82-1	181	1.26	9.33	ND	ND		2	WG1174010

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.400	2.18	17.1	93.2		2	WG1174010
1,1,2-Trichloroethane	79-00-5	133	0.400	2.18	ND	ND		2	WG1174010
Trichloroethylene	79-01-6	131	0.400	2.14	ND	ND		2	WG1174010
1,2,4-Trimethylbenzene	95-63-6	120	0.400	1.96	ND	ND		2	WG1174010
1,3,5-Trimethylbenzene	108-67-8	120	0.400	1.96	ND	ND		2	WG1174010
2,2,4-Trimethylpentane	540-84-1	114.22	0.400	1.87	ND	ND		2	WG1174010
Vinyl chloride	75-01-4	62.50	0.400	1.02	ND	ND		2	WG1174010
Vinyl Bromide	593-60-2	106.95	0.400	1.75	ND	ND		2	WG1174010
Vinyl acetate	108-05-4	86.10	0.400	1.41	ND	ND		2	WG1174010
m&p-Xylene	1330-20-7	106	0.800	3.47	ND	ND		2	WG1174010
o-Xylene	95-47-6	106	0.400	1.73	ND	ND		2	WG1174010
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*92.5*				WG1174010

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	2.50	5.94	30.8	73.2		2	WG1174010
Allyl chloride	107-05-1	76.53	0.400	1.25	ND	ND		2	WG1174010
Benzene	71-43-2	78.10	0.400	1.28	ND	ND		2	WG1174010
Benzyl Chloride	100-44-7	127	0.400	2.08	ND	ND		2	WG1174010
Bromodichloromethane	75-27-4	164	0.400	2.68	ND	ND		2	WG1174010
Bromoform	75-25-2	253	1.20	12.4	ND	ND		2	WG1174010
Bromomethane	74-83-9	94.90	0.400	1.55	ND	ND		2	WG1174010
1,3-Butadiene	106-99-0	54.10	4.00	8.85	ND	ND		2	WG1174010
Carbon disulfide	75-15-0	76.10	0.400	1.24	ND	ND		2	WG1174010
Carbon tetrachloride	56-23-5	154	0.400	2.52	ND	ND		2	WG1174010
Chlorobenzene	108-90-7	113	0.400	1.85	ND	ND		2	WG1174010
Chloroethane	75-00-3	64.50	0.400	1.06	ND	ND		2	WG1174010
Chloroform	67-66-3	119	0.400	1.95	ND	ND		2	WG1174010
Chloromethane	74-87-3	50.50	0.400	0.826	0.594	1.23		2	WG1174010
2-Chlorotoluene	95-49-8	126	0.400	2.06	ND	ND		2	WG1174010
Cyclohexane	110-82-7	84.20	0.400	1.38	ND	ND		2	WG1174010
Dibromochloromethane	124-48-1	208	0.400	3.40	ND	ND		2	WG1174010
1,2-Dibromoethane	106-93-4	188	0.400	3.08	ND	ND		2	WG1174010
1,2-Dichlorobenzene	95-50-1	147	0.400	2.40	ND	ND		2	WG1174010
1,3-Dichlorobenzene	541-73-1	147	0.400	2.40	ND	ND		2	WG1174010
1,4-Dichlorobenzene	106-46-7	147	0.400	2.40	ND	ND		2	WG1174010
1,2-Dichloroethane	107-06-2	99	0.400	1.62	ND	ND		2	WG1174010
1,1-Dichloroethane	75-34-3	98	0.400	1.60	ND	ND		2	WG1174010
1,1-Dichloroethene	75-35-4	96.90	0.400	1.59	ND	ND		2	WG1174010
cis-1,2-Dichloroethene	156-59-2	96.90	0.400	1.59	ND	ND		2	WG1174010
trans-1,2-Dichloroethene	156-60-5	96.90	0.400	1.59	ND	ND		2	WG1174010
1,2-Dichloropropane	78-87-5	113	0.400	1.85	ND	ND		2	WG1174010
cis-1,3-Dichloropropene	10061-01-5	111	0.400	1.82	ND	ND		2	WG1174010
trans-1,3-Dichloropropene	10061-02-6	111	0.400	1.82	ND	ND		2	WG1174010
1,4-Dioxane	123-91-1	88.10	0.400	1.44	0.749	2.70		2	WG1174010
Ethanol	64-17-5	46.10	1.26	2.38	11.5	21.7		2	WG1174010
Ethylbenzene	100-41-4	106	0.400	1.73	ND	ND		2	WG1174010
4-Ethyltoluene	622-96-8	120	0.400	1.96	0.622	3.05		2	WG1174010
Trichlorofluoromethane	75-69-4	137.40	0.400	2.25	0.774	4.35		2	WG1174010
Dichlorodifluoromethane	75-71-8	120.92	0.400	1.98	0.448	2.22		2	WG1174010
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.400	3.07	ND	ND		2	WG1174010
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.400	2.80	ND	ND	J4	2	WG1174010
Heptane	142-82-5	100	0.400	1.64	ND	ND		2	WG1174010
Hexachloro-1,3-butadiene	87-68-3	261	1.26	13.5	ND	ND		2	WG1174010
n-Hexane	110-54-3	86.20	0.400	1.41	0.659	2.32		2	WG1174010
Isopropylbenzene	98-82-8	120.20	0.400	1.97	ND	ND		2	WG1174010
Methylene Chloride	75-09-2	84.90	0.400	1.39	1.10	3.81		2	WG1174010
Methyl Butyl Ketone	591-78-6	100	2.50	10.2	ND	ND		2	WG1174010
2-Butanone (MEK)	78-93-3	72.10	2.50	7.37	ND	ND		2	WG1174010
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	2.50	10.2	ND	ND		2	WG1174010
Methyl methacrylate	80-62-6	100.12	0.400	1.64	ND	ND		2	WG1174010
MTBE	1634-04-4	88.10	0.400	1.44	ND	ND		2	WG1174010
Naphthalene	91-20-3	128	1.26	6.60	ND	ND		2	WG1174010
2-Propanol	67-63-0	60.10	2.50	6.15	7.95	19.5		2	WG1174010
Propene	115-07-1	42.10	0.800	1.38	4.66	8.03		2	WG1174010
Styrene	100-42-5	104	0.400	1.70	ND	ND		2	WG1174010
1,1,2,2-Tetrachloroethane	79-34-5	168	0.400	2.75	ND	ND		2	WG1174010
Tetrachloroethylene	127-18-4	166	0.400	2.72	ND	ND		2	WG1174010
Tetrahydrofuran	109-99-9	72.10	0.400	1.18	0.633	1.87		2	WG1174010
Toluene	108-88-3	92.10	0.400	1.51	0.485	1.83		2	WG1174010
1,2,4-Trichlorobenzene	120-82-1	181	1.26	9.33	ND	ND		2	WG1174010

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.400	2.18	ND	ND		2	WG1174010
1,1,2-Trichloroethane	79-00-5	133	0.400	2.18	ND	ND		2	WG1174010
Trichloroethylene	79-01-6	131	0.400	2.14	ND	ND		2	WG1174010
1,2,4-Trimethylbenzene	95-63-6	120	0.400	1.96	1.84	9.01		2	WG1174010
1,3,5-Trimethylbenzene	108-67-8	120	0.400	1.96	0.488	2.39		2	WG1174010
2,2,4-Trimethylpentane	540-84-1	114.22	0.400	1.87	ND	ND		2	WG1174010
Vinyl chloride	75-01-4	62.50	0.400	1.02	ND	ND		2	WG1174010
Vinyl Bromide	593-60-2	106.95	0.400	1.75	ND	ND		2	WG1174010
Vinyl acetate	108-05-4	86.10	0.400	1.41	ND	ND		2	WG1174010
m&p-Xylene	1330-20-7	106	0.800	3.47	1.29	5.58		2	WG1174010
o-Xylene	95-47-6	106	0.400	1.73	0.638	2.76		2	WG1174010
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*107*				WG1174010

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	2.50	5.94	7.83	18.6		2	WG1174010
Allyl chloride	107-05-1	76.53	0.400	1.25	ND	ND		2	WG1174010
Benzene	71-43-2	78.10	0.400	1.28	ND	ND		2	WG1174010
Benzyl Chloride	100-44-7	127	0.400	2.08	ND	ND		2	WG1174010
Bromodichloromethane	75-27-4	164	0.400	2.68	ND	ND		2	WG1174010
Bromoform	75-25-2	253	1.20	12.4	ND	ND		2	WG1174010
Bromomethane	74-83-9	94.90	0.400	1.55	ND	ND		2	WG1174010
1,3-Butadiene	106-99-0	54.10	4.00	8.85	ND	ND		2	WG1174010
Carbon disulfide	75-15-0	76.10	0.400	1.24	ND	ND		2	WG1174010
Carbon tetrachloride	56-23-5	154	0.400	2.52	ND	ND		2	WG1174010
Chlorobenzene	108-90-7	113	0.400	1.85	ND	ND		2	WG1174010
Chloroethane	75-00-3	64.50	0.400	1.06	ND	ND		2	WG1174010
Chloroform	67-66-3	119	0.400	1.95	ND	ND		2	WG1174010
Chloromethane	74-87-3	50.50	0.400	0.826	ND	ND		2	WG1174010
2-Chlorotoluene	95-49-8	126	0.400	2.06	ND	ND		2	WG1174010
Cyclohexane	110-82-7	84.20	0.400	1.38	ND	ND		2	WG1174010
Dibromochloromethane	124-48-1	208	0.400	3.40	ND	ND		2	WG1174010
1,2-Dibromoethane	106-93-4	188	0.400	3.08	ND	ND		2	WG1174010
1,2-Dichlorobenzene	95-50-1	147	0.400	2.40	ND	ND		2	WG1174010
1,3-Dichlorobenzene	541-73-1	147	0.400	2.40	ND	ND		2	WG1174010
1,4-Dichlorobenzene	106-46-7	147	0.400	2.40	ND	ND		2	WG1174010
1,2-Dichloroethane	107-06-2	99	0.400	1.62	ND	ND		2	WG1174010
1,1-Dichloroethane	75-34-3	98	0.400	1.60	ND	ND		2	WG1174010
1,1-Dichloroethene	75-35-4	96.90	0.400	1.59	ND	ND		2	WG1174010
cis-1,2-Dichloroethene	156-59-2	96.90	0.400	1.59	ND	ND		2	WG1174010
trans-1,2-Dichloroethene	156-60-5	96.90	0.400	1.59	ND	ND		2	WG1174010
1,2-Dichloropropane	78-87-5	113	0.400	1.85	ND	ND		2	WG1174010
cis-1,3-Dichloropropene	10061-01-5	111	0.400	1.82	ND	ND		2	WG1174010
trans-1,3-Dichloropropene	10061-02-6	111	0.400	1.82	ND	ND		2	WG1174010
1,4-Dioxane	123-91-1	88.10	0.400	1.44	ND	ND		2	WG1174010
Ethanol	64-17-5	46.10	1.26	2.38	13.8	26.1		2	WG1174010
Ethylbenzene	100-41-4	106	0.400	1.73	ND	ND		2	WG1174010
4-Ethyltoluene	622-96-8	120	0.400	1.96	ND	ND		2	WG1174010
Trichlorofluoromethane	75-69-4	137.40	0.400	2.25	ND	ND		2	WG1174010
Dichlorodifluoromethane	75-71-8	120.92	0.400	1.98	ND	ND		2	WG1174010
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.400	3.07	ND	ND		2	WG1174010
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.400	2.80	ND	ND	J4	2	WG1174010
Heptane	142-82-5	100	0.400	1.64	ND	ND		2	WG1174010
Hexachloro-1,3-butadiene	87-68-3	261	1.26	13.5	ND	ND		2	WG1174010
n-Hexane	110-54-3	86.20	0.400	1.41	ND	ND		2	WG1174010
Isopropylbenzene	98-82-8	120.20	0.400	1.97	ND	ND		2	WG1174010
Methylene Chloride	75-09-2	84.90	0.400	1.39	ND	ND		2	WG1174010
Methyl Butyl Ketone	591-78-6	100	2.50	10.2	ND	ND		2	WG1174010
2-Butanone (MEK)	78-93-3	72.10	2.50	7.37	ND	ND		2	WG1174010
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	2.50	10.2	ND	ND		2	WG1174010
Methyl methacrylate	80-62-6	100.12	0.400	1.64	ND	ND		2	WG1174010
MTBE	1634-04-4	88.10	0.400	1.44	ND	ND		2	WG1174010
Naphthalene	91-20-3	128	1.26	6.60	ND	ND		2	WG1174010
2-Propanol	67-63-0	60.10	2.50	6.15	ND	ND		2	WG1174010
Propene	115-07-1	42.10	0.800	1.38	1.60	2.75		2	WG1174010
Styrene	100-42-5	104	0.400	1.70	ND	ND		2	WG1174010
1,1,2,2-Tetrachloroethane	79-34-5	168	0.400	2.75	ND	ND		2	WG1174010
Tetrachloroethylene	127-18-4	166	0.400	2.72	ND	ND		2	WG1174010
Tetrahydrofuran	109-99-9	72.10	0.400	1.18	ND	ND		2	WG1174010
Toluene	108-88-3	92.10	0.400	1.51	0.570	2.15		2	WG1174010
1,2,4-Trichlorobenzene	120-82-1	181	1.26	9.33	ND	ND		2	WG1174010

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.400	2.18	ND	ND		2	WG1174010
1,1,2-Trichloroethane	79-00-5	133	0.400	2.18	ND	ND		2	WG1174010
Trichloroethylene	79-01-6	131	0.400	2.14	ND	ND		2	WG1174010
1,2,4-Trimethylbenzene	95-63-6	120	0.400	1.96	0.508	2.49		2	WG1174010
1,3,5-Trimethylbenzene	108-67-8	120	0.400	1.96	ND	ND		2	WG1174010
2,2,4-Trimethylpentane	540-84-1	114.22	0.400	1.87	ND	ND		2	WG1174010
Vinyl chloride	75-01-4	62.50	0.400	1.02	ND	ND		2	WG1174010
Vinyl Bromide	593-60-2	106.95	0.400	1.75	ND	ND		2	WG1174010
Vinyl acetate	108-05-4	86.10	0.400	1.41	ND	ND		2	WG1174010
m&p-Xylene	1330-20-7	106	0.800	3.47	ND	ND		2	WG1174010
o-Xylene	95-47-6	106	0.400	1.73	ND	ND		2	WG1174010
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*115*				WG1174010

Method Blank (MB)

(MB) R3346862-2 10/01/18 10:41

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
Acetone	U		0.0569	1.25
Allyl Chloride	U		0.0546	0.200
Benzene	U		0.0460	0.200
Benzyl Chloride	U		0.0598	0.200
Bromodichloromethane	U		0.0436	0.200
Bromoform	U		0.0786	0.600
Bromomethane	U		0.0609	0.200
1,3-Butadiene	U		0.0563	2.00
Carbon disulfide	U		0.0544	0.200
Carbon tetrachloride	U		0.0585	0.200
Chlorobenzene	U		0.0601	0.200
Chloroethane	U		0.0489	0.200
Chloroform	U		0.0574	0.200
Chloromethane	U		0.0544	0.200
2-Chlorotoluene	U		0.0605	0.200
Cyclohexane	U		0.0534	0.200
Dibromochloromethane	U		0.0494	0.200
1,2-Dibromoethane	U		0.0185	0.200
1,2-Dichlorobenzene	0.0749	J	0.0603	0.200
1,3-Dichlorobenzene	U		0.0597	0.200
1,4-Dichlorobenzene	0.0628	J	0.0557	0.200
1,2-Dichloroethane	U		0.0616	0.200
1,1-Dichloroethane	U		0.0514	0.200
1,1-Dichloroethene	U		0.0490	0.200
cis-1,2-Dichloroethene	U		0.0389	0.200
trans-1,2-Dichloroethene	U		0.0464	0.200
1,2-Dichloropropane	U		0.0599	0.200
cis-1,3-Dichloropropene	U		0.0588	0.200
trans-1,3-Dichloropropene	U		0.0435	0.200
1,4-Dioxane	U		0.0554	0.200
Ethylbenzene	U		0.0506	0.200
4-Ethyltoluene	U		0.0666	0.200
Trichlorofluoromethane	U		0.0673	0.200
Dichlorodifluoromethane	U		0.0601	0.200
1,1,2-Trichlorotrifluoroethane	U		0.0687	0.200
1,2-Dichlorotetrafluoroethane	U		0.0458	0.200
Heptane	U		0.0626	0.200
Hexachloro-1,3-butadiene	0.187	J	0.0656	0.630
n-Hexane	U		0.0457	0.200
Isopropylbenzene	U		0.0563	0.200

Method Blank (MB)

(MB) R3346862-2 10/01/18 10:41

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
Methylene Chloride	U		0.0465	0.200
Methyl Butyl Ketone	U		0.0682	1.25
2-Butanone (MEK)	U		0.0493	1.25
4-Methyl-2-pentanone (MIBK)	U		0.0650	1.25
Methyl Methacrylate	U		0.0773	0.200
MTBE	U		0.0505	0.200
Naphthalene	0.155	J	0.154	0.630
2-Propanol	U		0.0882	1.25
Propene	U		0.0932	0.400
Styrene	U		0.0465	0.200
1,1,2,2-Tetrachloroethane	U		0.0576	0.200
Tetrachloroethylene	U		0.0497	0.200
Tetrahydrofuran	U		0.0508	0.200
Toluene	U		0.0499	0.200
1,2,4-Trichlorobenzene	U		0.148	0.630
1,1,1-Trichloroethane	U		0.0665	0.200
1,1,2-Trichloroethane	U		0.0287	0.200
Trichloroethylene	U		0.0545	0.200
1,2,4-Trimethylbenzene	U		0.0483	0.200
1,3,5-Trimethylbenzene	U		0.0631	0.200
2,2,4-Trimethylpentane	U		0.0456	0.200
Vinyl chloride	U		0.0457	0.200
Vinyl Bromide	U		0.0727	0.200
Vinyl acetate	U		0.0639	0.200
m&p-Xylene	U		0.0946	0.400
o-Xylene	U		0.0633	0.200
Ethanol	U		0.0832	0.630
(S) 1,4-Bromofluorobenzene	*89.7*			*60.0-140*

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

(LCS) R3346862-1 10/01/18 09:49 • (LCSD) R3346862-3 10/01/18 12:04

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethanol	3.75	4.40	3.43	117	91.5	55.0-148			24.8	25
Propene	3.75	4.81	5.07	128	135	64.0-144			5.27	25
Dichlorodifluoromethane	3.75	4.58	4.58	122	122	64.0-139			0.0613	25
1,2-Dichlorotetrafluoroethane	3.75	4.77	4.91	127	131	70.0-130		J4	2.75	25
Chloromethane	3.75	4.56	4.82	122	129	70.0-130			5.48	25

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

(LCS) R3346862-1 10/01/18 09:49 • (LCSD) R3346862-3 10/01/18 12:04

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Vinyl chloride	3.75	4.62	4.75	123	127	70.0-130			2.63	25
1,3-Butadiene	3.75	4.60	4.82	123	129	70.0-130			4.65	25
Bromomethane	3.75	4.61	4.67	123	124	70.0-130			1.25	25
Chloroethane	3.75	4.62	4.84	123	129	70.0-130			4.59	25
Trichlorofluoromethane	3.75	4.49	4.58	120	122	70.0-130			1.84	25
1,1,2-Trichlorotrifluoroethane	3.75	4.47	4.53	119	121	70.0-130			1.36	25
1,1-Dichloroethene	3.75	4.49	4.56	120	122	70.0-130			1.42	25
1,1-Dichloroethane	3.75	4.56	4.62	122	123	70.0-130			1.42	25
Acetone	3.75	4.78	4.59	127	122	70.0-130			4.07	25
2-Propanol	3.75	4.59	4.62	123	123	70.0-139			0.653	25
Carbon disulfide	3.75	4.48	4.69	119	125	70.0-130			4.52	25
Methylene Chloride	3.75	4.26	4.48	114	119	70.0-130			5.02	25
MTBE	3.75	4.50	4.61	120	123	70.0-130			2.55	25
trans-1,2-Dichloroethene	3.75	4.37	4.49	117	120	70.0-130			2.53	25
n-Hexane	3.75	4.48	4.67	120	125	70.0-130			4.18	25
Vinyl acetate	3.75	4.87	4.82	130	128	70.0-130			1.03	25
Methyl Ethyl Ketone	3.75	4.62	4.71	123	126	70.0-130			1.95	25
cis-1,2-Dichloroethene	3.75	4.68	4.84	125	129	70.0-130			3.43	25
Chloroform	3.75	4.53	4.65	121	124	70.0-130			2.70	25
Cyclohexane	3.75	4.53	4.69	121	125	70.0-130			3.56	25
1,1,1-Trichloroethane	3.75	4.51	4.61	120	123	70.0-130			2.17	25
Carbon tetrachloride	3.75	4.51	4.62	120	123	70.0-130			2.34	25
Benzene	3.75	4.51	4.65	120	124	70.0-130			2.92	25
1,2-Dichloroethane	3.75	4.63	4.59	124	122	70.0-130			0.953	25
Heptane	3.75	4.67	4.79	125	128	70.0-130			2.52	25
Trichloroethylene	3.75	4.49	4.61	120	123	70.0-130			2.60	25
1,2-Dichloropropane	3.75	4.59	4.67	122	125	70.0-130			1.76	25
1,4-Dioxane	3.75	4.40	4.43	117	118	70.0-140			0.667	25
Bromodichloromethane	3.75	4.57	4.65	122	124	70.0-130			1.87	25
cis-1,3-Dichloropropene	3.75	4.70	4.71	125	126	70.0-130			0.284	25
4-Methyl-2-pentanone (MIBK)	3.75	4.53	4.73	121	126	70.0-139			4.32	25
Toluene	3.75	4.59	4.69	122	125	70.0-130			2.10	25
trans-1,3-Dichloropropene	3.75	4.55	4.64	121	124	70.0-130			1.79	25
1,1,2-Trichloroethane	3.75	4.60	4.70	123	125	70.0-130			2.12	25
Tetrachloroethylene	3.75	4.52	4.43	120	118	70.0-130			1.86	25
Methyl Butyl Ketone	3.75	4.73	4.79	126	128	70.0-149			1.25	25
Dibromochloromethane	3.75	4.61	4.55	123	121	70.0-130			1.24	25
1,2-Dibromoethane	3.75	4.46	4.55	119	121	70.0-130			2.11	25
Chlorobenzene	3.75	4.55	4.58	121	122	70.0-130			0.795	25
Ethylbenzene	3.75	4.66	4.72	124	126	70.0-130			1.18	25

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

(LCS) R3346862-1 10/01/18 09:49 • (LCSD) R3346862-3 10/01/18 12:04

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
m&p-Xylene	7.50	9.42	9.52	126	127	70.0-130			1.09	25
o-Xylene	3.75	4.65	4.72	124	126	70.0-130			1.42	25
Styrene	3.75	4.62	4.68	123	125	70.0-130			1.28	25
Bromoform	3.75	4.73	4.73	126	126	70.0-130			0.0856	25
1,1,2,2-Tetrachloroethane	3.75	4.44	4.50	118	120	70.0-130			1.32	25
4-Ethyltoluene	3.75	4.45	4.50	119	120	70.0-130			0.994	25
1,3,5-Trimethylbenzene	3.75	4.42	4.49	118	120	70.0-130			1.48	25
1,2,4-Trimethylbenzene	3.75	4.37	4.42	116	118	70.0-130			1.19	25
1,3-Dichlorobenzene	3.75	4.36	4.27	116	114	70.0-130			2.11	25
1,4-Dichlorobenzene	3.75	4.28	4.19	114	112	70.0-130			2.15	25
Benzyl Chloride	3.75	4.49	4.35	120	116	70.0-152			3.12	25
1,2-Dichlorobenzene	3.75	4.30	4.25	115	113	70.0-130			1.26	25
1,2,4-Trichlorobenzene	3.75	4.64	4.30	124	115	70.0-160			7.63	25
Hexachloro-1,3-butadiene	3.75	4.67	4.35	124	116	70.0-151			6.91	25
Naphthalene	3.75	4.78	4.43	127	118	70.0-159			7.44	25
Allyl Chloride	3.75	4.63	4.80	123	128	70.0-130			3.67	25
2-Chlorotoluene	3.75	4.41	4.47	118	119	70.0-130			1.32	25
Methyl Methacrylate	3.75	4.61	4.66	123	124	70.0-130			1.15	25
Tetrahydrofuran	3.75	4.55	4.72	121	126	70.0-137			3.64	25
2,2,4-Trimethylpentane	3.75	4.60	4.79	123	128	70.0-130			3.99	25
Vinyl Bromide	3.75	4.60	4.60	123	123	70.0-130			0.0238	25
Isopropylbenzene	3.75	4.55	4.64	121	124	70.0-130			1.95	25
(S) 1,4-Bromofluorobenzene				*95.7*	*97.2*	*60.0-140*				

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(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.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
J4	The associated batch QC was outside the established quality control range for accuracy.

Pace National 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.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T 104704245-17-14
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

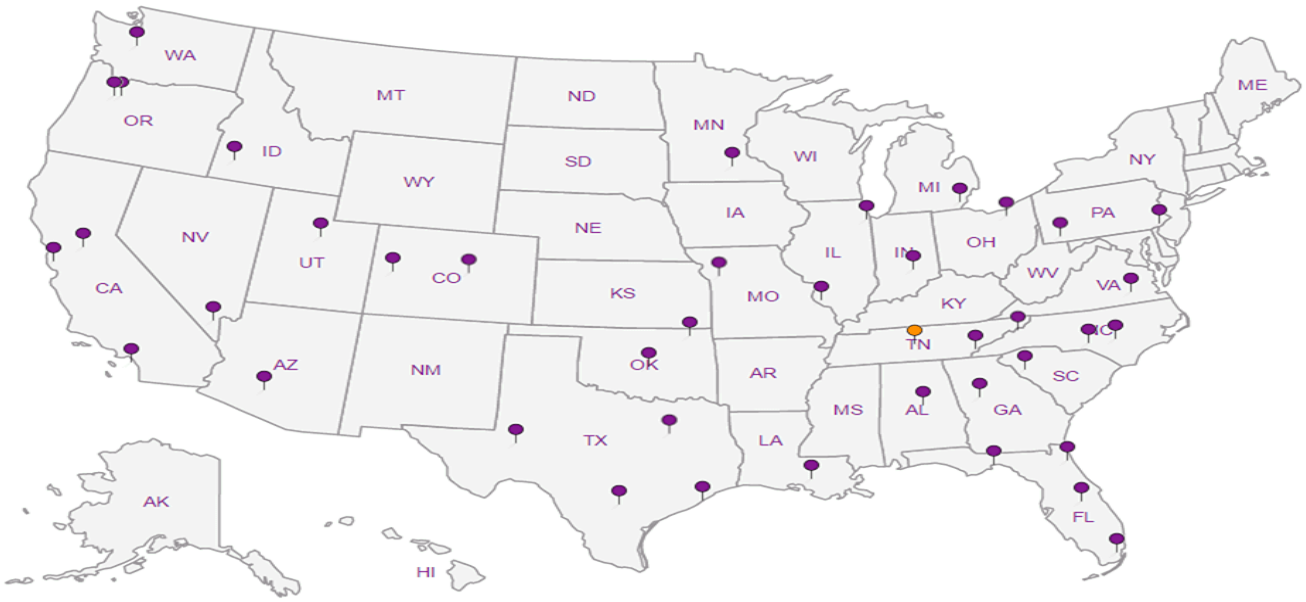
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

Our Locations

Pace National 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. Pace National performs all testing at our central laboratory.



CHAIN-OF-CUSTODY Analytical Request Document

Pace Analytical

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevent fields

LAB USE ONLY- Affix Workorder/Login Label Here or List Pace Workorder Number or MTJL Log-in Number Here

M114

ALL SHADED AREAS are for LAB USE ONLY

Company: **PES Environmental, Inc.- WA**	Billing Information:
Address: **1215 Fourth Ave., Suite 1350 Seattle, WA 98161**	**Attn: Accounts Payable 1215 Fourth Ave., Ste. 1350 Seattle, WA 98161**
Report To: **Brian O'Neal/Bill Haldeman**	Email To: **boneal@pesenv.com; bhaldeman@pesenv.com**
Copy To:	Site Collection Info/Address: 700 Terry Ave
Customer Project Name/Number: **American Linen**	State: WA / County/City: King / Seattle Time Zone Collected: (PT) MT CT ET
Phone: **206-529-3980** Email:	Site/Facility ID #: American Linen
Collected by (print): Chris DeBoer	Purchase Order #: Quote #:
Collected by (signature):	Turnaround Date Required:
Sample Disposal: [X] Dispose as appropriate [ ] Return [ ] Archive [ ] Hold	Rush: [ ] Same Day [ ] Next Day [ ] 2 Day [ ] 3 Day [ ] 4 Day [ ] 5 Day (Expedite Charges Apply)

Compliance Monitoring? [ ] Yes [ ] No

DW PWS ID #: DW Location Code:

Immediately Packed on Ice: [ ] Yes [X] No

Field Filtered (if applicable): [ ] Yes [X] No

Analysis:

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Collected (or Composite Start) Date	Collected (or Composite Start) Time	Composite End Date	Composite End Time	Res Cl	# of Ctns
SV01-092519	Air	Grab	9/25/19	1320	9/25/19	1335		1
SV01-092519-D	Air	Grab	"	1320	"	1335		1
SV02-092519	Air	Grab	"	1502	"	1520		1
SV03-092519	Air	Grab	"	1700	"	1725		1

Container Preservative Type **	Lab Project Manager:
	110 - Brian Ford

** Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other _____

Analyses											Lab Profile/Line: PESENVSWA-ALP
Helium Summa	TO-15 Summa	VOCs V8260C 40mlAmb/MeOH5ml/5yr	dry weight 2ozClr-NoPres	Trip Blk VOC 8260LLC 40mlAmb-HCl-Blk							
X	X	X	X	X							-01
X	X	X	X	X							-02
X	X	X	X	X							-03
X	X	X	X	X							-04

Lab Sample Receipt Checklist:

Custody Seals Present/Intact	Y	N	(NA)
Custody Signatures Present	Y	N	(NA)
Collector Signature Present	(Y)	N	NA
Bottles Intact	(Y)	N	NA
Correct Bottles	(Y)	N	NA
Sufficient Volume	(Y)	N	NA
Samples Received on Ice	Y	(N)	NA
VOA - Headspace Acceptable	Y	N	(NA)
USDA Regulated Soils	Y	N	(NA)
Samples in Holding Time	(Y)	N	NA
Residual Chlorine Present	Y	N	(NA)
Cl Strips: _____			
Sample pH Acceptable	Y	N	(NA)
pH Strips: _____			
Sulfide Present	Y	N	(NA)
Lead Acetate Strips: _____			

LAB USE ONLY:
Lab Sample # / Comments: 4030304

Customer Remarks / Special Conditions / Possible Hazards:

Type of Ice Used: Wet Blue Dry (None)

Packing Material Used: Bubblewrap

Radchem sample(s) screened (<500 cpm): Y N (NA)

SHORT HOLDS PRESENT (<72 hours): Y (N) N/A

LAB Tracking #:

Samples received via: FEDEX UPS Client Courier Pace Courier

LAB Sample Temperature Info:
Temp Blank Received: Y N (NA)
Therm ID#: _____
Cooler 1 Temp Upon Receipt ____ oC
Cooler 1 Therm Corr. Factor ____ oC
Cooler 1 Corrected Temp ____ oC
Comments:

Trip Blank Received: Y (N) NA
HCL MeOH TSP Other

NonConformance(s): YES / (NO) Page ____ of ____

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
	9/28/19 1030		9/29/19 0900
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:

MTJL LAB USE ONLY

Table #

Acctnum: PESENVSWA

Template: T140595

Prelogin: P672237

PM: 110 - Brian Ford

PB:

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

October 25, 2018

PES Environmental, Inc.- WA

Sample Delivery Group:	L1036161
Samples Received:	10/18/2018
Project Number:	
Description:	American Linen
Report To:	Brian O'Neal/Bill Haldeman 1215 Fourth Ave., Suite 1350 Seattle, WA 98161

Entire Report Reviewed By:

Brian Ford

Brian Ford
Project Manager

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 Pace National is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

TABLE OF CONTENTS

Cp: Cover Page 1

Tc: Table of Contents 2

Ss: Sample Summary 3

Cn: Case Narrative 4

Sr: Sample Results 5

IW-58A-38 L1036161-01 5

B-929-38 L1036161-02 7

Qc: Quality Control Summary 9

Total Solids by Method 2540 G-2011 9

Volatile Organic Compounds (GC/MS) by Method 8260C 11

Gl: Glossary of Terms 16

Al: Accreditations & Locations 17

Sc: Sample Chain of Custody 18

IW-58A-38 L1036161-01 Solid

Collected by	Collected date/time	Received date/time
SM / RM	10/17/18 15:10	10/18/18 08:45

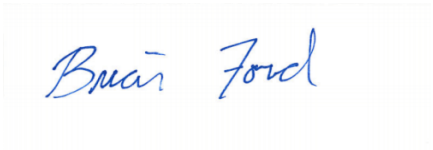
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1184862	1	10/24/18 09:33	10/24/18 09:40	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1184455	1	10/17/18 15:10	10/22/18 17:32	ACG
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1185221	10	10/17/18 15:10	10/24/18 00:26	JHH

B-929-38 L1036161-02 Solid

Collected by	Collected date/time	Received date/time
SM / RM	10/17/18 15:20	10/18/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1185188	1	10/24/18 11:04	10/24/18 11:13	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1184455	1	10/17/18 15:20	10/22/18 17:50	ACG
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1185221	10	10/17/18 15:20	10/24/18 00:46	JHH

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, 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.



Brian Ford
Project Manager

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	91.5		1	10/24/2018 09:40	WG1184862

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.150	0.273	10	10/24/2018 00:26	WG1185221
Acrylonitrile	U		0.00208	0.0137	1	10/22/2018 17:32	WG1184455
Benzene	U		0.000437	0.00109	1	10/22/2018 17:32	WG1184455
Bromobenzene	U		0.00115	0.0137	1	10/22/2018 17:32	WG1184455
Bromodichloromethane	U		0.000861	0.00273	1	10/22/2018 17:32	WG1184455
Bromochloromethane	U		0.00124	0.00547	1	10/22/2018 17:32	WG1184455
Bromoform	U		0.00654	0.0273	1	10/22/2018 17:32	WG1184455
Bromomethane	U		0.00404	0.0137	1	10/22/2018 17:32	WG1184455
n-Butylbenzene	U		0.00420	0.0137	1	10/22/2018 17:32	WG1184455
sec-Butylbenzene	U		0.00277	0.0137	1	10/22/2018 17:32	WG1184455
tert-Butylbenzene	U		0.00169	0.00547	1	10/22/2018 17:32	WG1184455
Carbon disulfide	U		0.00444	0.0137	1	10/22/2018 17:32	WG1184455
Carbon tetrachloride	U		0.00118	0.00547	1	10/22/2018 17:32	WG1184455
Chlorobenzene	U		0.000626	0.00273	1	10/22/2018 17:32	WG1184455
Chlorodibromomethane	U		0.000492	0.00273	1	10/22/2018 17:32	WG1184455
Chloroethane	U		0.00118	0.00547	1	10/22/2018 17:32	WG1184455
Chloroform	U		0.000454	0.00273	1	10/22/2018 17:32	WG1184455
Chloromethane	U		0.00152	0.0137	1	10/22/2018 17:32	WG1184455
2-Chlorotoluene	U		0.00101	0.00273	1	10/22/2018 17:32	WG1184455
4-Chlorotoluene	U		0.00124	0.00547	1	10/22/2018 17:32	WG1184455
1,2-Dibromo-3-Chloropropane	U		0.00557	0.0273	1	10/22/2018 17:32	WG1184455
1,2-Dibromoethane	U		0.000574	0.00273	1	10/22/2018 17:32	WG1184455
Dibromomethane	U		0.00109	0.00547	1	10/22/2018 17:32	WG1184455
1,2-Dichlorobenzene	U		0.00158	0.00547	1	10/22/2018 17:32	WG1184455
1,3-Dichlorobenzene	U		0.00186	0.00547	1	10/22/2018 17:32	WG1184455
1,4-Dichlorobenzene	U		0.00215	0.00547	1	10/22/2018 17:32	WG1184455
Dichlorodifluoromethane	U		0.00894	0.0273	10	10/24/2018 00:26	WG1185221
1,1-Dichloroethane	U		0.000628	0.00273	1	10/22/2018 17:32	WG1184455
1,2-Dichloroethane	U		0.000519	0.00273	1	10/22/2018 17:32	WG1184455
1,1-Dichloroethene	0.00253	J	0.000547	0.00273	1	10/22/2018 17:32	WG1184455
cis-1,2-Dichloroethene	1.48		0.00754	0.0273	10	10/24/2018 00:26	WG1185221
trans-1,2-Dichloroethene	0.0323		0.00156	0.00547	1	10/22/2018 17:32	WG1184455
1,2-Dichloropropane	U		0.00139	0.00547	1	10/22/2018 17:32	WG1184455
1,1-Dichloropropene	U		0.000765	0.00273	1	10/22/2018 17:32	WG1184455
1,3-Dichloropropane	U		0.00191	0.00547	1	10/22/2018 17:32	WG1184455
cis-1,3-Dichloropropene	U		0.000741	0.00273	1	10/22/2018 17:32	WG1184455
trans-1,3-Dichloropropene	U	J4	0.00167	0.00547	1	10/22/2018 17:32	WG1184455
trans-1,4-Dichloro-2-butene	U		0.00153	0.00547	1	10/22/2018 17:32	WG1184455
2,2-Dichloropropane	U		0.000867	0.00273	1	10/22/2018 17:32	WG1184455
Di-isopropyl ether	U		0.000383	0.00109	1	10/22/2018 17:32	WG1184455
Ethylbenzene	U		0.000579	0.00273	1	10/22/2018 17:32	WG1184455
Hexachloro-1,3-butadiene	U		0.0139	0.0273	1	10/22/2018 17:32	WG1184455
2-Hexanone	U		0.0109	0.0273	1	10/22/2018 17:32	WG1184455
n-Hexane	U		0.00116	0.00547	1	10/22/2018 17:32	WG1184455
Iodomethane	U		0.00661	0.0137	1	10/22/2018 17:32	WG1184455
Isopropylbenzene	U		0.000943	0.00273	1	10/22/2018 17:32	WG1184455
p-Isopropyltoluene	U		0.00255	0.00547	1	10/22/2018 17:32	WG1184455
2-Butanone (MEK)	0.0413		0.0137	0.0273	1	10/22/2018 17:32	WG1184455
Methylene Chloride	U		0.00726	0.0273	1	10/22/2018 17:32	WG1184455
4-Methyl-2-pentanone (MIBK)	U		0.0109	0.0273	1	10/22/2018 17:32	WG1184455

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000322	0.00109	1	10/22/2018 17:32	WG1184455
Naphthalene	U		0.00341	0.0137	1	10/22/2018 17:32	WG1184455
n-Propylbenzene	U		0.00129	0.00547	1	10/22/2018 17:32	WG1184455
Styrene	U		0.00298	0.0137	1	10/22/2018 17:32	WG1184455
1,1,1,2-Tetrachloroethane	U	J4	0.000547	0.00273	1	10/22/2018 17:32	WG1184455
1,1,2,2-Tetrachloroethane	U		0.00426	0.0273	10	10/24/2018 00:26	WG1185221
1,1,2-Trichlorotrifluoroethane	U		0.000738	0.00273	1	10/22/2018 17:32	WG1184455
Tetrachloroethene	2.67	J0	0.00765	0.0273	10	10/24/2018 00:26	WG1185221
Toluene	0.00206	J	0.00137	0.00547	1	10/22/2018 17:32	WG1184455
1,2,3-Trichlorobenzene	U		0.00683	0.0273	10	10/24/2018 00:26	WG1185221
1,2,4-Trichlorobenzene	U		0.00527	0.0137	1	10/22/2018 17:32	WG1184455
1,1,1-Trichloroethane	U		0.000301	0.00273	1	10/22/2018 17:32	WG1184455
1,1,2-Trichloroethane	U		0.000965	0.00273	1	10/22/2018 17:32	WG1184455
Trichloroethene	0.279		0.000437	0.00109	1	10/22/2018 17:32	WG1184455
Trichlorofluoromethane	U		0.000547	0.00273	1	10/22/2018 17:32	WG1184455
1,2,3-Trichloropropane	U		0.00557	0.0137	1	10/22/2018 17:32	WG1184455
1,2,4-Trimethylbenzene	U		0.00127	0.00547	1	10/22/2018 17:32	WG1184455
1,2,3-Trimethylbenzene	U		0.00126	0.00547	1	10/22/2018 17:32	WG1184455
1,3,5-Trimethylbenzene	U		0.00118	0.00547	1	10/22/2018 17:32	WG1184455
Vinyl acetate	U		0.00385	0.0137	1	10/22/2018 17:32	WG1184455
Vinyl chloride	0.0128		0.000747	0.00273	1	10/22/2018 17:32	WG1184455
Xylenes, Total	U		0.00522	0.00710	1	10/22/2018 17:32	WG1184455
(S) Toluene-d8	*105*			*75.0-131*		*10/22/2018 17:32*	WG1184455
(S) Toluene-d8	*97.2*			*75.0-131*		*10/24/2018 00:26*	WG1185221
(S) Dibromofluoromethane	*90.3*			*65.0-129*		*10/22/2018 17:32*	WG1184455
(S) Dibromofluoromethane	*118*			*65.0-129*		*10/24/2018 00:26*	WG1185221
(S) 4-Bromofluorobenzene	*92.0*			*67.0-138*		*10/22/2018 17:32*	WG1184455
(S) 4-Bromofluorobenzene	*123*			*67.0-138*		*10/24/2018 00:26*	WG1185221

Sample Narrative:

L1036161-01 WG1185221, WG1184455: Cannot be reanalyzed at a lower dilution due to high levels of target analytes.

L1036161-01 WG1185221, WG1184455: Not all compounds reportable at lower dilution.

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	88.8		1	10/24/2018 11:13	WG1185188

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.154	0.281	10	10/24/2018 00:46	WG1185221
Acrylonitrile	U		0.00214	0.0141	1	10/22/2018 17:50	WG1184455
Benzene	U		0.000450	0.00113	1	10/22/2018 17:50	WG1184455
Bromobenzene	U		0.00118	0.0141	1	10/22/2018 17:50	WG1184455
Bromodichloromethane	U		0.000887	0.00281	1	10/22/2018 17:50	WG1184455
Bromochloromethane	U		0.00127	0.00563	1	10/22/2018 17:50	WG1184455
Bromoform	U		0.00673	0.0281	1	10/22/2018 17:50	WG1184455
Bromomethane	U		0.00417	0.0141	1	10/22/2018 17:50	WG1184455
n-Butylbenzene	U		0.00432	0.0141	1	10/22/2018 17:50	WG1184455
sec-Butylbenzene	U		0.00285	0.0141	1	10/22/2018 17:50	WG1184455
tert-Butylbenzene	U		0.00175	0.00563	1	10/22/2018 17:50	WG1184455
Carbon disulfide	U		0.00457	0.0141	1	10/22/2018 17:50	WG1184455
Carbon tetrachloride	U		0.00122	0.00563	1	10/22/2018 17:50	WG1184455
Chlorobenzene	U		0.000645	0.00281	1	10/22/2018 17:50	WG1184455
Chlorodibromomethane	U		0.000507	0.00281	1	10/22/2018 17:50	WG1184455
Chloroethane	U		0.00122	0.00563	1	10/22/2018 17:50	WG1184455
Chloroform	U		0.000467	0.00281	1	10/22/2018 17:50	WG1184455
Chloromethane	U		0.00156	0.0141	1	10/22/2018 17:50	WG1184455
2-Chlorotoluene	U		0.00104	0.00281	1	10/22/2018 17:50	WG1184455
4-Chlorotoluene	U		0.00127	0.00563	1	10/22/2018 17:50	WG1184455
1,2-Dibromo-3-Chloropropane	U		0.00574	0.0281	1	10/22/2018 17:50	WG1184455
1,2-Dibromoethane	U		0.000591	0.00281	1	10/22/2018 17:50	WG1184455
Dibromomethane	U		0.00113	0.00563	1	10/22/2018 17:50	WG1184455
1,2-Dichlorobenzene	U		0.00163	0.00563	1	10/22/2018 17:50	WG1184455
1,3-Dichlorobenzene	U		0.00191	0.00563	1	10/22/2018 17:50	WG1184455
1,4-Dichlorobenzene	U		0.00222	0.00563	1	10/22/2018 17:50	WG1184455
Dichlorodifluoromethane	U		0.00921	0.0281	10	10/24/2018 00:46	WG1185221
1,1-Dichloroethane	U		0.000647	0.00281	1	10/22/2018 17:50	WG1184455
1,2-Dichloroethane	U		0.000535	0.00281	1	10/22/2018 17:50	WG1184455
1,1-Dichloroethene	0.00373		0.000563	0.00281	1	10/22/2018 17:50	WG1184455
cis-1,2-Dichloroethene	1.77		0.00777	0.0281	10	10/24/2018 00:46	WG1185221
trans-1,2-Dichloroethene	0.0456		0.00161	0.00563	1	10/22/2018 17:50	WG1184455
1,2-Dichloropropane	U		0.00143	0.00563	1	10/22/2018 17:50	WG1184455
1,1-Dichloropropene	U		0.000788	0.00281	1	10/22/2018 17:50	WG1184455
1,3-Dichloropropane	U		0.00197	0.00563	1	10/22/2018 17:50	WG1184455
cis-1,3-Dichloropropene	U		0.000763	0.00281	1	10/22/2018 17:50	WG1184455
trans-1,3-Dichloropropene	U	J4	0.00172	0.00563	1	10/22/2018 17:50	WG1184455
trans-1,4-Dichloro-2-butene	U		0.00158	0.00563	1	10/22/2018 17:50	WG1184455
2,2-Dichloropropane	U		0.000893	0.00281	1	10/22/2018 17:50	WG1184455
Di-isopropyl ether	U		0.000394	0.00113	1	10/22/2018 17:50	WG1184455
Ethylbenzene	U		0.000597	0.00281	1	10/22/2018 17:50	WG1184455
Hexachloro-1,3-butadiene	U		0.0143	0.0281	1	10/22/2018 17:50	WG1184455
2-Hexanone	U		0.0113	0.0281	1	10/22/2018 17:50	WG1184455
n-Hexane	U		0.00119	0.00563	1	10/22/2018 17:50	WG1184455
Iodomethane	U		0.00681	0.0141	1	10/22/2018 17:50	WG1184455
Isopropylbenzene	U		0.000972	0.00281	1	10/22/2018 17:50	WG1184455
p-Isopropyltoluene	U		0.00262	0.00563	1	10/22/2018 17:50	WG1184455
2-Butanone (MEK)	0.0306		0.0141	0.0281	1	10/22/2018 17:50	WG1184455
Methylene Chloride	U		0.00748	0.0281	1	10/22/2018 17:50	WG1184455
4-Methyl-2-pentanone (MIBK)	U		0.0113	0.0281	1	10/22/2018 17:50	WG1184455

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000332	0.00113	1	10/22/2018 17:50	WG1184455
Naphthalene	U		0.00351	0.0141	1	10/22/2018 17:50	WG1184455
n-Propylbenzene	U		0.00133	0.00563	1	10/22/2018 17:50	WG1184455
Styrene	U		0.00307	0.0141	1	10/22/2018 17:50	WG1184455
1,1,1,2-Tetrachloroethane	U	J4	0.000563	0.00281	1	10/22/2018 17:50	WG1184455
1,1,2,2-Tetrachloroethane	U		0.00439	0.0281	10	10/24/2018 00:46	WG1185221
1,1,2-Trichlorotrifluoroethane	U		0.000760	0.00281	1	10/22/2018 17:50	WG1184455
Tetrachloroethene	2.31	J0	0.00788	0.0281	10	10/24/2018 00:46	WG1185221
Toluene	0.00250	J	0.00141	0.00563	1	10/22/2018 17:50	WG1184455
1,2,3-Trichlorobenzene	U		0.00704	0.0281	10	10/24/2018 00:46	WG1185221
1,2,4-Trichlorobenzene	U		0.00543	0.0141	1	10/22/2018 17:50	WG1184455
1,1,1-Trichloroethane	U		0.000310	0.00281	1	10/22/2018 17:50	WG1184455
1,1,2-Trichloroethane	U		0.000994	0.00281	1	10/22/2018 17:50	WG1184455
Trichloroethene	0.201		0.000450	0.00113	1	10/22/2018 17:50	WG1184455
Trichlorofluoromethane	U		0.000563	0.00281	1	10/22/2018 17:50	WG1184455
1,2,3-Trichloropropane	U		0.00574	0.0141	1	10/22/2018 17:50	WG1184455
1,2,4-Trimethylbenzene	0.00149	J	0.00131	0.00563	1	10/22/2018 17:50	WG1184455
1,2,3-Trimethylbenzene	U		0.00129	0.00563	1	10/22/2018 17:50	WG1184455
1,3,5-Trimethylbenzene	U		0.00122	0.00563	1	10/22/2018 17:50	WG1184455
Vinyl acetate	U		0.00396	0.0141	1	10/22/2018 17:50	WG1184455
Vinyl chloride	0.0167		0.000769	0.00281	1	10/22/2018 17:50	WG1184455
Xylenes, Total	U		0.00538	0.00732	1	10/22/2018 17:50	WG1184455
(S) Toluene-d8	*105*			*75.0-131*		*10/22/2018 17:50*	WG1184455
(S) Toluene-d8	*95.7*			*75.0-131*		*10/24/2018 00:46*	WG1185221
(S) Dibromofluoromethane	*90.1*			*65.0-129*		*10/22/2018 17:50*	WG1184455
(S) Dibromofluoromethane	*120*			*65.0-129*		*10/24/2018 00:46*	WG1185221
(S) 4-Bromofluorobenzene	*91.1*			*67.0-138*		*10/22/2018 17:50*	WG1184455
(S) 4-Bromofluorobenzene	*123*			*67.0-138*		*10/24/2018 00:46*	WG1185221

Sample Narrative:

L1036161-02 WG1185221, WG1184455: Cannot be reanalyzed at a lower dilution due to high levels of target analytes.

L1036161-02 WG1185221, WG1184455: Not all compounds reportable at lower dilution.

Method Blank (MB)

(MB) R3353689-1 10/24/18 09:40

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.000			

L1036155-24 Original Sample (OS) • Duplicate (DUP)

(OS) L1036155-24 10/24/18 09:40 • (DUP) R3353689-3 10/24/18 09:40

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	91.0	91.1	1	0.155		10

Laboratory Control Sample (LCS)

(LCS) R3353689-2 10/24/18 09:40

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85.0-115	

Method Blank (MB)

(MB) R3353693-1 10/24/18 11:13

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.00100			

L1036183-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1036183-01 10/24/18 11:13 • (DUP) R3353693-3 10/24/18 11:13

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	82.2	82.5	1	0.345		10

Laboratory Control Sample (LCS)

(LCS) R3353693-2 10/24/18 11:13

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85.0-115	

Method Blank (MB)

(MB) R3353171-2 10/22/18 11:26

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acrylonitrile	U		0.00190	0.0125
Benzene	U		0.000400	0.00100
Bromobenzene	U		0.00105	0.0125
Bromodichloromethane	U		0.000788	0.00250
Bromochloromethane	U		0.00113	0.00500
Bromoform	U		0.00598	0.0250
Bromomethane	U		0.00370	0.0125
n-Butylbenzene	U		0.00384	0.0125
sec-Butylbenzene	U		0.00253	0.0125
tert-Butylbenzene	U		0.00155	0.00500
Carbon disulfide	U		0.00406	0.0125
Carbon tetrachloride	U		0.00108	0.00500
Chlorobenzene	U		0.000573	0.00250
Chlorodibromomethane	U		0.000450	0.00250
Chloroethane	U		0.00108	0.00500
Chloroform	0.00131	J	0.000415	0.00250
Chloromethane	U		0.00139	0.0125
2-Chlorotoluene	U		0.000920	0.00250
4-Chlorotoluene	U		0.00113	0.00500
1,2-Dibromo-3-Chloropropane	U		0.00510	0.0250
1,2-Dibromoethane	U		0.000525	0.00250
Dibromomethane	U		0.00100	0.00500
1,2-Dichlorobenzene	U		0.00145	0.00500
1,3-Dichlorobenzene	U		0.00170	0.00500
1,4-Dichlorobenzene	U		0.00197	0.00500
trans-1,4-Dichloro-2-butene	U		0.00140	0.00500
1,1-Dichloroethane	U		0.000575	0.00250
1,2-Dichloroethane	U		0.000475	0.00250
1,1-Dichloroethene	U		0.000500	0.00250
trans-1,2-Dichloroethene	U		0.00143	0.00500
1,2-Dichloropropane	U		0.00127	0.00500
1,1-Dichloropropene	U		0.000700	0.00250
1,3-Dichloropropane	U		0.00175	0.00500
cis-1,3-Dichloropropene	U		0.000678	0.00250
trans-1,3-Dichloropropene	U		0.00153	0.00500
2,2-Dichloropropane	U		0.000793	0.00250
Di-isopropyl ether	U		0.000350	0.00100
Ethylbenzene	U		0.000530	0.00250
Hexachloro-1,3-butadiene	U		0.0127	0.0250
n-Hexane	U		0.00106	0.00500

Method Blank (MB)

(MB) R3353171-2 10/22/18 11:26

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
2-Hexanone	U		0.0100	0.0250
Iodomethane	U		0.00605	0.0125
Isopropylbenzene	U		0.000863	0.00250
p-Isopropyltoluene	U		0.00233	0.00500
2-Butanone (MEK)	U		0.0125	0.0250
Methylene Chloride	U		0.00664	0.0250
4-Methyl-2-pentanone (MIBK)	U		0.0100	0.0250
Methyl tert-butyl ether	U		0.000295	0.00100
Naphthalene	U		0.00312	0.0125
n-Propylbenzene	U		0.00118	0.00500
Styrene	U		0.00273	0.0125
1,1,1,2-Tetrachloroethane	U		0.000500	0.00250
Toluene	U		0.00125	0.00500
1,1,2-Trichlorotrifluoroethane	U		0.000675	0.00250
1,2,4-Trichlorobenzene	U		0.00482	0.0125
1,1,1-Trichloroethane	U		0.000275	0.00250
1,1,2-Trichloroethane	U		0.000883	0.00250
Trichloroethene	U		0.000400	0.00100
Trichlorofluoromethane	U		0.000500	0.00250
1,2,3-Trichloropropane	U		0.00510	0.0125
1,2,3-Trimethylbenzene	U		0.00115	0.00500
1,2,4-Trimethylbenzene	U		0.00116	0.00500
1,3,5-Trimethylbenzene	U		0.00108	0.00500
Vinyl acetate	U		0.00352	0.0125
Vinyl chloride	U		0.000683	0.00250
Xylenes, Total	U		0.00478	0.00650
(S) Toluene-d8	*106*			*75.0-131*
(S) Dibromofluoromethane	*91.7*			*65.0-129*
(S) 4-Bromofluorobenzene	*95.5*			*67.0-138*

Laboratory Control Sample (LCS)

(LCS) R3353171-1 10/22/18 10:17

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acrylonitrile	0.625	0.571	91.3	45.0-153	
Benzene	0.125	0.126	101	70.0-123	
Bromobenzene	0.125	0.111	88.8	73.0-121	
Bromodichloromethane	0.125	0.124	99.5	73.0-121	

Laboratory Control Sample (LCS)

(LCS) R3353171-1 10/22/18 10:17

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Bromochloromethane	0.125	0.101	80.9	77.0-128	
Bromoform	0.125	0.107	85.3	64.0-132	
Bromomethane	0.125	0.109	87.1	56.0-147	
n-Butylbenzene	0.125	0.0907	72.6	68.0-135	
sec-Butylbenzene	0.125	0.0972	77.8	74.0-130	
tert-Butylbenzene	0.125	0.107	85.4	75.0-127	
Carbon disulfide	0.125	0.101	81.1	56.0-133	
Carbon tetrachloride	0.125	0.112	89.6	66.0-128	
Chlorobenzene	0.125	0.107	85.3	76.0-128	
Chlorodibromomethane	0.125	0.135	108	74.0-127	
Chloroethane	0.125	0.101	80.6	61.0-134	
Chloroform	0.125	0.109	87.2	72.0-123	
Chloromethane	0.125	0.115	91.6	51.0-138	
2-Chlorotoluene	0.125	0.119	94.9	75.0-124	
4-Chlorotoluene	0.125	0.112	89.6	75.0-124	
1,2-Dibromo-3-Chloropropane	0.125	0.111	88.6	59.0-130	
1,2-Dibromoethane	0.125	0.116	92.4	74.0-128	
Dibromomethane	0.125	0.130	104	75.0-122	
1,2-Dichlorobenzene	0.125	0.127	102	76.0-124	
1,3-Dichlorobenzene	0.125	0.106	85.1	76.0-125	
1,4-Dichlorobenzene	0.125	0.112	89.9	77.0-121	
trans-1,4-Dichloro-2-butene	0.125	0.139	111	45.0-143	
1,1-Dichloroethane	0.125	0.125	100	70.0-127	
1,2-Dichloroethane	0.125	0.127	101	65.0-131	
1,1-Dichloroethene	0.125	0.119	95.1	65.0-131	
trans-1,2-Dichloroethene	0.125	0.105	83.8	71.0-125	
1,2-Dichloropropane	0.125	0.114	91.1	74.0-125	
1,1-Dichloropropene	0.125	0.128	102	73.0-125	
1,3-Dichloropropane	0.125	0.106	84.7	80.0-125	
cis-1,3-Dichloropropene	0.125	0.129	104	76.0-127	
trans-1,3-Dichloropropene	0.125	0.186	149	73.0-127	J4
2,2-Dichloropropane	0.125	0.137	110	59.0-135	
Di-isopropyl ether	0.125	0.115	92.4	60.0-136	
Ethylbenzene	0.125	0.111	88.5	74.0-126	
Hexachloro-1,3-butadiene	0.125	0.182	146	57.0-150	
2-Hexanone	0.625	0.633	101	54.0-147	
n-Hexane	0.125	0.164	131	55.0-137	
Iodomethane	0.625	0.657	105	74.0-134	
Isopropylbenzene	0.125	0.110	88.1	72.0-127	
p-Isopropyltoluene	0.125	0.0984	78.8	72.0-133	

Laboratory Control Sample (LCS)

(LCS) R3353171-1 10/22/18 10:17

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
2-Butanone (MEK)	0.625	0.692	111	30.0-160	
Methylene Chloride	0.125	0.0916	73.3	68.0-123	
4-Methyl-2-pentanone (MIBK)	0.625	0.706	113	56.0-143	
Methyl tert-butyl ether	0.125	0.119	94.8	66.0-132	
Naphthalene	0.125	0.109	87.5	59.0-130	
n-Propylbenzene	0.125	0.123	98.1	74.0-126	
Styrene	0.125	0.111	89.1	72.0-127	
1,1,1,2-Tetrachloroethane	0.125	0.165	132	74.0-129	J4
Toluene	0.125	0.115	92.1	75.0-121	
1,1,2-Trichlorotrifluoroethane	0.125	0.0912	73.0	61.0-139	
1,2,4-Trichlorobenzene	0.125	0.128	103	62.0-137	
1,1,1-Trichloroethane	0.125	0.138	111	69.0-126	
1,1,2-Trichloroethane	0.125	0.118	94.4	78.0-123	
Trichloroethene	0.125	0.127	101	76.0-126	
Trichlorofluoromethane	0.125	0.120	95.7	61.0-142	
1,2,3-Trichloropropane	0.125	0.120	96.1	67.0-129	
1,2,3-Trimethylbenzene	0.125	0.126	101	74.0-124	
1,2,4-Trimethylbenzene	0.125	0.111	88.7	70.0-126	
1,3,5-Trimethylbenzene	0.125	0.116	92.9	73.0-127	
Vinyl acetate	0.625	0.530	84.7	43.0-159	
Vinyl chloride	0.125	0.125	99.7	63.0-134	
Xylenes, Total	0.375	0.361	96.3	72.0-127	
(S) Toluene-d8			*104*	*75.0-131*	
(S) Dibromofluoromethane			*90.5*	*65.0-129*	
(S) 4-Bromofluorobenzene			*88.9*	*67.0-138*	

Method Blank (MB)

(MB) R3353491-2 10/23/18 10:28

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acetone	U		0.0137	0.0250
Dichlorodifluoromethane	U		0.000818	0.00250
cis-1,2-Dichloroethene	U		0.000690	0.00250
1,1,2,2-Tetrachloroethane	U		0.000390	0.00250
Tetrachloroethene	U		0.000700	0.00250
1,2,3-Trichlorobenzene	U		0.000625	0.00250
(S) Toluene-d8	*97.2*			*75.0-131*
(S) Dibromofluoromethane	*116*			*65.0-129*
(S) 4-Bromofluorobenzene	*121*			*67.0-138*

Laboratory Control Sample (LCS)

(LCS) R3353491-1 10/23/18 09:28

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acetone	0.625	0.680	109	10.0-160	
Dichlorodifluoromethane	0.125	0.142	114	43.0-156	
cis-1,2-Dichloroethene	0.125	0.141	113	73.0-125	
1,1,2,2-Tetrachloroethane	0.125	0.137	110	68.0-128	
Tetrachloroethene	0.125	0.0951	76.1	70.0-136	
1,2,3-Trichlorobenzene	0.125	0.116	92.7	59.0-139	
(S) Toluene-d8			*98.4*	*75.0-131*	
(S) Dibromofluoromethane			*118*	*65.0-129*	
(S) 4-Bromofluorobenzene			*120*	*67.0-138*	

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Abbreviations and Definitions

(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
MDL	Method Detection Limit.
MDL (dry)	Method Detection Limit.
RDL	Reported Detection Limit.
RDL (dry)	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(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.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
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.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
J0	J0: Calibration verification outside of acceptance limits. Result is estimated.
J4	The associated batch QC was outside the established quality control range for accuracy.

Pace National 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.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T 104704245-17-14
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

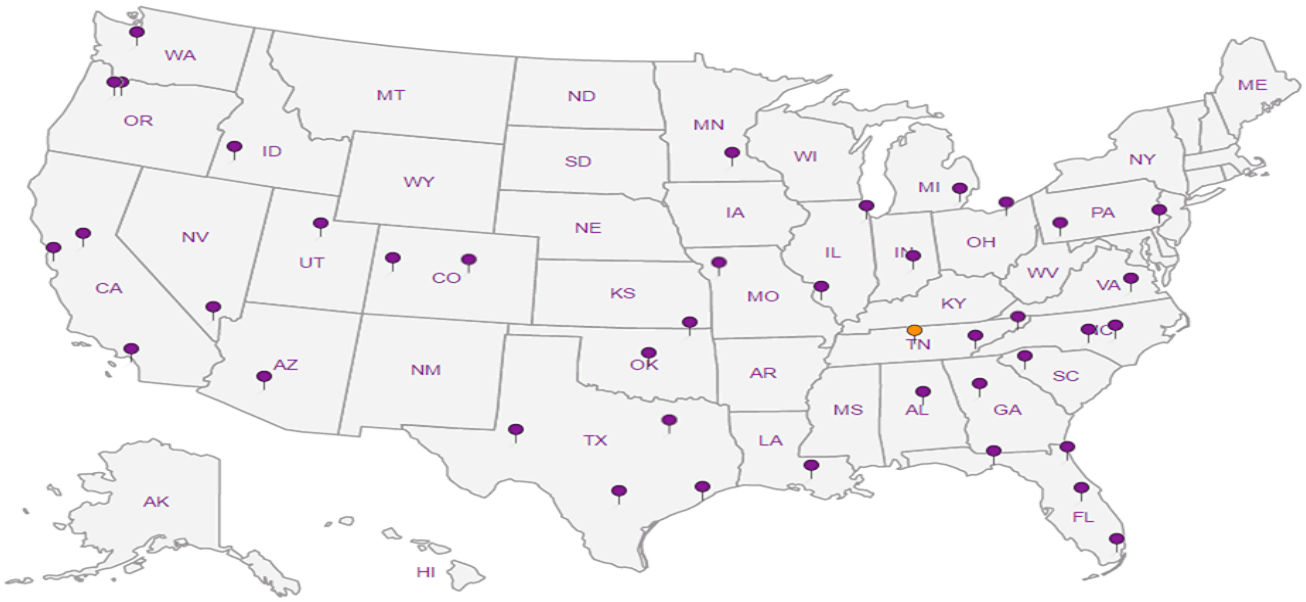
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

Our Locations

Pace National 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. Pace National performs all testing at our central laboratory.



PES Environmental, Inc.- WA

1215 Fourth Ave., Suite 1350
Seattle, WA 98161

Billing Information:
Attn: Accounts Payable
1215 Fourth Ave., Ste. 1350
Seattle, WA 98161

Pres Chk

Report to: Brian O'Neal/~~Bill Haldeman~~
Email To: boneal@pesenv.com; ~~bhaldeman@pesenv.com~~

Project Description: American Linen
City/State Collected: Seattle WA

Phone: 206-529-3980
Fax: 206-529-3985

Client Project # ~~1413.001.05~~ Contact PM for Project #
Lab Project # PESENVSWA-ALP

Collected by (print): S. McKernan / R. McLaughlin
Site/Facility ID #
P.O. #

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

Rush? (Lab MUST Be Notified)
___ Same Day X Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day
Date Results Needed

Quote #

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOCs V8260C 40mlAmb/MeOHSml/Syr	dry weight 2ozClr-NoPres	trip VOCs V8260LLC 40mlAmb-HCl-Blk							Remarks	Sample # (lab only)
IW-58A-38	Grab	SS	38	10/17/18	1510	2	X	X									-01
B-929-38	Grab	SS	38	10/17/18	1520	2	X	X									02
		SS															
		SS															
		SS			R. McLaughlin 10/17/18												
		SS															
		SS															
		SS															
		SS															
		SS															

Analysis / Container / Preservative

Chain of Custody Page 1 of 1

Pace Analytical
National Center for Testing & Innovation

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

L# L1036161
Table #
Acctnum: PESENVSWA
Template: T141621
Prelogin: P676248
TSR: 110 - Brian Ford
PB:
Shipped Via:

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

RAD SCREEN: <0.5 mR/hr

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking # 4196 3258 9710

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCl / MeoH TBR
RTM McLaughlin	10/17/18	1610		
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 2.1 °C Bottles Received: 74
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature) asm	Date: 10/18/18 Time: 845

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

October 26, 2018

PES Environmental, Inc.- WA

Sample Delivery Group:	L1036481
Samples Received:	10/19/2018
Project Number:	1413.001.05
Description:	American Linen
Site:	1413.001.05.304
Report To:	Brian O'Neal/Bill Haldeman 1215 Fourth Ave., Suite 1350 Seattle, WA 98161

Entire Report Reviewed By:

Brian Ford

Brian Ford
Project Manager

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 Pace National is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

TABLE OF CONTENTS

Cp: Cover Page 1

Tc: Table of Contents 2

Ss: Sample Summary 3

Cn: Case Narrative 4

Sr: Sample Results 5

IW-16D-85 L1036481-01 5

IW-16D-90 L1036481-02 7

IW-16D-95 L1036481-03 9

Qc: Quality Control Summary 11

Total Solids by Method 2540 G-2011 11

Volatile Organic Compounds (GC/MS) by Method 8260C 13

Gl: Glossary of Terms 17

Al: Accreditations & Locations 18

Sc: Sample Chain of Custody 19

IW-16D-85 L1036481-01 Solid

Collected by: S. McKernan
Collected date/time: 10/18/18 12:11
Received date/time: 10/19/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1185671	1	10/24/18 13:53	10/24/18 14:00	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1186559	4	10/18/18 12:11	10/26/18 05:55	LRL

IW-16D-90 L1036481-02 Solid

Collected by: S. McKernan
Collected date/time: 10/18/18 12:13
Received date/time: 10/19/18 08:45

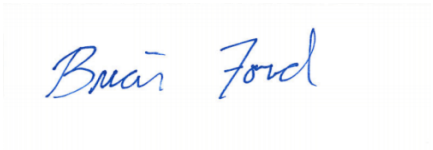
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1185771	1	10/24/18 14:04	10/24/18 14:15	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1186559	1	10/18/18 12:13	10/26/18 00:50	LRL

IW-16D-95 L1036481-03 Solid

Collected by: S. McKernan
Collected date/time: 10/18/18 12:15
Received date/time: 10/19/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1185771	1	10/24/18 14:04	10/24/18 14:15	JD
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1186559	4	10/18/18 12:15	10/26/18 06:14	LRL

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, 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.



Brian Ford
Project Manager

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	85.8		1	10/24/2018 14:00	WG1185671

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0639	0.117	4	10/26/2018 05:55	WG1186559
Acrylonitrile	U		0.00886	0.0583	4	10/26/2018 05:55	WG1186559
Benzene	0.00321	J	0.00186	0.00466	4	10/26/2018 05:55	WG1186559
Bromobenzene	U		0.00489	0.0583	4	10/26/2018 05:55	WG1186559
Bromodichloromethane	U		0.00367	0.0117	4	10/26/2018 05:55	WG1186559
Bromochloromethane	U		0.00527	0.0233	4	10/26/2018 05:55	WG1186559
Bromoform	U		0.0278	0.117	4	10/26/2018 05:55	WG1186559
Bromomethane	U		0.0172	0.0583	4	10/26/2018 05:55	WG1186559
n-Butylbenzene	U		0.0179	0.0583	4	10/26/2018 05:55	WG1186559
sec-Butylbenzene	U		0.0118	0.0583	4	10/26/2018 05:55	WG1186559
tert-Butylbenzene	U		0.00722	0.0233	4	10/26/2018 05:55	WG1186559
Carbon disulfide	U		0.0189	0.0583	4	10/26/2018 05:55	WG1186559
Carbon tetrachloride	U		0.00503	0.0233	4	10/26/2018 05:55	WG1186559
Chlorobenzene	U		0.00267	0.0117	4	10/26/2018 05:55	WG1186559
Chlorodibromomethane	U		0.00210	0.0117	4	10/26/2018 05:55	WG1186559
Chloroethane	U		0.00503	0.0233	4	10/26/2018 05:55	WG1186559
Chloroform	0.00193	J	0.00193	0.0117	4	10/26/2018 05:55	WG1186559
Chloromethane	U		0.00648	0.0583	4	10/26/2018 05:55	WG1186559
2-Chlorotoluene	U		0.00429	0.0117	4	10/26/2018 05:55	WG1186559
4-Chlorotoluene	U		0.00527	0.0233	4	10/26/2018 05:55	WG1186559
1,2-Dibromo-3-Chloropropane	U		0.0238	0.117	4	10/26/2018 05:55	WG1186559
1,2-Dibromoethane	U		0.00245	0.0117	4	10/26/2018 05:55	WG1186559
Dibromomethane	U		0.00466	0.0233	4	10/26/2018 05:55	WG1186559
1,2-Dichlorobenzene	U		0.00676	0.0233	4	10/26/2018 05:55	WG1186559
1,3-Dichlorobenzene	U		0.00792	0.0233	4	10/26/2018 05:55	WG1186559
1,4-Dichlorobenzene	U		0.00918	0.0233	4	10/26/2018 05:55	WG1186559
Dichlorodifluoromethane	U		0.00381	0.0117	4	10/26/2018 05:55	WG1186559
1,1-Dichloroethane	U		0.00268	0.0117	4	10/26/2018 05:55	WG1186559
1,2-Dichloroethane	U		0.00221	0.0117	4	10/26/2018 05:55	WG1186559
1,1-Dichloroethene	U		0.00233	0.0117	4	10/26/2018 05:55	WG1186559
cis-1,2-Dichloroethene	0.336		0.00322	0.0117	4	10/26/2018 05:55	WG1186559
trans-1,2-Dichloroethene	U		0.00666	0.0233	4	10/26/2018 05:55	WG1186559
1,2-Dichloropropane	U		0.00592	0.0233	4	10/26/2018 05:55	WG1186559
1,1-Dichloropropene	U		0.00326	0.0117	4	10/26/2018 05:55	WG1186559
1,3-Dichloropropane	U		0.00816	0.0233	4	10/26/2018 05:55	WG1186559
cis-1,3-Dichloropropene	U		0.00316	0.0117	4	10/26/2018 05:55	WG1186559
trans-1,3-Dichloropropene	U		0.00713	0.0233	4	10/26/2018 05:55	WG1186559
trans-1,4-Dichloro-2-butene	U		0.00653	0.0233	4	10/26/2018 05:55	WG1186559
2,2-Dichloropropane	U		0.00369	0.0117	4	10/26/2018 05:55	WG1186559
Di-isopropyl ether	U		0.00163	0.00466	4	10/26/2018 05:55	WG1186559
Ethylbenzene	0.00256	J	0.00247	0.0117	4	10/26/2018 05:55	WG1186559
Hexachloro-1,3-butadiene	U		0.0592	0.117	4	10/26/2018 05:55	WG1186559
2-Hexanone	U		0.0466	0.117	4	10/26/2018 05:55	WG1186559
n-Hexane	U		0.00494	0.0233	4	10/26/2018 05:55	WG1186559
Iodomethane	U		0.0282	0.0583	4	10/26/2018 05:55	WG1186559
Isopropylbenzene	U		0.00402	0.0117	4	10/26/2018 05:55	WG1186559
p-Isopropyltoluene	U		0.0109	0.0233	4	10/26/2018 05:55	WG1186559
2-Butanone (MEK)	U		0.0583	0.117	4	10/26/2018 05:55	WG1186559
Methylene Chloride	U		0.0310	0.117	4	10/26/2018 05:55	WG1186559
4-Methyl-2-pentanone (MIBK)	U		0.0466	0.117	4	10/26/2018 05:55	WG1186559

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.00137	0.00466	4	10/26/2018 05:55	WG1186559
Naphthalene	U		0.0146	0.0583	4	10/26/2018 05:55	WG1186559
n-Propylbenzene	U		0.00550	0.0233	4	10/26/2018 05:55	WG1186559
Styrene	U		0.0127	0.0583	4	10/26/2018 05:55	WG1186559
1,1,1,2-Tetrachloroethane	U		0.00233	0.0117	4	10/26/2018 05:55	WG1186559
1,1,2,2-Tetrachloroethane	U		0.00182	0.0117	4	10/26/2018 05:55	WG1186559
1,1,2-Trichlorotrifluoroethane	U		0.00315	0.0117	4	10/26/2018 05:55	WG1186559
Tetrachloroethene	1.35		0.00326	0.0117	4	10/26/2018 05:55	WG1186559
Toluene	0.00897	J	0.00583	0.0233	4	10/26/2018 05:55	WG1186559
1,2,3-Trichlorobenzene	U		0.00291	0.0117	4	10/26/2018 05:55	WG1186559
1,2,4-Trichlorobenzene	U		0.0225	0.0583	4	10/26/2018 05:55	WG1186559
1,1,1-Trichloroethane	U		0.00128	0.0117	4	10/26/2018 05:55	WG1186559
1,1,2-Trichloroethane	U		0.00411	0.0117	4	10/26/2018 05:55	WG1186559
Trichloroethene	0.336		0.00186	0.00466	4	10/26/2018 05:55	WG1186559
Trichlorofluoromethane	U		0.00233	0.0117	4	10/26/2018 05:55	WG1186559
1,2,3-Trichloropropane	U		0.0238	0.0583	4	10/26/2018 05:55	WG1186559
1,2,4-Trimethylbenzene	U		0.00541	0.0233	4	10/26/2018 05:55	WG1186559
1,2,3-Trimethylbenzene	U		0.00536	0.0233	4	10/26/2018 05:55	WG1186559
1,3,5-Trimethylbenzene	U		0.00503	0.0233	4	10/26/2018 05:55	WG1186559
Vinyl acetate	U		0.0164	0.0583	4	10/26/2018 05:55	WG1186559
Vinyl chloride	U		0.00318	0.0117	4	10/26/2018 05:55	WG1186559
Xylenes, Total	U		0.0223	0.0303	4	10/26/2018 05:55	WG1186559
(S) Toluene-d8	*104*			*75.0-131*		*10/26/2018 05:55*	WG1186559
(S) Dibromofluoromethane	*95.5*			*65.0-129*		*10/26/2018 05:55*	WG1186559
(S) 4-Bromofluorobenzene	*108*			*67.0-138*		*10/26/2018 05:55*	WG1186559

Sample Narrative:

L1036481-01 WG1186559: Diluted due to high levels of target analytes.

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

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	84.3		1	10/24/2018 14:15	WG1185771

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0162	0.0296	1	10/26/2018 00:50	WG1186559
Acrylonitrile	U		0.00225	0.0148	1	10/26/2018 00:50	WG1186559
Benzene	U		0.000474	0.00119	1	10/26/2018 00:50	WG1186559
Bromobenzene	U		0.00124	0.0148	1	10/26/2018 00:50	WG1186559
Bromodichloromethane	U		0.000934	0.00296	1	10/26/2018 00:50	WG1186559
Bromochloromethane	U		0.00134	0.00593	1	10/26/2018 00:50	WG1186559
Bromoform	U		0.00709	0.0296	1	10/26/2018 00:50	WG1186559
Bromomethane	U		0.00439	0.0148	1	10/26/2018 00:50	WG1186559
n-Butylbenzene	U		0.00455	0.0148	1	10/26/2018 00:50	WG1186559
sec-Butylbenzene	U		0.00300	0.0148	1	10/26/2018 00:50	WG1186559
tert-Butylbenzene	U		0.00184	0.00593	1	10/26/2018 00:50	WG1186559
Carbon disulfide	U		0.00481	0.0148	1	10/26/2018 00:50	WG1186559
Carbon tetrachloride	U		0.00128	0.00593	1	10/26/2018 00:50	WG1186559
Chlorobenzene	U		0.000679	0.00296	1	10/26/2018 00:50	WG1186559
Chlorodibromomethane	U		0.000534	0.00296	1	10/26/2018 00:50	WG1186559
Chloroethane	U		0.00128	0.00593	1	10/26/2018 00:50	WG1186559
Chloroform	U		0.000492	0.00296	1	10/26/2018 00:50	WG1186559
Chloromethane	U		0.00165	0.0148	1	10/26/2018 00:50	WG1186559
2-Chlorotoluene	U		0.00109	0.00296	1	10/26/2018 00:50	WG1186559
4-Chlorotoluene	U		0.00134	0.00593	1	10/26/2018 00:50	WG1186559
1,2-Dibromo-3-Chloropropane	U		0.00605	0.0296	1	10/26/2018 00:50	WG1186559
1,2-Dibromoethane	U		0.000622	0.00296	1	10/26/2018 00:50	WG1186559
Dibromomethane	U		0.00119	0.00593	1	10/26/2018 00:50	WG1186559
1,2-Dichlorobenzene	U		0.00172	0.00593	1	10/26/2018 00:50	WG1186559
1,3-Dichlorobenzene	U		0.00202	0.00593	1	10/26/2018 00:50	WG1186559
1,4-Dichlorobenzene	U		0.00234	0.00593	1	10/26/2018 00:50	WG1186559
Dichlorodifluoromethane	U		0.000970	0.00296	1	10/26/2018 00:50	WG1186559
1,1-Dichloroethane	U		0.000682	0.00296	1	10/26/2018 00:50	WG1186559
1,2-Dichloroethane	U		0.000563	0.00296	1	10/26/2018 00:50	WG1186559
1,1-Dichloroethene	0.00433		0.000593	0.00296	1	10/26/2018 00:50	WG1186559
cis-1,2-Dichloroethene	0.0191		0.000818	0.00296	1	10/26/2018 00:50	WG1186559
trans-1,2-Dichloroethene	U		0.00170	0.00593	1	10/26/2018 00:50	WG1186559
1,2-Dichloropropane	U		0.00151	0.00593	1	10/26/2018 00:50	WG1186559
1,1-Dichloropropene	U		0.000830	0.00296	1	10/26/2018 00:50	WG1186559
1,3-Dichloropropane	U		0.00207	0.00593	1	10/26/2018 00:50	WG1186559
cis-1,3-Dichloropropene	U		0.000804	0.00296	1	10/26/2018 00:50	WG1186559
trans-1,3-Dichloropropene	U		0.00181	0.00593	1	10/26/2018 00:50	WG1186559
trans-1,4-Dichloro-2-butene	U		0.00166	0.00593	1	10/26/2018 00:50	WG1186559
2,2-Dichloropropane	U		0.000940	0.00296	1	10/26/2018 00:50	WG1186559
Di-isopropyl ether	U		0.000415	0.00119	1	10/26/2018 00:50	WG1186559
Ethylbenzene	U		0.000628	0.00296	1	10/26/2018 00:50	WG1186559
Hexachloro-1,3-butadiene	U		0.0151	0.0296	1	10/26/2018 00:50	WG1186559
2-Hexanone	U		0.0119	0.0296	1	10/26/2018 00:50	WG1186559
n-Hexane	U		0.00126	0.00593	1	10/26/2018 00:50	WG1186559
Iodomethane	U		0.00717	0.0148	1	10/26/2018 00:50	WG1186559
Isopropylbenzene	U		0.00102	0.00296	1	10/26/2018 00:50	WG1186559
p-Isopropyltoluene	U		0.00276	0.00593	1	10/26/2018 00:50	WG1186559
2-Butanone (MEK)	U		0.0148	0.0296	1	10/26/2018 00:50	WG1186559
Methylene Chloride	U		0.00787	0.0296	1	10/26/2018 00:50	WG1186559
4-Methyl-2-pentanone (MIBK)	U		0.0119	0.0296	1	10/26/2018 00:50	WG1186559

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000350	0.00119	1	10/26/2018 00:50	WG1186559
Naphthalene	U		0.00370	0.0148	1	10/26/2018 00:50	WG1186559
n-Propylbenzene	U		0.00140	0.00593	1	10/26/2018 00:50	WG1186559
Styrene	U		0.00324	0.0148	1	10/26/2018 00:50	WG1186559
1,1,1,2-Tetrachloroethane	U		0.000593	0.00296	1	10/26/2018 00:50	WG1186559
1,1,2,2-Tetrachloroethane	U		0.000462	0.00296	1	10/26/2018 00:50	WG1186559
1,1,2-Trichlorotrifluoroethane	U		0.000800	0.00296	1	10/26/2018 00:50	WG1186559
Tetrachloroethene	0.0916		0.000830	0.00296	1	10/26/2018 00:50	WG1186559
Toluene	U		0.00148	0.00593	1	10/26/2018 00:50	WG1186559
1,2,3-Trichlorobenzene	U		0.000741	0.00296	1	10/26/2018 00:50	WG1186559
1,2,4-Trichlorobenzene	U		0.00571	0.0148	1	10/26/2018 00:50	WG1186559
1,1,1-Trichloroethane	U		0.000326	0.00296	1	10/26/2018 00:50	WG1186559
1,1,2-Trichloroethane	U		0.00105	0.00296	1	10/26/2018 00:50	WG1186559
Trichloroethene	0.140		0.000474	0.00119	1	10/26/2018 00:50	WG1186559
Trichlorofluoromethane	U		0.000593	0.00296	1	10/26/2018 00:50	WG1186559
1,2,3-Trichloropropane	U		0.00605	0.0148	1	10/26/2018 00:50	WG1186559
1,2,4-Trimethylbenzene	U		0.00138	0.00593	1	10/26/2018 00:50	WG1186559
1,2,3-Trimethylbenzene	U		0.00136	0.00593	1	10/26/2018 00:50	WG1186559
1,3,5-Trimethylbenzene	U		0.00128	0.00593	1	10/26/2018 00:50	WG1186559
Vinyl acetate	U		0.00417	0.0148	1	10/26/2018 00:50	WG1186559
Vinyl chloride	U		0.000810	0.00296	1	10/26/2018 00:50	WG1186559
Xylenes, Total	U		0.00567	0.00771	1	10/26/2018 00:50	WG1186559
(S) Toluene-d8	*105*			*75.0-131*		*10/26/2018 00:50*	WG1186559
(S) Dibromofluoromethane	*94.7*			*65.0-129*		*10/26/2018 00:50*	WG1186559
(S) 4-Bromofluorobenzene	*104*			*67.0-138*		*10/26/2018 00:50*	WG1186559

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	82.6		1	10/24/2018 14:15	WG1185771

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0663	0.121	4	10/26/2018 06:14	WG1186559
Acrylonitrile	U		0.00920	0.0605	4	10/26/2018 06:14	WG1186559
Benzene	U		0.00194	0.00484	4	10/26/2018 06:14	WG1186559
Bromobenzene	U		0.00509	0.0605	4	10/26/2018 06:14	WG1186559
Bromodichloromethane	U		0.00381	0.0121	4	10/26/2018 06:14	WG1186559
Bromochloromethane	U		0.00547	0.0242	4	10/26/2018 06:14	WG1186559
Bromoform	U		0.0289	0.121	4	10/26/2018 06:14	WG1186559
Bromomethane	U		0.0179	0.0605	4	10/26/2018 06:14	WG1186559
n-Butylbenzene	U		0.0186	0.0605	4	10/26/2018 06:14	WG1186559
sec-Butylbenzene	U		0.0122	0.0605	4	10/26/2018 06:14	WG1186559
tert-Butylbenzene	U		0.00751	0.0242	4	10/26/2018 06:14	WG1186559
Carbon disulfide	U		0.0196	0.0605	4	10/26/2018 06:14	WG1186559
Carbon tetrachloride	U		0.00523	0.0242	4	10/26/2018 06:14	WG1186559
Chlorobenzene	U		0.00277	0.0121	4	10/26/2018 06:14	WG1186559
Chlorodibromomethane	U		0.00218	0.0121	4	10/26/2018 06:14	WG1186559
Chloroethane	U		0.00523	0.0242	4	10/26/2018 06:14	WG1186559
Chloroform	U		0.00201	0.0121	4	10/26/2018 06:14	WG1186559
Chloromethane	U		0.00673	0.0605	4	10/26/2018 06:14	WG1186559
2-Chlorotoluene	U		0.00446	0.0121	4	10/26/2018 06:14	WG1186559
4-Chlorotoluene	U		0.00547	0.0242	4	10/26/2018 06:14	WG1186559
1,2-Dibromo-3-Chloropropane	U		0.0247	0.121	4	10/26/2018 06:14	WG1186559
1,2-Dibromoethane	U		0.00254	0.0121	4	10/26/2018 06:14	WG1186559
Dibromomethane	U		0.00484	0.0242	4	10/26/2018 06:14	WG1186559
1,2-Dichlorobenzene	U		0.00702	0.0242	4	10/26/2018 06:14	WG1186559
1,3-Dichlorobenzene	U		0.00823	0.0242	4	10/26/2018 06:14	WG1186559
1,4-Dichlorobenzene	U		0.00954	0.0242	4	10/26/2018 06:14	WG1186559
Dichlorodifluoromethane	U		0.00396	0.0121	4	10/26/2018 06:14	WG1186559
1,1-Dichloroethane	U		0.00278	0.0121	4	10/26/2018 06:14	WG1186559
1,2-Dichloroethane	U		0.00230	0.0121	4	10/26/2018 06:14	WG1186559
1,1-Dichloroethene	U		0.00242	0.0121	4	10/26/2018 06:14	WG1186559
cis-1,2-Dichloroethene	0.0238		0.00334	0.0121	4	10/26/2018 06:14	WG1186559
trans-1,2-Dichloroethene	U		0.00693	0.0242	4	10/26/2018 06:14	WG1186559
1,2-Dichloropropane	U		0.00615	0.0242	4	10/26/2018 06:14	WG1186559
1,1-Dichloropropene	U		0.00339	0.0121	4	10/26/2018 06:14	WG1186559
1,3-Dichloropropane	U		0.00848	0.0242	4	10/26/2018 06:14	WG1186559
cis-1,3-Dichloropropene	U		0.00328	0.0121	4	10/26/2018 06:14	WG1186559
trans-1,3-Dichloropropene	U		0.00741	0.0242	4	10/26/2018 06:14	WG1186559
trans-1,4-Dichloro-2-butene	U		0.00678	0.0242	4	10/26/2018 06:14	WG1186559
2,2-Dichloropropane	U		0.00384	0.0121	4	10/26/2018 06:14	WG1186559
Di-isopropyl ether	U		0.00170	0.00484	4	10/26/2018 06:14	WG1186559
Ethylbenzene	U		0.00257	0.0121	4	10/26/2018 06:14	WG1186559
Hexachloro-1,3-butadiene	U		0.0615	0.121	4	10/26/2018 06:14	WG1186559
2-Hexanone	U		0.0484	0.121	4	10/26/2018 06:14	WG1186559
n-Hexane	U		0.00513	0.0242	4	10/26/2018 06:14	WG1186559
Iodomethane	U		0.0293	0.0605	4	10/26/2018 06:14	WG1186559
Isopropylbenzene	U		0.00418	0.0121	4	10/26/2018 06:14	WG1186559
p-Isopropyltoluene	U		0.0113	0.0242	4	10/26/2018 06:14	WG1186559
2-Butanone (MEK)	U		0.0605	0.121	4	10/26/2018 06:14	WG1186559
Methylene Chloride	U		0.0322	0.121	4	10/26/2018 06:14	WG1186559
4-Methyl-2-pentanone (MIBK)	U		0.0484	0.121	4	10/26/2018 06:14	WG1186559

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

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.00143	0.00484	4	10/26/2018 06:14	WG1186559
Naphthalene	U		0.0151	0.0605	4	10/26/2018 06:14	WG1186559
n-Propylbenzene	U		0.00571	0.0242	4	10/26/2018 06:14	WG1186559
Styrene	U		0.0132	0.0605	4	10/26/2018 06:14	WG1186559
1,1,1,2-Tetrachloroethane	U		0.00242	0.0121	4	10/26/2018 06:14	WG1186559
1,1,2,2-Tetrachloroethane	U		0.00189	0.0121	4	10/26/2018 06:14	WG1186559
1,1,2-Trichlorotrifluoroethane	U		0.00327	0.0121	4	10/26/2018 06:14	WG1186559
Tetrachloroethene	1.47		0.00339	0.0121	4	10/26/2018 06:14	WG1186559
Toluene	U		0.00605	0.0242	4	10/26/2018 06:14	WG1186559
1,2,3-Trichlorobenzene	U		0.00303	0.0121	4	10/26/2018 06:14	WG1186559
1,2,4-Trichlorobenzene	U		0.0234	0.0605	4	10/26/2018 06:14	WG1186559
1,1,1-Trichloroethane	U		0.00133	0.0121	4	10/26/2018 06:14	WG1186559
1,1,2-Trichloroethane	U		0.00427	0.0121	4	10/26/2018 06:14	WG1186559
Trichloroethene	0.564		0.00194	0.00484	4	10/26/2018 06:14	WG1186559
Trichlorofluoromethane	U		0.00242	0.0121	4	10/26/2018 06:14	WG1186559
1,2,3-Trichloropropane	U		0.0247	0.0605	4	10/26/2018 06:14	WG1186559
1,2,4-Trimethylbenzene	U		0.00562	0.0242	4	10/26/2018 06:14	WG1186559
1,2,3-Trimethylbenzene	U		0.00557	0.0242	4	10/26/2018 06:14	WG1186559
1,3,5-Trimethylbenzene	U		0.00523	0.0242	4	10/26/2018 06:14	WG1186559
Vinyl acetate	U		0.0171	0.0605	4	10/26/2018 06:14	WG1186559
Vinyl chloride	U		0.00331	0.0121	4	10/26/2018 06:14	WG1186559
Xylenes, Total	U		0.0231	0.0315	4	10/26/2018 06:14	WG1186559
(S) Toluene-d8	*107*			*75.0-131*		*10/26/2018 06:14*	WG1186559
(S) Dibromofluoromethane	*99.2*			*65.0-129*		*10/26/2018 06:14*	WG1186559
(S) 4-Bromofluorobenzene	*106*			*67.0-138*		*10/26/2018 06:14*	WG1186559

Sample Narrative:

L1036481-03 WG1186559: Diluted due to high levels of target analytes.

Method Blank (MB)

(MB) R3353714-1 10/24/18 14:00

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.00100			

L1036473-29 Original Sample (OS) • Duplicate (DUP)

(OS) L1036473-29 10/24/18 14:00 • (DUP) R3353714-3 10/24/18 14:00

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	91.7	93.4	1	1.86		10

Laboratory Control Sample (LCS)

(LCS) R3353714-2 10/24/18 14:00

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85.0-115	

Method Blank (MB)

(MB) R3353770-1 10/24/18 14:15

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.00100			

L1036481-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1036481-02 10/24/18 14:15 • (DUP) R3353770-3 10/24/18 14:15

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	84.3	84.2	1	0.119		10

Laboratory Control Sample (LCS)

(LCS) R3353770-2 10/24/18 14:15

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85.0-115	

Method Blank (MB)

(MB) R3354173-2 10/26/18 00:13

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acetone	U		0.0137	0.0250
Acrylonitrile	U		0.00190	0.0125
Benzene	U		0.000400	0.00100
Bromobenzene	U		0.00105	0.0125
Bromodichloromethane	U		0.000788	0.00250
Bromochloromethane	U		0.00113	0.00500
Bromoform	U		0.00598	0.0250
Bromomethane	U		0.00370	0.0125
n-Butylbenzene	U		0.00384	0.0125
sec-Butylbenzene	U		0.00253	0.0125
tert-Butylbenzene	U		0.00155	0.00500
Carbon disulfide	U		0.00406	0.0125
Carbon tetrachloride	U		0.00108	0.00500
Chlorobenzene	U		0.000573	0.00250
Chlorodibromomethane	U		0.000450	0.00250
Chloroethane	U		0.00108	0.00500
Chloroform	U		0.000415	0.00250
Chloromethane	U		0.00139	0.0125
2-Chlorotoluene	U		0.000920	0.00250
4-Chlorotoluene	U		0.00113	0.00500
1,2-Dibromo-3-Chloropropane	U		0.00510	0.0250
1,2-Dibromoethane	U		0.000525	0.00250
Dibromomethane	U		0.00100	0.00500
1,2-Dichlorobenzene	U		0.00145	0.00500
1,3-Dichlorobenzene	U		0.00170	0.00500
1,4-Dichlorobenzene	U		0.00197	0.00500
trans-1,4-Dichloro-2-butene	U		0.00140	0.00500
Dichlorodifluoromethane	U		0.000818	0.00250
1,1-Dichloroethane	U		0.000575	0.00250
1,2-Dichloroethane	U		0.000475	0.00250
1,1-Dichloroethene	U		0.000500	0.00250
cis-1,2-Dichloroethene	U		0.000690	0.00250
trans-1,2-Dichloroethene	U		0.00143	0.00500
1,2-Dichloropropane	U		0.00127	0.00500
1,1-Dichloropropene	U		0.000700	0.00250
1,3-Dichloropropane	U		0.00175	0.00500
cis-1,3-Dichloropropene	U		0.000678	0.00250
trans-1,3-Dichloropropene	U		0.00153	0.00500
2,2-Dichloropropane	U		0.000793	0.00250
Di-isopropyl ether	U		0.000350	0.00100

Method Blank (MB)

(MB) R3354173-2 10/26/18 00:13

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Ethylbenzene	U		0.000530	0.00250
Hexachloro-1,3-butadiene	U		0.0127	0.0250
n-Hexane	U		0.00106	0.00500
2-Hexanone	U		0.0100	0.0250
Iodomethane	U		0.00605	0.0125
Isopropylbenzene	U		0.000863	0.00250
p-Isopropyltoluene	U		0.00233	0.00500
2-Butanone (MEK)	U		0.0125	0.0250
Methylene Chloride	0.00736	J	0.00664	0.0250
4-Methyl-2-pentanone (MIBK)	U		0.0100	0.0250
Methyl tert-butyl ether	U		0.000295	0.00100
Naphthalene	U		0.00312	0.0125
n-Propylbenzene	U		0.00118	0.00500
Styrene	U		0.00273	0.0125
1,1,1,2-Tetrachloroethane	U		0.000500	0.00250
1,1,2,2-Tetrachloroethane	U		0.000390	0.00250
Tetrachloroethene	U		0.000700	0.00250
Toluene	U		0.00125	0.00500
1,1,2-Trichlorotrifluoroethane	U		0.000675	0.00250
1,2,3-Trichlorobenzene	U		0.000625	0.00250
1,2,4-Trichlorobenzene	U		0.00482	0.0125
1,1,1-Trichloroethane	U		0.000275	0.00250
1,1,2-Trichloroethane	U		0.000883	0.00250
Trichloroethene	U		0.000400	0.00100
Trichlorofluoromethane	U		0.000500	0.00250
1,2,3-Trichloropropane	U		0.00510	0.0125
1,2,3-Trimethylbenzene	U		0.00115	0.00500
1,2,4-Trimethylbenzene	U		0.00116	0.00500
1,3,5-Trimethylbenzene	U		0.00108	0.00500
Vinyl acetate	U		0.00352	0.0125
Vinyl chloride	U		0.000683	0.00250
Xylenes, Total	U		0.00478	0.00650
(S) Toluene-d8	*108*			*75.0-131*
(S) Dibromofluoromethane	*94.3*			*65.0-129*
(S) 4-Bromofluorobenzene	*102*			*67.0-138*

Laboratory Control Sample (LCS)

(LCS) R3354173-1 10/25/18 22:28

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acetone	0.625	0.689	110	10.0-160	
Acrylonitrile	0.625	0.549	87.9	45.0-153	
Benzene	0.125	0.126	101	70.0-123	
Bromobenzene	0.125	0.118	94.4	73.0-121	
Bromodichloromethane	0.125	0.100	80.2	73.0-121	
Bromochloromethane	0.125	0.122	97.6	77.0-128	
Bromoform	0.125	0.116	93.2	64.0-132	
Bromomethane	0.125	0.128	102	56.0-147	
n-Butylbenzene	0.125	0.119	95.1	68.0-135	
sec-Butylbenzene	0.125	0.125	99.8	74.0-130	
tert-Butylbenzene	0.125	0.127	102	75.0-127	
Carbon disulfide	0.125	0.133	106	56.0-133	
Carbon tetrachloride	0.125	0.136	109	66.0-128	
Chlorobenzene	0.125	0.132	105	76.0-128	
Chlorodibromomethane	0.125	0.128	103	74.0-127	
Chloroethane	0.125	0.130	104	61.0-134	
Chloroform	0.125	0.130	104	72.0-123	
Chloromethane	0.125	0.132	105	51.0-138	
2-Chlorotoluene	0.125	0.140	112	75.0-124	
4-Chlorotoluene	0.125	0.128	102	75.0-124	
1,2-Dibromo-3-Chloropropane	0.125	0.106	85.1	59.0-130	
1,2-Dibromoethane	0.125	0.127	101	74.0-128	
Dibromomethane	0.125	0.133	107	75.0-122	
1,2-Dichlorobenzene	0.125	0.127	102	76.0-124	
1,3-Dichlorobenzene	0.125	0.123	98.5	76.0-125	
1,4-Dichlorobenzene	0.125	0.117	93.2	77.0-121	
trans-1,4-Dichloro-2-butene	0.125	0.116	93.1	45.0-143	
Dichlorodifluoromethane	0.125	0.126	100	43.0-156	
1,1-Dichloroethane	0.125	0.127	101	70.0-127	
1,2-Dichloroethane	0.125	0.124	99.2	65.0-131	
1,1-Dichloroethene	0.125	0.133	106	65.0-131	
cis-1,2-Dichloroethene	0.125	0.131	105	73.0-125	
trans-1,2-Dichloroethene	0.125	0.122	97.9	71.0-125	
1,2-Dichloropropane	0.125	0.128	103	74.0-125	
1,1-Dichloropropene	0.125	0.130	104	73.0-125	
1,3-Dichloropropane	0.125	0.121	97.0	80.0-125	
cis-1,3-Dichloropropene	0.125	0.119	94.9	76.0-127	
trans-1,3-Dichloropropene	0.125	0.126	101	73.0-127	
2,2-Dichloropropane	0.125	0.169	135	59.0-135	
Di-isopropyl ether	0.125	0.117	93.8	60.0-136	

Laboratory Control Sample (LCS)

(LCS) R3354173-1 10/25/18 22:28

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Ethylbenzene	0.125	0.136	109	74.0-126	
Hexachloro-1,3-butadiene	0.125	0.125	100	57.0-150	
2-Hexanone	0.625	0.653	104	54.0-147	
n-Hexane	0.125	0.151	121	55.0-137	
Iodomethane	0.625	0.607	97.1	74.0-134	
Isopropylbenzene	0.125	0.129	103	72.0-127	
p-Isopropyltoluene	0.125	0.131	105	72.0-133	
2-Butanone (MEK)	0.625	0.618	98.8	30.0-160	
Methylene Chloride	0.125	0.130	104	68.0-123	
4-Methyl-2-pentanone (MIBK)	0.625	0.699	112	56.0-143	
Methyl tert-butyl ether	0.125	0.131	105	66.0-132	
Naphthalene	0.125	0.113	90.7	59.0-130	
n-Propylbenzene	0.125	0.126	101	74.0-126	
Styrene	0.125	0.123	98.6	72.0-127	
1,1,1,2-Tetrachloroethane	0.125	0.127	102	74.0-129	
1,1,2,2-Tetrachloroethane	0.125	0.119	94.9	68.0-128	
Tetrachloroethene	0.125	0.150	120	70.0-136	
Toluene	0.125	0.128	102	75.0-121	
1,1,2-Trichlorotrifluoroethane	0.125	0.118	94.0	61.0-139	
1,2,3-Trichlorobenzene	0.125	0.0973	77.8	59.0-139	
1,2,4-Trichlorobenzene	0.125	0.112	89.5	62.0-137	
1,1,1-Trichloroethane	0.125	0.147	117	69.0-126	
1,1,2-Trichloroethane	0.125	0.116	93.2	78.0-123	
Trichloroethene	0.125	0.136	109	76.0-126	
Trichlorofluoromethane	0.125	0.138	111	61.0-142	
1,2,3-Trichloropropane	0.125	0.129	103	67.0-129	
1,2,3-Trimethylbenzene	0.125	0.124	98.8	74.0-124	
1,2,4-Trimethylbenzene	0.125	0.121	97.0	70.0-126	
1,3,5-Trimethylbenzene	0.125	0.130	104	73.0-127	
Vinyl acetate	0.625	0.660	106	43.0-159	
Vinyl chloride	0.125	0.128	103	63.0-134	
Xylenes, Total	0.375	0.406	108	72.0-127	
(S) Toluene-d8			*102*	*75.0-131*	
(S) Dibromofluoromethane			*100*	*65.0-129*	
(S) 4-Bromofluorobenzene			*103*	*67.0-138*	

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Abbreviations and Definitions

(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
MDL	Method Detection Limit.
MDL (dry)	Method Detection Limit.
RDL	Reported Detection Limit.
RDL (dry)	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(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.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
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.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

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

Pace National 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.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T 104704245-17-14
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

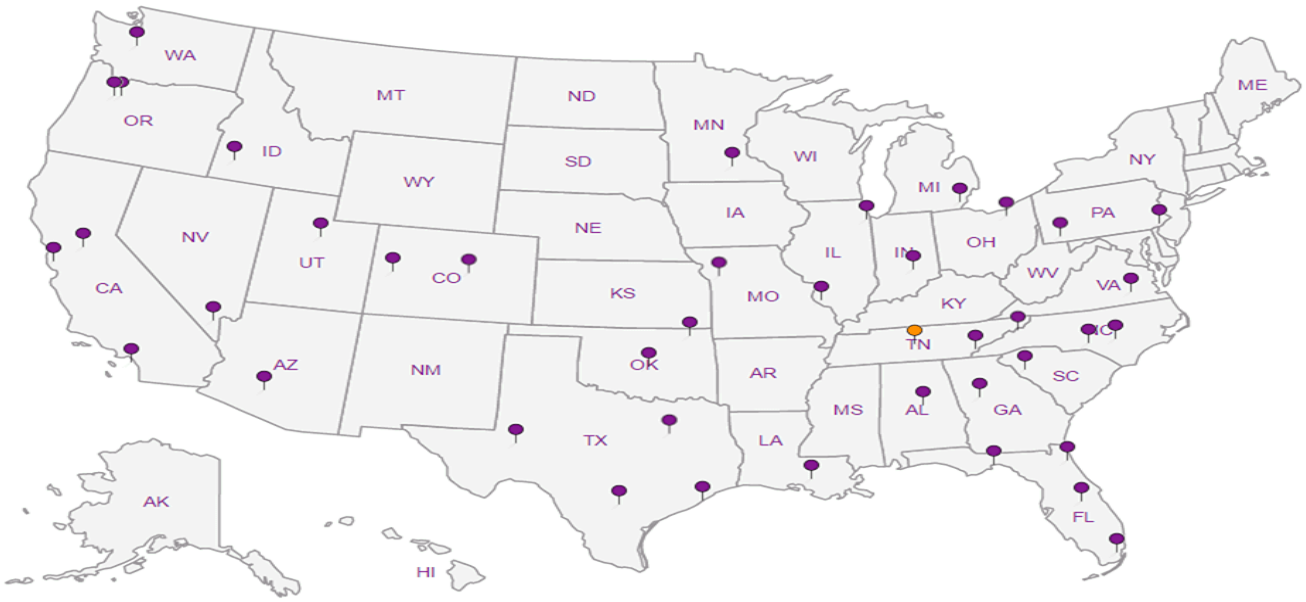
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

Our Locations

Pace National 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. Pace National performs all testing at our central laboratory.



PES Environmental, Inc.- WA

1215 Fourth Ave., Suite 1350
Seattle, WA 98161

Billing Information:
Attn: Accounts Payable
1215 Fourth Ave., Ste. 1350
Seattle, WA 98161

Pres Chk

Report to: Brian O'Neal/Bill Haldeman

Email To: boneal@pesenv.com; bhaldeman@pesenv.com

Project Description: American Linen

City/State Collected: SEATTLE, WA

Phone: 206-529-3980
Fax: 206-529-3985

Client Project # 1413.001.05

Lab Project # PESENVSWA-ALP

Collected by (print): S. McKERNAN

Site/Facility ID # H13.00105.304

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

No. of Cntrs

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOCs V8260C 40mlAmb/MeOH5ml/Syr	dry weight 2ozClr-NoPres	trip VOCs V8260LLC 40mlAmb-HCl-Blk	Remarks	Sample # (lab only)
IW-16D-48	GRAB	SS	48	10/17/18	1702	2	HOLD				
IW-16D-55		SS	55	10/17/18	1705	2	HOLD				
IW-16D-85		SS	85	10/18/18	1211	2	X	X			-01
IW-16D-90		SS	90		1213	2	X	X			02
IW-16D-95		SS	95		1215	2	X	X			03
		SS									
		SS									
		SS									
		SS									
		SS									

Chain of Custody Page 1 of 1

Pace Analytical
National Center for Testing & Innovation

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

L# L1036481

E064

Acctnum: PESENVSWA
Template: T141621
Prelogin: P676248
TSR: 110 - Brian Ford
PB:

Shipped Via:

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

RAD SCREEN: <0.5 mR/hr

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking # 4196 3258 7989

Sample Receipt Checklist
COC Seal Present/Intact: __NP __Y __N
COC Signed/Accurate: __Y __N
Bottles arrive intact: __Y __N
Correct bottles used: __Y __N
Sufficient volume sent: __Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)
	10/18/18	1555	
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)
	10/18/18	1620	
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)
			SCI

Trip Blank Received: Yes / (No)
HCL / MeoH
TBR

Temp: 3.5 °C +1 3.6 °C Bottles Received: 10

If preservation required by Login: Date/Time

Date: 10/19/18 Time: 8:45

10-147

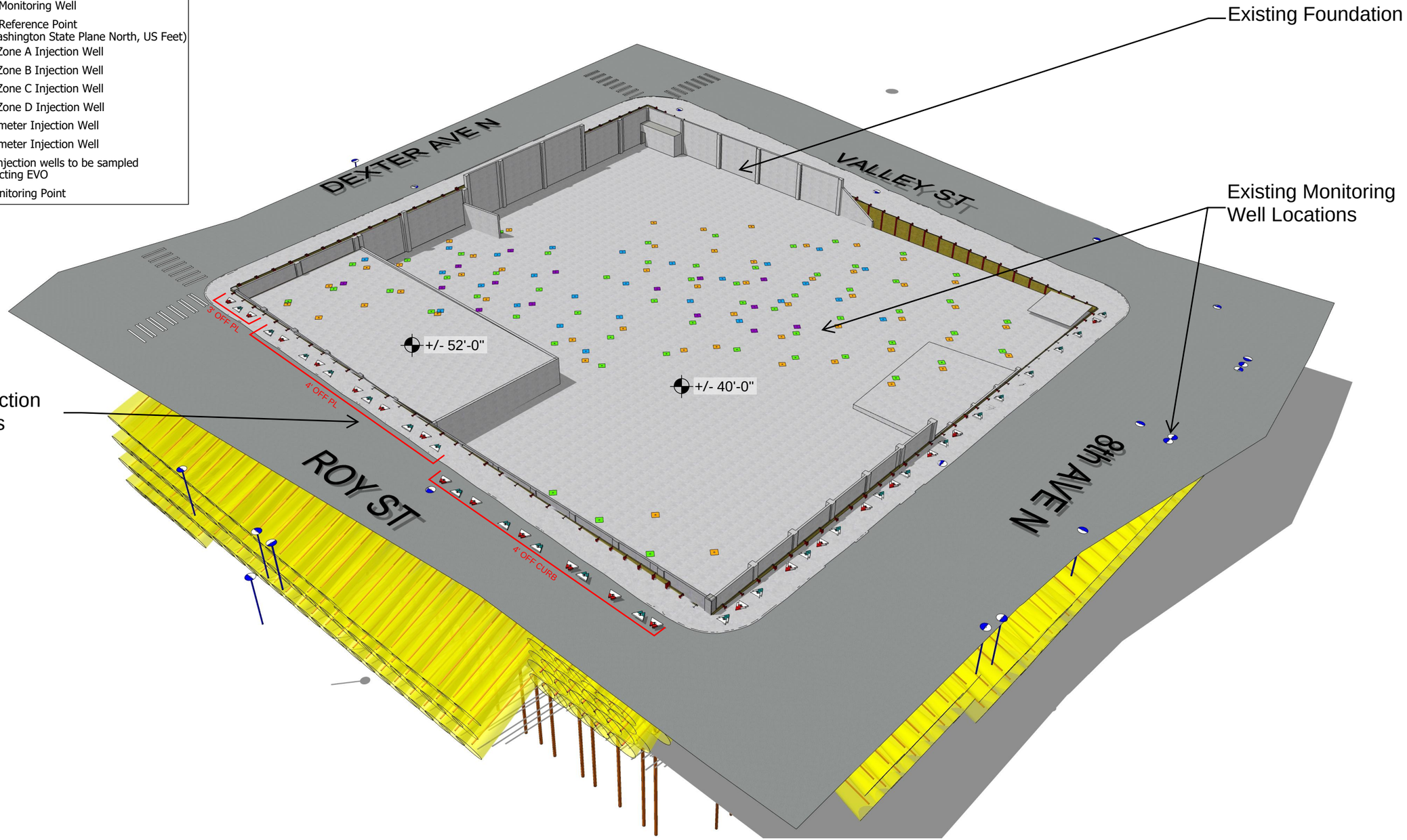
Condition: NCF / (OK)

APPENDIX E

Excavation Sequencing Diagrams

LEGEND

MW101	Shallow Zone Monitoring Well
MW107	Intermediate A Zone Monitoring Well
W-MW-02	Intermediate B Zone Monitoring Well
MW105	Deep Zone Monitoring Well
N 231800 E 1268300	Coordinate Reference Point (NAD83, Washington State Plane North, US Feet)
	Treatment Zone A Injection Well
	Treatment Zone B Injection Well
	Treatment Zone C Injection Well
	Treatment Zone D Injection Well
	Type 1 Perimeter Injection Well
	Type 2 Perimeter Injection Well
	Perimeter Injection wells to be sampled prior to injecting EVO
SV01	Soil Gas Monitoring Point



700 Dexter

Existing Site Conditions View from SE Corner

Notes:

Turner VDC

Rev.7 November 26, 2018

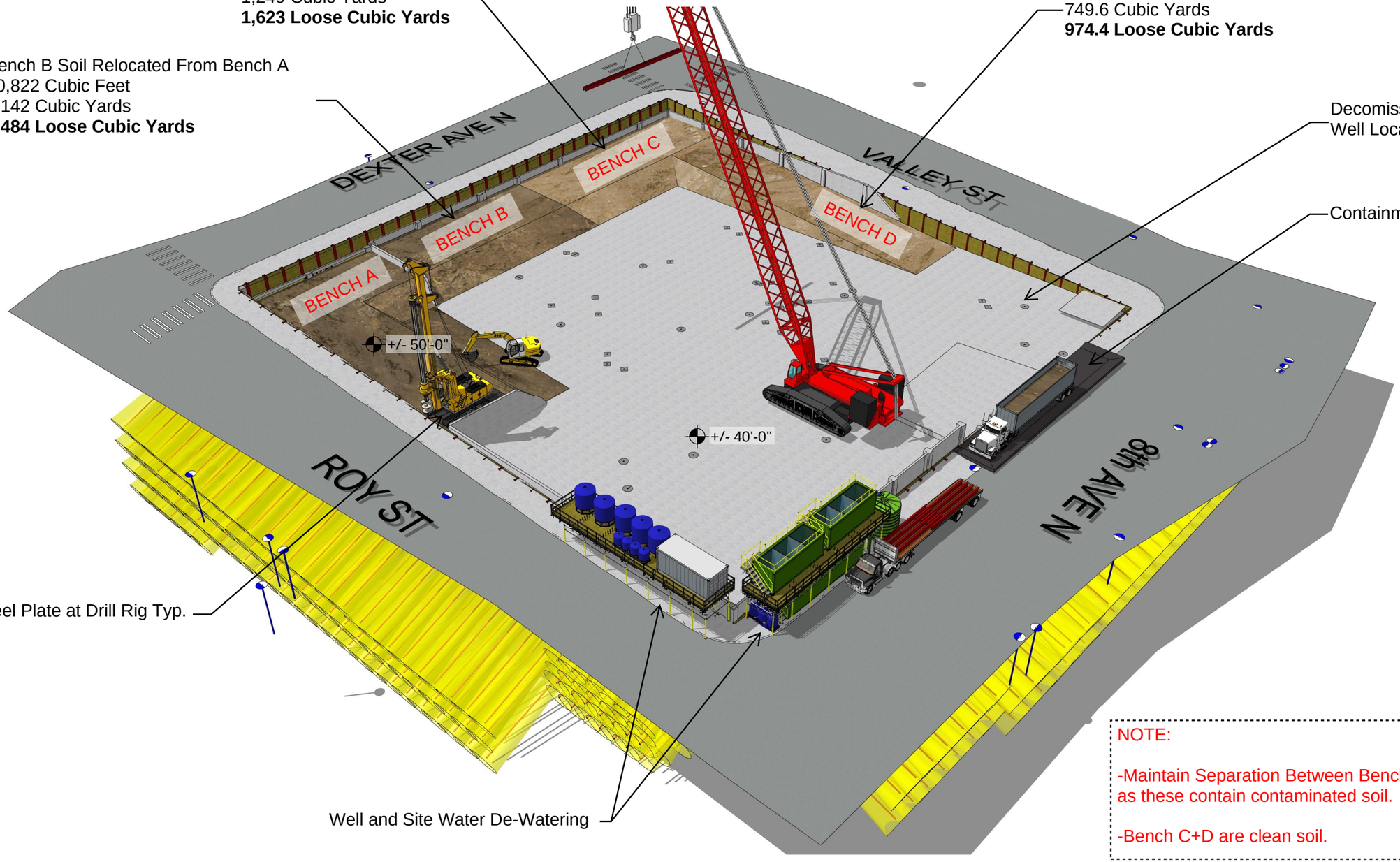
Bench C Soil Imported
33,717 Cubic Feet
1,249 Cubic Yards
1,623 Loose Cubic Yards

Bench D Soil Import
20,238 Cubic Feet
749.6 Cubic Yards
974.4 Loose Cubic Yards

Bench B Soil Relocated From Bench A
30,822 Cubic Feet
1,142 Cubic Yards
1,484 Loose Cubic Yards

Decomissioned Monitoring Well Locations

Containment Pad



Steel Plate at Drill Rig Typ.

Well and Site Water De-Watering

NOTE:

-Maintain Separation Between Benches A, B, and E as these contain contaminated soil.

-Bench C+D are clean soil.

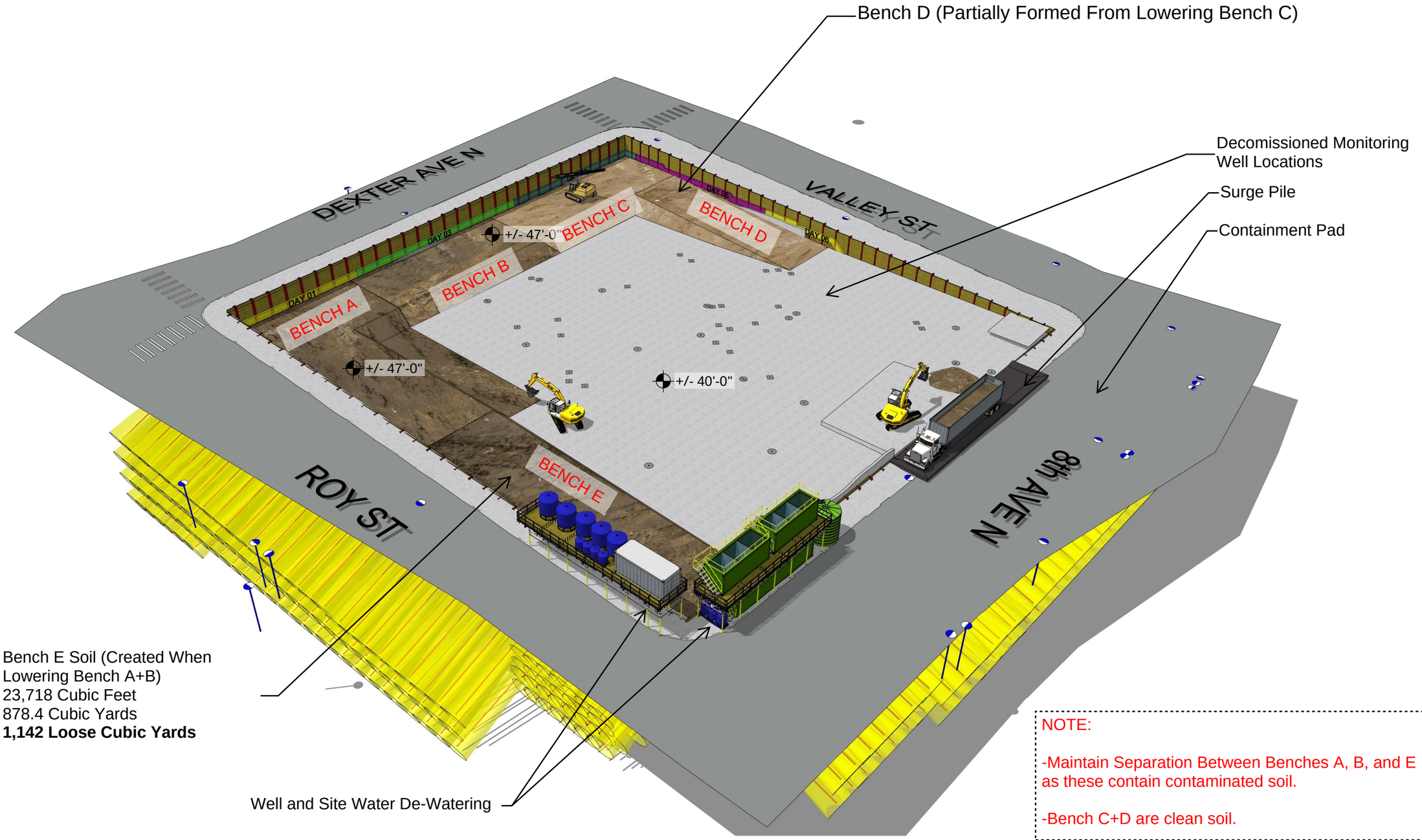
700 Dexter

Excavation Cut 01 View from SE Corner

Notes:

Turner VDC

Rev.7 November 26, 2018



Bench D (Partially Formed From Lowering Bench C)

Decomissioned Monitoring Well Locations

Surge Pile

Containment Pad

Bench E Soil (Created When Lowering Bench A+B)
23,718 Cubic Feet
878.4 Cubic Yards
1,142 Loose Cubic Yards

Well and Site Water De-Watering

NOTE:

-Maintain Separation Between Benches A, B, and E as these contain contaminated soil.

-Bench C+D are clean soil.

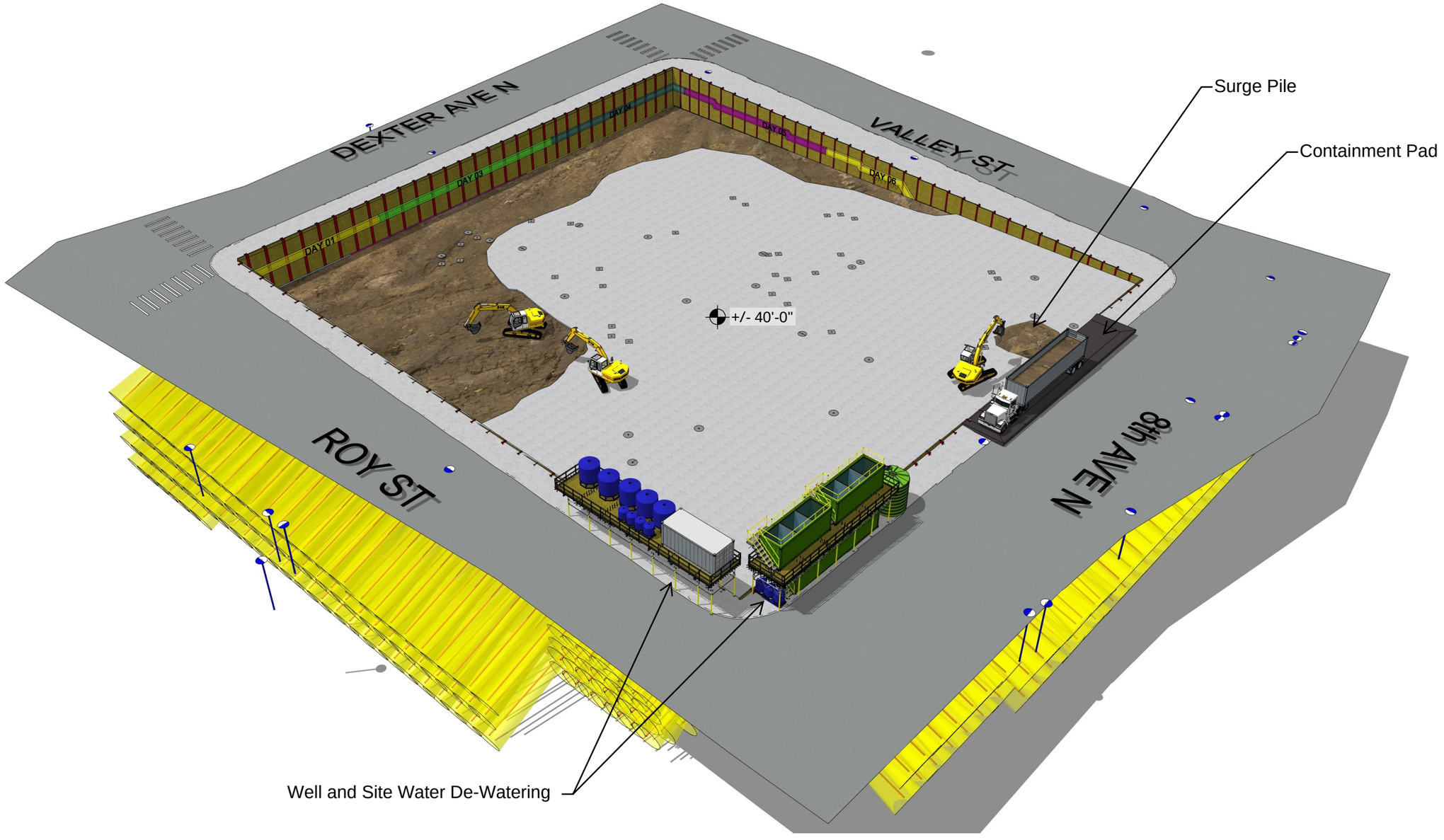
700 Dexter

Excavation Cut 02 View from SE Corner

Notes:

Turner VDC

Rev.7 November 26, 2018



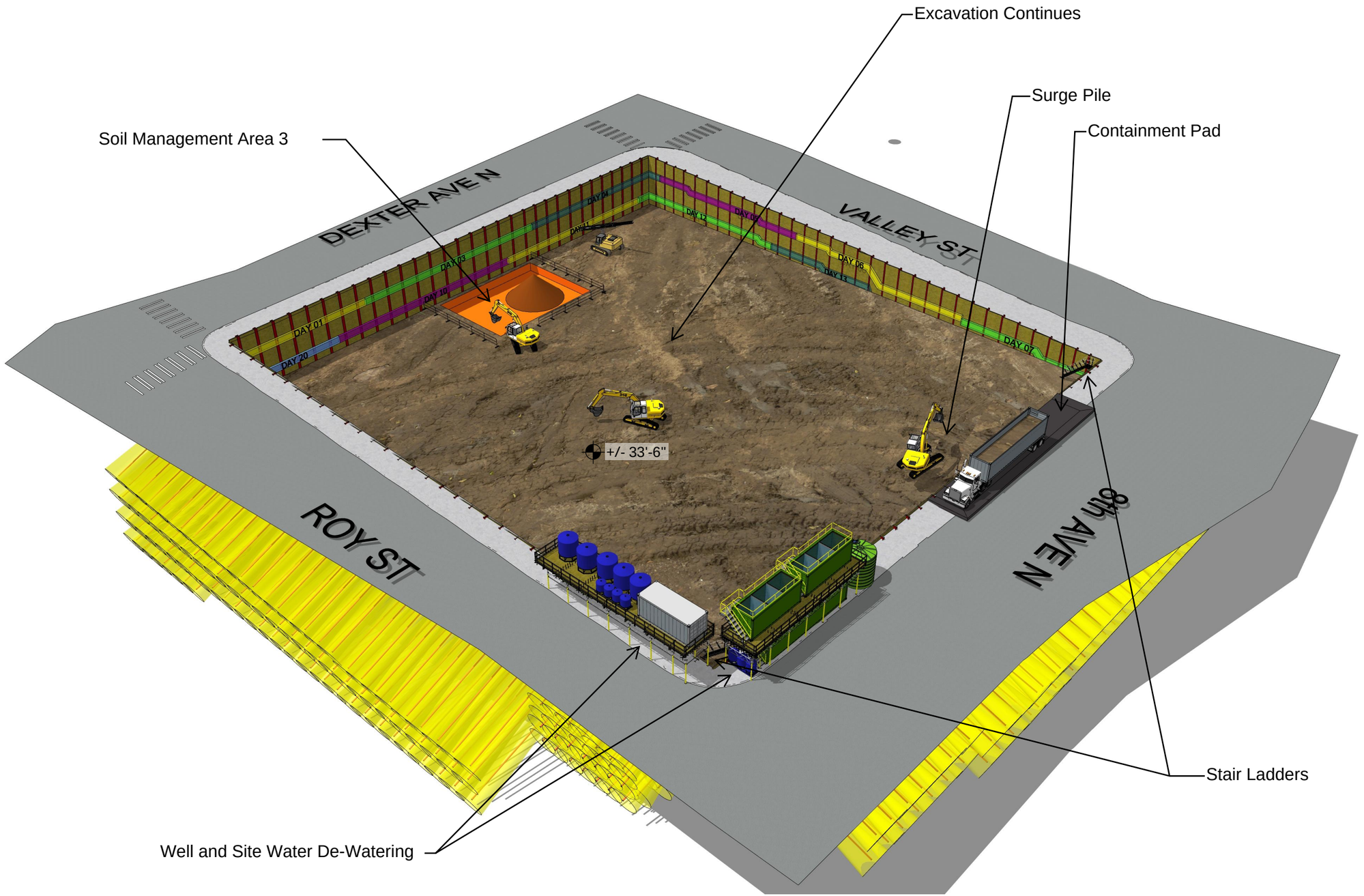
700 Dexter

Excavation Cut 03 View from SE Corner

Notes:

Turner VDC

Rev.7 November 26, 2018



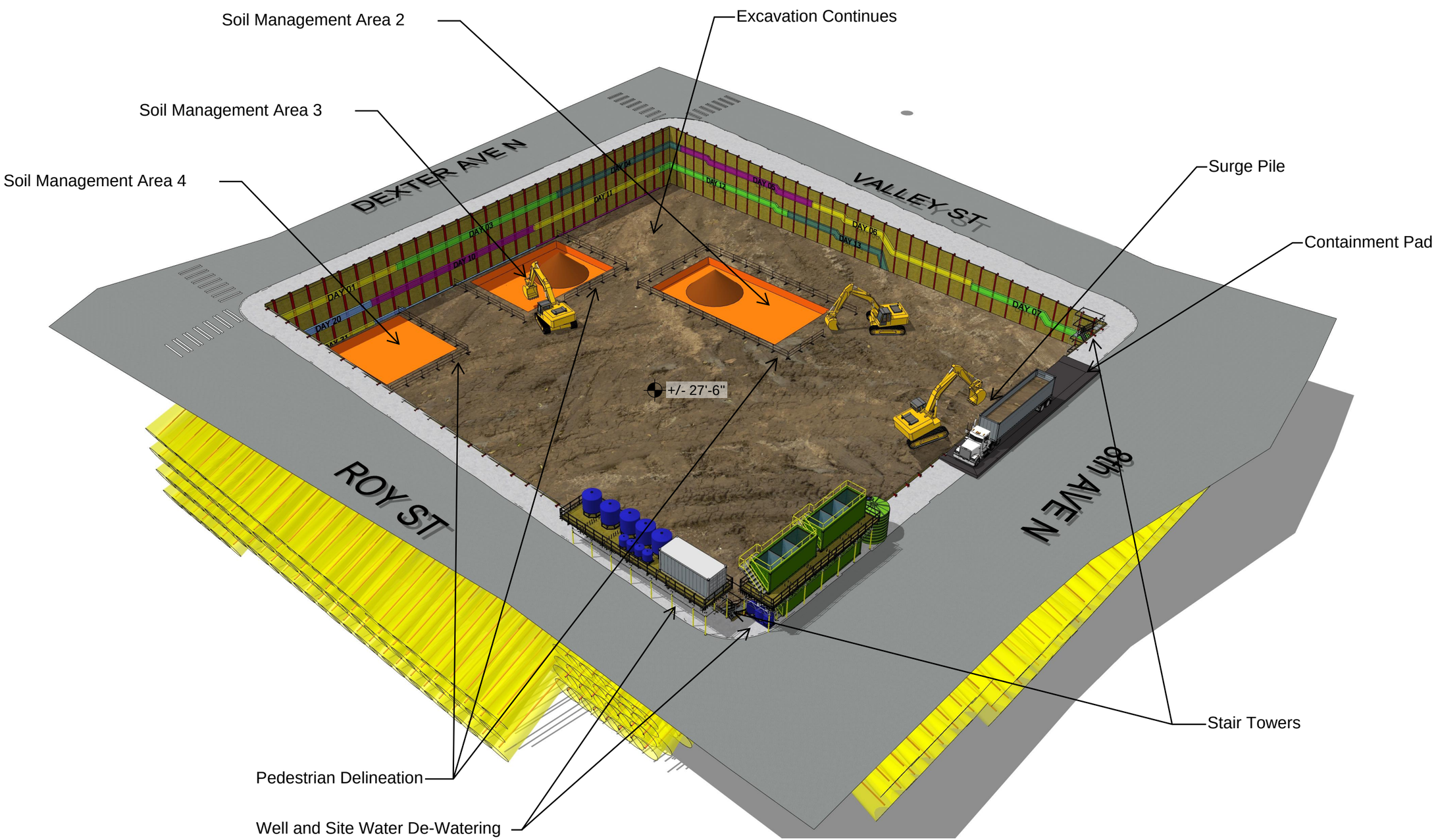
700 Dexter

Excavation Cut 04 View from SE Corner

Notes:

Turner VDC

Rev.7 November 26, 2018



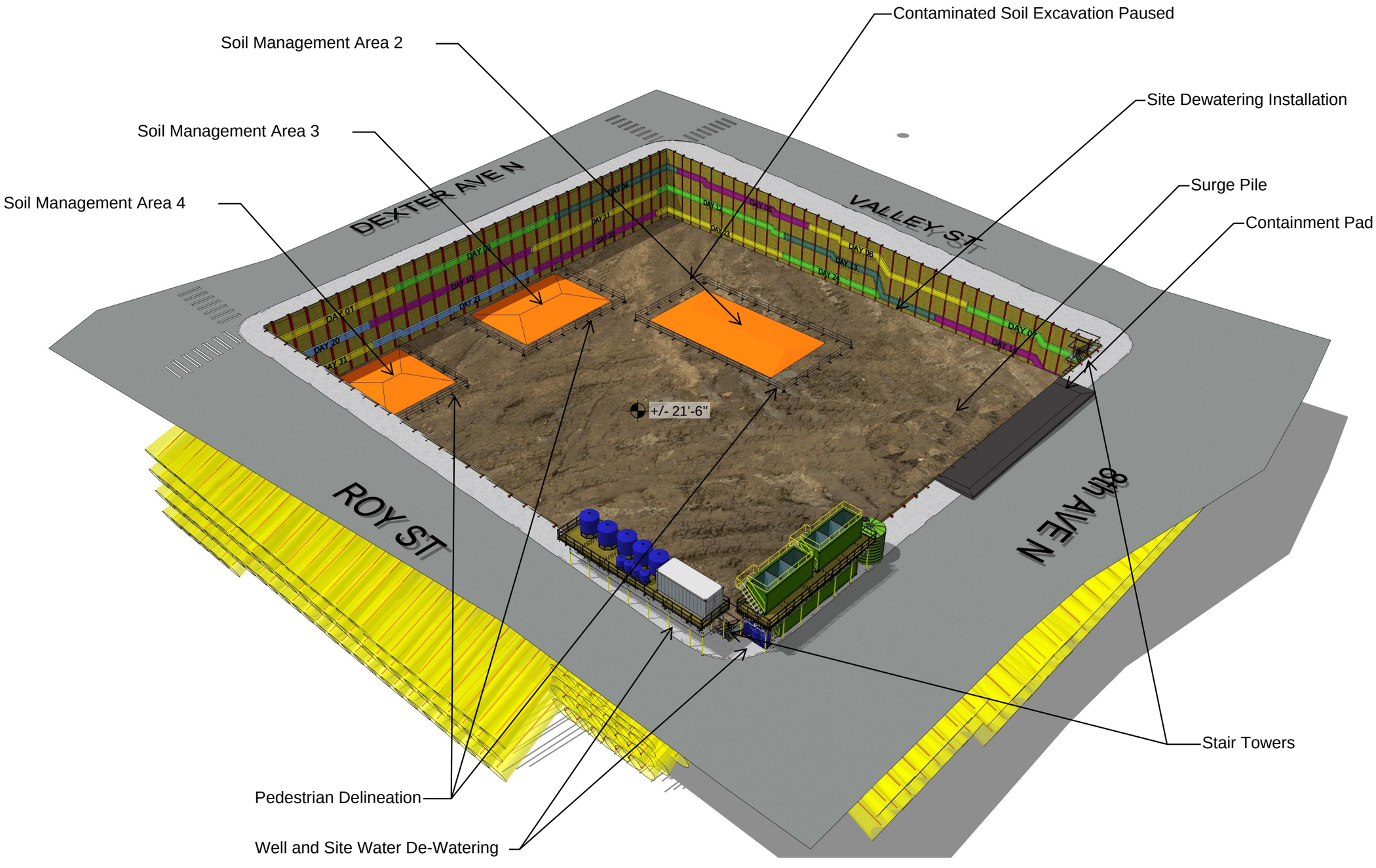
700 Dexter

Excavation Cut 05 View from SE Corner

Notes:

Turner VDC

Rev.7 November 26, 2018



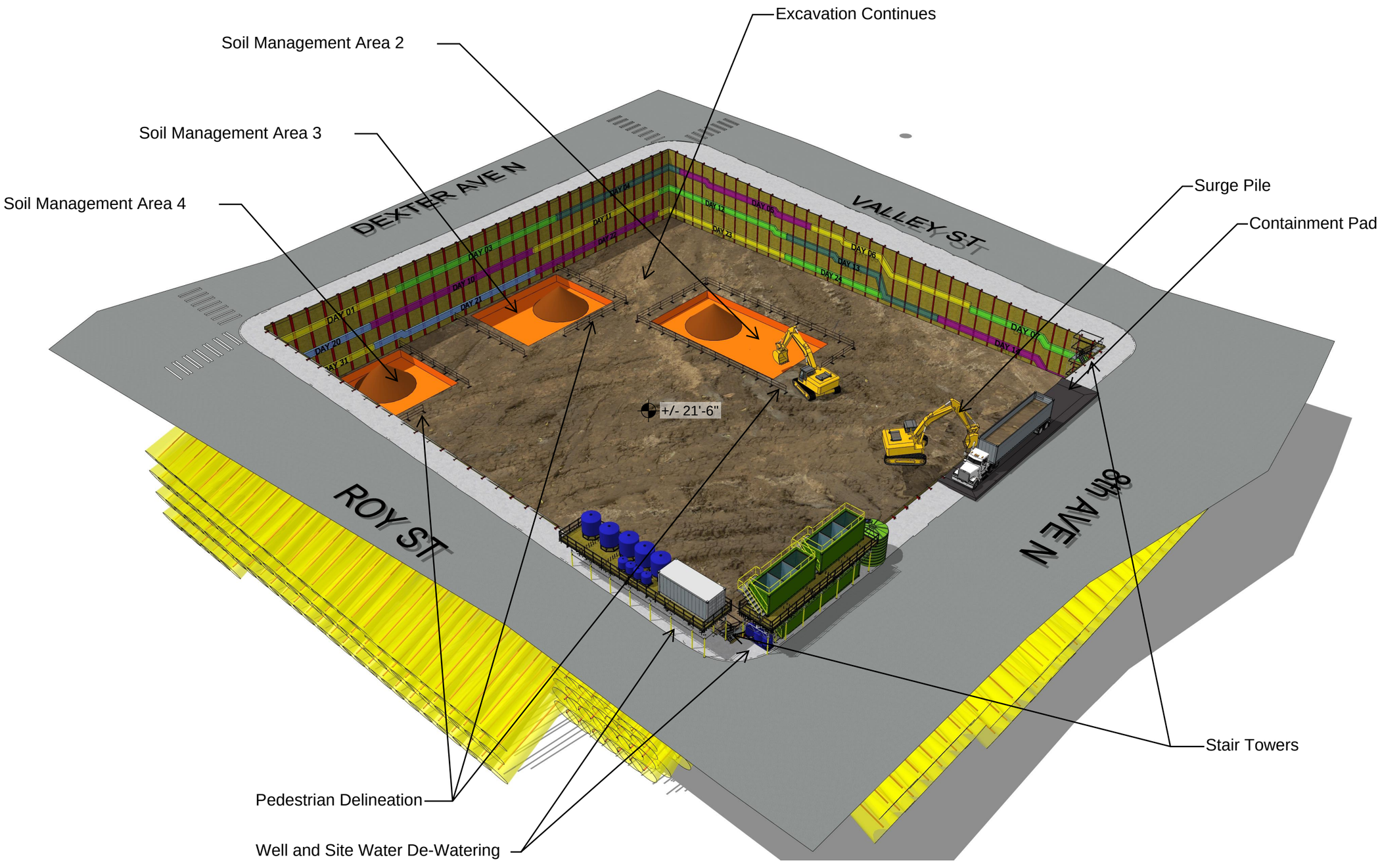
700 Dexter

De-Watering Wells Brought On Line

Notes:

Turner VDC

Rev.7 November 26, 2018



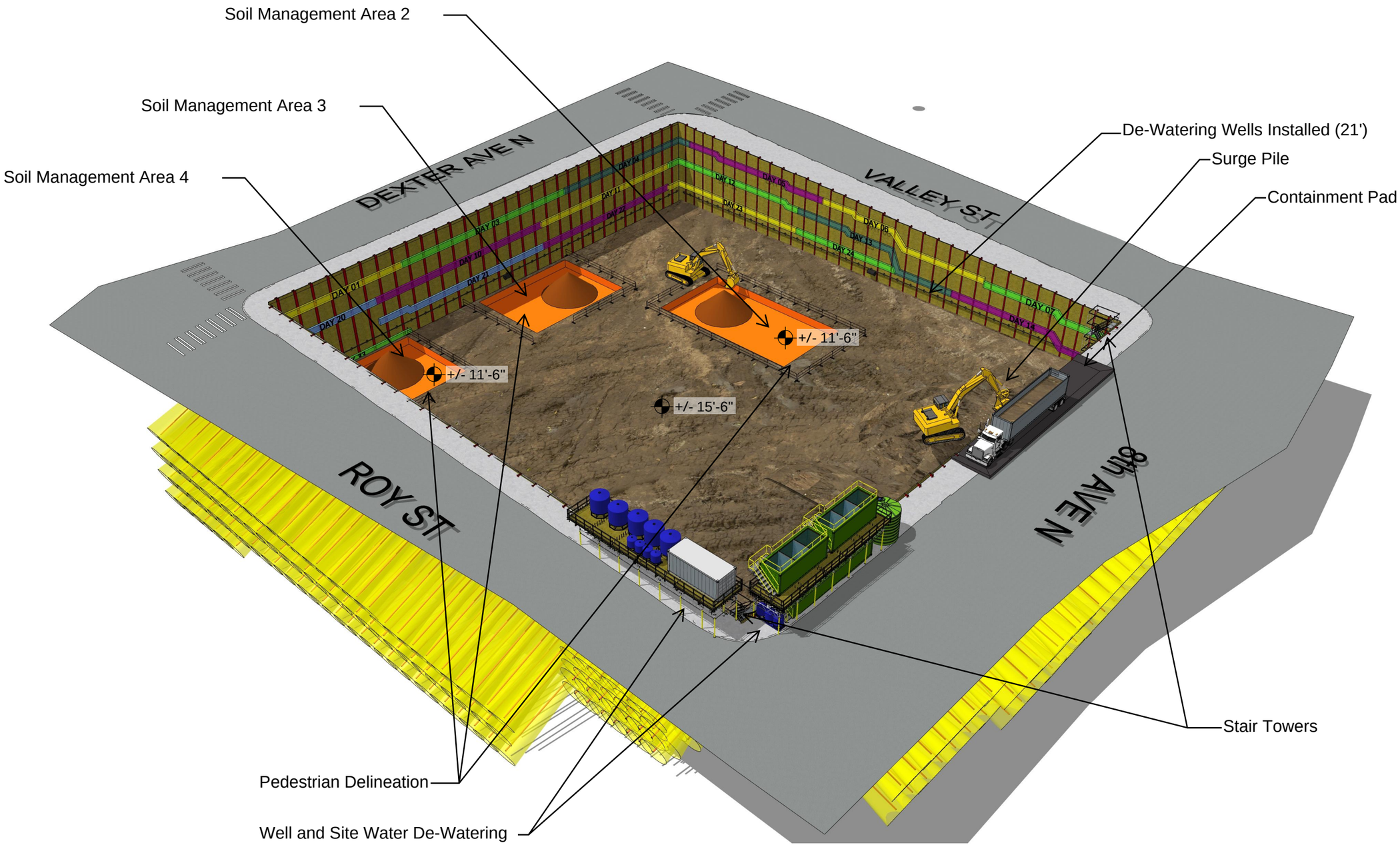
700 Dexter

Excavation Cut 06 View from SE Corner

Notes:

Turner VDC

Rev.7 November 26, 2018



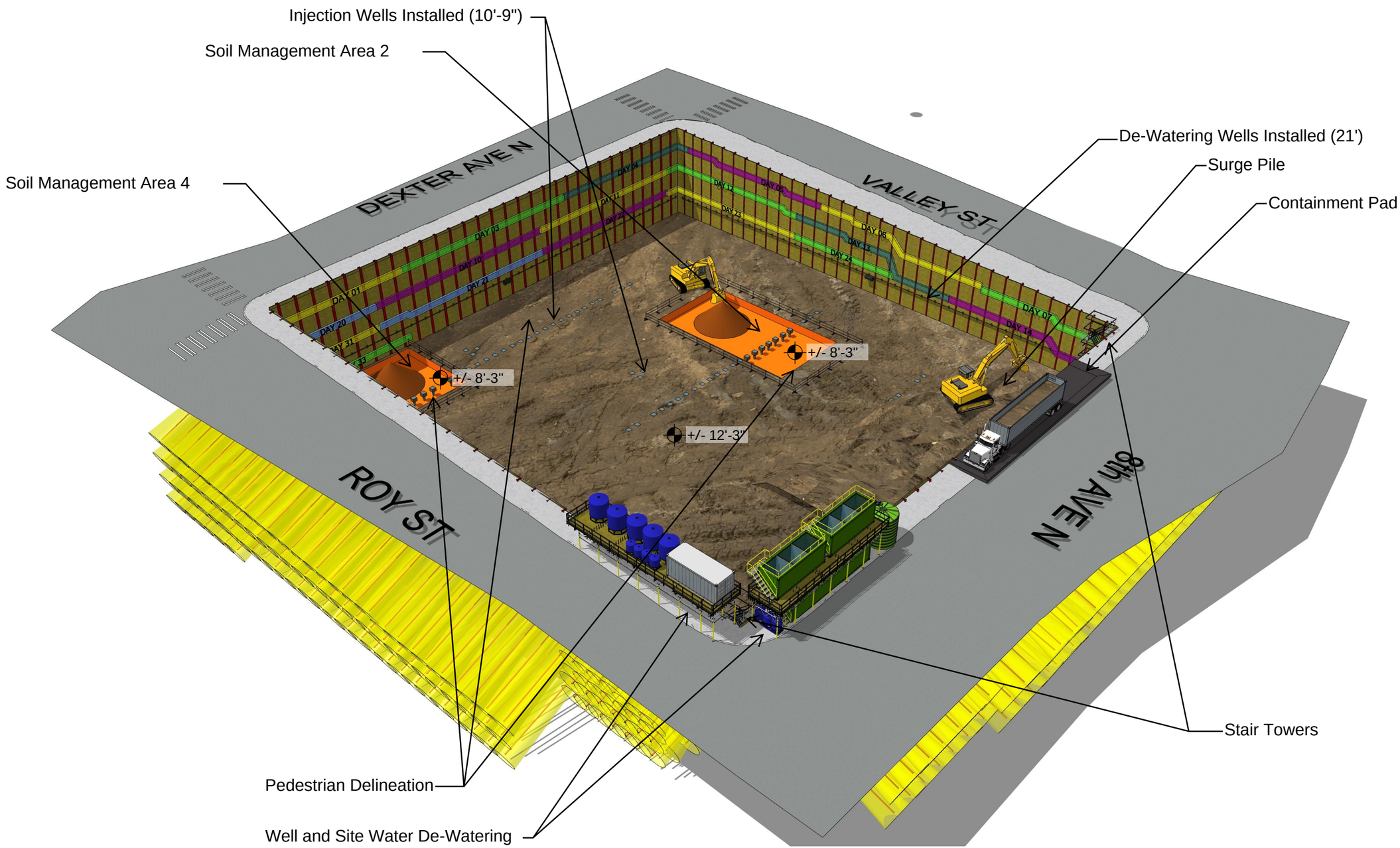
700 Dexter

Excavation Cut 07 View from SE Corner

Notes:

Turner VDC

Rev.7 November 26, 2018



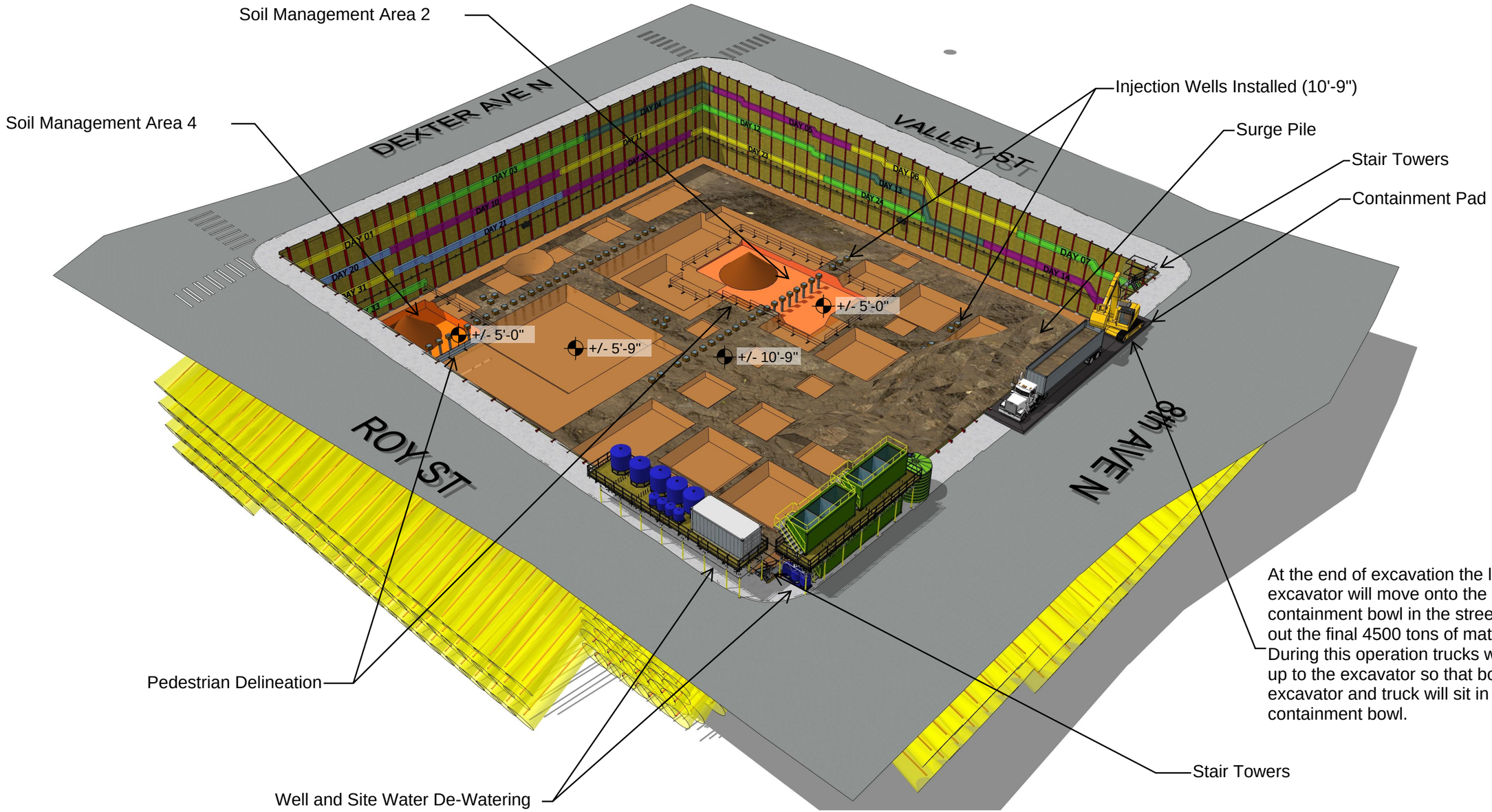
700 Dexter

Excavation Cut 08 View from SE Corner

Notes:

Turner VDC

Rev.7 November 26, 2018



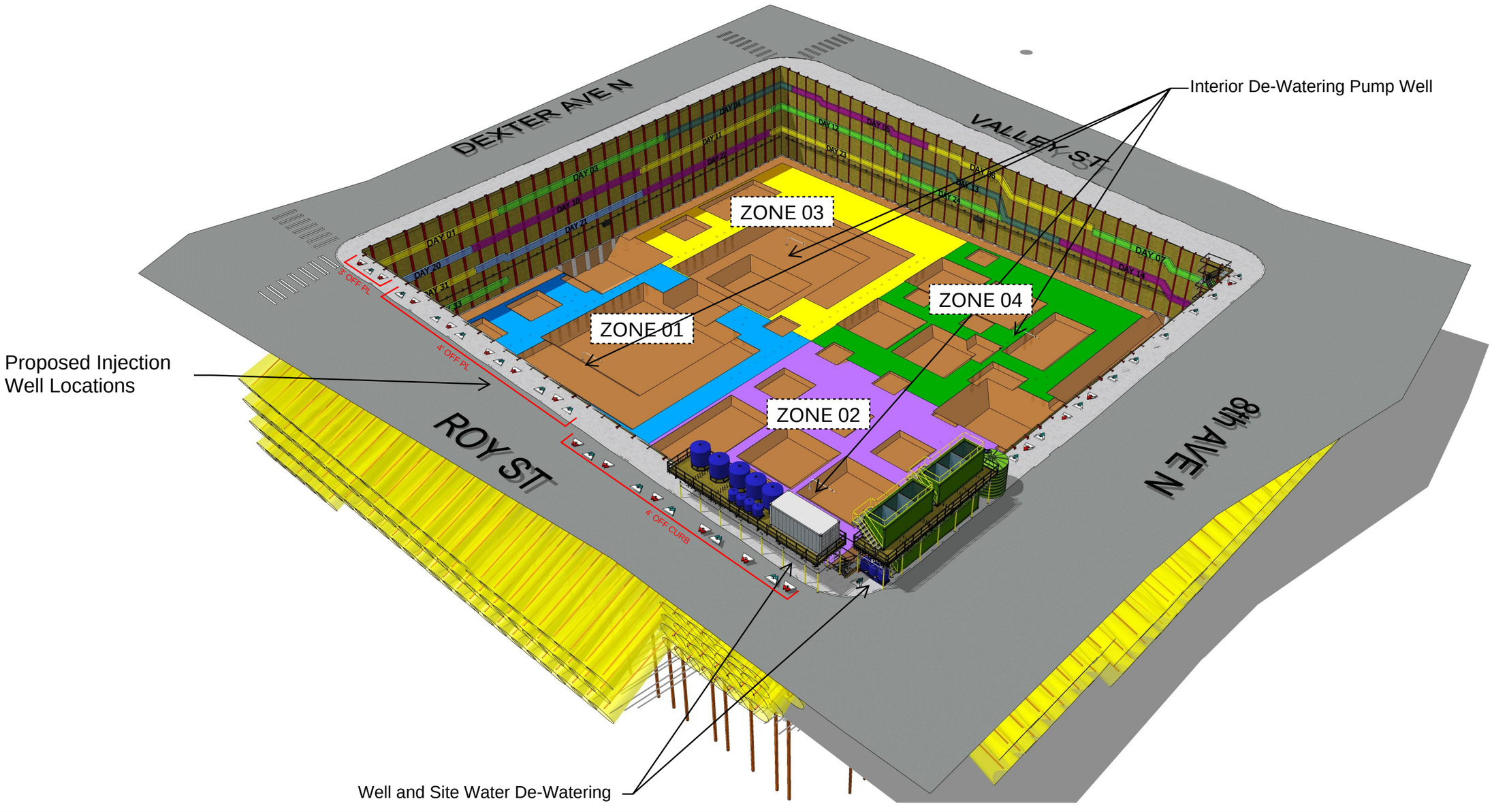
700 Dexter

Excavation Cut 09 View from SE Corner

Notes:

Turner VDC

Rev.7 November 26, 2018



700 Dexter

Excavation Cut 10 View from SE Corner

Notes:

Turner VDC

Rev.7 November 26, 2018

APPENDIX F

Final Contained-In Determination

APPENDIX G

CSWGP/NOI Application and SWPPP
KCIW Discharge Authorization

Application Id:	20262	**Certification Received:** *(Ecology use)*	
Facility/Site Name:	700 Dexter	**Permit Number:** *(Ecology use)*	
Facility Address:	700 Dexter Ave N Seattle, WA 98109	**Facility County:**	King
Permittee Name:	John Moshy	**Permittee Title:**	Director
Permittee Email:	john.moshy@biomedrealty.com	**Permittee Phone:**	8588297709
Permittee Address:	201 Elliott Ave W Ste 150 Seattle, WA 98119-4230	**Company Name:**	BMR-Dexter LLC
Disturbed Acreage:	1.55		

Certification of Permittee

"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 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."

John Moshy / BMR-Dexter LLC — Printed Name / Company

Director — Title

John Moshy
Tue Oct 16 2018 11:26:02 — Signature of Permittee *

10/16/2018 — Date

* Federal regulations require this application is signed by one of the following:
A. For a corporation: By a responsible corporate officer, of at least the level of vice president.
B. For a partnership or sole proprietorship: By a general partner or the proprietor, respectively.
C. For a municipality, state, federal, or other public facility: By either a principal executive officer or ranking elected official.

Please print, sign and mail this form to the following address:

Department of Ecology
ATTN: Water Quality Program, Construction Stormwater P.O. Box 47696
Olympia, WA 98504-7696

Notice of Intent

Construction Stormwater General Permit

Application Type: [X] **New** [ ] **Renewal** **Permit Number:** **NOI :** 20262

I. Contact Information

Permittee

Honorific: **First Name:** John **Last Name:** Moshy

Company Name: BMR-Dexter LLC **Title:** Director

Mailing Address: 17190 Bernardo Center Drive

City: San Diego **State:** CA **Zip Code:** 92128

Email: john.moshy@biomedrealty.com

Primary Phone: 858-829-7709 **Secondary Phone:** 858-485-9840

UBI Number:

Site Contact

Honorific: **First Name:** Jeff **Last Name:** Smith

Company Name: Turner Construction Company **Title:** Superintendent

Mailing Address: 830 4th Ave S Ste 300

City: Seattle **State:** WA **Zip Code:** 98134-1337

Email: jsmith@tcco.com

Primary Phone: 206-423-6666 **Secondary Phone:**

UBI Number:

Site Owner

Honorific: **First Name:** John **Last Name:** Moshy

Company Name: BMR-Dexter LLC **Title:** Director

Mailing Address: 17190 Bernardo Center Drive

City: San Diego **State:** CA **Zip Code:** 92128

Email: john.moshy@biomedrealty.com

Primary Phone: 858-829-7709 **Secondary Phone:** 858-485-9840

UBI Number:

II. Electronic Discharge Monitoring Reporting

You must submit monthly discharge monitoring reports using Ecology's Electronic Discharge Monitoring Reporting (WQWebDMR) system. To sign up for WQWebDMR, or to register a new site, go to ecology.wa.gov/Regulations-Permits/Permits-certifications/Stormwater-general-permits, and click on the "Construction Stormwater" link. You will find information on WQWebDMR under the "WQWebDMR and PARIS" link on the right-hand side. If you are unable to submit your DMRs electronically, you may contact Ecology to request a waiver. Ecology will generally only grant waiver requests to those permittees without internet access. Only a permittee or representative, designated in writing, may request access to or a waiver from WQWebDMR. To have the ability to use the system immediately, you must submit the Electronic Signature Agreement with your application. If you have questions on this process, contact Ecology's WQWebDMR staff at WQWebPortal@ecy.wa.gov or 360-407-7097.

III. Site Information

Site Project Name: 700 Dexter

Street Address or Location Description: 700 Dexter Ave N

City: Seattle **County:** King **Zip Code:** 98109

Latitude: 47.625701 **Longitude:** -122.341735

Type of Construction Activity:

- [ ] Residential
- [X] Commercial
- [ ] Industrial
- [ ] Highway or Road (city, county, state)
- [ ] Utilities (specify):
- [ ] Other (specify):

Site Acreage

Total site/project size: 1.55 acres

Total disturbed area: 1.55 acres

Total area of soil disturbance for your site/project over the life of the project. Include grading, equipment staging, excavation, borrow pit, material storage areas, dump areas, haul roads, side-cast areas, off-site construction support areas, and all other soil disturbance acreage associated with the project.

Will 1,000 cubic yards or more of poured concrete or recycled concrete be used over the life of the project? [X] Yes [ ] No

Estimated project start date: 3/18/2019 **Estimated project completion date:** 9/28/2021

Other Permits

None

IV. Existing Site Conditions

1. Are you aware of contaminated soils on this site? [X] Yes [ ] No

2. Are you aware of groundwater contamination located within the site boundary? [X] Yes [ ] No

3. If you answered yes to question 1 or 2, will any contaminated soils be distrubed or will any contaminated groundwater be discharged due to the proposed construction activity? [X] Yes [ ] No

If yes, please provide detailed information (as known and readily available) on the nature and extent of the contamination (concentrations, locations, and depth) as well as pollution prevention and/or treatment Best Management Practices (BMPs) proposed to control the discharge of soil and/or groundwater contaminants in stormwater. This should include information that would be included in related portions of the Stormwater Pollution Prevention Plan (SWPPP) that describe how contaminated and potentially contaminated construction stormwater and dewatering water will be managed. You may attach this information separately, if needed

V. Stormwater Pollution Prevention Plan (SWPPP)

You must develop a SWPPP prior to starting construction. Do not submit your SWPPP with your application. If you answered yes to the questions in Part IV, please submit the information that would be included in related portions of the SWPPP that describe how contaminated and potentially contaminated construction stormwater and dewatering water will be managed.

VI. Best Management Practices (BMPs)

You must use the BMPs listed in the Stormwater Management Manual for Western Washington or the Stormwater Management Manual for Eastern Washington or other manuals approved by Ecology. Alternatively, you may use demonstrably equivalent BMPs on the basis of permit condition S9.C.4. If you intend to use a BMP at your site that is not included in these manuals, but that you believe meets the definition of a demonstrably equivalent BMP, you must notify the appropriate regional office. (See Definitions in the Construction Stormwater General Permit).*

http://ecology.wa.gov/Regulations-Permits/Permits-certifications/Stormwater-general-permits/Construction-stormwater-permit#contacts

**Note that if you receive permit coverage without indicating the preference for a demonstrably equivalent BMP and later decide to use one, you must provide Ecology with notice of the selection of an equivalent BMP no less than 60 days before the intended use of the equivalent BMP.*

VII. Discharge/Receiving Water Information

Indicate whether your site's stormwater and/or dewatering water could enter surface waters, directly and/or indirectly:

[X] Water will discharge directly or indirectly (through a storm drain system or roadside ditch) into one or more surface waterbodies (wetlands, creeks, lakes, and all other surface waters and water courses).

If your discharge is to a storm sewer system, provide the name of the operator of the storm sewer system:

City of Seattle

[ ] Water will discharge to ground with 100% infiltration, with no potential to reach surface waters under any conditions.

If your project includes dewatering, you must include dewatering plans and discharge locations in your site Stormwater Pollution Prevention Plan.

Location of Discharge into Surface Waterbody

Outfall Number	Outfall Description	Surface Waterbody Name	Outfall Type	Latitude	Longitude
001	Outfall 1	Lake Union	Surface Water Body	47.626317	-122.338437

VIII. State Environmental Policy Act (SEPA)

This Notice of Intent (NOI) is incomplete and cannot be approved until the applicable SEPA requirements under Chapter 197-11 WAC are met.

Who is the SEPA lead agency on your site? City of Seattle

Has the SEPA lead agency issued a final decision on your checklist? [ ] Yes [X] No [ ] Exempt

If No: The NOI is incomplete. Ecology will hold the application until a final SEPA decision is made or the Construction Stormwater NOI public comment period ends, whichever is later. **You must notify Ecology once the lead agency has issued a determination.**

If Yes: Type of SEPA decision issued:

Date of final SEPA decision:

Date when all SEPA-related comment & appeal periods ended or will end:

If Exempt:

- [ ] Watershed Restoration & Fish Habitat Enhancement Exemption (RCW 43.21C.0382).
- [ ] Infill Development Exemption (RCW 43.21C.229).
- [ ] Planned Action Exemption (RCW 43.21C.031).
- [ ] Categorical Exemption. Under what section of the SEPA Rule (WAC 197-11-800) is it exempt?

Section: _____

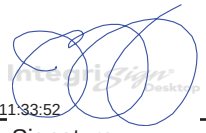
IX. Public Notice

You must publish a public notice at least **once** a week for **two** consecutive weeks with **seven days** between publications, in at least a **single** newspaper of general circulation in the county in which the facility is located. Ecology cannot grant permit coverage sooner than the end of the 30-day public comment period, which begins on the date of the **second** public notice.

Newspaper Name	First Public Notice Date	Second Public Notice Date
Seattle Daily Journal Of Commerce	10/17/2018	10/24/2018

X. Certification of Permittees

“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 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.”



Permittee Signature

10/16/2018

Date

700 Dexter Notice of Intent – Supplemental Information

The information presented in this supplement addresses the potential contaminants that may be encountered during construction and the measures that will be taken to prevent release to the environment via storm/groundwater discharges. The information contained in this supplemental document will also be included in the site-specific Stormwater Pollution Prevention Plan (SWPPP).

1. Existing Site Conditions

Potential contaminants of concern in site soils and groundwater-

- Chlorinated Volatile Organic Compounds (CVOCs):
    - Tetrachloroethene (PCE)
    - Trichloroethene (TCE)
    - Cis-1,2-dichloroethene (cis 1,2-DCE)
    - Vinyl Chloride (VC)

During construction, it is expected that only the soil and groundwater Shallow Bearing Zones and Intermediate A Zones will be disturbed. Figures and data tables including sample locations, sample depths, and lab test results with concentrations from the *Final Interim Action Work Plan* prepared by PES Environmental, Inc. (August 2018) is included in this Supplement.

2. Stormwater/Groundwater Plan and Contingency Plan

Turner Construction is aware that this project site contains contaminated soils and groundwater which may be discharged due to the proposed construction activity. Source control measures will be deployed as practicable, specifically contaminated soils will be removed and disposed of off-site and covered to prevent exposure to stormwater. However, as this is an active construction site with groundwater dewatering, source control measure may not be enough to prevent potential discharges of contaminants.

<u>Stormwater Treatment</u>

Advanced water treatment with WaveIonics Electrocoagulation (EC), sand filtration (SF), and granular activated carbon (GAC) columns will be implemented for site stormwater to meet surface water discharge standards. WaveIonics Electrocoagulation currently holds a General Use Level Designation (GULD) from Washington State Department of Ecology. A figure of the 700 Dexter project treatment system layout is attached. A copy of the WaveIonics Electrocoagulation GULD will be maintained in the Appendix of the site SWPPP along with detailed system information. A Request for Chemical Treatment will be completed and submitted to Ecology prior to system set-up.

During construction, site stormwater will be pumped to a pre-treatment poly tank. This settled water will be treated by the WaveIonics EC system. Following EC, water will be pumped to a post-treatment settling tank to enhance flocculation prior to filtration through the sand media filter. After filtration, the treated water will be returned through the WaveIonics unit where turbidity, pH and flow are verified by inline probes. Any off-spec water will be recirculated back to the pre-treatment tank for retreatment until water quality is met. Once turbidity and pH are verified, the water will be treated by carbon

filtration as a final polishing step prior to discharge to the storm drain and eventually Lake Union. Sample ports will be located before and after the carbon filter to facilitate any required grab sampling.

Groundwater Treatment

Groundwater treatment with an air stripper and liquid phase GAC will be implemented for groundwater from the dewatering wells to meet surface water discharge standards. A figure of the 700 Dexter project treatment system layout is attached. Detailed system information will be maintained in the Appendix of the site SWPPP.

During construction, groundwater will be pumped to a 6,900 gallon poly tank. From the tank, water will be pumped to an air stripper to volatilize CVOCs. Following air stripping, the pretreated water will be treated through liquid phase GAC columns as a final polishing step prior to discharge to the storm drain and eventually Lake Union. Sample ports will be located before and after the carbon vessels to facilitate any required grab sampling.

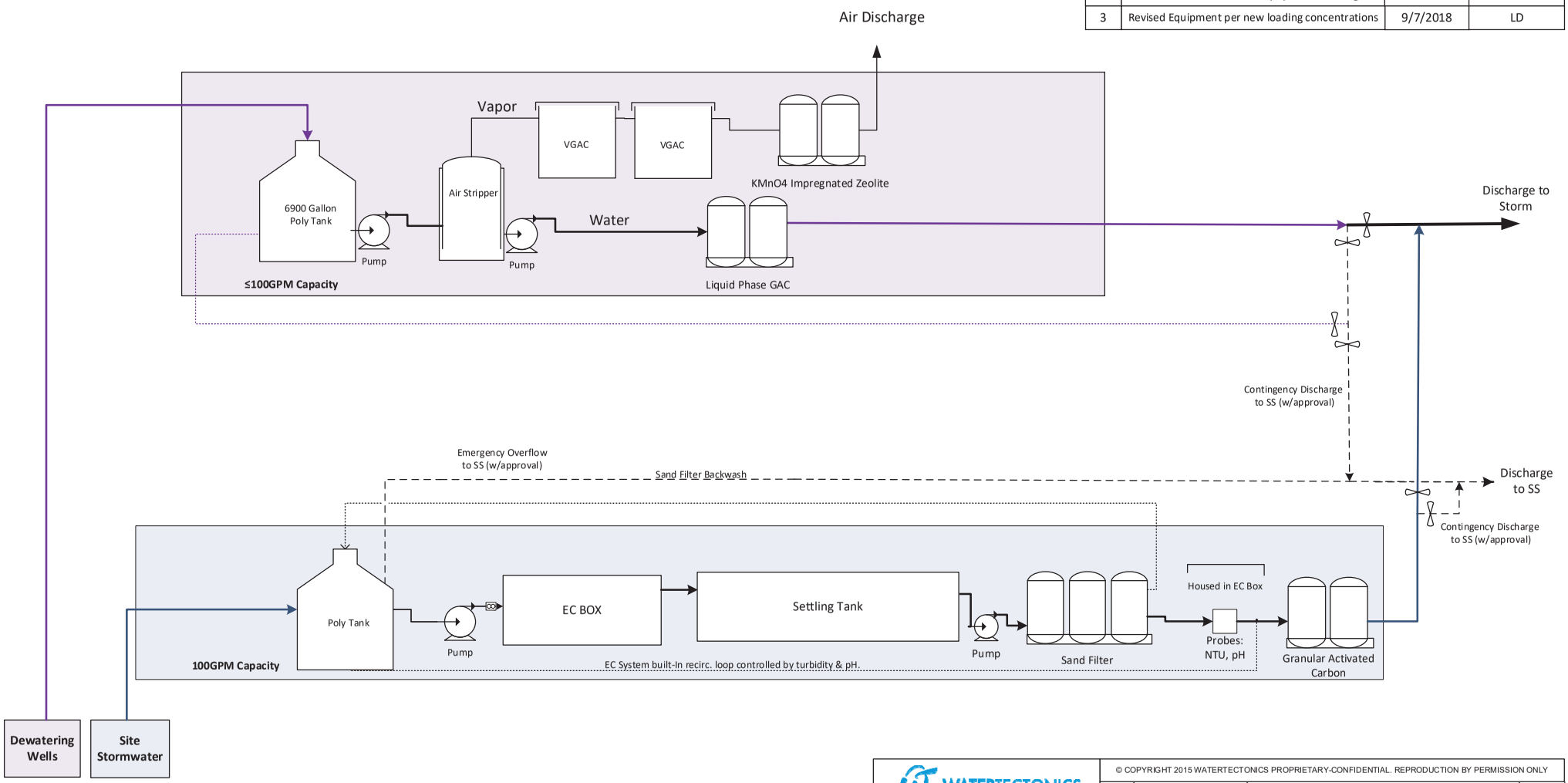
Contingency Plan

A Discharge Authorization is being pursued with King County Industrial Waste. Once the new storm drain is installed, discharge to the combined sewer would be a secondary discharge method only used as an emergency/contingency measure if there was a temporary upset in the treatment systems.

Turner 700 Dexter Ave N

WATERTECTONICS

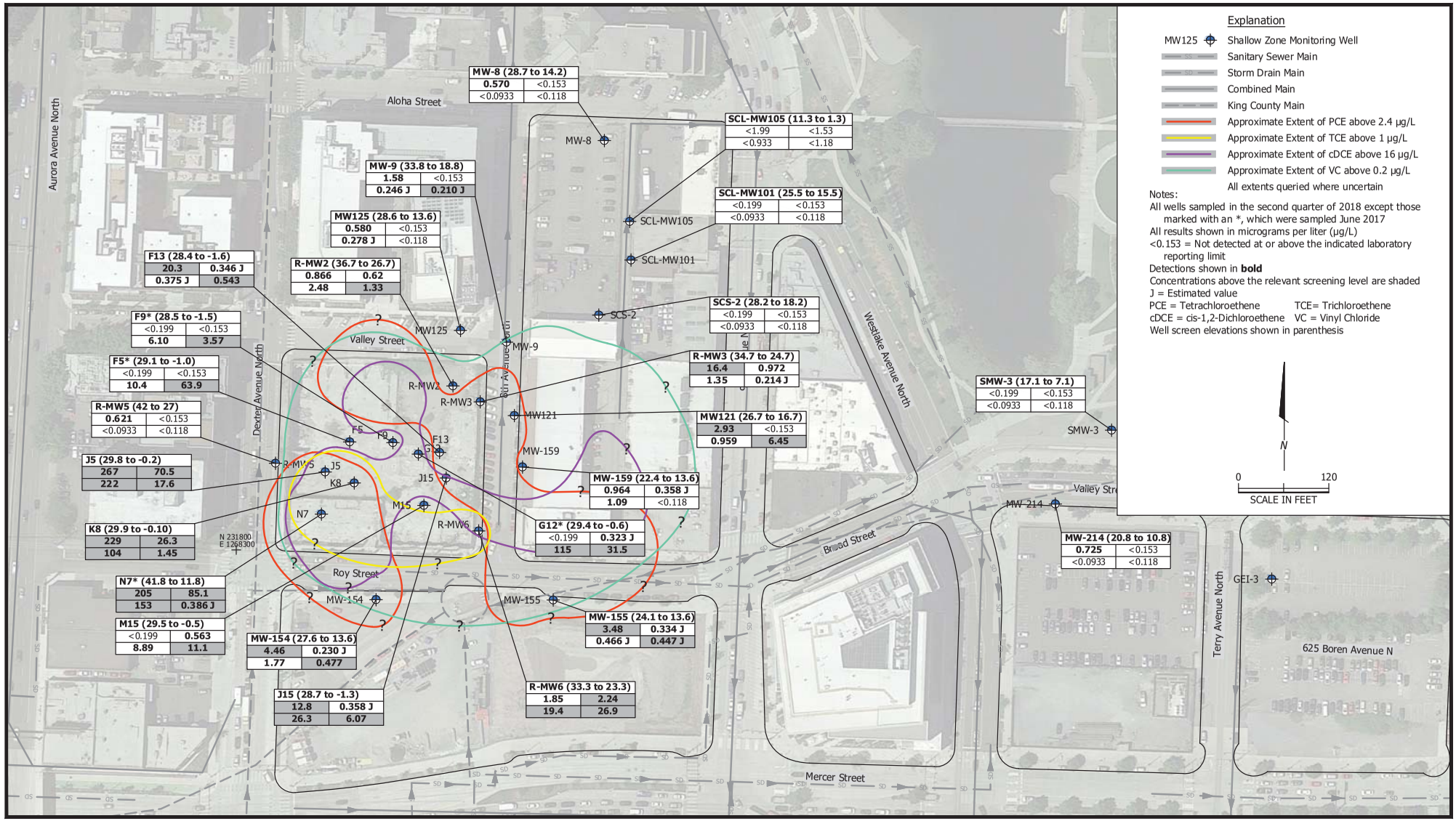
REVISIONS			
REV	DESCRIPTION	DATE	INITIALS
1	Conceptual Process Flow Diagram	12/15/2017	LD
2	Revised Flow Rates & Equipment Package	4/13/2018	LD
3	Revised Equipment per new loading concentrations	9/7/2018	LD



WATERTECTONICS

© COPYRIGHT 2015 WATERTECTONICS PROPRIETARY-CONFIDENTIAL. REPRODUCTION BY PERMISSION ONLY

DRAWN	LDoty	PG SIZE	DWG NO	PROJECT NAME	REV
ISSUED	9/7/2018	11x17	1	Turner – 700 Dexter Ave N	3
		SCALE	1/8" = 1'-0"	SHEET	1 of 1

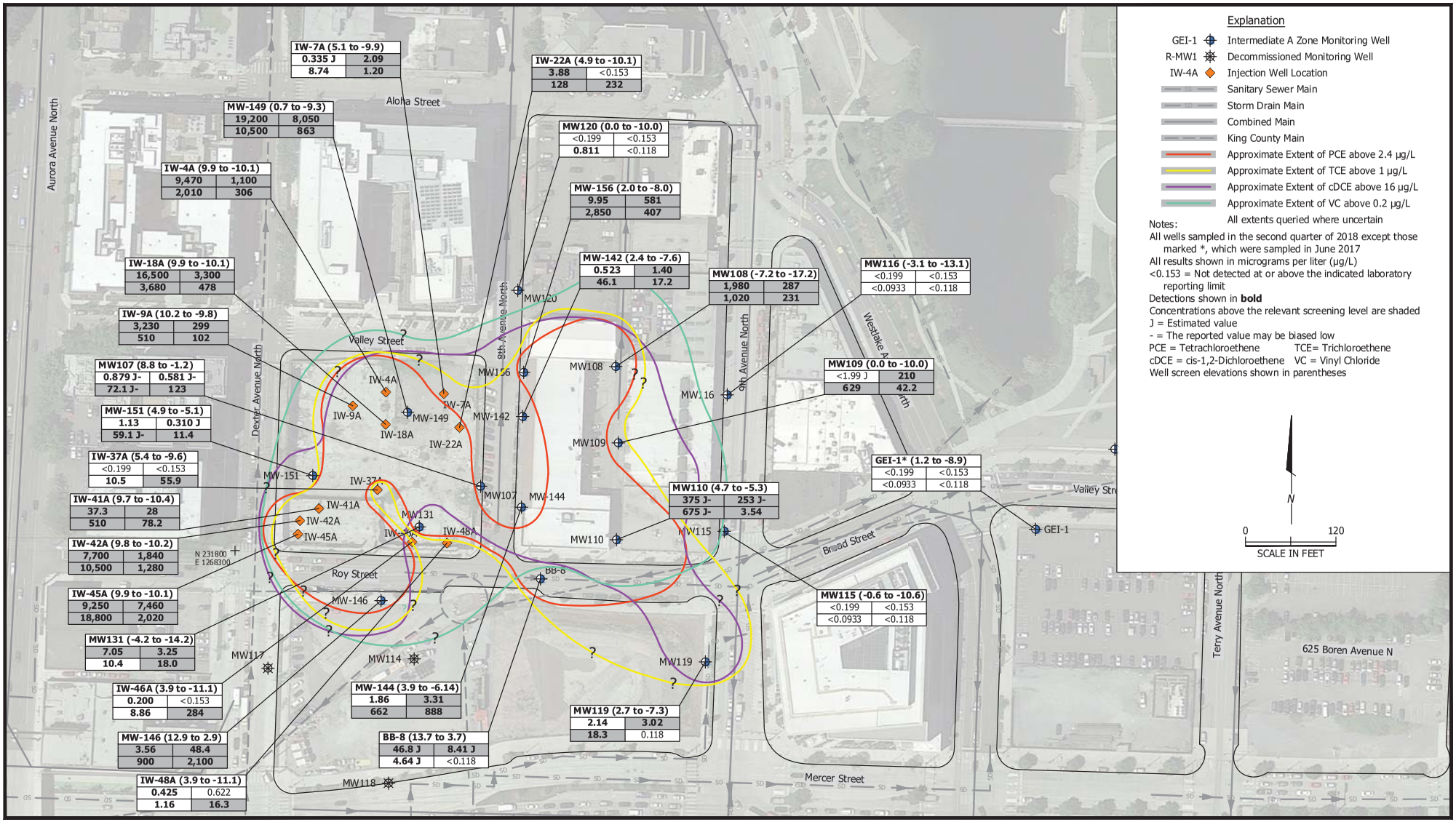


PES Environmental, Inc.
Engineering & Environmental Services

2018 CVOCs in Groundwater
Shallow Water-Bearing Zone
Former American Linen Supply
700 Dexter Avenue North
Seattle, Washington

FIGURE
27

1413.001.02.004	141300102404_IAWP_27	DRAFT	6/18
JOB NUMBER	DRAWING NUMBER	REVIEWED BY	DATE

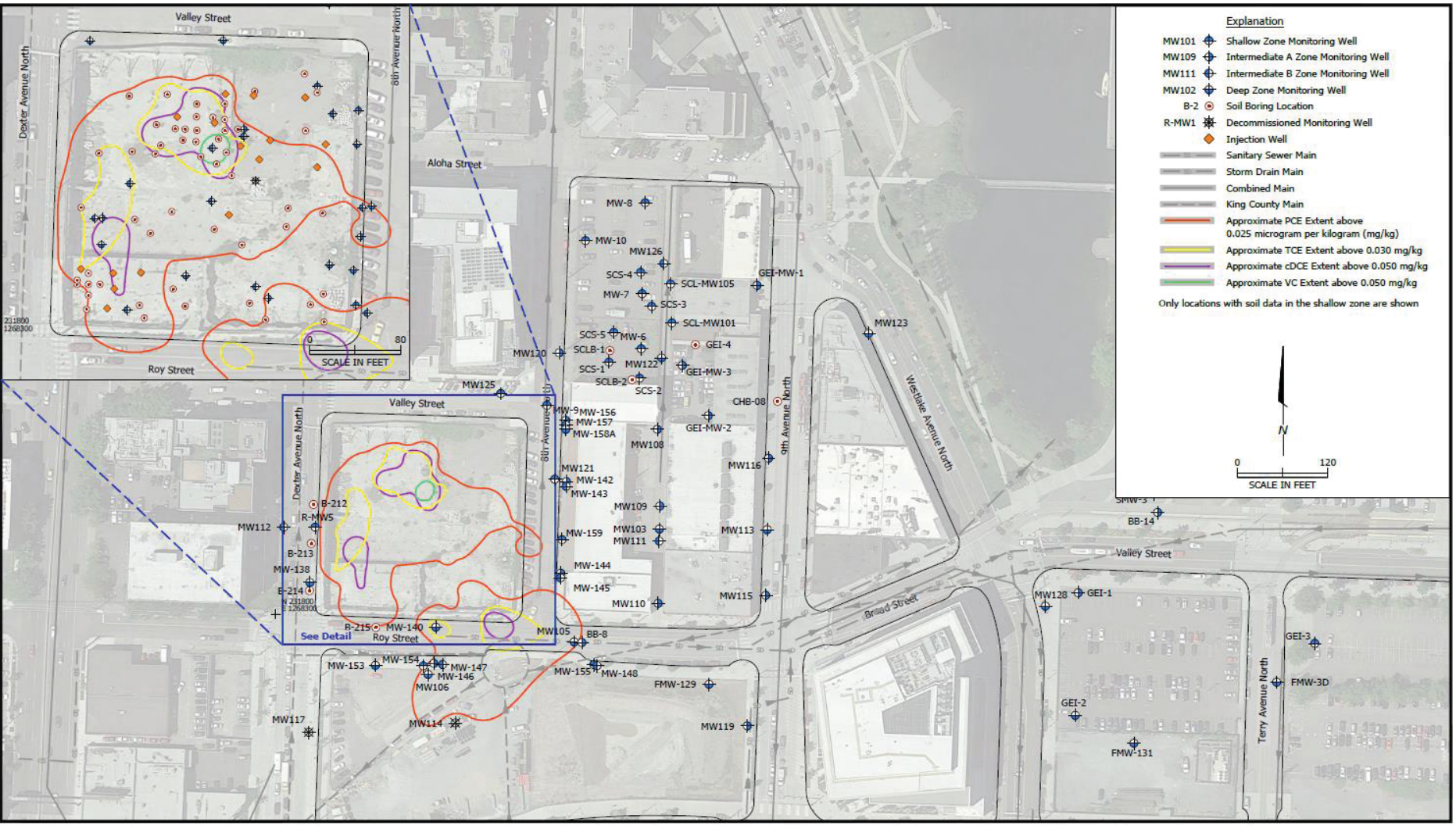


PES Environmental, Inc.
Engineering & Environmental Services

2018 CVOCs in Groundwater
Intermediate A Water-Bearing Zone
Former American Linen Supply
700 Dexter Avenue North
Seattle, Washington

FIGURE
28

1413.001.02.004	141300102404_IAWP_28	DRAFT	6/18
JOB NUMBER	DRAWING NUMBER	REVIEWED BY	DATE

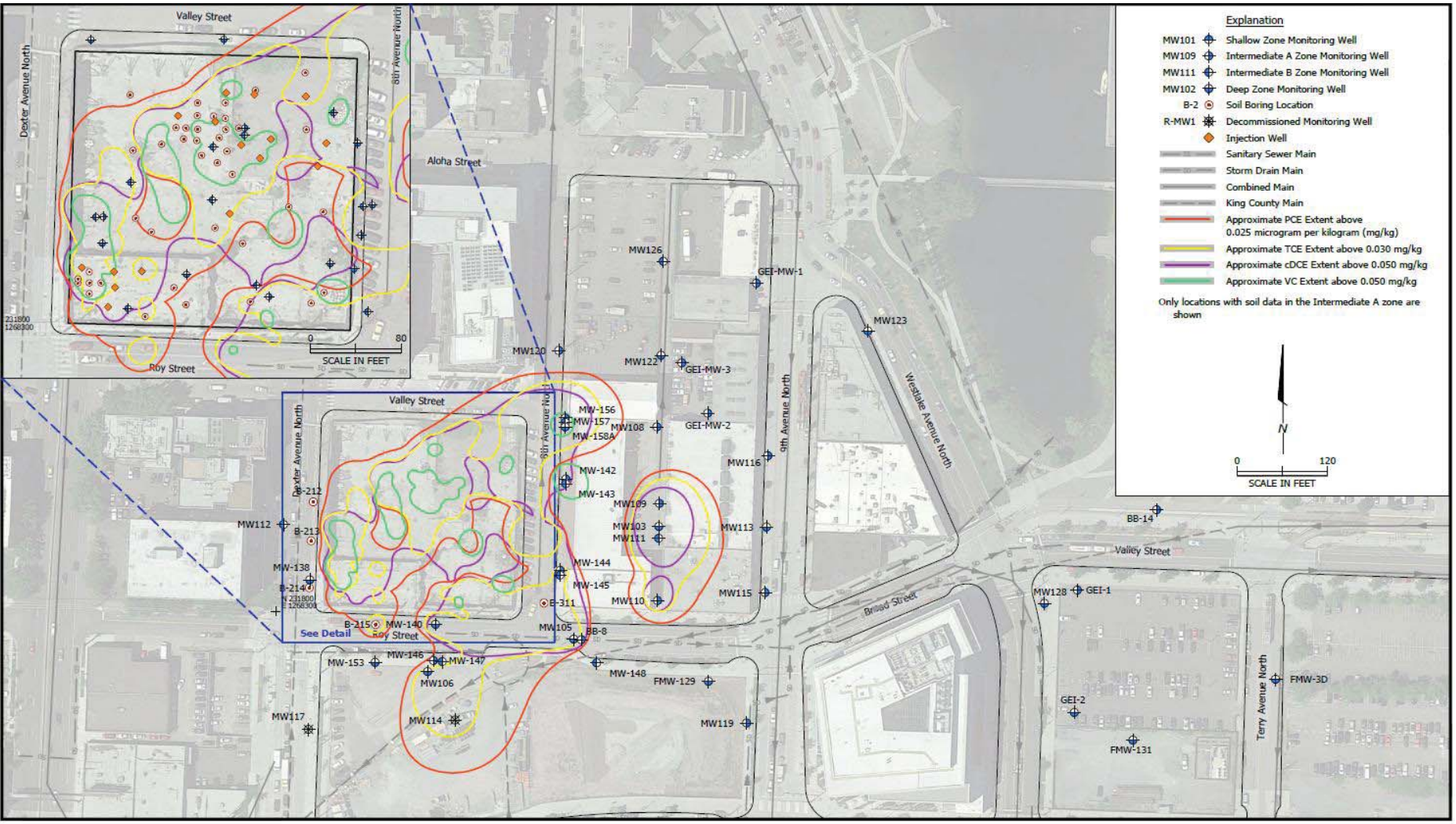


PES Environmental, Inc.
Engineering & Environmental Services

CVOCs in Soil - Shallow Zone
Former American Linen Supply
700 Dexter Avenue North
Seattle, Washington

FIGURE
21

1413.001.02.404	141300102404_IAWP_21	WRH	8/18
JOB NUMBER	DRAWING NUMBER	REVIEWED BY	DATE



PES Environmental, Inc.
Engineering & Environmental Services

CVOCs in Soil - Intermediate A Zone
Former American Linen Supply
700 Dexter Avenue North
Seattle, Washington

FIGURE
22

1413.001.02.404	141300102404_IAWP_22	WRH	8/18
JOB NUMBER	DRAWING NUMBER	REVIEWED BY	DATE

Stormwater Pollution Prevention Plan (SWPPP)

For

700 Dexter

City of Seattle / King County, Washington

Owner
BMR – Dexter, LLC
201 Elliott Ave W, Ste. 150
Seattle, WA 98119

Contractor
Turner Construction Company
830 Fourth Ave S, Ste. 300
Seattle, WA 98134

Prepared For
Washington Department of Ecology
Northwest Regional Office
3190 - 160th Avenue SE
Bellevue, WA 98008-5452
425-649-7000

SWPPP Preparer
Water Tectonics, Inc
6300 Merrill Creek Pkwy, Ste. C-100
Everett, WA 98203
425-349-4200

SWPPP Preparation Date
October 3, 2018

Approximate Project Construction Dates
March 2019 to September 2021

CERTIFICATION

Permittee Certification

"I certify under penalty of law that I understand the terms and conditions of the general National Pollutant Discharge Elimination System (NPDES) permit that authorizes the stormwater discharges from the construction site as identified as part of this certification."

"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 gather and evaluate the information submitted. Based on my inquiry of the person or 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."

Permittee/Operator: Turner Construction Company

By:_____

Name:_____

Title:_____

Date:_____

SWPPP REVISIONS

This SWPPP should be revised and updated to address changes in site conditions, new or revised regulatory requirements, and additional onsite stormwater pollution controls. All revisions to the original project SWPPP (No. 0) must be documented on the SWPPP Revision Documentation Form, which is shown below. The signature of this representative attests that information within this SWPPP revision is true and accurate to the best of their current understanding of the project.

SWPPP Revision Documentation Table

Number	Date	Company & Author Initials	Reason for Revision (pg # of rev.)
0	10/3/2018	Water Tectonics, Inc; AN	NA – Original Copy
1			
2			
3			

CONTENTS

1.0 Introduction 5

2.0 Site Description 7

2.1 Existing Conditions 7
2.2 Proposed Construction Activities 7

3.0 Construction Stormwater BMPs 8

3.1 The 13 BMP Elements 8
3.1.1 Element #1 – Preserve Vegetation/ Mark Clearing Limits 8
3.1.2 Element #2 – Establish Construction Access 8
3.1.3 Element #3 – Control Flow Rates 9
3.1.4 Element #4 – Install Sediment Controls 9
3.1.5 Element #5 – Stabilize Soils 10
3.1.6 Element #6 – Protect Slopes 10
3.1.7 Element #7 – Protect Drain Inlets 11
3.1.8 Element #8 – Stabilize Channels and Outlets 11
3.1.9 Element #9 – Control Pollutants 12
3.1.10 Element #10 – Control Dewatering 13
3.1.11 Element #11 – Maintain BMPs 14
3.1.12 Element #12 – Manage the Project 16
3.1.13 Element #13 – Protect Low Impact Development (LID) BMPs 17
3.2 Stormwater Management 18

4.0 Construction Phasing & BMP Implementation 20

5.0 Pollution Prevention Team 22

5.1 Roles and Responsibilities 22
5.2 Team Members 22

6.0 Site Inspections and Monitoring 23

6.1 Site Inspection 23
6.1.1 Site Inspection Frequency 23
6.1.2 Site Inspection Documentation 23
6.2 Stormwater Quality Monitoring 24
6.2.1 Turbidity Sampling 24
6.2.2 pH Sampling 25

7.0 Reporting and Recordkeeping 27

7.1 Recordkeeping 27
7.1.1 Site Log Book 27
7.1.2 Records Retention 27
7.1.3 Access to Plans and Records 27
7.1.4 Updating the SWPPP 27
7.2 Reporting 28

7.2.1 High Turbidity Phone Reporting..... 28
7.2.2 Discharge Monitoring Reports..... 28
7.2.3 Notification of Noncompliance..... 28
7.2.4 Notice of Termination..... 29

Appendix A – Permits & Authorizations

Appendix B – Site Plans/Drawings

Appendix C – Stormwater Calculations

Appendix D – Construction BMPs

Appendix E – Chemical Treatment Information

Appendix F – Site Inspection Forms

1.0 Introduction

This Stormwater Pollution Prevention Plan (SWPPP) has been prepared as part of the NPDES – Stormwater General Permit requirements for the 700 Dexter project located in the City of Seattle/King County, Washington. This SWPPP was prepared using Ecology guidelines and is based on the requirements set forth in the construction Stormwater General Permit and Ecology's Stormwater Management Manual for Western Washington (SWMM-WW 2012, Rev2014). The NPDES – Stormwater General Permit for the project is included in Appendix A.

The purpose of this SWPPP is to describe the proposed construction activities and all temporary and permanent erosion and sediment control (TESC) measures, pollution prevention measures, inspection/monitoring activities and record keeping that will be implemented during the project. The objectives of the SWPPP are to:

- Implement Best Management Practices (BMPs) to prevent erosion and sedimentation, and to identify, reduce, eliminate or prevent stormwater contamination and water pollution from construction activities.

- Prevent violations of surface water quality, ground water quality or sediment management standards.

- Prevent adverse water quality impacts including those on beneficial uses of receiving waters by controlling peak flows and volumes of stormwater run-off leaving the site.

This SWPPP has been customized for the 700 Dexter project and is intended to be used with the Temporary Erosion and Sediment Control (TESC) plan(s) approved by the City of Seattle/King County. Pertinent plans and site drawings are included after this narrative. Information in this SWPPP is divided into the following seven sections:

- Section 1 – INTRODUCTION. This section provides a summary description of the project, and the organization of the SWPPP document.
- Section 2 – SITE DESCRIPTION. This section provides a detailed description of the existing site conditions, proposed construction activities, and calculated stormwater flow rates for existing conditions and post–construction conditions.
- Section 3 – CONSTRUCTION BMPs. This section provides a detailed description of the BMPs to be implemented based on the 13 required elements of the SWPPP (SWMMWW 2012/rev 2014).
- Section 4 – CONSTRUCTION PHASING AND BMP IMPLEMENTATION. This section provides a description of the timing of the BMP implementation in relation to the project schedule.
- Section 5 – POLLUTION PREVENTION TEAM. This section identifies the appropriate contact names (emergency and non-emergency), monitoring personnel, and the onsite temporary erosion and sedimentation control inspector

- Section 6 – INSPECTION AND MONITORING. This section provides a description of the inspection and monitoring requirements such as the parameters of concern to be monitored, sample locations, sample frequencies, and sampling methods for all stormwater discharge locations from the site.
- Section 7 – RECORDKEEPING. This section describes the requirements for documentation of the BMP implementation, site inspections, monitoring results, and changes to the implementation of certain BMPs due to site factors experienced during construction.
- Supporting documentation and standard forms are provided in the following Appendices:

  Appendix A – Permits & Authorizations

  Appendix B – Site Plans/Drawings

  Appendix C – Stormwater Calculations

  Appendix D – Construction BMPs

  Appendix E – Chemical Treatment Information

  Appendix F – Site Inspection Forms

2.0 Site Description

2.1 Existing Conditions

The 700 Dexter project site is located at 700 Dexter Ave N in the City of Seattle/King County in the South Lake Union district. The site is rectangular in shape and bound by Valley Street to the north, 8th Avenue North to the east, Roy Street to the south, and Dexter Avenue North to the west. The site is generally flat and is covered by concrete or asphalt with areas of vegetation or exposed soil. Surface water is collected in catch basins which eventually discharge to Lake Union located to the northeast.

The *Geotechnical Report - 700 Dexter Avenue* prepared by Terra Associates (July 28, 2017) determined site soil conditions consisting of fill from depths of 10 feet to 18 feet comprised of silty sand with gravel, wood debris, and silt. Fill soils are underlain by medium dense to dense weathered till and ice-contact soils, including layers of silty sand, silt, sand, and silty gravel. Glacial till consisting of very dense silty sand with gravel primarily underlays the weathered till and ice contact soils.

Potential contaminants of concern in site soils and groundwater are chlorinated volatile organic compounds (CVOCs), including tetrachloroethene (PCE), trichloroethene (TCE), cis-1,2-dichloroethene (cis 1,2-DCE), and vinyl chloride (VC). During construction, it is expected that only the soil and groundwater Shallow Bearing Zones and Intermediate A Zones will be disturbed. Figures and data tables including sample locations, sample depths, and lab test results with concentrations from the *Final Interim Action Work Plan* prepared by PES Environmental, Inc. (August 2018) is included in Appendix A.

2.2 Proposed Construction Activities

Approximately 1.55 acres will be disturbed for the construction of two new adjacent 14-story office buildings with three levels of underground parking. Construction activities will include shoring and excavation, concrete work, new building construction, and miscellaneous site improvements.

The following summarizes details regarding site areas:

- Total site area: 1.55 acres
- CN 0.88
- 10 year 24-hour storm event volume 105,923 gallons
- 100 year 24-hour storm event volume 142,588 gallons
- Detention provided 13,800 gallons
- Chemical stormwater treatment rate 100 gpm

All stormwater calculations are provided in Appendix C.

3.0 Construction Stormwater BMPs

3.1 The 13 BMP Elements

The following section describes the BMPs that will be utilized onsite to meet Ecology's requirements. To avoid potential erosion and sediment control issues that may cause a violation(s) the Certified Erosion and Sediment Control Lead will promptly initiate the implementation of one or more of the alternative BMPs listed in Appendix D after the first sign that existing BMPs are ineffective or failing. Ecology's installation and maintenance specifications for the BMPs discussed in this narrative are also included on Appendix D.

3.1.1 Element #1 – Preserve Vegetation/ Mark Clearing Limits

To protect adjacent properties and to reduce the area of soil exposed to construction, the limits of construction will be clearly marked before land-disturbing activities begin. Trees that are to be preserved, as well as all sensitive areas and their buffers, shall be clearly delineated, both in the field and on the plans. In general, natural vegetation and native topsoil shall be retained in an undisturbed state to the maximum extent possible.

Site specific BMPs:

- High Visibility Plastic or Metal Fence (BMP C103)

Alternate/Additional BMPs:

- N/A

3.1.2 Element #2 – Establish Construction Access

Construction access or activities occurring on unpaved areas shall be minimized, yet where necessary, access points shall be stabilized to minimize the tracking of sediment onto public roads, and wheel washing, street sweeping, and street cleaning shall be employed to prevent sediment from entering state waters. All wash wastewater shall be controlled on site.

If sediment is tracked off site, public roads shall be cleaned thoroughly at the end of each day as a minimum, or more frequently during wet weather. Sediment shall be removed from roads by shoveling or sweeping and be transported to a controlled sediment disposal area.

Site specific BMPs:

- Stabilized Construction Entrance (BMP C105)
- Construction Road Stabilization (BMP C107)

Alternate/Additional BMPs:

- N/A

3.1.3 Element #3 – Control Flow Rates

In order to protect the properties and waterways downstream of the project site, stormwater discharges from the site will be controlled.

Stormwater detention facilities shall be constructed as one of the first steps in grading. Detention facilities shall be functional prior to construction of site improvements.

If permanent infiltration ponds are used for flow control during construction, these facilities shall be protected from siltation.

Site specific BMPs:

- Interceptor Dike & Swale (BMP C200)
- Portable Water Storage Tank(s)

Alternate/Additional BMPs:

- N/A

In general, discharge rates of stormwater from the site will be controlled where increases in impervious area or soil compaction during construction could lead to downstream erosion, or where necessary to meet local agency stormwater discharge requirements.

3.1.4 Element #4 – Install Sediment Controls

All stormwater runoff from disturbed areas shall pass through an appropriate sediment removal BMP before leaving the construction site or prior to being discharged to an infiltration facility.

Site specific BMPs:

- Silt Fence (BMP C233)
- Straw Wattles (BMP C235)
- Construction Stormwater Chemical Treatment (BMP C250)
- Portable Water Storage Tank(s)

Alternate/Additional BMPs:

- N/A

The following BMPs will be implemented as end-of-pipe sediment controls as required to meet permitted turbidity limits in the site discharge(s). Prior to the implementation of these technologies, sediment sources and erosion control and soil stabilization BMP efforts will be maximized to reduce the need for end-of-pipe sedimentation controls.

- Construction Stormwater Chemical Treatment (BMP C 250)

  Implemented only with prior written approval from Ecology, once received this will be kept in Appendix A with the General Permit. Specific information can be found in Section 3.2 and Appendix E.

3.1.5 Element #5 – Stabilize Soils

Exposed and unworked soils shall be stabilized with the application of effective BMPs to prevent erosion throughout the life of the project.

Site specific BMPs:

- Plastic Covering (BMP C123)
- Dust Control (BMP C140)
- Early application of gravel base on areas to be paved

Alternate/Additional BMPs:

- N/A

The project site is located west of the Cascade Mountain Crest. As such, no soils shall remain exposed and unworked for more than 7 days during the dry season (May 1 to September 30) and 2 days during the wet season (October 1 to April 30). Regardless of the time of year, all soils shall be stabilized at the end of the shift before a holiday or weekend if needed based on weather forecasts. Specific soil stabilization measures for slopes are discussed next in Section 3.1.6.

3.1.6 Element #6 – Protect Slopes

All cut and fill slopes will be designed, constructed, and protected in a manner than minimizes erosion. In general, cut and fill slopes will be stabilized as soon as possible and soil stockpiles will be temporarily covered with plastic sheeting. All stockpiled soils shall be stabilized from erosion, protected with sediment trapping measures, and where possible, be located away from storm drain inlets, waterways, and drainage channels.

Site specific BMPs:

- Plastic Covering (BMP C123)
- Interceptor Dike & Swale (BMP C200)

Alternate/Additional BMPs:

- N/A

3.1.7 Element #7 – Protect Drain Inlets

All storm drain inlets and culverts made operable during construction shall be protected to prevent unfiltered or untreated water from entering the drainage conveyance system. However, the first priority is to keep all access roads clean of sediment and keep street wash water separate from entering storm drains until treatment can be provided. Storm Drain Inlet Protection (BMP C220) will be implemented for all drainage inlets and culverts that could potentially be impacted by sediment-laden runoff on and near the project site. Inlet protection devices shall be cleaned or removed and replaced when sediment has filled one third of the available storage (or as specified by the manufacturer)

Site specific BMPs:

- Storm Drain Inlet Protection (BMP C220)

Alternate/Additional BMPs:

- N/A

3.1.8 Element #8 – Stabilize Channels and Outlets

Where site runoff is to be conveyed in channels, or discharged to a stream or some other natural drainage point, efforts will be taken to prevent downstream erosion.

Site specific BMPs:

- N/A

Alternate/Additional BMPs:

- N/A

The project site is located west of the Cascade Mountain Crest. As such, all temporary on-site conveyance channels shall be designed, constructed, and stabilized to prevent erosion from the

expected peak 10 minute velocity of flow from a Type 1A, 10-year, 24-hour recurrence interval storm for the developed condition. Alternatively, the 10-year, 1-hour peak flow rate indicated by an approved continuous runoff simulation model, increased by a factor of 1.6, shall be used.

Stabilization, including armoring material, adequate to prevent erosion of outlets, adjacent streambanks, slopes, and downstream reaches shall be provided at the outlets of all conveyance systems.

3.1.9 Element #9 – Control Pollutants

All pollutants, including waste materials and demolition debris, that occur onsite shall be handled and disposed of in a manner that does not cause contamination of stormwater. Good housekeeping and preventative measures will be taken to ensure that the site will be kept clean, well organized, and free of debris. If required, BMPs to be implemented to control specific sources of pollutants are discussed below.

Vehicles, construction equipment, and/or petroleum product storage/dispensing:

- All vehicles, equipment, and petroleum product storage/dispensing areas will be inspected regularly to detect any leaks or spills, and to identify maintenance needs to prevent leaks or spills.
- On-site fueling tanks and petroleum product storage containers shall include secondary containment.
- Spill prevention measures, such as drip pans, will be used when conducting maintenance and repair of vehicles or equipment.
- In order to perform emergency repairs on site, temporary plastic will be placed beneath and, if raining, over the vehicle.
- Contaminated surfaces shall be cleaned immediately following any discharge or spill incident.

Chemical storage:

- Any chemicals stored in the construction areas will conform to the appropriate source control BMPs listed in Volume IV of the Ecology stormwater manual. In Western WA, all chemicals shall have cover, containment, and protection provided on site, per BMP C153 for Material Delivery, Storage and Containment in SWMMWW 2012 (rev 2014).
- Application of agricultural chemicals, including fertilizers and pesticides, shall be conducted in a manner and at application rates that will not result in loss of chemical to stormwater runoff. Manufacturers' recommendations for application procedures and rates shall be followed.

Excavation and tunneling spoils dewatering waste:

- Dewatering BMPs and BMPs specific to the excavation and tunneling (including handling of contaminated soils) are discussed in Section 3.1.10.

Demolition:

- Dust released from demolished sidewalks, buildings, or structures will be controlled using Dust Control measures (BMP C140).
- Storm drain inlets vulnerable to stormwater discharge carrying dust, soil, or debris will be protected using Storm Drain Inlet Protection (BMP C220 as described above in Section 3.1. 7).
- Process water and slurry resulting from sawcutting and surfacing operations will be prevented from entering the waters of the State by implementing Sawcutting and Surfacing Pollution Prevention measures (BMP C152).

Concrete and grout:

- Process water and slurry resulting from concrete work will be prevented from entering the waters of the State by implementing Concrete Handling measures (BMP C151).
- A CO_2 system will be implemented to mitigate any high pH water that may be encountered.

Sanitary wastewater:

- Portable sanitation facilities will be firmly secured, regularly maintained, and emptied when necessary.
- Wheel wash or tire bath wastewater shall be discharged to a separate on-site treatment system or to the sanitary sewer as part of Wheel Wash implementation (BMP C106).

Solid Waste:

- Solid waste will be stored in secure, clearly marked containers.

Other:

- Other BMPs will be administered as necessary to address any additional pollutant sources on site.

The facility does not require a Spill Prevention, Control, and Countermeasure (SPCC) Plan under the Federal regulations of the Clean Water Act (CWA).

3.1.10 Element #10 – Control Dewatering

All dewatering water from open cut excavation, tunneling, foundation work, trench, or underground vaults shall be discharged into a controlled conveyance system prior to discharge to a sediment trap or sediment pond. Channels will be stabilized per Section 3.1.8.

Clean, non-turbid dewatering water will not be routed through stormwater sediment ponds, and will be discharged to systems tributary to the receiving waters of the State in a manner that does not cause erosion, flooding, or a violation of State water quality standards in the receiving water.

Dewatering of soils known to be free of contamination will trigger BMPs to trap sediment and reduce turbidity. Site specific sediment trapping BMPs to be implemented are discussed in Section 3.1.4. Additional BMPs that can be used for sediment trapping and turbidity reduction include the following:

- Construction Stormwater Chemical Treatment (BMP C250), as discussed in Section 3.2.
- Truck water off-site for legal disposal that does not pollute state waters
- Sanitary sewer discharge only with prior approval of local sewer authority

Water from soils known or suspected to be contaminated will require additional monitoring and treatment as required for the specific pollutants based on the receiving waters into which the discharge is occurring. Such monitoring is the responsibility of the contractor.

3.1.11 Element #11 – Maintain BMPs

All temporary and permanent erosion and sediment control BMPs shall be maintained and repaired as needed to assure continued performance of their intended function.

- Maintenance and repair shall be conducted in accordance with each particular BMP's specifications. An abbreviated maintenance schedule is shown in Table 1.
- Visual monitoring of the BMPs will be conducted at least once every calendar week and within 24 hours of any rainfall event that causes a discharge from the site.
- If the site becomes inactive, and is temporarily stabilized, the inspection frequency will be reduced to once every month.

Site specific BMPs:

- Materials on Hand (BMP C150)

All temporary erosion and sediment control BMPs shall be removed within 30 days after the final site stabilization is achieved or after the temporary BMPs are no longer needed. Trapped sediment shall be removed or stabilized on site. Disturbed soil resulting from removal of BMPs or vegetation shall be permanently stabilized.

Table 1. BMP Maintenance and Inspection Schedule

BMP #	BMP Name	Recommended Maintenance	Frequency
C103	Plastic or Metal Fence	If the fence has been damaged or visibility reduced, it shall be repaired or replaced immediately and visibility restored.	Daily
C105	Construction Entrance	Quarry spalls shall be added if the pad is no longer in accordance with the specifications. If the entrance fails to keep streets clean, install wheel wash, sweep or wash streets if wash water can be collected.	Daily
C107	Const. Road Stabilization	Inspect stabilized areas regularly, especially after large storm events. Add rock (hog fuel), gravel, etc. as needed to maintain a stable surface	Daily
C123	Plastic Covering	Replace torn sheets and repair open seams. Replace deteriorated plastic sheets. Dispose of plastic when no longer needed.	Weekly
C125	Top Soiling	Inspect stockpiles regularly, especially after large storm events. Stabilize areas that have eroded.	Weekly and following storms
C140	Dust Control	Re-apply dust control measures as necessary to keep dust to a minimum.	Daily during dry weather
C150	Materials on Hand	Re-stock erosion control materials as needed	Weekly
C151	Concrete Handling	Check containers and eco-pans for holes or leaks make sure all concrete wash out is in an impervious contained area	Daily when pouring concrete
C152	Sawcutting and Surfacing Pollution Prevention	Continually monitor operations to determine if slurry could enter surface waters. Should a violation arise, immediately implement preventative measures such as berms, barriers, secondary containment and/or vacuum trucks	Continuously during operations
C153	Material Delivery Storage & Containment	Check to see that all products are stored correctly (secondary containment, fire protection etc.) Make sure adequate spill clean-up materials are on hand if not restock.	Weekly
C200	Interceptor Dike & Swale	Inspect to insure structural integrity. Repair as needed	Weekly and following storms
C220	Storm Drain Inlet Protection	Replace clogged filter fabric. Clean sediment from stone filters. Do not wash collected sediments into storm drains – remove to soil stockpile.	Weekly and following storms
C233	Silt Fence	Repair damaged fencing immediately. Intercept concentrated flows and reroute. Remove sediment accumulations at 6-inches. Replace deteriorated fencing material. Properly dispose of used fencing.	Weekly and following storms
C235	Straw Wattles	Inspect wattles to ensure that they are in contact with soil and thoroughly entrenched. Intercept concentrated flows and reroute. Repair and/or re-stake as needed, replace deteriorated material.	Weekly and following storms
C250	Chemical Treatment	Follow monitoring requirements provided in Ecology's Use level Designation.	As required
C251	Stormwater Filtration	Check system daily when operating. Remove sediment from retention pond/backwash pond to maintain adequate volume. Clean and/or replace screen, bag and fiber filters as determined by flow restriction	Daily when operating

3.1.12 Element #12 – Manage the Project

Erosion and sediment control BMPs for this project have been designed based on the following principles:

- Design the project to fit the existing topography, soils, and drainage patterns.
- Emphasize erosion control rather than sediment control.
- Minimize the extent and duration of the area exposed.
- Keep runoff velocities low.
- Retain sediment on site.
- Thoroughly monitor site and maintain all ESC measures.
- Schedule major earthwork during the dry season.

Phasing of Construction:

- The construction project is being phased to the extent practicable in order to prevent soil erosion, and, to the maximum extent possible, the transport of sediment from the site during construction.
- Revegetation of exposed areas and maintenance of that vegetation shall be an integral part of the clearing activities during each phase of construction, per the Scheduling BMP (BMP C162).

Seasonal Work Limitations:

From October 1 through April 30, clearing, grading, and other soil disturbing activities shall only be permitted if shown to the satisfaction of the local permitting authority that silt-laden runoff will be prevented from leaving the site through a combination of the following:

- Site conditions including existing vegetative coverage, slope, soil type, and proximity to receiving waters; and
- Limitations on activities and the extent of disturbed areas; and
- Proposed erosion and sediment control measures.

Based on the information provided and/or local weather conditions, the local permitting authority may expand or restrict the seasonal limitation on site disturbance.

The following activities are exempt from the seasonal clearing and grading limitations:

- Routine maintenance and necessary repair of erosion and sediment control BMPs;
- Routine maintenance of public facilities or existing utility structures that do not expose the soil or result in the removal of the vegetative cover to soil; and
- Activities where there is 100 percent infiltration of surface water runoff within the site in approved and installed erosion and sediment control facilities.

Coordination with Utilities and Other Jurisdictions:

Care has been taken to coordinate with utilities, other construction projects, and the local jurisdiction in preparing this SWPPP and scheduling the construction work.

Inspection and Monitoring:

- All BMPs shall be inspected, maintained, and repaired as needed to assure continued performance of their intended function. Site inspections shall be conducted by a person who is knowledgeable in the principles and practices of erosion and sediment control. This person has the necessary skills to:
- Assess the site conditions and construction activities that could impact the quality of stormwater, and
- Assess the effectiveness of erosion and sediment control measures used to control the quality of stormwater discharges.
- A Certified Erosion and Sediment Control Lead shall be on-site or on-call at all times.
- Whenever inspection and/or monitoring reveals that the BMPs identified in this SWPPP are inadequate, due to the actual discharge of or potential to discharge a significant amount of any pollutant, appropriate BMPs or design changes shall be implemented as soon as possible.

Maintaining an Updated Construction SWPPP:

- This SWPPP shall be retained on-site or within reasonable access to the site.
- The SWPPP shall be modified whenever there is a change in the design, construction, operation, or maintenance at the construction site that has, or could have, a significant effect on the discharge of pollutants to waters of the state.
- The SWPPP shall be modified if, during inspections or investigations conducted by the owner/operator, or the applicable local or state regulatory authority, it is determined that the SWPPP is ineffective in eliminating or significantly minimizing pollutants in stormwater discharges from the site. The SWPPP shall be modified as necessary to include additional or modified BMPs designed to correct problems identified. Revisions to the SWPPP shall be completed within seven (7) days following the inspection.

3.1.13 Element #13 – Protect Low Impact Development (LID) BMPs

Permittees must protect all Bioretention and Rain Garden facilities from sedimentation through installation and maintenance of erosion and sediment control BMPs on portions of the site that drain into the Bioretention and/or Rain Garden facilities.

- Restore the facilities to their fully functioning condition if they accumulate sediment during construction. Restoring the facility must include removal of sediment and any sediment-laden Bioretention/Rain Garden soils, and replacing the removed soils with soils meeting the design specification.

- Maintain infiltration capabilities of Bioretention and Rain Garden facilities by protecting against compaction by construction equipment and foot traffic. Protect completed lawn and landscaped areas from compaction due to construction equipment.
- Control erosion and avoid introducing sediment from surrounding land uses onto permeable pavements. Do not allow muddy construction equipment on the base material or pavement. Do not allow sediment-laden runoff onto permeable pavements.
- Clean permeable pavements fouled with sediments or no longer passing an initial infiltration test using local stormwater manual methodology or the manufacturer's procedures.
- Keep all heavy equipment off existing soils under LID facilities that have been excavated to final grade to retain the infiltration rate of the soils.

3.2 Stormwater Management

Turner Construction is aware that this project site contains contaminated soils and groundwater which may be discharged due to the proposed construction activity. Source control measures will be deployed as practicable, specifically contaminated soils will be removed from site or covered to prevent exposure to stormwater. However, as this is an active construction site with groundwater dewatering, source control measure may not be enough to prevent potential discharges of contaminants.

Stormwater: Advanced water treatment with WaveIonics Electrocoagulation (EC), sand filtration (SF), and granular activated carbon (GAC) columns will be implemented for site stormwater to meet surface water discharge standards. WaveIonics Electrocoagulation currently holds a General Use Level Designation (GULD) from Washington State Department of Ecology. A figure of the 700 Dexter project treatment system layout is attached. A copy of the WaveIonics Electrocoagulation GULD will be maintained in the Appendix of the site SWPPP along with detailed system information. A Request for Chemical Treatment will be completed and submitted to Ecology prior to system set-up.

During construction, site stormwater will be pumped to a pre-treatment poly tank. This settled water will be treated by the WaveIonics EC system. Following EC, water will be pumped to a post-treatment settling tank to enhance flocculation prior to filtration through the sand media filter. After filtration, the treated water will be returned through the WaveIonics unit where turbidity, pH and flow are verified by inline probes. Any off-spec water will be recirculated back to the pre-treatment tank for retreatment until water quality is met. Once turbidity and pH are verified, the water will be treated by carbon filtration as a final polishing step prior to discharge to the existing private storm system and eventually Lake Union. Sample ports will be located before and after the carbon filter to facilitate any required grab sampling. Treatment, monitoring, and record keeping shall be per BMP 250.

Groundwater: Groundwater treatment with an air stripper and liquid phase GAC will be implemented for groundwater from the dewatering wells to meet surface water discharge standards. A figure of the 700 Dexter project treatment system layout is attached. Detailed system information will be maintained in the Appendix of the site SWPPP.

During construction, groundwater will be pumped to a 6,900 gallon poly tank. From the tank, water will be pumped to an air stripper to volatilize CVOCs. Following air stripping, the pretreated water will be treated through liquid phase GAC columns as a final polishing step prior to discharge to the existing private storm system and eventually Lake Union. Sample ports will be located before and after the carbon vessels to facilitate any required grab sampling. Treatment, monitoring, and record keeping shall be per BMP 250.

Contingency Plan: As an emergency/contingency measure, a Discharge Authorization will be pursued with King County Industrial Waste. This would be a secondary discharge method to the combined sewer, only used if there was an upset in the treatment systems.

4.0 Construction Phasing & BMP Implementation

The BMP implementation schedule will be driven by the construction schedule. The following provides a sequential list of the proposed construction schedule milestones and the corresponding BMP implementation schedule. The list contains key milestones such as wet season construction.

The BMP implementation schedule listed below is keyed to proposed phases of the construction project, and reflects differences in BMP installations and inspections that relate to wet season construction. The project site is located west of the Cascade Mountain Crest. As such, the dry season is considered to be from May 1 to September 30 and the wet season is considered to be from October 1 to April 30.

Estimated Dates of Construction **March 18, 2019 – September 28, 2021**

Mobilize to site 3/18/19 – 3/25/19

High Visibility Plastic or Metal Fence (BMP C103), Storm Drain Inlet Protection (BMP C220), Stabilized Construction Entrance (BMP C105), Construction Road Stabilization (BMP C107), Silt Fence (BMP C233)

Shoring/Excavation 3/18/19 – 10/17/19

Storage Tanks (e.g., Baker Tank) for Sedimentation, Construction Stormwater Chemical Treatment (BMP C 250), Interceptor Dike & Swale (BMP C200), Dust Control (BMP C140), Plastic Covering (BMP C123)

PES Soils Excavation 8/1/19 – 1/9/20

Dust Control (BMP C140), Plastic Covering (BMP C123), Materials on Hand (BMP C150), Maintain existing BMPs

Underslab/Foundation 11/1/19 – 3/11/20

Concrete Handling measures (BMP C151), Materials on Hand (BMP C150), Maintain existing BMPs

Garage/Podium: Elevators, P3 – Floor 1 1/20/20 – 9/15/21

Materials on Hand (BMP C150), Maintain existing BMPs

North & South Towers: Elevators, Floors 2 –15 6/12/20 – 9/1/21

Materials on Hand (BMP C150), Maintain existing BMPs

North & South Towers: Roof 3/31/21 – 6/30/21

Materials on Hand (BMP C150), Maintain existing BMPs

North & South Towers: Hoist Infill 7/19/21 – 8/3/21

Materials on Hand (BMP C150), Maintain existing BMPs

Demobilize from Site 9/16/21 – 9/28/21

Remove all temporary BMPs

5.0 Pollution Prevention Team

5.1 Roles and Responsibilities

The pollution prevention team consists of personnel responsible for implementation of the SWPPP, including the following:

- Certified Erosion and Sediment Control Lead (CESCL) – primary contractor contact, responsible for site inspections (BMPs, visual monitoring, sampling, etc.); to be called upon in case of failure of any ESC measures.
- Owner Contact – individual that is the site owner or representative of the site owner to be contacted in the case of an emergency
- Emergency Ecology Contact – individual to be contacted at Ecology in case of emergency.
- Local Jurisdiction Contact – individual to be contacted at the local jurisdiction in case of emergency
- Monitoring Personnel – personnel responsible for conducting water quality monitoring; for most sites this person is also the Certified Erosion and Sediment Control Lead.

5.2 Team Members

Names and contact information for those identified as members of the pollution prevention team are provided in the following table.

Title	Name(s)	Phone Number
Contractor's Certified Erosion and Sediment Control Lead (CESCL)	Turner Construction Company Jeremy Taylor, CESCL	206 505-6600 206 418-8513
Ecology Contact	NW Regional Office	425 649-7000
Owner Contact	John Moshy, BMR-Dexter LLC	858 829-7709
Local Jurisdiction Contacts	Seattle Public Utilities – DSO Jim Mahady, P.E. King County Industrial Waste	206 684-3333 206 684-0139 206 477-5300
Monitoring Personnel	Jeremy Taylor, CESCL	206 418-8513

6.0 Site Inspections and Monitoring

Monitoring includes visual inspection, monitoring for water quality parameters of concern and documentation of the inspection and monitoring findings in a site log book. A site log book will be maintained for all on-site construction activities and will include:

- A record of the implementation of the SWPPP and other permit requirements;
- Site inspections
- Stormwater quality monitoring

For convenience, the inspection form and water quality monitoring forms included in this SWPPP include the required information for the site log book. This SWPPP may function as the site log book if desired, or the forms may be separated and included in a separate site log book. However, if separated, the site log book but must be maintained on-site or within reasonable access to the site and be made available upon request to Ecology or the local jurisdiction.

The City of Seattle/King County may require additional monitoring based on site and soil conditions. These will be met in addition to the Ecology requirements. When possible a monitoring event may satisfy both the City and Ecology requirements.

6.1 Site Inspection

All BMPs will be inspected, maintained, and repaired as needed to assure continued performance of their intended function. The inspector will be a Certified Erosion and Sediment Control Lead (CESCL) per BMP C160. The name and contact information for the CESCL is provided in Section 5 of this SWPPP.

Site inspection will occur in all areas disturbed by construction activities and at all stormwater discharge points. Stormwater will be examined for the presence of suspended sediment, turbidity, discoloration, and oily sheen. The site inspector will evaluate and document the effectiveness of the installed BMPs and determine if it is necessary to repair or replace any of the BMPs to improve the quality of stormwater discharges. All maintenance and repairs will be documented in the site log book or forms provided in this document. All new BMPs or design changes will be documented in the SWPPP as soon as possible.

6.1.1 Site Inspection Frequency

Site inspections will be conducted at least once a week and within 24 hours following any rainfall event which causes a discharge of stormwater from the site. For sites with temporary stabilization measures, the site inspection frequency can be reduced to once every month.

6.1.2 Site Inspection Documentation

The site inspector will record each site inspection using the site log inspection forms provided in Appendix F. The site inspection log forms may be separated from this SWPPP document, but

will be maintained on-site or within reasonable access to the site and be made available upon request to Ecology or the local jurisdiction.

6.2 Stormwater Quality Monitoring

During construction site water will be discharged to the City of Seattle storm sewer system which eventually discharges to Lake Union. In the event that water quality limits for discharge to the storm sewer cannot be met (e.g.; temporary water treatment system failure), the potentially contaminated water will be disposed of in the combined sewer as an emergency/contingency measure, following the instructions given on the King County Metro and Seattle DPD Permits.

6.2.1 Turbidity Sampling

Ecology requires turbidity sampling on all sites disturbing one or more acres. Sampling will be conducted as follows:

- Sampling will occur at least once every calendar week when stormwater is discharging from the site.
- When there is no discharge during a calendar week, sampling is not required
- Sampling is not required outside of normal working hours or during unsafe conditions. If a permittee is not able to sample during a monitoring period, the Discharge Monitoring report (DMR) shall include a brief explanation.
- Sampling is required at all discharge points where stormwater is discharged off site (see attached plans for monitoring locations).
- Turbidity shall be read with a calibrated turbidimeter and read as nephelometric turbidity units (NTU). Turbidity may also be read by transparency tube with the results reported in centimeters (cm).
- Readings will be summarized on the Inspection Report which will be kept in the Site Log Book
- Additional monitoring or more stringent discharge requirements may be implemented by the local jurisdiction.

Ecology has set two benchmarks for turbidity, 25 NTU and 250 NTU. Table 2 explains the necessary actions required based on the measured turbidity value. These actions are taken from Section S4.C.5 of the Construction Stormwater General Permit.

Table 2. Turbidity/Transparency Values & Necessary Actions

NTU	Corrective Action Necessary
0 – 25 NTU (31 cm or more)	❖ 25 NTU is Ecology's Bench Mark – No Corrective Action Necessary ❖ Record value(s) on Inspection Sheet and file in Site Log Book
26 – 249 NTU (30 – 7 cm)	❖ Review SWPPP for compliance and make appropriate revisions. ❖ Fully implement appropriate source control and/or treatment BMPs as soon as possible but within 10 days of the date of the benchmark exceedance. ❖ Document BMP implementation and maintenance in the Site Log Book.
250 ntu or more (6 cm or less)	❖ Notify Ecology by phone within 24-hours of reading. ❖ Review SWPPP for compliance and make appropriate revisions. ❖ Fully implement appropriate source control and/or treatment BMPs* as soon as possible but within 10 days of the date of the exceeded benchmark. ❖ Document BMP implementation and maintenance in the site log book. ❖ Continue to sample discharges daily until: • Turbidity is 25 NTU or less; transparency is 31 cm or greater • The CESCL has demonstrated compliance with the water quality standard for turbidity: ▪ No more than 5NTU above background if background is less than 50 NTU ▪ No more than 10% over background turbidity if background is 50 NTU or greater • The discharge stops or is eliminated

*Additional treatment BMPs to be considered will include, but are not limited to, off-site treatment, infiltration, filtration and chemical treatment.

6.2.2 pH Sampling

This site is subject to pH monitoring because significant concrete work (>1000cy of poured or recycled concrete) will occur and/or engineered soils will be used on the project.

pH monitoring will be performed as follows:

- ❖ During the pH monitoring period (see Table 3), pH sampling and analysis will occur weekly. Monitoring will be most critical from 11/1/19 through 3/11/20.
- ❖ Sampling will occur in the sediment trap/pond(s) or other locations that receive stormwater run-off from the area of concrete/engineered soils prior to discharge to surface waters.

- ❖ pH benchmark is 8.5 Standard Units. Any time sampling indicates that the pH is higher than 8.5 the following will occur:
    - Prevent high pH water from entering storm system or surface waters
    - If necessary adjust or neutralize the high pH water with CO_2 sparging or dry ice. The permittee shall obtain written approval for the use of any other chemical treatment
- ❖ pH analysis will be performed on site with a calibrated pH meter, pH test kit or wide range pH indicator paper.
- ❖ Readings will be summarized on the Inspection Report which will be kept in the Site Log Book
- ❖ Additional monitoring or more stringent discharge requirements may be implemented by the local jurisdiction.

Table 3. pH Monitoring Period as Dictated by Source

Significant Concrete	Monitoring will begin when the first significant concrete work is exposed to precipitation and continue weekly until stormwater pH is 8.5 or less
Engineered Soils	Monitoring will begin when the soil amendments are first exposed to precipitation and shall continue until the amended area is fully stabilized (permanent stabilization - paved)

7.0 Reporting and Recordkeeping

7.1 Recordkeeping

7.1.1 Site Log Book

A site log book will be maintained for all on-site construction activities and will include:

- A record of the implementation of the SWPPP and other permit requirements;
- Site inspections; and,
- Stormwater quality monitoring.

For convenience, the inspection form and water quality monitoring forms included in this SWPPP include the required information for the site log book.

7.1.2 Records Retention

Records of all monitoring information (site log book, inspection reports/checklists, etc.), this Stormwater Pollution Prevention Plan, and any other documentation of compliance with permit requirements will be retained during the life of the construction project and for a minimum of three years following the termination of permit coverage in accordance with permit condition S5.C.

7.1.3 Access to Plans and Records

The SWPPP, General Permit, Notice of Authorization letter, and Site Log Book will be retained on site or within reasonable access to the site and will be made immediately available upon request to Ecology or the local jurisdiction. A copy of this SWPPP will be provided to Ecology within 14 days of receipt of a written request for the SWPPP from Ecology. Any other information requested by Ecology will be submitted within a reasonable time. A copy of the SWPPP or access to the SWPPP will be provided to the public when requested in writing in accordance with permit condition S5.G.

7.1.4 Updating the SWPPP

In accordance with Conditions S3, S4.B, and S9.B.3 of the General Permit, this SWPPP will be modified if the SWPPP is ineffective in eliminating or significantly minimizing pollutants in stormwater discharges from the site or there has been a change in design, construction, operation, or maintenance at the site that has a significant effect on the discharge, or potential for discharge, of pollutants to the waters of the State. The SWPPP will be modified within seven days of determination based on inspection(s) that additional or modified BMPs are necessary to correct problems identified, and an updated timeline for BMP implementation will be prepared.

7.2 Reporting

7.2.1 High Turbidity Phone Reporting

Any time sampling indicates turbidity is 250 NTU or greater (transparency 6 cm or less) the permittee shall notify the appropriate Ecology regional office by phone or by submitting an electronic report to the applicable Ecology Region's Environmental Report Tracking System (ERTS) within 24 hours.

Northwest Region (King, Kitsap, Island, San Juan, Skagit, Snohomish, Whatcom): (425) 649-7000 or http://www.ecy.wa.gov/programs/spills/forms/nerts_online/NWRO_nerts_online.html

Include the following information:

1. Your name and phone number
2. Permit number
3. City / County of project
4. Sample results
5. Date / Time of call
6. Date / Time of sample
7. Project name

7.2.2 Discharge Monitoring Reports

Water quality sampling results will be submitted to Ecology monthly on Discharge Monitoring Report (DMR) online forms in accordance with permit condition S5.B. The DMR must be received by DOE within 15 days of the end of the month (i.e. Sept report due Oct 15th). If there was no discharge during a given monitoring period, the form will be submitted with the selection "no discharge" in place of the monitoring results. If a benchmark was exceeded, a brief summary of inspection results and remedial actions taken will be included. If sampling could not be performed during a monitoring period, a DMR will be submitted with an explanation of why sampling could not be performed.

Even if there is no discharge to surface water, a monthly report will need to be submitted.

7.2.3 Notification of Noncompliance

If any of the terms and conditions of the permit are not met, and it causes a threat to human health or the environment, the following steps will be taken in accordance with permit section S5.F:

Ecology will be immediately notified of the failure to comply.

Immediate action will be taken to control the noncompliance issue and to correct the problem. If applicable, sampling and analysis of any noncompliance will be repeated immediately and the results submitted to Ecology within five (5) days of becoming aware of the violation.

A detailed written report describing the noncompliance will be submitted to Ecology within five (5) days, unless requested earlier by Ecology.

Any time turbidity sampling indicates turbidity is 250 nephelometric turbidity units (NTU) or greater or water transparency is 6 centimeters or less, the Ecology regional office will be notified by phone within 24 hours of analysis as required by permit condition S5.A (see Section 5.0 of this SWPPP for contact information).

In accordance with permit condition S4.F.6.b, the Ecology regional office will be notified if chemical treatment other than CO_2 sparging is planned for adjustment of high pH water (see Section 5.0 of this SWPPP for contact information).

Permit Application and Changes

In accordance with permit condition S2.A, a complete application form will be submitted to Ecology and the appropriate local jurisdiction (if applicable) to be covered by the General Permit

7.2.4 Notice of Termination

The site is eligible for termination when the site has undergone final stabilization, all temporary BMPs have been removed and all stormwater discharges associated with construction activities have been eliminated. The site is also eligible for termination when any remaining unstabilized portions of the project have been sold or transferred and the permittee no longer has operational control of the construction activity.

Once these criteria are met a completed Notice of Termination form shall be completed, signed and submitted to:

Department of Ecology
Permit Fee Unit
PO Box 47600
Olympia, WA 98504-7696

The termination is effective on the date that the NOT form was received by Ecology, unless the Permittee is notified otherwise by Ecology within 30 days.

Appendix A – Permits & Authorizations

An electronic copy of the NPDES Construction Stormwater General Permit can be found here: https://ecology.wa.gov/DOE/files/a1/a11b5cb4-491e-4810-ba0f-c79cd9e6f93c.pdf

Application Id:	20262	**Certification Received:** *(Ecology use)*	
Facility/Site Name:	700 Dexter	**Permit Number:** *(Ecology use)*	
Facility Address:	700 Dexter Ave N Seattle, WA 98109	**Facility County:**	King
Permittee Name:	John Moshy	**Permittee Title:**	Director
Permittee Email:	john.moshy@biomedrealty.com	**Permittee Phone:**	8588297709
Permittee Address:	201 Elliott Ave W Ste 150 Seattle, WA 98119-4230	**Company Name:**	BMR-Dexter LLC
Disturbed Acreage:	1.55		

Certification of Permittee

"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 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."

John Moshy / BMR-Dexter LLC — Printed Name / Company

Director — Title

John Moshy
Tue Oct 16 2018 11:26:02 — Signature of Permittee *

10/16/2018 — Date

* Federal regulations require this application is signed by one of the following:
A. For a corporation: By a responsible corporate officer, of at least the level of vice president.
B. For a partnership or sole proprietorship: By a general partner or the proprietor, respectively.
C. For a municipality, state, federal, or other public facility: By either a principal executive officer or ranking elected official.

Please print, sign and mail this form to the following address:

Department of Ecology
ATTN: Water Quality Program, Construction Stormwater P.O. Box 47696
Olympia, WA 98504-7696

DEPARTMENT OF ECOLOGY
State of Washington

Notice of Intent

Construction Stormwater General Permit

Application Type: [X] **New** [ ] **Renewal** **Permit Number:** **NOI :** 20262

I. Contact Information

Permittee

Honorific: **First Name:** John **Last Name:** Moshy
Company Name: BMR-Dexter LLC **Title:**
Mailing Address: 201 Elliott Ave W Ste 150
City: Seattle **State:** WA **Zip Code:** 98119-4230
Email: john.moshy@biomedrealty.com
Primary Phone: 858-829-7709 **Secondary Phone:**
UBI Number:

Site Contact

Honorific: **First Name:** Jeff **Last Name:** Smith
Company Name: Turner Construction Company **Title:** Superintendent
Mailing Address: 830 4th Ave S Ste 300
City: Seattle **State:** WA **Zip Code:** 98134-1337
Email: jsmith@tcco.com
Primary Phone: 206-423-6666 **Secondary Phone:**
UBI Number:

Site Owner

Honorific: **First Name:** John **Last Name:** Moshy
Company Name: BMR-Dexter LLC **Title:**
Mailing Address: 201 Elliott Ave W Ste 150
City: Seattle **State:** WA **Zip Code:** 98119-4230
Email: john.moshy@biomedrealty.com
Primary Phone: 858-829-7709 **Secondary Phone:**
UBI Number:

II. Electronic Discharge Monitoring Reporting

You must submit monthly discharge monitoring reports using Ecology's Electronic Discharge Monitoring Reporting (WQWebDMR) system. To sign up for WQWebDMR, or to register a new site, go to ecology.wa.gov/Regulations-Permits/Permits-certifications/Stormwater-general-permits, and click on the "Construction Stormwater" link. You will find information on WQWebDMR under the "WQWebDMR and PARIS" link on the right-hand side. If you are unable to submit your DMRs electronically, you may contact Ecology to request a waiver. Ecology will generally only grant waiver requests to those permittees without internet access. Only a permittee or representative, designated in writing, may request access to or a waiver from WQWebDMR. To have the ability to use the system immediately, you must submit the Electronic Signature Agreement with your application. If you have questions on this process, contact Ecology's WQWebDMR staff at WQWebPortal@ecy.wa.gov or 360-407-7097.

III. Site Information

Site Project Name: 700 Dexter

Street Address or Location Description: 700 Dexter Ave N

City: Seattle **County:** King **Zip Code:** 98109

Latitude: 47.625701 **Longitude:** -122.341735

Type of Construction Activity:

- [ ] Residential
- [X] Commercial
- [ ] Industrial
- [ ] Highway or Road (city, county, state)
- [ ] Utilities (specify):
- [ ] Other (specify):

Site Acreage

Total site/project size: 1.55 acres

Total disturbed area: 1.55 acres

Total area of soil disturbance for your site/project over the life of the project. Include grading, equipment staging, excavation, borrow pit, material storage areas, dump areas, haul roads, side-cast areas, off-site construction support areas, and all other soil disturbance acreage associated with the project.

Will 1,000 cubic yards or more of poured concrete or recycled concrete be used over the life of the project? [X] Yes [ ] No

Estimated project start date: 3/18/2019 **Estimated project completion date:** 9/28/2021

Other Permits

None

IV. Existing Site Conditions

1. Are you aware of contaminated soils on this site? [X] Yes [ ] No
2. Are you aware of groundwater contamination located within the site boundary? [X] Yes [ ] No
3. If you answered yes to question 1 or 2, will any contaminated soils be distrubed or will any contaminated groundwater be discharged due to the proposed construction activity? [X] Yes [ ] No

If yes, please provide detailed information (as known and readily available) on the nature and extent of the contamination (concentrations, locations, and depth) as well as pollution prevention and/or treatment Best Management Practices (BMPs) proposed to control the discharge of soil and/or groundwater contaminants in stormwater. This should include information that would be included in related portions of the Stormwater Pollution Prevention Plan (SWPPP) that describe how contaminated and potentially contaminated construction stormwater and dewatering water will be managed. You may attach this information separately, if needed

V. Stormwater Pollution Prevention Plan (SWPPP)

You must develop a SWPPP prior to starting construction. Do not submit your SWPPP with your application. If you answered yes to the questions in Part IV, please submit the information that would be included in related portions of the SWPPP that describe how contaminated and potentially contaminated construction stormwater and dewatering water will be managed.

VI. Best Management Practices (BMPs)

You must use the BMPs listed in the Stormwater Management Manual for Western Washington or the Stormwater Management Manual for Eastern Washington or other manuals approved by Ecology. Alternatively, you may use demonstrably equivalent BMPs on the basis of permit condition S9.C.4. If you intend to use a BMP at your site that is not included in these manuals, but that you believe meets the definition of a demonstrably equivalent BMP, you must notify the appropriate regional office. (See Definitions in the Construction Stormwater General Permit).*

http://ecology.wa.gov/Regulations-Permits/Permits-certifications/Stormwater-general-permits/Construction-stormwater-permit#contacts

**Note that if you receive permit coverage without indicating the preference for a demonstrably equivalent BMP and later decide to use one, you must provide Ecology with notice of the selection of an equivalent BMP no less than 60 days before the intended use of the equivalent BMP.*

VII. Discharge/Receiving Water Information

Indicate whether your site's stormwater and/or dewatering water could enter surface waters, directly and/or indirectly:

[X] Water will discharge directly or indirectly (through a storm drain system or roadside ditch) into one or more surface waterbodies (wetlands, creeks, lakes, and all other surface waters and water courses).

If your discharge is to a storm sewer system, provide the name of the operator of the storm sewer system:

City of Seattle

[ ] Water will discharge to ground with 100% infiltration, with no potential to reach surface waters under any conditions.

If your project includes dewatering, you must include dewatering plans and discharge locations in your site Stormwater Pollution Prevention Plan.

Location of Discharge into Surface Waterbody

Outfall Number	Outfall Description	Surface Waterbody Name	Outfall Type	Latitude	Longitude
001	Outfall 1	Lake Union	Surface Water Body	47.626317	-122.338437

VIII. State Environmental Policy Act (SEPA)

This Notice of Intent (NOI) is incomplete and cannot be approved until the applicable SEPA requirements under Chapter 197-11 WAC are met.

Who is the SEPA lead agency on your site? City of Seattle

Has the SEPA lead agency issued a final decision on your checklist? [ ] Yes [X] No [ ] Exempt

If No: The NOI is incomplete. Ecology will hold the application until a final SEPA decision is made or the Construction Stormwater NOI public comment period ends, whichever is later. **You must notify Ecology once the lead agency has issued a determination.**

If Yes: Type of SEPA decision issued:

Date of final SEPA decision:

Date when all SEPA-related comment & appeal periods ended or will end:

If Exempt:

- [ ] Watershed Restoration & Fish Habitat Enhancement Exemption (RCW 43.21C.0382).
- [ ] Infill Development Exemption (RCW 43.21C.229).
- [ ] Planned Action Exemption (RCW 43.21C.031).
- [ ] Categorical Exemption. Under what section of the SEPA Rule (WAC 197-11-800) is it exempt?

  Section: _____

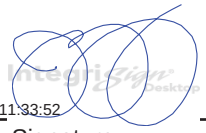
IX. Public Notice

You must publish a public notice at least **once** a week for **two** consecutive weeks with **seven days** between publications, in at least a **single** newspaper of general circulation in the county in which the facility is located. Ecology cannot grant permit coverage sooner than the end of the 30-day public comment period, which begins on the date of the **second** public notice.

Newspaper Name	First Public Notice Date	Second Public Notice Date
Seattle Daily Journal Of Commerce	10/17/2018	10/24/2018

X. Certification of Permittees

“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 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.”



Permittee Signature

10/16/2018

Date

700 Dexter Notice of Intent – Supplemental Information

The information presented in this supplement addresses the potential contaminants that may be encountered during construction and the measures that will be taken to prevent release to the environment via storm/groundwater discharges. The information contained in this supplemental document will also be included in the site-specific Stormwater Pollution Prevention Plan (SWPPP).

1. Existing Site Conditions

Potential contaminants of concern in site soils and groundwater-

- Chlorinated Volatile Organic Compounds (CVOCs):
  - Tetrachloroethene (PCE)
  - Trichloroethene (TCE)
  - Cis-1,2-dichloroethene (cis 1,2-DCE)
  - Vinyl Chloride (VC)

During construction, it is expected that only the soil and groundwater Shallow Bearing Zones and Intermediate A Zones will be disturbed. Figures and data tables including sample locations, sample depths, and lab test results with concentrations from the *Final Interim Action Work Plan* prepared by PES Environmental, Inc. (August 2018) is included in this Supplement.

2. Stormwater/Groundwater Plan and Contingency Plan

Turner Construction is aware that this project site contains contaminated soils and groundwater which may be discharged due to the proposed construction activity. Source control measures will be deployed as practicable, specifically contaminated soils will be removed and disposed of off-site and covered to prevent exposure to stormwater. However, as this is an active construction site with groundwater dewatering, source control measure may not be enough to prevent potential discharges of contaminants.

<u>Stormwater Treatment</u>

Advanced water treatment with WaveIonics Electrocoagulation (EC), sand filtration (SF), and granular activated carbon (GAC) columns will be implemented for site stormwater to meet surface water discharge standards. WaveIonics Electrocoagulation currently holds a General Use Level Designation (GULD) from Washington State Department of Ecology. A figure of the 700 Dexter project treatment system layout is attached. A copy of the WaveIonics Electrocoagulation GULD will be maintained in the Appendix of the site SWPPP along with detailed system information. A Request for Chemical Treatment will be completed and submitted to Ecology prior to system set-up.

During construction, site stormwater will be pumped to a pre-treatment poly tank. This settled water will be treated by the WaveIonics EC system. Following EC, water will be pumped to a post-treatment settling tank to enhance flocculation prior to filtration through the sand media filter. After filtration, the treated water will be returned through the WaveIonics unit where turbidity, pH and flow are verified by inline probes. Any off-spec water will be recirculated back to the pre-treatment tank for retreatment until water quality is met. Once turbidity and pH are verified, the water will be treated by carbon

filtration as a final polishing step prior to discharge to the storm drain and eventually Lake Union. Sample ports will be located before and after the carbon filter to facilitate any required grab sampling.

Groundwater Treatment

Groundwater treatment with an air stripper and liquid phase GAC will be implemented for groundwater from the dewatering wells to meet surface water discharge standards. A figure of the 700 Dexter project treatment system layout is attached. Detailed system information will be maintained in the Appendix of the site SWPPP.

During construction, groundwater will be pumped to a 6,900 gallon poly tank. From the tank, water will be pumped to an air stripper to volatilize CVOCs. Following air stripping, the pretreated water will be treated through liquid phase GAC columns as a final polishing step prior to discharge to the storm drain and eventually Lake Union. Sample ports will be located before and after the carbon vessels to facilitate any required grab sampling.

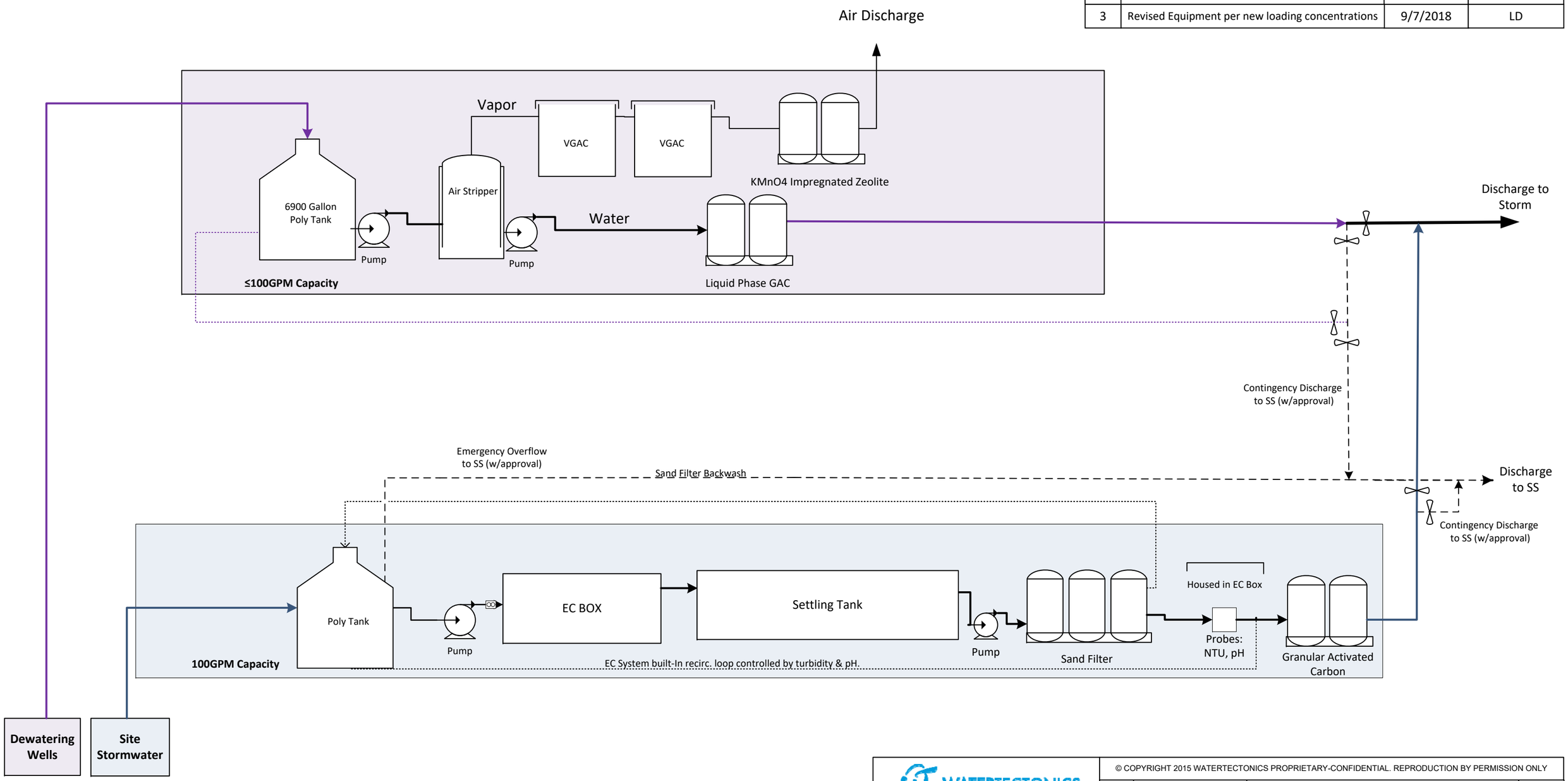
Contingency Plan

A Discharge Authorization is being pursued with King County Industrial Waste. Once the new storm drain is installed, discharge to the combined sewer would be a secondary discharge method only used as an emergency/contingency measure if there was a temporary upset in the treatment systems.

Turner 700 Dexter Ave N

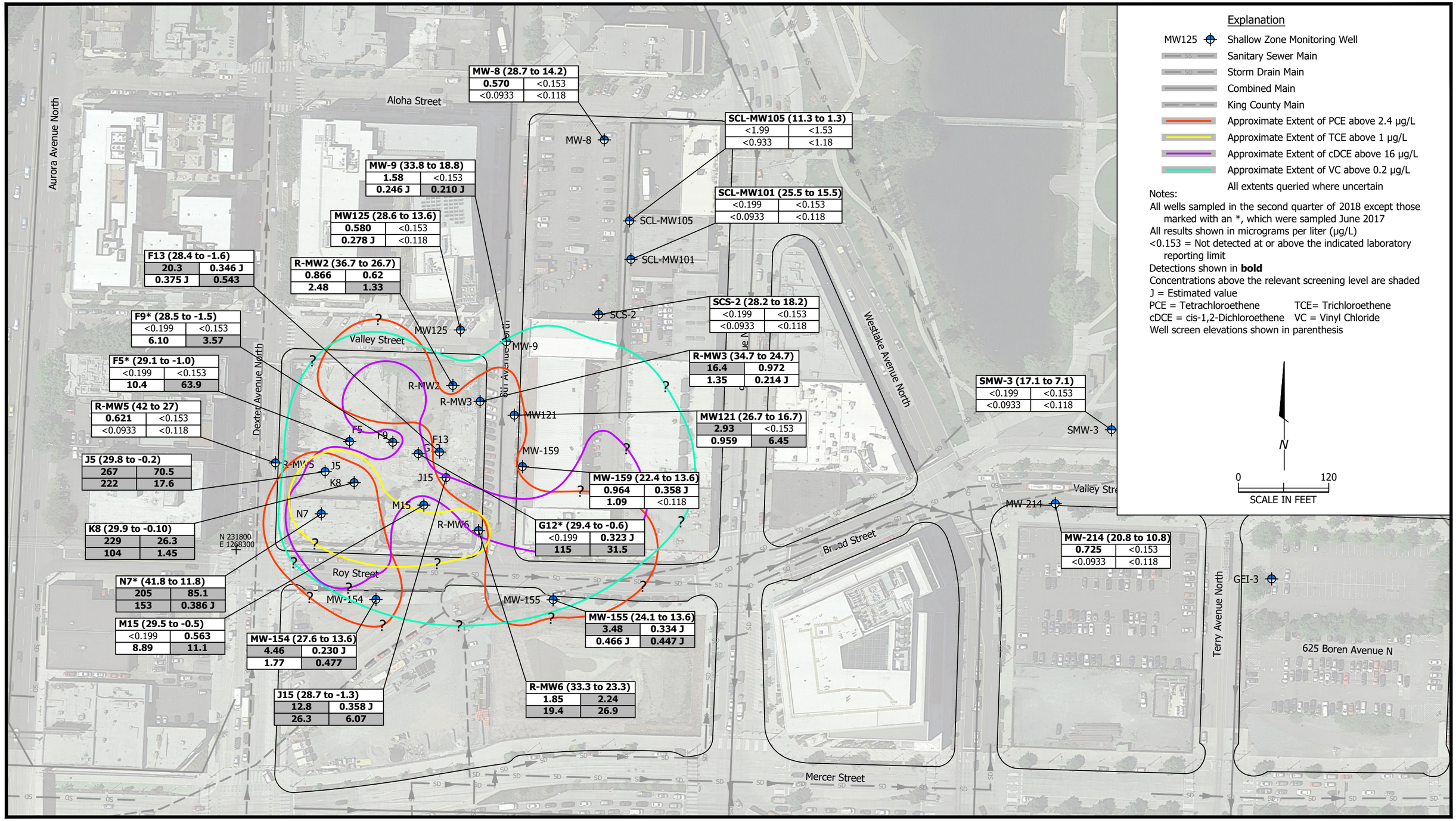
WATERTECTONICS

REVISIONS			
REV	DESCRIPTION	DATE	INITIALS
1	Conceptual Process Flow Diagram	12/15/2017	LD
2	Revised Flow Rates & Equipment Package	4/13/2018	LD
3	Revised Equipment per new loading concentrations	9/7/2018	LD



© COPYRIGHT 2015 WATERTECTONICS PROPRIETARY-CONFIDENTIAL. REPRODUCTION BY PERMISSION ONLY

WATERTECTONICS					
	PG SIZE	DWG NO	PROJECT NAME		REV
DRAWN LDoty	11x17	1	Turner – 700 Dexter Ave N		3
ISSUED 9/7/2018	SCALE 1/8" = 1'-0"			SHEET	1 of 1



Explanation

- MW125 — Shallow Zone Monitoring Well
- Sanitary Sewer Main
- Storm Drain Main
- Combined Main
- King County Main
- Approximate Extent of PCE above 2.4 µg/L
- Approximate Extent of TCE above 1 µg/L
- Approximate Extent of cDCE above 16 µg/L
- Approximate Extent of VC above 0.2 µg/L
- All extents queried where uncertain

Notes:
All wells sampled in the second quarter of 2018 except those marked with an *, which were sampled June 2017
All results shown in micrograms per liter (µg/L)
<0.153 = Not detected at or above the indicated laboratory reporting limit
Detections shown in **bold**
Concentrations above the relevant screening level are shaded
J = Estimated value
PCE = Tetrachloroethene TCE= Trichloroethene
cDCE = cis-1,2-Dichloroethene VC = Vinyl Chloride
Well screen elevations shown in parenthesis

N

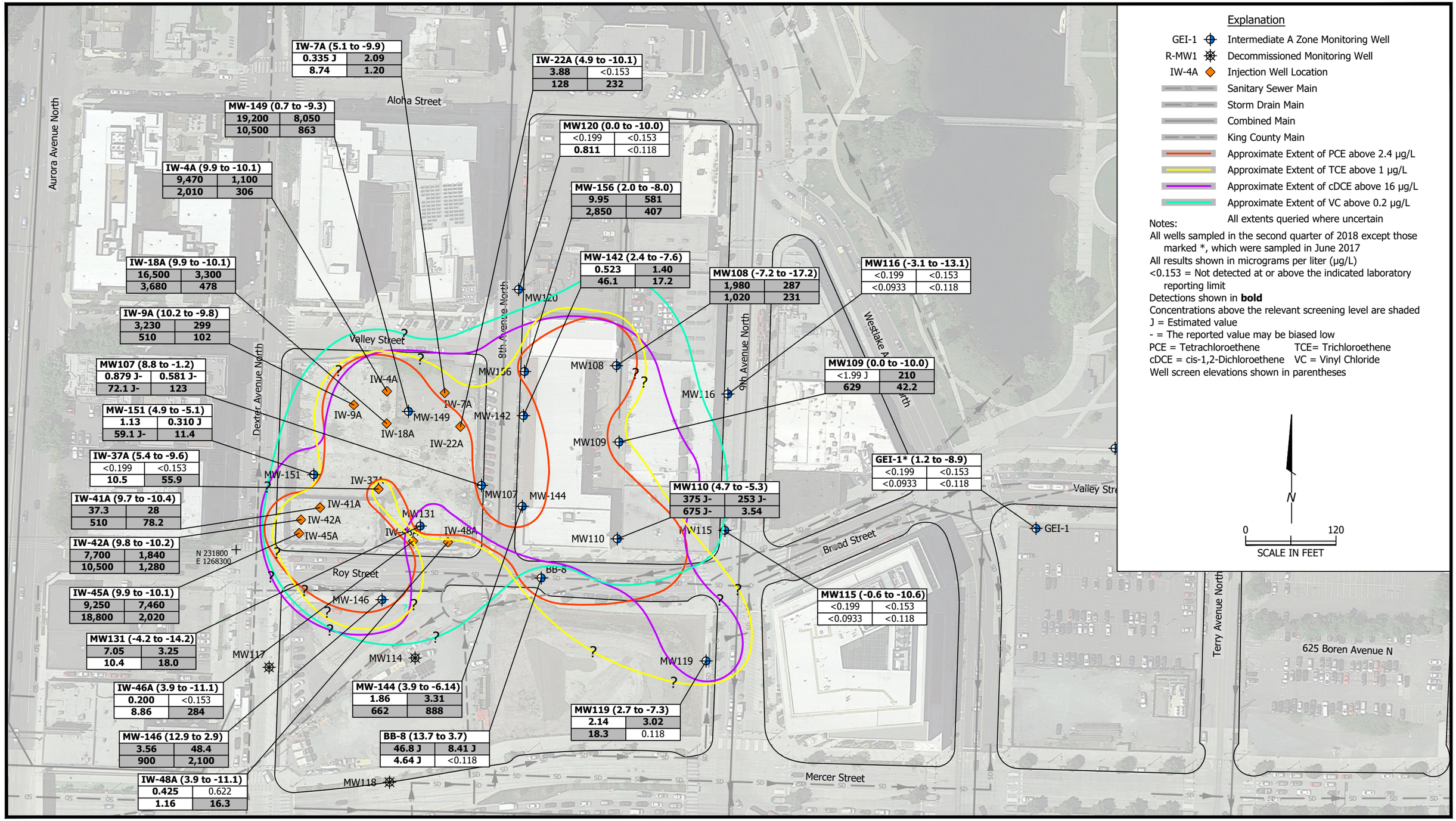
0 120
SCALE IN FEET

PES Environmental, Inc.
Engineering & Environmental Services

2018 CVOCs in Groundwater
Shallow Water-Bearing Zone
Former American Linen Supply
700 Dexter Avenue North
Seattle, Washington

FIGURE
27

1413.001.02.004	141300102404_IAWP_27	DRAFT	6/18
JOB NUMBER	DRAWING NUMBER	REVIEWED BY	DATE

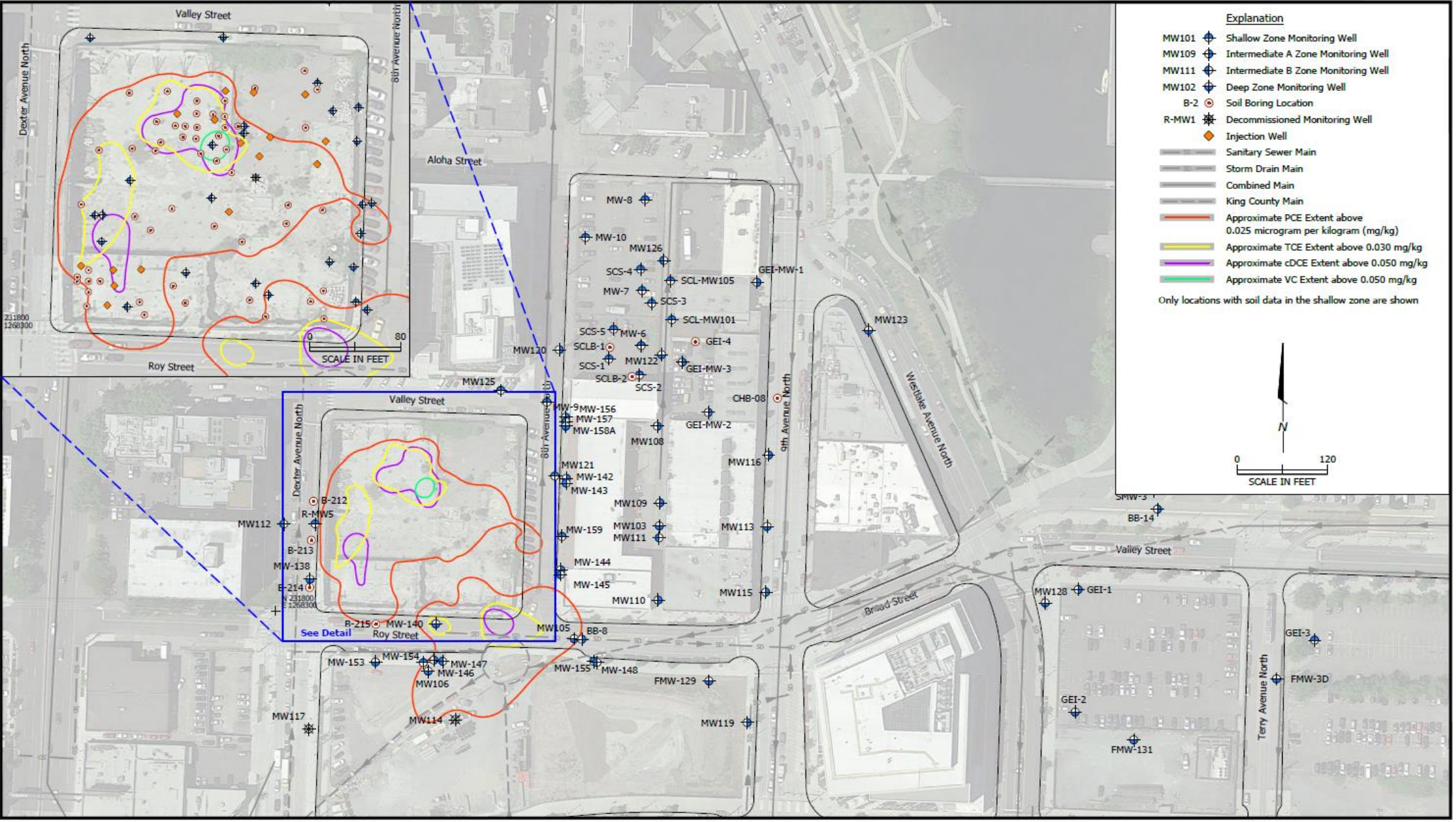


PES Environmental, Inc.
Engineering & Environmental Services

2018 CVOCs in Groundwater
Intermediate A Water-Bearing Zone
Former American Linen Supply
700 Dexter Avenue North
Seattle, Washington

FIGURE
28

1413.001.02.004	141300102404_IAWP_28	DRAFT	6/18
JOB NUMBER	DRAWING NUMBER	REVIEWED BY	DATE

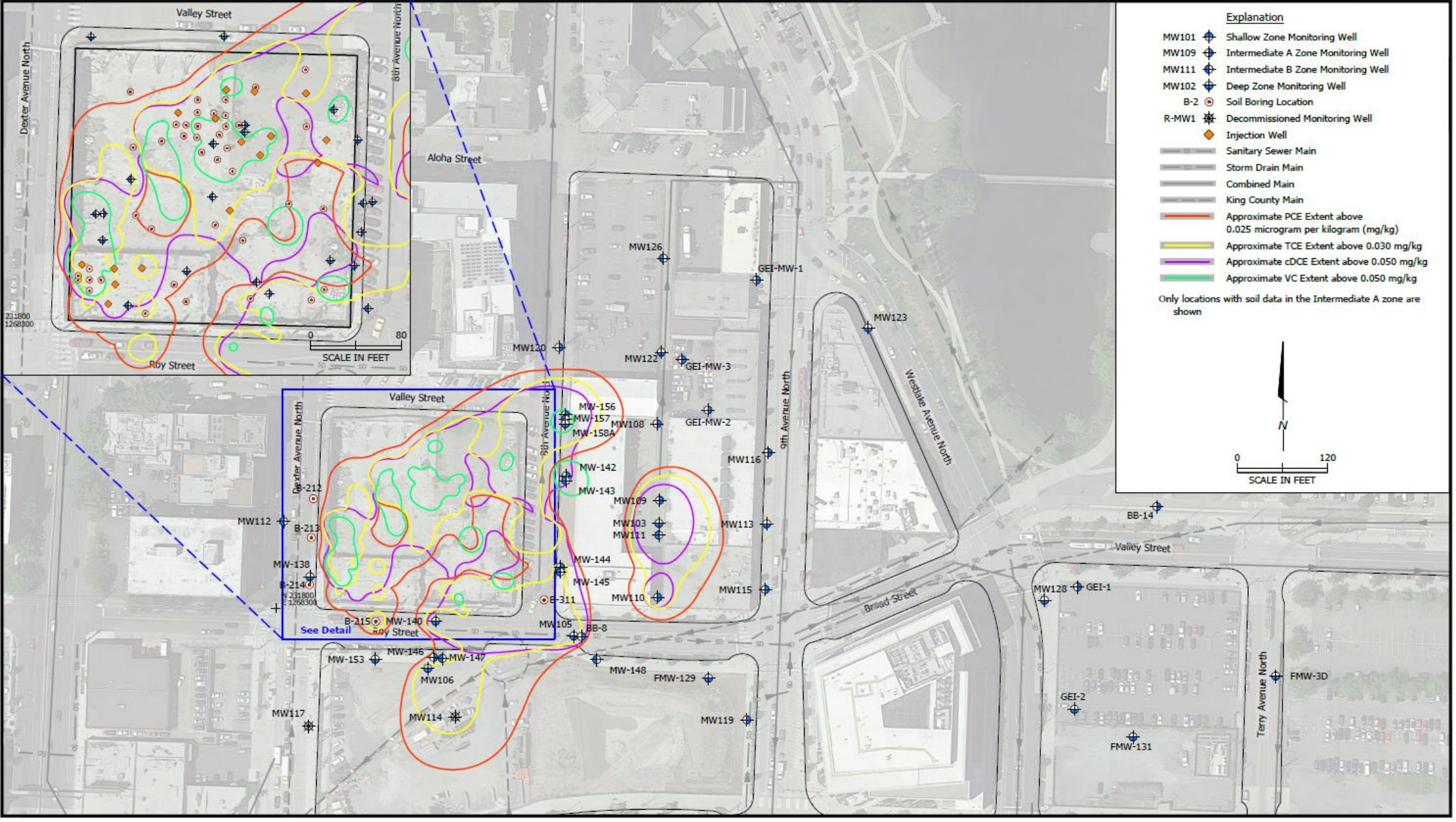


PES Environmental, Inc.
Engineering & Environmental Services

CVOCs in Soil - Shallow Zone
Former American Linen Supply
700 Dexter Avenue North
Seattle, Washington

FIGURE
21

1413.001.02.404	141300102404_IAWP_21	WRH	8/18
JOB NUMBER	DRAWING NUMBER	REVIEWED BY	DATE



PES Environmental, Inc.
Engineering & Environmental Services

CVOCs in Soil - Intermediate A Zone
Former American Linen Supply
700 Dexter Avenue North
Seattle, Washington

FIGURE
22

1413.001.02.404	141300102404_IAWP_22	WRH	8/18
JOB NUMBER	DRAWING NUMBER	REVIEWED BY	DATE

Appendix B – Site Plans/Drawings

VALLEY STREET

ROY STREET

DEXTER AVE. N.

8TH AVE. N.

EXISTING CATCH BASIN TO BE REMOVED AND REPLACED

EXISTING INLET TO BE REMOVED AND REPLACED

RELOCATE PARKING PAY STAND. TO BE DETERMINED DURING SDOT PLAN REVIEW.

EXISTING INLET TO BE REMOVED AND REPLACED

(2) – INDUSTRIAL BAKER TANKS (21,000 GALLON & 10,000 GALLON) OR APPROVED EQUAL BY THE CITY OF SEATTLE INSPECTOR FOR SEDIMENT CONTROL DURING CONSTRUCTION PER CITY OF SEATTLE BMP E3.50. PROVIDE AT LEAST 29,500 GALLONS OF STORAGE. CONTRACTOR MAY DISCHARGE CONSTRUCTION STORMWATER TO THE PUBLIC SEWER SYSTEM WITH THE PERMISSION OF THE KING COUNTY INDUSTRIAL WASTE PROGRAM AND THE CITY OF SEATTLE DEPARTMENT OF CONSTRUCTION AND INSPECTIONS

DESIGNATED CONSTRUCTION ACCESS

EXISTING PEDESTRIAN CROSSING SIGN TO BE RELOCATED

EXISTING 2" CONDUIT TO BE REMOVED

EXISTING STREETLIGHT POLE TO BE REMOVED

EXISTING CONCRETE TO BE REMOVED

CONTRACTOR TO FIELD LOCATE 2" TRASH PUMP IN 55 GALLON DRUM AT LOCAL LOW POINT OF EXCAVATION (TYP)

PROVIDE INLET PROTECTION (TYP)

EXISTING CATCH BASIN TO BE REMOVED

EXISTING "BACK–IN PARKING" SIGN TO BE REMOVED

EXISTING CONCRETE TO BE REMOVED

TEMPORARY DRAIN TO BAKER TANK, PUMP CONSTRUCTION STORMWATER TO BAKER TANK WITH TRASH PUMP (TYP)

EXISTING JERSEY BARRIER TO BE REMOVED

EXISTING STREETLIGHT POLE TO BE REMOVED AND REPLACED

RELOCATE PARKING PAY STAND. TO BE DETERMINED DURING SDOT PLAN REVIEW.

EXISTING COOLING TANK TO BE REMOVED

EXISTING "BIKE ROUTE" SIGN TO BE RELOCATED

EXISTING WATER METER TO BE REUSED FOR IRRIGATION

EXISTING "BACK–IN PARKING" SIGN TO BE REMOVED

EXISTING "BACK–IN PARKING" SIGN TO BE REMOVED

EXISTING STOP SIGN TO BE RELOCATED

EXISTING UTILITY POLE TO BE REMOVED

EXISTING HYDRANT TO REMAIN

EXISTING CURB TO REMAIN

EXISTING UTILITY POLE TO BE REMOVED

EXISTING UTILITY POLE TO REMAIN

4.5 LF TO NEXT MH

CONSTRUCTION NOTE:

ALL EXISTING UTILITIES SHOWN ON PLANS ARE TO BE VERIFIED PRIOR TO ANY CONSTRUCTION. ALL EXISTING FEATURES INCLUDING BURIED UTILITIES ARE SHOWN AS INDICATED ON RECORD MAPS AND SURVEY FURNISHED BY OTHERS. DCI ASSUMES NO LIABILTY FOR THE ACCURACY OF THOSE RECORDS AND SURVEY. FOR THE FINAL LOCATION OF EXISTING UTILITIES IN AREAS CRITICAL TO CONSTRUCTION, CONTACT THE UTILITIES OWNER/AGENCY.

GRAPHIC SCALE

(IN FEET)
1 inch = 10 ft.

Plot Date: 2019-08-09 File Location: G:\0120\Seattle\Dsk\Civil\17012-0003-700-DexterAve\g\17009-P1A-SDCI.dwg

DCI ENGINEERS
818 STEWART STREET • SUITE 1000
SEATTLE, WASHINGTON 98101
PHONE: (206) 332-1900 • FAX: (206) 332-1600
WEBSITE: www.dci-engineers.com
CIVIL / STRUCTURAL

© Copyright 08/2018 DCI Engineers Inc. All Rights Reserved
This document, and the ideas and designs may not be reused, in whole or in part, without written permission from DCI Engineers Inc.
DCI Engineers Inc. disclaims any responsibility for its unauthorized use.

700 DEXTER AVE N
SEATTLE, WA 98109

Owner
BMR-DEXTER LLC
201 Elliott Avenue West, Suite 150
Seattle, WA 98119
tel. 206.282.0442
www.biomedrealty.com

Design Architect
SkB ARCHITECTS, INC.
2333 Third Avenue, Suite 306
Seattle, WA 98104
tel. 206.812.3389
www.skbarchitects.com

Architect of Record
KENDALL/HEATON ASSOCIATES, INC.
3050 Post Oak Blvd., Suite 1000
Houston, TX 77056
tel. 713.877.1192
www.kendall-heaton.com

Structural Engineer
MAGNUSSON KLEMENCIC ASSOCIATES, INC.
1301 Fifth Avenue, Suite 3200
Seattle, WA 98101
tel. 206.292.1200
www.mka.com

MEP / Fire Protection Engineer
GLUMAC
1601 Fifth Avenue, Suite 2210
Seattle, WA 98101
tel. 206.262.1010
www.glumac.com

Landscape Architect
GEYER COBURN HUTCHINS
6101 22nd Avenue NW
Seattle, WA 98107
tel. 206.285.4422
www.gchsite.com

Civil Engineer
DCI ENGINEERS
818 Stewart Street, Suite 1000
Seattle, WA 98101
tel. 206.332.1900
www.dci-engineers.com.com

Vertical Transportation
PERSOHN HAHN ASSOCIATES, INC.
11621 Spring Cypress Road, #D
Houston, TX 77377
tel. 713.467.4440
www.phahou.com

Parking
HWA PARKING, LLC
3700 W. Sam Houston Parkway South, Suite 320
Houston, TX 77042
tel. 888.708.7275
www.hwaparking.com

Facade Access / Building Maintenance
OLYMPIQUE FACADE ACCESS CONSULTING
26429 Rancho Parkway South, Suite 145
Lake Forest, CA 92630
tel. 949.309.2820
www.facadeaccess.com

Sustainability Consultant
PALADINO AND COMPANY
1932 First Avenue
Seattle, WA 98101
tel. 206.522.7600
www.paladinoandco.com

Building Acoustics
STANTEC
400 Fairview North, Suite 620
Seattle, WA 98109
tel. 206.667.0555
www.stantec.com

Exterior Enclosure / Roofing / Waterproofing
MORRISON HERSHFIELD
600 Stewart Street, Suite 200
Seattle, WA 98101
tel. 206.268.7370
www.morrisonhershfield.com

Life Science / Laboratory
WESTLAKE CONSULTING GROUP, LLC
2030 8th Avenue, Suite 306
Seattle, WA 98121
tel. 206.452.9313
www.westlakeconsultinggroup.com

Lighting Design
DARK | LIGHT
1511 Third Avenue, Suite 700
Seattle, WA 98101
tel. 206.682.1720
www.darklightseattle.com

Building Controls, A/V, Security, Telecom/Data
HMA CONSULTING
5010 Wright Road, Suite 150
Stafford, TX 77477
tel. 832.944.6020
www.hmaconsulting.com

Code
CODE UNLIMITED
80 Yelser Way, Suite 320
Seattle, WA 98104
tel. 206.452.1715
www.codeul.com

DARREN A. SIMPSON
STATE OF WASHINGTON
27804
REGISTERED
PROFESSIONAL ENGINEER
08/30/19

NO.	DATE	ISSUE
1	10 AUG 18	50% CD

CAD FILENAME

DRAWING TITLE

T.E.S.C. & DEMOLITION PLAN

KHA PROJECT NO. 17008

DRAWING NUMBER C10.00

Appendix C – Stormwater Calculations

Preliminary Stormwater Treatment Design
Estimated Stormwater Volumes Generated Based on Landuse and Storm Events

WATERTECTONICS

Client Name	**Turner**
Client Contact	**Jim Walcott**
Project Name	**700 Dexter**
Proposal Type	**Construction Water Treatment - Storm Discharge**
Issue Date	**12/15/2017**
Proposal Version	**1.0**

Property Profile	Acres	Sq. Ft
Disturbed Area	1.55	67,518
Adjacent Property	0.00	0
Total Coverage (acres)	1.55	67,518

Soil Profile	Curve #	% of site	Area	Product
Impervious	0.98	50%	33,759	33,084
Open Dirt	0.78	50%	33,759	26,332
			67,518	59,416
Composite CN	0.88			
Run-off Curve #	0.88			
Soil Type	Clay			

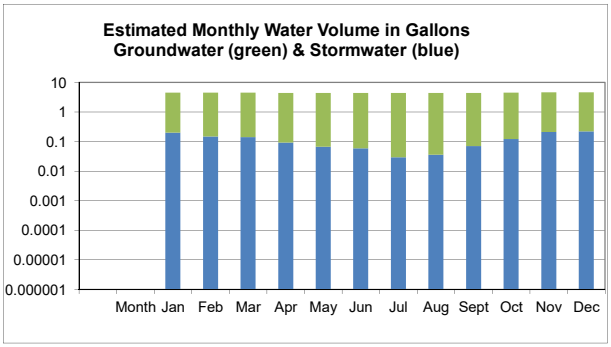
Permitting	
NPDES Filed?	TBD
SWPPP Filed?	TBD
Sanitary Sewer Filed?	TBD
Permitted to Discharge to Storm Drain?	TBD
Special Monitoring Regs (Turbidity, pH, Metals, etc.)	

Sensitve Water Body	
Is there a sensetive water body near the project?	NO
Receiving Water(s)	
Proximity to Receiving Waters	

Water Quality Objectives
(Indicate the results being requested)

	Design; Precipitation Rates	Inches	Ft	cf	Gallons
	2 Year - 24-hour storm	1.92	0.16	9,507	71,109
x	10 Year - 24-hour storm	2.86	0.24	14,161	105,923
	25 Year - 24-hour storm	3.35	0.28	16,587	124,070
	100 Year - 24-hour storm	3.85	0.32	19,063	142,588

Average Monthly Rainfall - Seattle		Estimated Monthly Stormwater Volume (gal)	Estimated Monthly Groundwater based on 100gpm cont.	
Month	Inches			
Jan	5.4	199,994	4320000	
Feb	4	148,143	4320000	
Mar	3.8	140,736	4320000	
Apr	2.5	92,590	4320000	
May	1.8	66,665	4320000	
Jun	1.6	59,257	4320000	
Jul	0.79	29,258	4320000	
Aug	0.97	35,925	4320000	
Sept	1.9	70,368	4320000	
Oct	3.3	122,218	4320000	
Nov	5.7	211,104	4320000	
Dec	6	222,215	4320000	
Annual	**37.8**	**1,398,474.6**	51,840,000	
8 month Project Volume			**53,238,475**	



Site Stormwater Volume Summary (gallons)	
Average Daily Discharge	3,885
10 Year 24hr storm	105,923
Average Daily Dewatering	144,000
Daily Design volume (2yr + daily DW)	**249,923**

Treatment System Sizing	Gallons		SYSTEM SIZE
On-Site Detention	6,900		GPM
Design volume	105,923	EC	75
DIFFERENCE	99,023	*24/7 Treatment Cycle*	
		Chitosan	206
		8hr Manned Shift	

Appendix D – Construction BMPs

High Visibility Plastic or Metal Fence (BMP C103)

Stabilized Construction Entrance (BMP C105)

Construction Road Stabilization (BMP C107)

Interceptor Dike & Swale (BMP C200)

Check Dams (BMP C207)

Silt Fence (BMP C233)

Straw Wattles (BMP C235)

Construction Stormwater Chemical Treatment (BMP C250)

Construction Stormwater Filtration (BMP C251)

Portable Water Storage Tank(s)

Plastic Covering (BMP C123)

Dust Control (BMP C140)

Early application of gravel base on areas to be paved

Storm Drain Inlet Protection (BMP C220)

Dust Control measures (BMP C140)

Concrete Handling measures (BMP C151)

BMP C103: High Visibility Fence

Purpose

Fencing is intended to:

1. Restrict clearing to approved limits.
2. Prevent disturbance of sensitive areas, their buffers, and other areas required to be left undisturbed.
3. Limit construction traffic to designated construction entrances, exits, or internal roads.
4. Protect areas where marking with survey tape may not provide adequate protection.

Conditions of Use

To establish clearing limits plastic, fabric, or metal fence may be used:

- At the boundary of sensitive areas, their buffers, and other areas required to be left uncleared.
- As necessary to control vehicle access to and on the site.

Design and Installation Specifications

High visibility plastic fence shall be composed of a high-density polyethylene material and shall be at least four feet in height. Posts for the fencing shall be steel or wood and placed every 6 feet on center (maximum) or as needed to ensure rigidity. The fencing shall be fastened to the post every six inches with a polyethylene tie. On long continuous lengths of fencing, a tension wire or rope shall be used as a top stringer to prevent sagging between posts. The fence color shall be high visibility orange. The fence tensile strength shall be 360 lbs./ft. using the ASTM D4595 testing method.

If appropriate install fabric silt fence in accordance with BMP C233 to act as high visibility fence. Silt fence shall be at least 3 feet high and must be highly visible to meet the requirements of this BMP.

Metal fences shall be designed and installed according to the manufacturer's specifications.

Metal fences shall be at least 3 feet high and must be highly visible.

Fences shall not be wired or stapled to trees.

Maintenance Standards

If the fence has been damaged or visibility reduced, it shall be repaired or replaced immediately and visibility restored.

BMP C105: Stabilized Construction Entrance / Exit

Purpose

Stabilized Construction entrances are established to reduce the amount of sediment transported onto paved roads by vehicles or equipment. This is done by constructing a stabilized pad of quarry spalls at entrances and exits for construction sites.

Conditions of Use

Construction entrances shall be stabilized wherever traffic will be entering or leaving a construction site if paved roads or other paved areas are within 1,000 feet of the site.

For residential construction provide stabilized construction entrances for each residence, rather than only at the main subdivision entrance. Stabilized surfaces shall be of sufficient length/width to provide vehicle access/parking, based on lot size/configuration.

On large commercial, highway, and road projects, the designer should include enough extra materials in the contract to allow for additional stabilized entrances not shown in the initial Construction SWPPP. It is difficult to determine exactly where access to these projects will take place; additional materials will enable the contractor to install them where needed.

Design and Installation Specifications

See Figure 4.1.1 for details. Note: the 100' minimum length of the entrance shall be reduced to the maximum practicable size when the size or configuration of the site does not allow the full length (100').

Construct stabilized construction entrances with a 12-inch thick pad of 4-inch to 8-inch quarry spalls, a 4-inch course of asphalt treated base (ATB), or use existing pavement. Do not use crushed concrete, cement, or calcium chloride for construction entrance stabilization because these products raise pH levels in stormwater and concrete discharge to surface waters of the State is prohibited.

A separation geotextile shall be placed under the spalls to prevent fine sediment from pumping up into the rock pad. The geotextile shall meet the following standards:

Grab Tensile Strength (ASTM D4751)	200 psi min.
Grab Tensile Elongation (ASTM D4632)	30% max.
Mullen Burst Strength (ASTM D3786-80a)	400 psi min.
AOS (ASTM D4751)	20-45 (U.S. standard sieve size)

- Consider early installation of the first lift of asphalt in areas that will paved; this can be used as a stabilized entrance. Also consider the installation of excess concrete as a stabilized entrance. During large concrete pours, excess concrete is often available for this purpose.

- Fencing (see BMP C103) shall be installed as necessary to restrict traffic to the construction entrance.
- Whenever possible, the entrance shall be constructed on a firm, compacted subgrade. This can substantially increase the effectiveness of the pad and reduce the need for maintenance.
- Construction entrances should avoid crossing existing sidewalks and back of walk drains if at all possible. If a construction entrance must cross a sidewalk or back of walk drain, the full length of the sidewalk and back of walk drain must be covered and protected from sediment leaving the site.

Maintenance Standards

Quarry spalls shall be added if the pad is no longer in accordance with the specifications.

- If the entrance is not preventing sediment from being tracked onto pavement, then alternative measures to keep the streets free of sediment shall be used. This may include replacement/cleaning of the existing quarry spalls, street sweeping, an increase in the dimensions of the entrance, or the installation of a wheel wash.
- Any sediment that is tracked onto pavement shall be removed by shoveling or street sweeping. The sediment collected by sweeping shall be removed or stabilized on site. The pavement shall not be cleaned by washing down the street, except when high efficiency sweeping is ineffective and there is a threat to public safety. If it is necessary to wash the streets, the construction of a small sump to contain the wash water shall be considered. The sediment would then be washed into the sump where it can be controlled.
- Perform street sweeping by hand or with a high efficiency sweeper. Do not use a non-high efficiency mechanical sweeper because this creates dust and throws soils into storm systems or conveyance ditches.
- Any quarry spalls that are loosened from the pad, which end up on the roadway shall be removed immediately.
- If vehicles are entering or exiting the site at points other than the construction entrance(s), fencing (see BMP C103) shall be installed to control traffic.
- Upon project completion and site stabilization, all construction accesses intended as permanent access for maintenance shall be permanently stabilized.

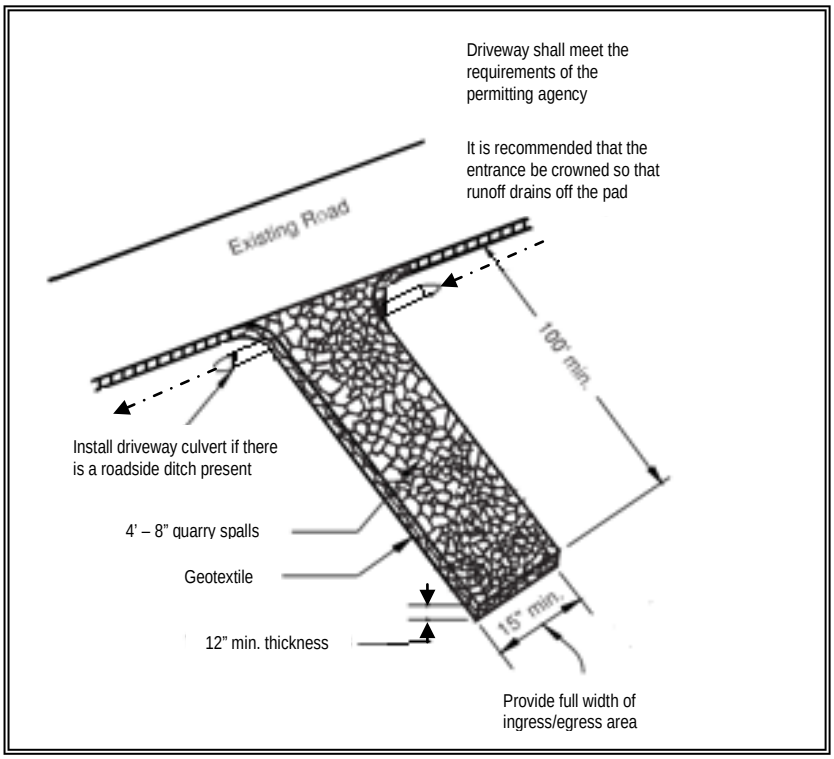


Figure 4.1.1 – Stabilized Construction Entrance

Approved as Equivalent

Ecology has approved products as able to meet the requirements of BMP C105. The products did not pass through the Technology Assessment Protocol – Ecology (TAPE) process. Local jurisdictions may choose not to accept this product approved as equivalent, or may require additional testing prior to consideration for local use. The products are available for review on Ecology's website at http://www.ecy.wa.gov/programs/wq/stormwater/newtech/equivalent.html

BMP C107: Construction Road/Parking Area Stabilization

Purpose

Stabilizing subdivision roads, parking areas, and other on-site vehicle transportation routes immediately after grading reduces erosion caused by construction traffic or runoff.

Conditions of Use

Roads or parking areas shall be stabilized wherever they are constructed, whether permanent or temporary, for use by construction traffic.

- High Visibility Fencing (see BMP C103) shall be installed, if necessary, to limit the access of vehicles to only those roads and parking areas that are stabilized.

Design and Installation Specifications

- On areas that will receive asphalt as part of the project, install the first lift as soon as possible.
- A 6-inch depth of 2- to 4-inch crushed rock, gravel base, or crushed surfacing base course shall be applied immediately after grading or utility installation. A 4-inch course of asphalt treated base (ATB) may also be used, or the road/parking area may be paved. It may also be possible to use cement or calcium chloride for soil stabilization. If cement or cement kiln dust is used for roadbase stabilization, pH monitoring and BMPs (BMPs C252 and C253) are necessary to evaluate and minimize the effects on stormwater. If the area will not be used for permanent roads, parking areas, or structures, a 6-inch depth of hog fuel may also be used, but this is likely to require more maintenance. Whenever possible, construction roads and parking areas shall be placed on a firm, compacted subgrade.
- Temporary road gradients shall not exceed 15 percent. Roadways shall be carefully graded to drain. Drainage ditches shall be provided on each side of the roadway in the case of a crowned section, or on one side in the case of a super-elevated section. Drainage ditches shall be directed to a sediment control BMP.
- Rather than relying on ditches, it may also be possible to grade the road so that runoff sheet-flows into a heavily vegetated area with a well-developed topsoil. Landscaped areas are not adequate. If this area has at least 50 feet of vegetation that water can flow through, then it is generally preferable to use the vegetation to treat runoff, rather than a sediment pond or trap. The 50 feet shall not include wetlands or their buffers. If runoff is allowed to sheetflow through adjacent vegetated areas, it is vital to design the roadways and parking areas so that no concentrated runoff is created.
- Storm drain inlets shall be protected to prevent sediment-laden water entering the storm drain system (see BMP C220).

Maintenance Standards

Inspect stabilized areas regularly, especially after large storm events.

Crushed rock, gravel base, etc., shall be added as required to maintain a

stable driving surface and to stabilize any areas that have eroded.

Following construction, these areas shall be restored to pre-construction condition or better to prevent future erosion.

Perform street cleaning at the end of each day or more often if necessary.

BMP C123: Plastic Covering

Purpose

Plastic covering provides immediate, short-term erosion protection to slopes and disturbed areas.

Conditions of Use

Plastic covering may be used on disturbed areas that require cover measures for less than 30 days, except as stated below.

- Plastic is particularly useful for protecting cut and fill slopes and stockpiles. Note: The relatively rapid breakdown of most polyethylene sheeting makes it unsuitable for long-term (greater than six months) applications.
- Due to rapid runoff caused by plastic covering, do not use this method upslope of areas that might be adversely impacted by concentrated runoff. Such areas include steep and/or unstable slopes.
- Plastic sheeting may result in increased runoff volumes and velocities, requiring additional on-site measures to counteract the increases. Creating a trough with wattles or other material can convey clean water away from these areas.
- To prevent undercutting, trench and backfill rolled plastic covering products.
- While plastic is inexpensive to purchase, the added cost of installation, maintenance, removal, and disposal make this an expensive material, up to $1.50-2.00 per square yard.
- Whenever plastic is used to protect slopes install water collection measures at the base of the slope. These measures include plastic-covered berms, channels, and pipes used to covey clean rainwater away from bare soil and disturbed areas. Do not mix clean runoff from a plastic covered slope with dirty runoff from a project.
- Other uses for plastic include:
    1. Temporary ditch liner.
    2. Pond liner in temporary sediment pond.
    3. Liner for bermed temporary fuel storage area if plastic is not reactive to the type of fuel being stored.
    4. Emergency slope protection during heavy rains.
    5. Temporary drainpipe (“elephant trunk”) used to direct water.

Design and Installation Specifications

- Plastic slope cover must be installed as follows:
    1. Run plastic up and down slope, not across slope.
    2. Plastic may be installed perpendicular to a slope if the slope length is less than 10 feet.
    3. Minimum of 8-inch overlap at seams.

4. On long or wide slopes, or slopes subject to wind, tape all seams.
5. Place plastic into a small (12-inch wide by 6-inch deep) slot trench at the top of the slope and backfill with soil to keep water from flowing underneath.
6. Place sand filled burlap or geotextile bags every 3 to 6 feet along seams and tie them together with twine to hold them in place.
7. Inspect plastic for rips, tears, and open seams regularly and repair immediately. This prevents high velocity runoff from contacting bare soil which causes extreme erosion.
8. Sandbags may be lowered into place tied to ropes. However, all sandbags must be staked in place.

- Plastic sheeting shall have a minimum thickness of 0.06 millimeters.
- If erosion at the toe of a slope is likely, a gravel berm, riprap, or other suitable protection shall be installed at the toe of the slope in order to reduce the velocity of runoff.

Maintenance Standards

- Torn sheets must be replaced and open seams repaired.
- Completely remove and replace the plastic if it begins to deteriorate due to ultraviolet radiation.
- Completely remove plastic when no longer needed.
- Dispose of old tires used to weight down plastic sheeting appropriately.

Approved as Equivalent

Ecology has approved products as able to meet the requirements of BMP C123. The products did not pass through the Technology Assessment Protocol – Ecology (TAPE) process. Local jurisdictions may choose not to accept this product approved as equivalent, or may require additional testing prior to consideration for local use. The products are available for review on Ecology's website at http://www.ecy.wa.gov/programs/wq/stormwater/newtech/equivalent.html

BMP C125: Topsoiling / Composting

Purpose

Topsoiling and composting provide a suitable growth medium for final site stabilization with vegetation. While not a permanent cover practice in itself, topsoiling and composting are an integral component of providing permanent cover in those areas where there is an unsuitable soil surface for plant growth. Use this BMP in conjunction with other BMPs such as seeding, mulching, or sodding. Note that this BMP is functionally the same as BMP T5.13 (see Chapter 5 of Volume V of this manual) which is required for all disturbed areas that will be developed as lawn or landscaped areas at the completed project site.

Native soils and disturbed soils that have been organically amended not only retain much more stormwater, but they also serve as effective

biofilters for urban pollutants and, by supporting more vigorous plant growth, reduce the water, fertilizer and pesticides needed to support installed landscapes. Topsoil does not include any subsoils but only the material from the top several inches including organic debris.

Conditions of Use

- Permanent landscaped areas shall contain healthy topsoil that reduces the need for fertilizers, improves overall topsoil quality, provides for better vegetal health and vitality, improves hydrologic characteristics, and reduces the need for irrigation.
- Leave native soils and the duff layer undisturbed to the maximum extent practicable. Stripping of existing, properly functioning soil system and vegetation for the purpose of topsoiling during construction is not acceptable. Preserve existing soil systems in undisturbed and uncompacted conditions if functioning properly.
- Areas that already have good topsoil, such as undisturbed areas, do not require soil amendments.
- Restore, to the maximum extent practical, native soils disturbed during clearing and grading to a condition equal to or better than the original site condition's moisture-holding capacity. Use on-site native topsoil, incorporate amendments into on-site soil, or import blended topsoil to meet this requirement.
- Topsoiling is a required procedure when establishing vegetation on shallow soils, and soils of critically low pH (high acid) levels.
- Beware of where the topsoil comes from, and what vegetation was on site before disturbance, invasive plant seeds may be included and could cause problems for establishing native plants, landscaped areas, or grasses.
- Topsoil from the site will contain mycorrhizal bacteria that are necessary for healthy root growth and nutrient transfer. These native mycorrhiza are acclimated to the site and will provide optimum conditions for establishing grasses. Use commercially available mycorrhiza products when using off-site topsoil.

Design and Installation Specifications

Meet the following requirements for disturbed areas that will be developed as lawn or landscaped areas at the completed project site:

- Maximize the depth of the topsoil wherever possible to provide the maximum possible infiltration capacity and beneficial growth medium. Topsoil shall have:
    - A minimum depth of 8-inches. Scarify subsoils below the topsoil layer at least 4-inches with some incorporation of the upper material to avoid stratified layers, where feasible. Ripping or re-structuring the subgrade may also provide additional benefits regarding the overall infiltration and interflow dynamics of the soil system.

- A minimum organic content of 10% dry weight in planting beds, and 5% organic matter content in turf areas. Incorporate organic amendments to a minimum 8-inch depth except where tree roots or other natural features limit the depth of incorporation.
- A pH between 6.0 and 8.0 or matching the pH of the undisturbed soil.
- If blended topsoil is imported, then fines should be limited to 25 percent passing through a 200 sieve.
- Mulch planting beds with 2 inches of organic material

- Accomplish the required organic content, depth, and pH by returning native topsoil to the site, importing topsoil of sufficient organic content, and/or incorporating organic amendments.When using the option of incorporating amendments to meet the organic content requirement, use compost that meets the compost specification for Bioretention (See BMP T7.30 in Chapter 7 of Volume V of this manual), with the exception that the compost may have up to 35% biosolids or manure.
- Sections three through seven of the document entitled, *Guidelines and Resources for Implementing Soil Quality and Depth BMP T5.13 in WDOE Stormwater Management Manual for Western Washington,* provides useful guidance for implementing whichever option is chosen. It includes guidance for pre-approved default strategies and guidance for custom strategies. Check with your local jurisdiction concerning its acceptance of this guidance. It is available through the organization, Soils for Salmon. As of this printing the document may be found at: http://www.soilsforsalmon.org/pdf/Soil_BMP_Manual.pdf.
- The final composition and construction of the soil system will result in a natural selection or favoring of certain plant species over time. For example, incorporation of topsoil may favor grasses, while layering with mildly acidic, high-carbon amendments may favor more woody vegetation.
- Allow sufficient time in scheduling for topsoil spreading prior to seeding, sodding, or planting.
- Take care when applying top soil to subsoils with contrasting textures. Sandy topsoil over clayey subsoil is a particularly poor combination, as water creeps along the junction between the soil layers and causes the topsoil to slough. If topsoil and subsoil are not properly bonded, water will not infiltrate the soil profile evenly and it will be difficult to establish vegetation. The best method to prevent a lack of bonding is to actually work the topsoil into the layer below for a depth of at least 6 inches.

- Field exploration of the site shall be made to determine if there is surface soil of sufficient quantity and quality to justify stripping. Topsoil shall be friable and loamy (loam, sandy loam, silt loam, sandy clay loam, and clay loam). Avoid areas of natural ground water recharge.
- Stripping shall be confined to the immediate construction area. A 4-inch to 6-inch stripping depth is common, but depth may vary depending on the particular soil. All surface runoff control structures shall be in place prior to stripping.
- Do not place topsoil while in a frozen or muddy condition, when the subgrade is excessively wet, or when conditions exist that may otherwise be detrimental to proper grading or proposed sodding or seeding.
- In any areas requiring grading remove and stockpile the duff layer and topsoil on site in a designated, controlled area, not adjacent to public resources and critical areas. Stockpiled topsoil is to be reapplied to other portions of the site where feasible.
- Locate the topsoil stockpile so that it meets specifications and does not interfere with work on the site. It may be possible to locate more than one pile in proximity to areas where topsoil will be used.

Stockpiling of topsoil shall occur in the following manner:

- Side slopes of the stockpile shall not exceed 2H:1V.
- Between October 1 and April 30:
  - An interceptor dike with gravel outlet and silt fence shall surround all topsoil.
  - Within 2 days complete erosion control seeding, or covering stockpiles with clear plastic, or other mulching materials.
- Between May 1 and September 30:
  - An interceptor dike with gravel outlet and silt fence shall surround all topsoil if the stockpile will remain in place for a longer period of time than active construction grading.
  - Within 7 days complete erosion control seeding, or covering stockpiles with clear plastic, or other mulching materials.
- When native topsoil is to be stockpiled and reused the following should apply to ensure that the mycorrhizal bacterial, earthworms, and other beneficial organisms will not be destroyed:
  1. Re-install topsoil within 4 to 6 weeks.
  2. Do not allow the saturation of topsoil with water.
  3. Do not use plastic covering.

Maintenance Standards

- Inspect stockpiles regularly, especially after large storm events. Stabilize any areas that have eroded.
- Establish soil quality and depth toward the end of construction and once established, protect from compaction, such as from large machinery use, and from erosion.
- Plant and mulch soil after installation.
- Leave plant debris or its equivalent on the soil surface to replenish organic matter.
- Reduce and adjust, where possible, the use of irrigation, fertilizers, herbicides and pesticides, rather than continuing to implement formerly established practices.

BMP C140: Dust Control

Purpose

Dust control prevents wind transport of dust from disturbed soil surfaces onto roadways, drainage ways, and surface waters.

Conditions of Use

- In areas (including roadways) subject to surface and air movement of dust where on-site and off-site impacts to roadways, drainage ways, or surface waters are likely.

Design and Installation Specifications

- Vegetate or mulch areas that will not receive vehicle traffic. In areas where planting, mulching, or paving is impractical, apply gravel or landscaping rock.
- Limit dust generation by clearing only those areas where immediate activity will take place, leaving the remaining area(s) in the original condition. Maintain the original ground cover as long as practical.
- Construct natural or artificial windbreaks or windscreens. These may be designed as enclosures for small dust sources.
- Sprinkle the site with water until surface is wet. Repeat as needed. To prevent carryout of mud onto street, refer to Stabilized Construction Entrance (BMP C105).
- Irrigation water can be used for dust control. Irrigation systems should be installed as a first step on sites where dust control is a concern.
- Spray exposed soil areas with a dust palliative, following the manufacturer's instructions and cautions regarding handling and application. Used oil is prohibited from use as a dust suppressant. Local governments may approve other dust palliatives such as calcium chloride or PAM.
- PAM (BMP C126) added to water at a rate of 0.5 lbs. per 1,000 gallons of water per acre and applied from a water truck is more effective than water alone. This is due to increased infiltration of water into the soil and reduced evaporation. In addition, small soil particles are bonded together and are not as easily transported by wind. Adding PAM may actually reduce the quantity of water needed for dust control. Use of PAM could be a cost-effective dust control method.

Techniques that can be used for unpaved roads and lots include:

- Lower speed limits. High vehicle speed increases the amount of dust stirred up from unpaved roads and lots.
- Upgrade the road surface strength by improving particle size, shape, and mineral types that make up the surface and base materials.
- Add surface gravel to reduce the source of dust emission. Limit the amount of fine particles (those smaller than .075 mm) to 10 to 20 percent.

- Use geotextile fabrics to increase the strength of new roads or roads undergoing reconstruction.
- Encourage the use of alternate, paved routes, if available.
- Restrict use of paved roadways by tracked vehicles and heavy trucks to prevent damage to road surface and base.
- Apply chemical dust suppressants using the admix method, blending the product with the top few inches of surface material. Suppressants may also be applied as surface treatments.
- Pave unpaved permanent roads and other trafficked areas.
- Use vacuum street sweepers.
- Remove mud and other dirt promptly so it does not dry and then turn into dust.
- Limit dust-causing work on windy days.
- Contact your local Air Pollution Control Authority for guidance and training on other dust control measures. Compliance with the local Air Pollution Control Authority constitutes compliance with this BMP.

Maintenance Standards Respray area as necessary to keep dust to a minimum.

BMP C150: Materials on Hand

Purpose Keep quantities of erosion prevention and sediment control materials on the project site at all times to be used for regular maintenance and emergency situations such as unexpected heavy summer rains. Having these materials on-site reduces the time needed to implement BMPs when inspections indicate that existing BMPs are not meeting the Construction SWPPP requirements. In addition, contractors can save money by buying some materials in bulk and storing them at their office or yard.

Conditions of Use

- Construction projects of any size or type can benefit from having materials on hand. A small commercial development project could have a roll of plastic and some gravel available for immediate protection of bare soil and temporary berm construction. A large earthwork project, such as highway construction, might have several tons of straw, several rolls of plastic, flexible pipe, sandbags, geotextile fabric and steel "T" posts.
- Materials are stockpiled and readily available before any site clearing, grubbing, or earthwork begins. A large contractor or developer could keep a stockpile of materials that are available for use on several projects.
- If storage space at the project site is at a premium, the contractor could maintain the materials at their office or yard. The office or yard must be less than an hour from the project site.

Design and Installation Specifications

Depending on project type, size, complexity, and length, materials and quantities will vary. A good minimum list of items that will cover numerous situations includes:

Material
Clear Plastic, 6 mil
Drainpipe, 6 or 8 inch diameter
Sandbags, filled
Straw Bales for mulching,
Quarry Spalls
Washed Gravel
Geotextile Fabric
Catch Basin Inserts
Steel "T" Posts
Silt fence material
Straw Wattles

Maintenance Standards

- All materials with the exception of the quarry spalls, steel "T" posts, and gravel should be kept covered and out of both sun and rain.
- Re-stock materials used as needed.

BMP C151: Concrete Handling

Purpose

Concrete work can generate process water and slurry that contain fine particles and high pH, both of which can violate water quality standards in the receiving water. Concrete spillage or concrete discharge to surface waters of the State is prohibited. Use this BMP to minimize and eliminate concrete, concrete process water, and concrete slurry from entering waters of the state.

Conditions of Use

Any time concrete is used, utilize these management practices. Concrete construction projects include, but are not limited to, the following:

- Curbs
- Sidewalks
- Roads
- Bridges
- Foundations
- Floors
- Runways

Design and Installation

- Assure that washout of concrete trucks, chutes, pumps, and internals is performed at an approved off-site location or in designated concrete

Specifications

washout areas. Do not wash out concrete trucks onto the ground, or into storm drains, open ditches, streets, or streams. Refer to BMP C154 for information on concrete washout areas.

- Return unused concrete remaining in the truck and pump to the originating batch plant for recycling. Do not dump excess concrete on site, except in designated concrete washout areas.
- Wash off hand tools including, but not limited to, screeds, shovels, rakes, floats, and trowels into formed areas only.
- Wash equipment difficult to move, such as concrete pavers in areas that do not directly drain to natural or constructed stormwater conveyances.
- Do not allow washdown from areas, such as concrete aggregate driveways, to drain directly to natural or constructed stormwater conveyances.
- Contain washwater and leftover product in a lined container when no formed areas are available. Dispose of contained concrete in a manner that does not violate ground water or surface water quality standards.
- Always use forms or solid barriers for concrete pours, such as pilings, within 15-feet of surface waters.
- Refer to BMPs C252 and C253 for pH adjustment requirements.
- Refer to the Construction Stormwater General Permit for pH monitoring requirements if the project involves one of the following activities:
  - Significant concrete work (greater than 1,000 cubic yards poured concrete or recycled concrete used over the life of a project).
  - The use of engineered soils amended with (but not limited to) Portland cement-treated base, cement kiln dust or fly ash.
  - Discharging stormwater to segments of water bodies on the 303(d) list (Category 5) for high pH.

Maintenance Standards

Check containers for holes in the liner daily during concrete pours and repair the same day.

BMP C152: Sawcutting and Surfacing Pollution Prevention

Purpose

Sawcutting and surfacing operations generate slurry and process water that contains fine particles and high pH (concrete cutting), both of which can violate the water quality standards in the receiving water. Concrete spillage or concrete discharge to surface waters of the State is prohibited. Use this BMP to minimize and eliminate process water and slurry created through sawcutting or surfacing from entering waters of the State.

Conditions of Use

Utilize these management practices anytime sawcutting or surfacing operations take place. Sawcutting and surfacing operations include, but are not limited to, the following:

- Sawing
- Coring
- Grinding
- Roughening
- Hydro-demolition
- Bridge and road surfacing

Design and Installation Specifications

- Vacuum slurry and cuttings during cutting and surfacing operations.
- Slurry and cuttings shall not remain on permanent concrete or asphalt pavement overnight.
- Slurry and cuttings shall not drain to any natural or constructed drainage conveyance including stormwater systems. This may require temporarily blocking catch basins.
- Dispose of collected slurry and cuttings in a manner that does not violate ground water or surface water quality standards.
- Do not allow process water generated during hydro-demolition, surface roughening or similar operations to drain to any natural or constructed drainage conveyance including stormwater systems. Dispose process water in a manner that does not violate ground water or surface water quality standards.
- Handle and dispose cleaning waste material and demolition debris in a manner that does not cause contamination of water. Dispose of sweeping material from a pick-up sweeper at an appropriate disposal site.

Maintenance Standards

Continually monitor operations to determine whether slurry, cuttings, or process water could enter waters of the state. If inspections show that a violation of water quality standards could occur, stop operations and immediately implement preventive measures such as berms, barriers, secondary containment, and vacuum trucks.

BMP C153: Material Delivery, Storage and Containment

Purpose

Prevent, reduce, or eliminate the discharge of pollutants to the stormwater system or watercourses from material delivery and storage. Minimize the storage of hazardous materials on-site, store materials in a designated area, and install secondary containment.

Conditions of Use

These procedures are suitable for use at all construction sites with delivery and storage of the following materials:

- Petroleum products such as fuel, oil and grease
- Soil stabilizers and binders (e.g., Polyacrylamide)
- Fertilizers, pesticides and herbicides
- Detergents
- Asphalt and concrete compounds
- Hazardous chemicals such as acids, lime, adhesives, paints, solvents, and curing compounds
- Any other material that may be detrimental if released to the environment

Design and Installation Specifications

The following steps should be taken to minimize risk:

- Temporary storage area should be located away from vehicular traffic, near the construction entrance(s), and away from waterways or storm drains.
- Material Safety Data Sheets (MSDS) should be supplied for all materials stored. Chemicals should be kept in their original labeled containers.
- Hazardous material storage on-site should be minimized.
- Hazardous materials should be handled as infrequently as possible.
- During the wet weather season (Oct 1 – April 30), consider storing materials in a covered area.
- Materials should be stored in secondary containments, such as earthen dike, horse trough, or even a children's wading pool for non-reactive materials such as detergents, oil, grease, and paints. Small amounts of material may be secondarily contained in "bus boy" trays or concrete mixing trays.
- Do not store chemicals, drums, or bagged materials directly on the ground. Place these items on a pallet and, when possible, and within secondary containment.
- If drums must be kept uncovered, store them at a slight angle to reduce ponding of rainwater on the lids to reduce corrosion. Domed plastic covers are inexpensive and snap to the top of drums, preventing water from collecting.

Material Storage Areas and Secondary Containment Practices:

- Liquids, petroleum products, and substances listed in 40 CFR Parts 110, 117, or 302 shall be stored in approved containers and drums and shall not be overfilled. Containers and drums shall be stored in temporary secondary containment facilities.
- Temporary secondary containment facilities shall provide for a spill containment volume able to contain 10% of the total enclosed container volume of all containers, or 110% of the capacity of the largest container within its boundary, whichever is greater.
- Secondary containment facilities shall be impervious to the materials stored therein for a minimum contact time of 72 hours.
- Secondary containment facilities shall be maintained free of accumulated rainwater and spills. In the event of spills or leaks, accumulated rainwater and spills shall be collected and placed into drums. These liquids shall be handled as hazardous waste unless testing determines them to be non-hazardous.
- Sufficient separation should be provided between stored containers to allow for spill cleanup and emergency response access.
- During the wet weather season (Oct 1 – April 30), each secondary containment facility shall be covered during non-working days, prior to and during rain events.
- Keep material storage areas clean, organized and equipped with an ample supply of appropriate spill clean-up material (spill kit).
- The spill kit should include, at a minimum:
    - 1-Water Resistant Nylon Bag
    - 3-Oil Absorbent Socks 3”x 4’
    - 2-Oil Absorbent Socks 3”x 10’
    - 12-Oil Absorbent Pads 17”x19”
    - 1-Pair Splash Resistant Goggles
    - 3-Pair Nitrile Gloves
    - 10-Disposable Bags with Ties
    - Instructions

BMP C154: Concrete Washout Area

Purpose

Prevent or reduce the discharge of pollutants to stormwater from concrete waste by conducting washout off-site, or performing on-site washout in a designated area to prevent pollutants from entering surface waters or ground water.

Conditions of Use

Concrete washout area best management practices are implemented on construction projects where:

- Concrete is used as a construction material
- It is not possible to dispose of all concrete wastewater and washout off-site (ready mix plant, etc.).
- Concrete trucks, pumpers, or other concrete coated equipment are washed on-site.
- Note: If less than 10 concrete trucks or pumpers need to be washed out on-site, the washwater may be disposed of in a formed area awaiting concrete or an upland disposal site where it will not contaminate surface or ground water. The upland disposal site shall be at least 50 feet from sensitive areas such as storm drains, open ditches, or water bodies, including wetlands.

Design and Installation Specifications

Implementation

The following steps will help reduce stormwater pollution from concrete wastes:

- Perform washout of concrete trucks at an approved off-site location or in designated concrete washout areas only.
- Do not wash out concrete trucks onto the ground, or into storm drains, open ditches, streets, or streams.
- Do not allow excess concrete to be dumped on-site, except in designated concrete washout areas.
- Concrete washout areas may be prefabricated concrete washout containers, or self-installed structures (above-grade or below-grade).
- Prefabricated containers are most resistant to damage and protect against spills and leaks. Companies may offer delivery service and provide regular maintenance and disposal of solid and liquid waste.
- If self-installed concrete washout areas are used, below-grade structures are preferred over above-grade structures because they are less prone to spills and leaks.
- Self-installed above-grade structures should only be used if excavation is not practical.

Education

- Discuss the concrete management techniques described in this BMP with the ready-mix concrete supplier before any deliveries are made.
- Educate employees and subcontractors on the concrete waste management techniques described in this BMP.
- Arrange for contractor's superintendent or Certified Erosion and Sediment Control Lead (CESCL) to oversee and enforce concrete waste management procedures.
- A sign should be installed adjacent to each temporary concrete washout facility to inform concrete equipment operators to utilize the proper facilities.

Contracts

Incorporate requirements for concrete waste management into concrete supplier and subcontractor agreements.

Location and Placement

- Locate washout area at least 50 feet from sensitive areas such as storm drains, open ditches, or water bodies, including wetlands.
- Allow convenient access for concrete trucks, preferably near the area where the concrete is being poured.
- If trucks need to leave a paved area to access washout, prevent track-out with a pad of rock or quarry spalls (see BMP C105). These areas should be far enough away from other construction traffic to reduce the likelihood of accidental damage and spills.
- The number of facilities you install should depend on the expected demand for storage capacity.
- On large sites with extensive concrete work, washouts should be placed in multiple locations for ease of use by concrete truck drivers.

On-site Temporary Concrete Washout Facility, Transit Truck Washout Procedures:

- Temporary concrete washout facilities shall be located a minimum of 50 ft from sensitive areas including storm drain inlets, open drainage facilities, and watercourses. See Figures 4.1.7 and 4.1.8.
- Concrete washout facilities shall be constructed and maintained in sufficient quantity and size to contain all liquid and concrete waste generated by washout operations.
- Washout of concrete trucks shall be performed in designated areas only.

- Concrete washout from concrete pumper bins can be washed into concrete pumper trucks and discharged into designated washout area or properly disposed of off-site.
- Once concrete wastes are washed into the designated area and allowed to harden, the concrete should be broken up, removed, and disposed of per applicable solid waste regulations. Dispose of hardened concrete on a regular basis.
- Temporary Above-Grade Concrete Washout Facility
  - Temporary concrete washout facility (type above grade) should be constructed as shown on the details below, with a recommended minimum length and minimum width of 10 ft, but with sufficient quantity and volume to contain all liquid and concrete waste generated by washout operations.
  - Plastic lining material should be a minimum of 10 mil polyethylene sheeting and should be free of holes, tears, or other defects that compromise the impermeability of the material.
- Temporary Below-Grade Concrete Washout Facility
  - Temporary concrete washout facilities (type below grade) should be constructed as shown on the details below, with a recommended minimum length and minimum width of 10 ft. The quantity and volume should be sufficient to contain all liquid and concrete waste generated by washout operations.
  - Lath and flagging should be commercial type.
  - Plastic lining material shall be a minimum of 10 mil polyethylene sheeting and should be free of holes, tears, or other defects that compromise the impermeability of the material.
  - Liner seams shall be installed in accordance with manufacturers' recommendations.
  - Soil base shall be prepared free of rocks or other debris that may cause tears or holes in the plastic lining material.

Maintenance Standards

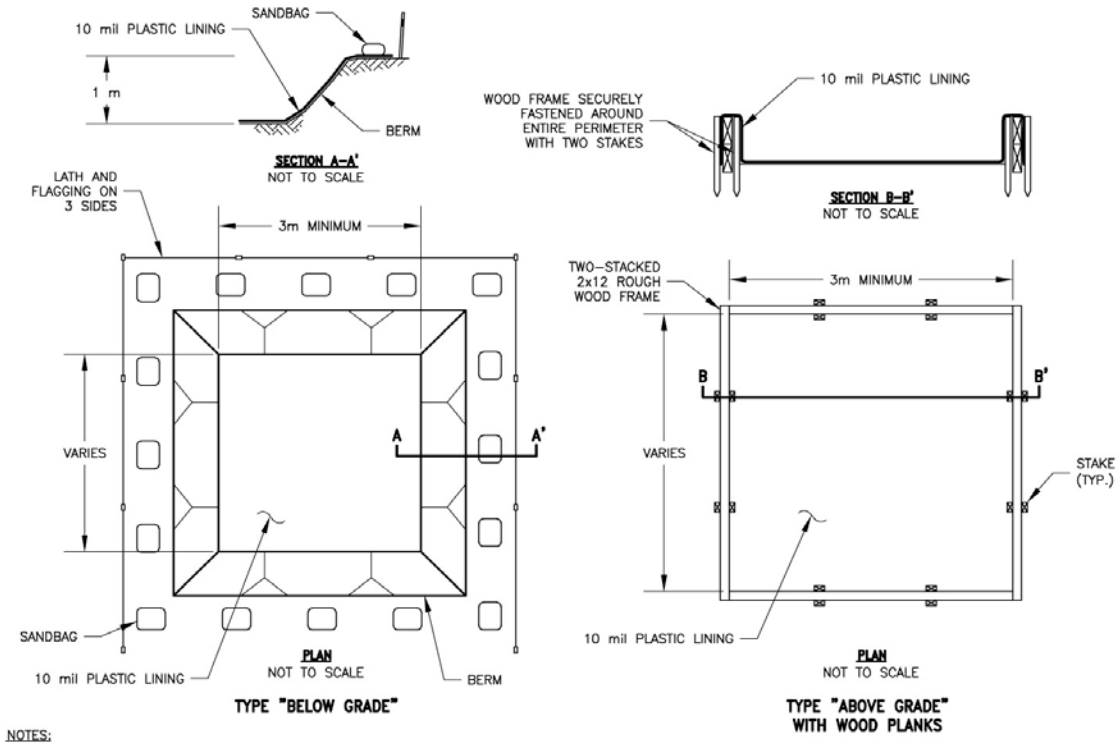
Inspection and Maintenance

- Inspect and verify that concrete washout BMPs are in place prior to the commencement of concrete work.
- During periods of concrete work, inspect daily to verify continued performance.
  - Check overall condition and performance.
  - Check remaining capacity (% full).
  - If using self-installed washout facilities, verify plastic liners are intact and sidewalls are not damaged.

    - If using prefabricated containers, check for leaks.
- Washout facilities shall be maintained to provide adequate holding capacity with a minimum freeboard of 12 inches.
- Washout facilities must be cleaned, or new facilities must be constructed and ready for use once the washout is 75% full.
- If the washout is nearing capacity, vacuum and dispose of the waste material in an approved manner.
    - Do not discharge liquid or slurry to waterways, storm drains or directly onto ground.
    - Do not use sanitary sewer without local approval.
    - Place a secure, non-collapsing, non-water collecting cover over the concrete washout facility prior to predicted wet weather to prevent accumulation and overflow of precipitation.
    - Remove and dispose of hardened concrete and return the structure to a functional condition. Concrete may be reused on-site or hauled away for disposal or recycling.
- When you remove materials from the self-installed concrete washout, build a new structure; or, if the previous structure is still intact, inspect for signs of weakening or damage, and make any necessary repairs. Re-line the structure with new plastic after each cleaning.

Removal of Temporary Concrete Washout Facilities

- When temporary concrete washout facilities are no longer required for the work, the hardened concrete, slurries and liquids shall be removed and properly disposed of.
- Materials used to construct temporary concrete washout facilities shall be removed from the site of the work and disposed of or recycled.
- Holes, depressions or other ground disturbance caused by the removal of the temporary concrete washout facilities shall be backfilled, repaired, and stabilized to prevent erosion.



NOTES:

1. ACTUAL LAYOUT DETERMINED IN THE FIELD.
2. THE CONCRETE WASHOUT SIGN (SEE PAGE 6) SHALL BE INSTALLED WITHIN 10 m OF THE TEMPORARY CONCRETE WASHOUT FACILITY.

Figure 4.1.7a – Concrete Washout Area

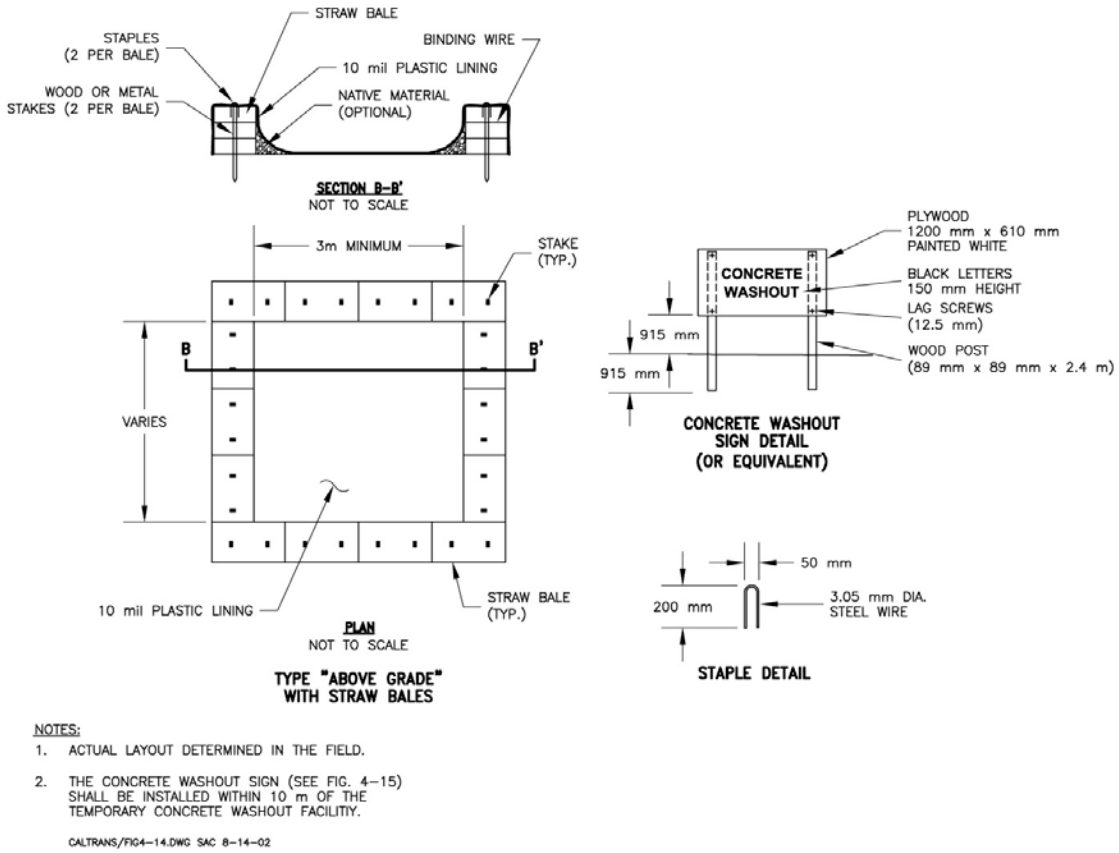


Figure 4.1.7b – Concrete Washout Area

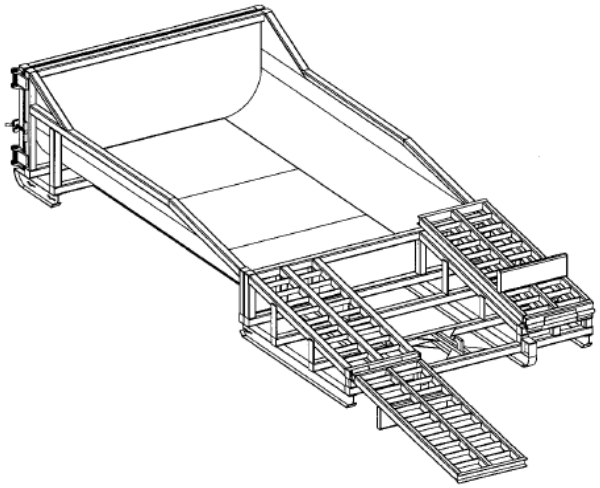


Figure 4.1.8 – Prefabricated Concrete Washout Container w/Ramp

BMP C160: Certified Erosion and Sediment Control Lead

Purpose

The project proponent designates at least one person as the responsible representative in charge of erosion and sediment control (ESC), and water quality protection. The designated person shall be the Certified Erosion and Sediment Control Lead (CESCL) who is responsible for ensuring compliance with all local, state, and federal erosion and sediment control and water quality requirements.

Conditions of Use

A CESCL shall be made available on projects one acre or larger that discharge stormwater to surface waters of the state. Sites less than one acre may have a person without CESCL certification conduct inspections; sampling is not required on sites that disturb less than an acre.

- The CESCL shall:
  - Have a current certificate proving attendance in an erosion and sediment control training course that meets the minimum ESC training and certification requirements established by Ecology (see details below).

    Ecology will maintain a list of ESC training and certification providers at:
    http://www.ecy.wa.gov/programs/wq/stormwater/cescl.html

    OR

  - Be a Certified Professional in Erosion and Sediment Control (CPESC); for additional information go to: www.cpesc.net

Specifications

- Certification shall remain valid for three years.
- The CESCL shall have authority to act on behalf of the contractor or developer and shall be available, or on-call, 24 hours per day throughout the period of construction.
- The Construction SWPPP shall include the name, telephone number, fax number, and address of the designated CESCL.
- A CESCL may provide inspection and compliance services for multiple construction projects in the same geographic region.

Duties and responsibilities of the CESCL shall include, but are not limited to the following:

- Maintaining permit file on site at all times which includes the Construction SWPPP and any associated permits and plans.
- Directing BMP installation, inspection, maintenance, modification, and removal.

- Updating all project drawings and the Construction SWPPP with changes made.
- Completing any sampling requirements including reporting results using WebDMR.
- Keeping daily logs, and inspection reports. Inspection reports should include:
    - Inspection date/time.
    - Weather information; general conditions during inspection and approximate amount of precipitation since the last inspection.
    - A summary or list of all BMPs implemented, including observations of all erosion/sediment control structures or practices. The following shall be noted:
        1. Locations of BMPs inspected.
        2. Locations of BMPs that need maintenance.
        3. Locations of BMPs that failed to operate as designed or intended.
        4. Locations of where additional or different BMPs are required.
    - Visual monitoring results, including a description of discharged stormwater. The presence of suspended sediment, turbid water, discoloration, and oil sheen shall be noted, as applicable.
    - Any water quality monitoring performed during inspection.
    - General comments and notes, including a brief description of any BMP repairs, maintenance or installations made as a result of the inspection.
- Facilitate, participate in, and take corrective actions resulting from inspections performed by outside agencies or the owner.

BMP C162: Scheduling

Purpose Sequencing a construction project reduces the amount and duration of soil exposed to erosion by wind, rain, runoff, and vehicle tracking.

Conditions of Use The construction sequence schedule is an orderly listing of all major land-disturbing activities together with the necessary erosion and sedimentation control measures planned for the project. This type of schedule guides the contractor on work to be done before other work is started so that serious erosion and sedimentation problems can be avoided.

Following a specified work schedule that coordinates the timing of land-disturbing activities and the installation of control measures is perhaps the most cost-effective way of controlling erosion during construction. The removal of surface ground cover leaves a site vulnerable to accelerated

erosion. Construction procedures that limit land clearing provide timely installation of erosion and sedimentation controls, and restore protective cover quickly can significantly reduce the erosion potential of a site.

Design Considerations

- Minimize construction during rainy periods.
- Schedule projects to disturb only small portions of the site at any one time. Complete grading as soon as possible. Immediately stabilize the disturbed portion before grading the next portion. Practice staged seeding in order to revegetate cut and fill slopes as the work progresses.

BMP C200: Interceptor Dike and Swale

Purpose

Provide a ridge of compacted soil, or a ridge with an upslope swale, at the top or base of a disturbed slope or along the perimeter of a disturbed construction area to convey stormwater. Use the dike and/or swale to intercept the runoff from unprotected areas and direct it to areas where erosion can be controlled. This can prevent storm runoff from entering the work area or sediment-laden runoff from leaving the construction site.

Conditions of Use

Where the runoff from an exposed site or disturbed slope must be conveyed to an erosion control facility which can safely convey the stormwater.

- Locate upslope of a construction site to prevent runoff from entering disturbed area.
- When placed horizontally across a disturbed slope, it reduces the amount and velocity of runoff flowing down the slope.
- Locate downslope to collect runoff from a disturbed area and direct water to a sediment basin.

Design and Installation Specifications

- Dike and/or swale and channel must be stabilized with temporary or permanent vegetation or other channel protection during construction.
- Channel requires a positive grade for drainage; steeper grades require channel protection and check dams.
- Review construction for areas where overtopping may occur.
- Can be used at top of new fill before vegetation is established.
- May be used as a permanent diversion channel to carry the runoff.
- Sub-basin tributary area should be one acre or less.
- Design capacity for the peak volumetric flow rate calculated using a 10-minute time step from a 10-year, 24-hour storm, assuming a Type 1A rainfall distribution, for temporary facilities. Alternatively, use 1.6 times the 10-year, 1-hour flow indicated by an approved continuous runoff model. For facilities that will also serve on a permanent basis, consult the local government's drainage requirements.

Interceptor dikes shall meet the following criteria:

Top Width	2 feet minimum.
Height	1.5 feet minimum on berm.
Side Slope	2H:1V or flatter.
Grade	Depends on topography, however, dike system minimum is 0.5%, and maximum is 1%.
Compaction	Minimum of 90 percent ASTM D698 standard proctor.

Horizontal Spacing of Interceptor Dikes:

Average Slope	Slope Percent	Flowpath Length
20H:1V or less	3-5%	300 feet
(10 to 20)H:1V	5-10%	200 feet
(4 to 10)H:1V	10-25%	100 feet
(2 to 4)H:1V	25-50%	50 feet

Stabilization depends on velocity and reach

Slopes <5%	Seed and mulch applied within 5 days of dike construction (see BMP C121, Mulching).
Slopes 5 - 40%	Dependent on runoff velocities and dike materials. Stabilization should be done immediately using either sod or riprap or other measures to avoid erosion.

- The upslope side of the dike shall provide positive drainage to the dike outlet. No erosion shall occur at the outlet. Provide energy dissipation measures as necessary. Sediment-laden runoff must be released through a sediment trapping facility.
- Minimize construction traffic over temporary dikes. Use temporary cross culverts for channel crossing.

Interceptor swales shall meet the following criteria:

Bottom Width	2 feet minimum; the cross-section bottom shall be level.
Depth	1-foot minimum.
Side Slope	2H:1V or flatter.
Grade	Maximum 5 percent, with positive drainage to a suitable outlet (such as a sediment pond).
Stabilization	Seed as per BMP C120, *Temporary and Permanent Seeding*, or *BMP C202*, *Channel Lining*, 12 inches thick riprap pressed into the bank and extending at least 8 inches vertical from the bottom.

- Inspect diversion dikes and interceptor swales once a week and after every rainfall. Immediately remove sediment from the flow area.

- Damage caused by construction traffic or other activity must be repaired before the end of each working day.

Check outlets and make timely repairs as needed to avoid gully formation. When the area below the temporary diversion dike is permanently stabilized, remove the dike and fill and stabilize the channel to blend with the natural surface.

BMP C207: Check Dams

Purpose

Construction of small dams across a swale or ditch reduces the velocity of concentrated flow and dissipates energy at the check dam.

Conditions of Use

Where temporary channels or permanent channels are not yet vegetated, channel lining is infeasible, and/or velocity checks are required.

- Check dams may not be placed in streams unless approved by the State Department of Fish and Wildlife. Check dams may not be placed in wetlands without approval from a permitting agency.
- Do not place check dams below the expected backwater from any salmonid bearing water between October 1 and May 31 to ensure that there is no loss of high flow refuge habitat for overwintering juvenile salmonids and emergent salmonid fry.
- Construct rock check dams from appropriately sized rock. The rock used must be large enough to stay in place given the expected design flow through the channel. The rock must be placed by hand or by mechanical means (no dumping of rock to form dam) to achieve complete coverage of the ditch or swale and to ensure that the center of the dam is lower than the edges.
- Check dams may also be constructed of either rock or pea-gravel filled bags. Numerous new products are also available for this purpose. They tend to be re-usable, quick and easy to install, effective, and cost efficient.
- Place check dams perpendicular to the flow of water.
- The dam should form a triangle when viewed from the side. This prevents undercutting as water flows over the face of the dam rather than falling directly onto the ditch bottom.

- Before installing check dams impound and bypass upstream water flow away from the work area. Options for bypassing include pumps, siphons, or temporary channels.
- Check dams in association with sumps work more effectively at slowing flow and retaining sediment than just a check dam alone. A deep sump should be provided immediately upstream of the check dam.
- In some cases, if carefully located and designed, check dams can remain as permanent installations with very minor regrading. They may be left as either spillways, in which case accumulated sediment would be graded and seeded, or as check dams to prevent further sediment from leaving the site.
- The maximum spacing between the dams shall be such that the toe of the upstream dam is at the same elevation as the top of the downstream dam.
- Keep the maximum height at 2 feet at the center of the dam.
- Keep the center of the check dam at least 12 inches lower than the outer edges at natural ground elevation.
- Keep the side slopes of the check dam at 2H:1V or flatter.
- Key the stone into the ditch banks and extend it beyond the abutments a minimum of 18 inches to avoid washouts from overflow around the dam.
- Use filter fabric foundation under a rock or sand bag check dam. If a blanket ditch liner is used, filter fabric is not necessary. A piece of organic or synthetic blanket cut to fit will also work for this purpose.
- In the case of grass-lined ditches and swales, all check dams and accumulated sediment shall be removed when the grass has matured sufficiently to protect the ditch or swale - unless the slope of the swale is greater than 4 percent. The area beneath the check dams shall be seeded and mulched immediately after dam removal.
- Ensure that channel appurtenances, such as culvert entrances below check dams, are not subject to damage or blockage from displaced stones. Figure 4.2.7 depicts a typical rock check dam.

Maintenance Standards

Check dams shall be monitored for performance and sediment accumulation during and after each runoff producing rainfall. Sediment shall be removed when it reaches one half the sump depth.

- Anticipate submergence and deposition above the check dam and erosion from high flows around the edges of the dam.
- If significant erosion occurs between dams, install a protective riprap liner in that portion of the channel.

Approved as Equivalent

Ecology has approved products as able to meet the requirements of BMP C207. The products did not pass through the Technology Assessment Protocol – Ecology (TAPE) process. Local jurisdictions may choose not to accept this product approved as equivalent, or may require additional testing prior to consideration for local use. The products are available for review on Ecology's website at http://www.ecy.wa.gov/programs/wq/stormwater/newtech/equivalent.html

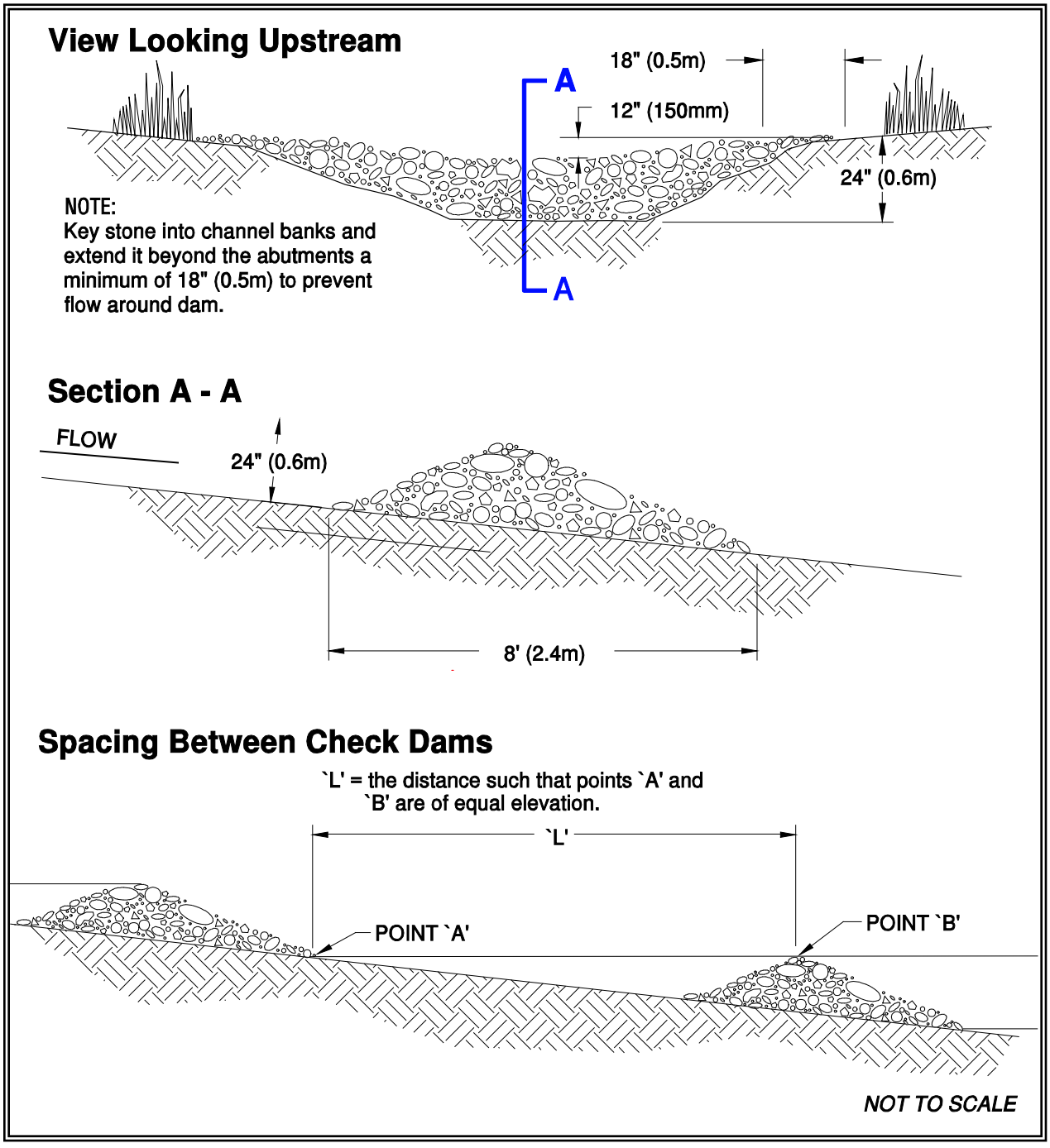


Figure 4.2.7 – Rock Check Dam

BMP C220: Storm Drain Inlet Protection

Purpose

Storm drain inlet protection prevents coarse sediment from entering drainage systems prior to permanent stabilization of the disturbed area.

Conditions of Use

Use storm drain inlet protection at inlets that are operational before permanent stabilization of the disturbed drainage area. Provide protection for all storm drain inlets downslope and within 500 feet of a disturbed or construction area, unless conveying runoff entering catch basins to a sediment pond or trap.

Also consider inlet protection for lawn and yard drains on new home construction. These small and numerous drains coupled with lack of gutters in new home construction can add significant amounts of sediment into the roof drain system. If possible delay installing lawn and yard drains until just before landscaping or cap these drains to prevent sediment from entering the system until completion of landscaping. Provide 18-inches of sod around each finished lawn and yard drain.

Table 4.2.2 lists several options for inlet protection. All of the methods for storm drain inlet protection tend to plug and require a high frequency of maintenance. Limit drainage areas to one acre or less. Possibly provide emergency overflows with additional end-of-pipe treatment where stormwater ponding would cause a hazard.

Table 4.2.2
Storm Drain Inlet Protection

Type of Inlet Protection	Emergency Overflow	Applicable for Paved/ Earthen Surfaces	Conditions of Use
Drop Inlet Protection			
Excavated drop inlet protection	Yes, temporary flooding will occur	Earthen	Applicable for heavy flows. Easy to maintain. Large area Requirement: 30' X 30'/acre
Block and gravel drop inlet protection	Yes	Paved or Earthen	Applicable for heavy concentrated flows. Will not pond.
Gravel and wire drop inlet protection	No		Applicable for heavy concentrated flows. Will pond. Can withstand traffic.
Catch basin filters	Yes	Paved or Earthen	Frequent maintenance required.
Curb Inlet Protection			
Curb inlet protection with a wooden weir	Small capacity overflow	Paved	Used for sturdy, more compact installation.
Block and gravel curb inlet protection	Yes	Paved	Sturdy, but limited filtration.
Culvert Inlet Protection			
Culvert inlet sediment trap			18 month expected life.

Design and Installation Specifications

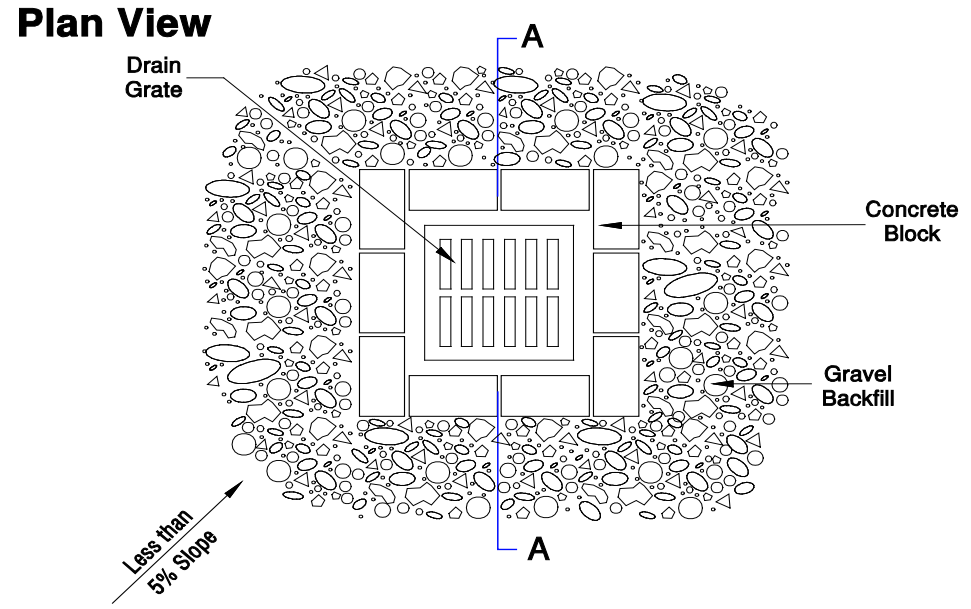
Excavated Drop Inlet Protection - An excavated impoundment around the storm drain. Sediment settles out of the stormwater prior to entering the storm drain.

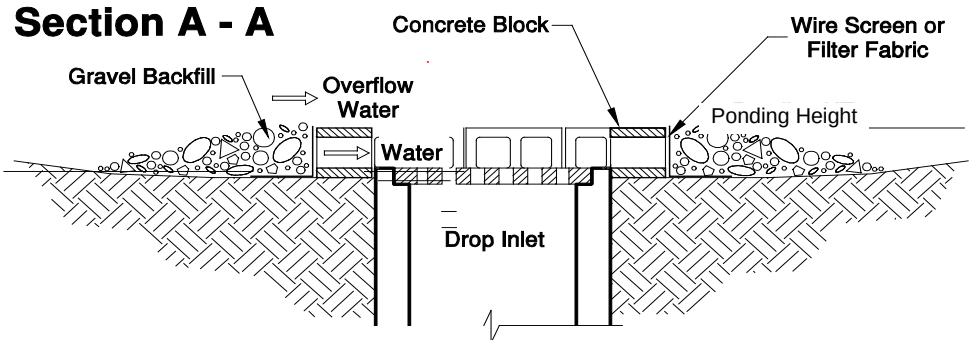
- Provide a depth of 1-2 ft as measured from the crest of the inlet structure.
- Slope sides of excavation no steeper than 2H:1V.
- Minimum volume of excavation 35 cubic yards.
- Shape basin to fit site with longest dimension oriented toward the longest inflow area.
- Install provisions for draining to prevent standing water problems.
- Clear the area of all debris.
- Grade the approach to the inlet uniformly.
- Drill weep holes into the side of the inlet.
- Protect weep holes with screen wire and washed aggregate.
- Seal weep holes when removing structure and stabilizing area.

- Build a temporary dike, if necessary, to the down slope side of the structure to prevent bypass flow.

Block and Gravel Filter - A barrier formed around the storm drain inlet with standard concrete blocks and gravel. See Figure 4.2.8.

- Provide a height of 1 to 2 feet above inlet.
- Recess the first row 2-inches into the ground for stability.
- Support subsequent courses by placing a 2x4 through the block opening.
- Do not use mortar.
- Lay some blocks in the bottom row on their side for dewatering the pool.
- Place hardware cloth or comparable wire mesh with ½-inch openings over all block openings.
- Place gravel just below the top of blocks on slopes of 2H:1V or flatter.
- An alternative design is a gravel donut.
- Provide an inlet slope of 3H:1V.
- Provide an outlet slope of 2H:1V.
- Provide a1-foot wide level stone area between the structure and the inlet.
- Use inlet slope stones 3 inches in diameter or larger.
- Use gravel ½- to ¾-inch at a minimum thickness of 1-foot for the outlet slope.





Notes:
1. Drop inlet sediment barriers are to be used for small, nearly level drainage areas. (less than 5%)
2. Excavate a basin of sufficient size adjacent to the drop inlet.
3. The top of the structure (ponding height) must be well below the ground elevation downslope to prevent runoff from bypassing the inlet. A temporary dike may be necessary on the downslope side of the structure.

Figure 4.2.8 – Block and Gravel Filter

Gravel and Wire Mesh Filter - A gravel barrier placed over the top of the inlet. This structure does not provide an overflow.

- Use a hardware cloth or comparable wire mesh with ½-inch openings.
- Use coarse aggregate.
- Provide a height 1-foot or more, 18-inches wider than inlet on all sides.
- Place wire mesh over the drop inlet so that the wire extends a minimum of 1-foot beyond each side of the inlet structure.
- Overlap the strips if more than one strip of mesh is necessary.

- Place coarse aggregate over the wire mesh.
- Provide at least a 12-inch depth of gravel over the entire inlet opening and extend at least 18-inches on all sides.

Catchbasin Filters – Use inserts designed by manufacturers for construction sites. The limited sediment storage capacity increases the amount of inspection and maintenance required, which may be daily for heavy sediment loads. To reduce maintenance requirements combine a catchbasin filter with another type of inlet protection. This type of inlet protection provides flow bypass without overflow and therefore may be a better method for inlets located along active rights-of-way.

- Provides 5 cubic feet of storage.
- Requires dewatering provisions.
- Provides a high-flow bypass that will not clog under normal use at a construction site.
- Insert the catchbasin filter in the catchbasin just below the grating.

Curb Inlet Protection with Wooden Weir – Barrier formed around a curb inlet with a wooden frame and gravel.

- Use wire mesh with ½-inch openings.
- Use extra strength filter cloth.
- Construct a frame.
- Attach the wire and filter fabric to the frame.
- Pile coarse washed aggregate against wire/fabric.
- Place weight on frame anchors.

Block and Gravel Curb Inlet Protection – Barrier formed around a curb inlet with concrete blocks and gravel. See Figure 4.2.9.

- Use wire mesh with ½-inch openings.
- Place two concrete blocks on their sides abutting the curb at either side of the inlet opening. These are spacer blocks.
- Place a 2x4 stud through the outer holes of each spacer block to align the front blocks.
- Place blocks on their sides across the front of the inlet and abutting the spacer blocks.
- Place wire mesh over the outside vertical face.
- Pile coarse aggregate against the wire to the top of the barrier.

Curb and Gutter Sediment Barrier – Sandbag or rock berm (riprap and aggregate) 3 feet high and 3 feet wide in a horseshoe shape. See Figure 4.2.10.

- Construct a horseshoe shaped berm, faced with coarse aggregate if using riprap, 3 feet high and 3 feet wide, at least 2 feet from the inlet.
- Construct a horseshoe shaped sedimentation trap on the outside of the berm sized to sediment trap standards for protecting a culvert inlet.

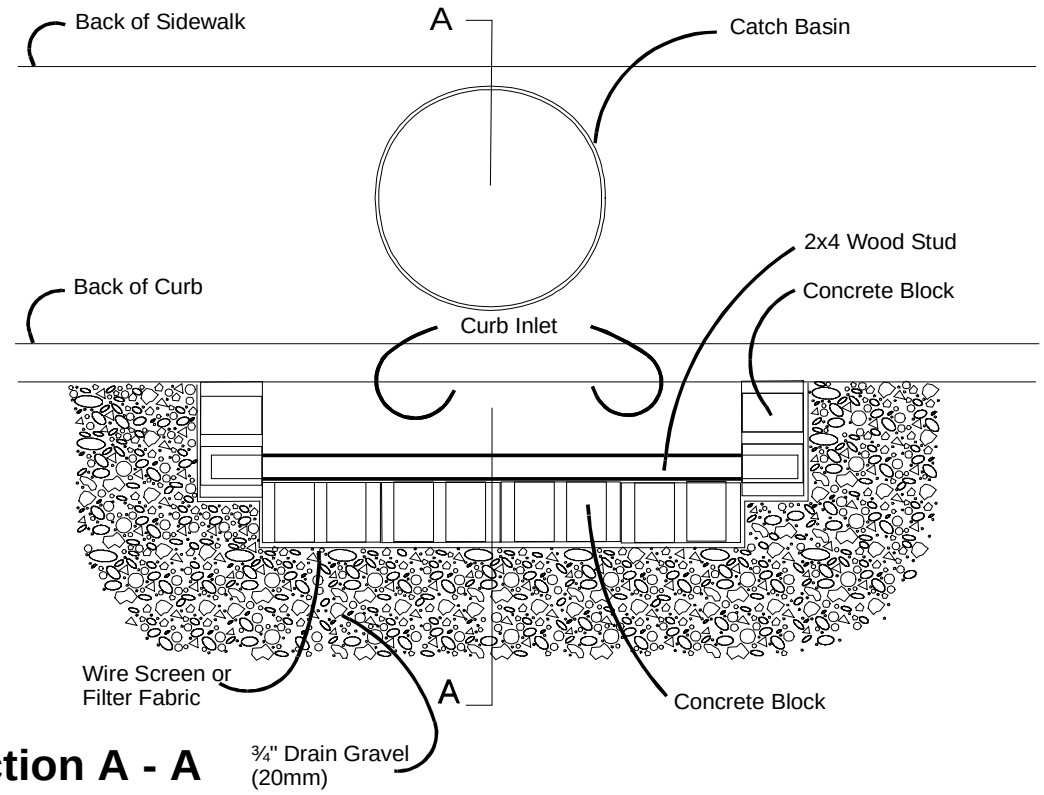
Maintenance Standards

- Inspect catch basin filters frequently, especially after storm events. Clean and replace clogged inserts. For systems with clogged stone filters: pull away the stones from the inlet and clean or replace. An alternative approach would be to use the clogged stone as fill and put fresh stone around the inlet.
- Do not wash sediment into storm drains while cleaning. Spread all excavated material evenly over the surrounding land area or stockpile and stabilize as appropriate.

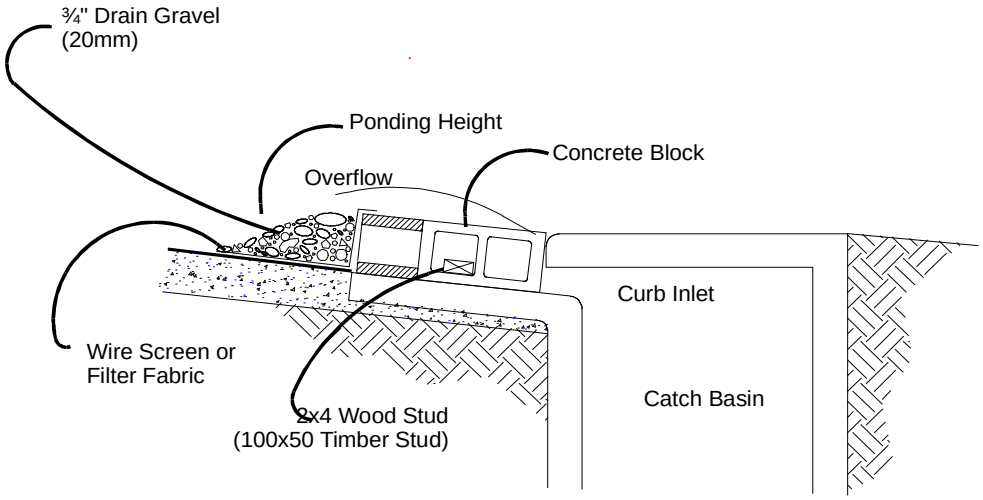
Approved as Equivalent

Ecology has approved products as able to meet the requirements of BMP C220. The products did not pass through the Technology Assessment Protocol – Ecology (TAPE) process. Local jurisdictions may choose not to accept this product approved as equivalent, or may require additional testing prior to consideration for local use. The products are available for review on Ecology's website at http://www.ecy.wa.gov/programs/wq/stormwater/newtech/equivalent.html

Plan View



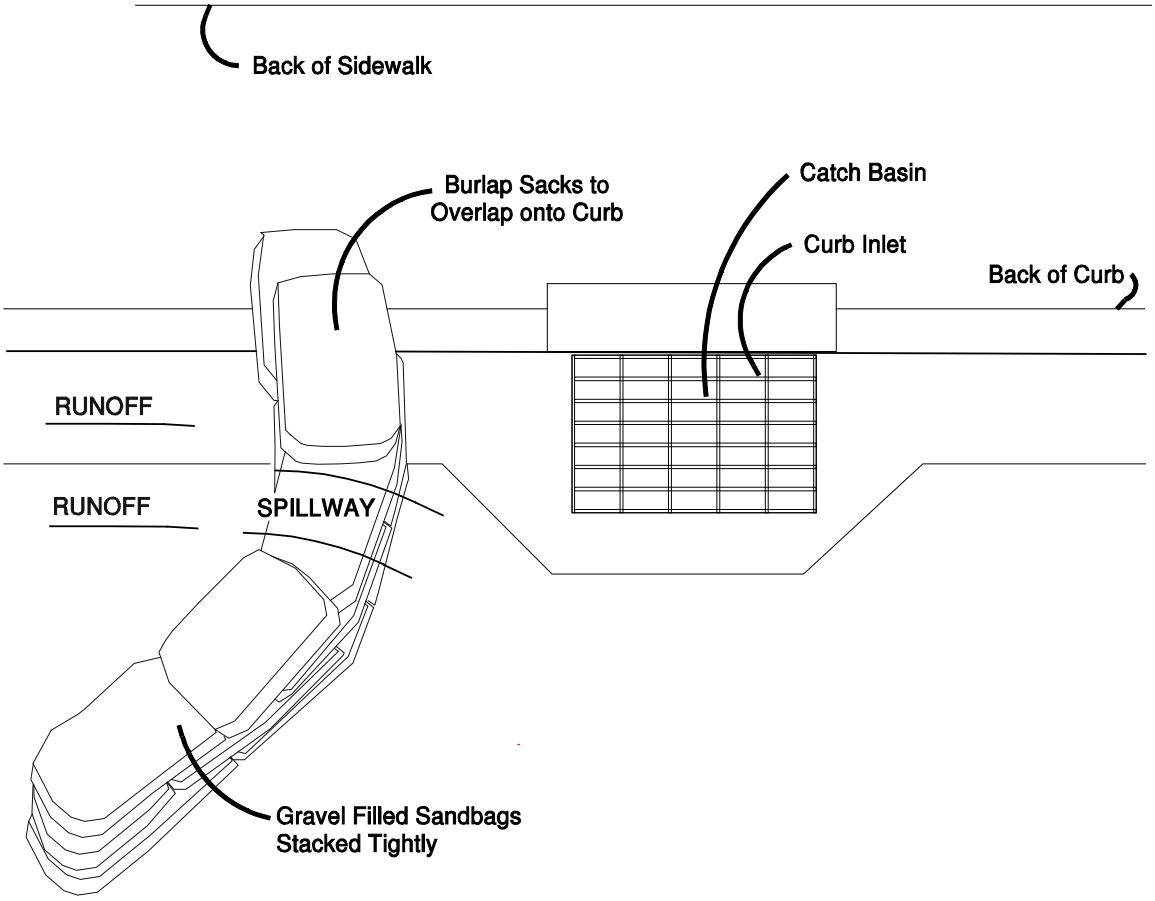
Section A - A



NOTES:
1. Use block and gravel type sediment barrier when curb inlet is located in gently sloping street segment, where water can pond and allow sediment to separate from runoff.
2. Barrier shall allow for overflow from severe storm event.
3. Inspect barriers and remove sediment after each storm event. Sediment and gravel must be removed from the traveled way immediately.

Figure 4.2.9 – Block and Gravel Curb Inlet Protection

Plan View



NOTES:
1. Place curb type sediment barriers on gently sloping street segments, where water can pond and allow sediment to separate from runoff.
2. Sandbags of either burlap or woven `geotextile' fabric, are filled with gravel, layered and packed tightly.
3. Leave a one sandbag gap in the top row to provide a spillway for overflow.
4. Inspect barriers and remove sediment after each storm event. Sediment and gravel must be removed from the traveled way immediately.

Figure 4.2.10 – Curb and Gutter Barrier

BMP C235: Wattles

Purpose

Wattles are temporary erosion and sediment control barriers consisting of straw, compost, or other material that is wrapped in biodegradable tubular plastic or similar encasing material. They reduce the velocity and can spread the flow of rill and sheet runoff, and can capture and retain sediment. Wattles are typically 8 to 10 inches in diameter and 25 to 30 feet in length. Wattles are placed in shallow trenches and staked along the contour of disturbed or newly constructed slopes. See Figure 4.2.14 for typical construction details. WSDOT Standard Plan I-30.30-00 also provides information on Wattles (http://www.wsdot.wa.gov/Design/Standards/Plans.htm#SectionI)

Conditions of Use

- Use wattles:
  - In disturbed areas that require immediate erosion protection.
  - On exposed soils during the period of short construction delays, or over winter months.
  - On slopes requiring stabilization until permanent vegetation can be established.
- The material used dictates the effectiveness period of the wattle. Generally, Wattles are typically effective for one to two seasons.
- Prevent rilling beneath wattles by properly entrenching and abutting wattles together to prevent water from passing between them.

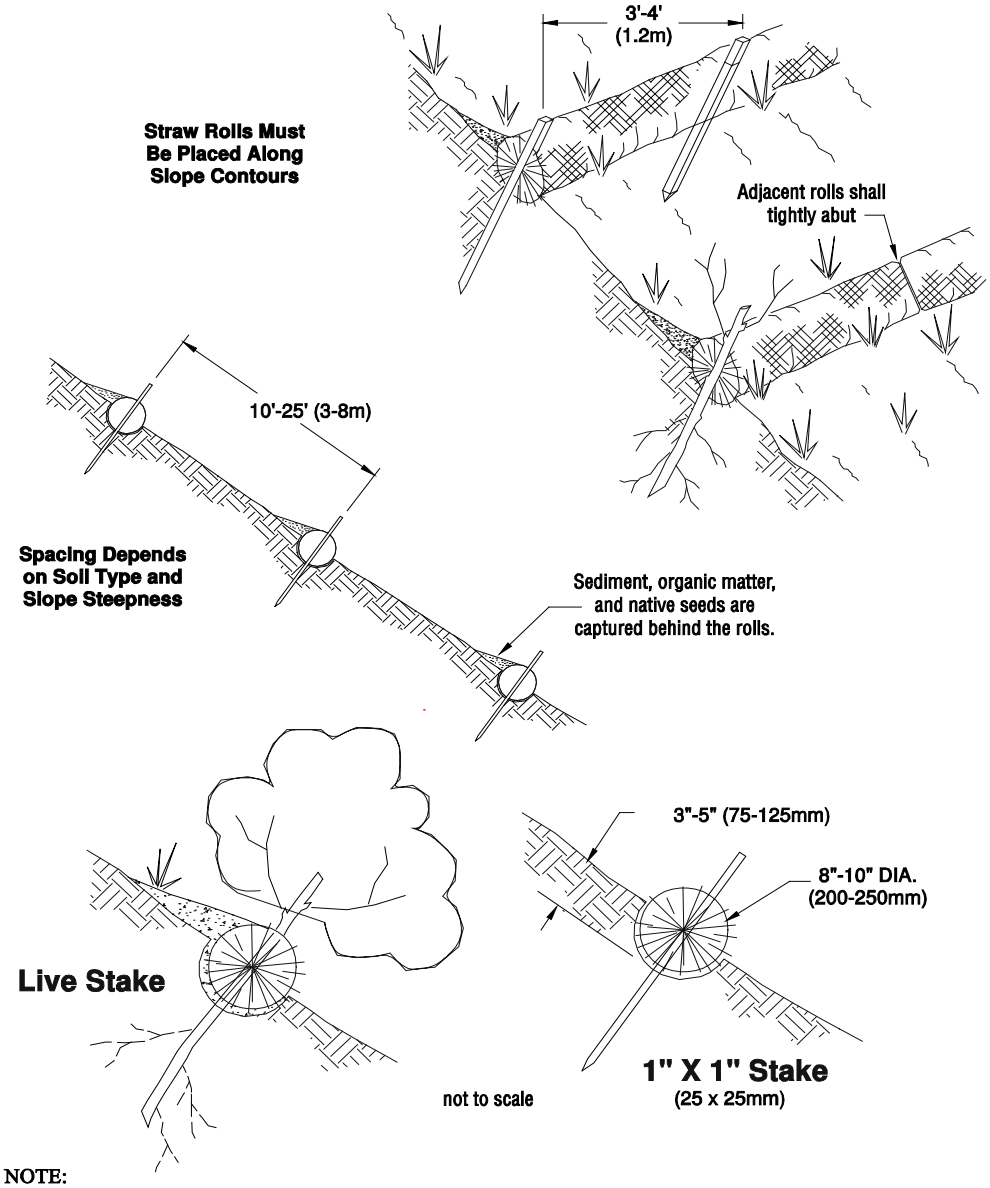
Design Criteria

- Install wattles perpendicular to the flow direction and parallel to the slope contour.
- Narrow trenches should be dug across the slope on contour to a depth of 3- to 5-inches on clay soils and soils with gradual slopes. On loose soils, steep slopes, and areas with high rainfall, the trenches should be dug to a depth of 5- to 7- inches, or 1/2 to 2/3 of the thickness of the wattle.
- Start building trenches and installing wattles from the base of the slope and work up. Spread excavated material evenly along the uphill slope and compacted using hand tamping or other methods.
- Construct trenches at intervals of 10- to 25-feet depending on the steepness of the slope, soil type, and rainfall. The steeper the slope the closer together the trenches.
- Install the wattles snugly into the trenches and abut tightly end to end. Do not overlap the ends.
- Install stakes at each end of the wattle, and at 4-foot centers along entire length of wattle.

- If required, install pilot holes for the stakes using a straight bar to drive holes through the wattle and into the soil.
- Wooden stakes should be approximately 3/4 x 3/4 x 24 inches min. Willow cuttings or 3/8-inch rebar can also be used for stakes.
- Stakes should be driven through the middle of the wattle, leaving 2 to 3 inches of the stake protruding above the wattle.

Maintenance Standards

- Wattles may require maintenance to ensure they are in contact with soil and thoroughly entrenched, especially after significant rainfall on steep sandy soils.



NOTE:
1. Straw roll installation requires the placement and secure staking of the roll in a trench, 3"-5" (75-125mm) deep, dug on contour. runoff must not be allowed to run under or around roll.

Figure 4.2.14 – Wattles

- Inspect the slope after significant storms and repair any areas where wattles are not tightly abutted or water has scoured beneath the wattles.

Approved as Equivalent

Ecology has approved products as able to meet the requirements of BMP C235. The products did not pass through the Technology Assessment Protocol – Ecology (TAPE) process. Local jurisdictions may choose not to accept this product approved as equivalent, or may require additional testing prior to consideration for local use. The products are available for review on Ecology's website at http://www.ecy.wa.gov/programs/wq/stormwater/newtech/equivalent.html

BMP C250: Construction Stormwater Chemical Treatment

Purpose

This BMP applies when using stormwater chemicals in batch treatment or flow-through treatment.

Turbidity is difficult to control once fine particles are suspended in stormwater runoff from a construction site. Sedimentation ponds are effective at removing larger particulate matter by gravity settling, but are ineffective at removing smaller particulates such as clay and fine silt. Traditional erosion and sediment control BMPs may not be adequate to ensure compliance with the water quality standards for turbidity in receiving water.

Chemical treatment can reliably provide exceptional reductions of turbidity and associated pollutants. Chemical treatment may be required to meet turbidity stormwater discharge requirements, especially when construction is to proceed through the wet season.

Conditions of Use

Formal written approval from Ecology is required for the use of chemical treatment regardless of site size. The Local Permitting Authority may also

require review and approval. When approved, the chemical treatment systems must be included in the Construction Stormwater Pollution Prevention Plan (SWPPP).

Design and Installation Specifications

See Appendix II-B for background information on chemical treatment.

Criteria for Chemical Treatment Product Use: Chemically treated stormwater discharged from construction sites must be nontoxic to aquatic organisms. The Chemical Technology Assessment Protocol (CTAPE) must be used to evaluate chemicals proposed for stormwater treatment. Only chemicals approved by Ecology under the CTAPE may be used for stormwater treatment. The approved chemicals, their allowable application techniques (batch treatment or flow-through treatment), allowable application rates, and conditions of use can be found at the Department of Ecology Emerging Technologies website: http://www.ecy.wa.gov/programs/wq/stormwater/newtech/technologies.html.

Treatment System Design Considerations: The design and operation of a chemical treatment system should take into consideration the factors that determine optimum, cost-effective performance. It is important to recognize the following:

- Only Ecology approved chemicals may be used and must follow approved dose rate.
- The pH of the stormwater must be in the proper range for the polymers to be effective, which is typically 6.5 to 8.5
- The coagulant must be mixed rapidly into the water to ensure proper dispersion.
- A flocculation step is important to increase the rate of settling, to produce the lowest turbidity, and to keep the dosage rate as low as possible.
- Too little energy input into the water during the flocculation phase results in flocs that are too small and/or insufficiently dense. Too much energy can rapidly destroy floc as it is formed.
- Care must be taken in the design of the withdrawal system to minimize outflow velocities and to prevent floc discharge. Discharge from a batch treatment system should be directed through a physical filter such as a vegetated swale that would catch any unintended floc discharge. Currently, flow-through systems always discharge through the chemically enhanced sand filtration system.
- System discharge rates must take into account downstream conveyance integrity.

Polymer Batch Treatment Process Description:

A batch chemical treatment system consists of the stormwater collection system (either temporary diversion or the permanent site drainage system), a storage pond, pumps, a chemical feed system, treatment cells, and interconnecting piping.

The batch treatment system shall use a minimum of two lined treatment cells in addition to an untreated stormwater storage pond. Multiple treatment cells allow for clarification of treated water while other cells are being filled or emptied. Treatment cells may be ponds or tanks. Ponds with constructed earthen embankments greater than six feet high or which impound more than 10 acre-feet require special engineering analyses. The Ecology Dam Safety Section has specific design criteria for dams in Washington State (see http://www.ecy.wa.gov/programs/wr/dams/GuidanceDocs.html).

Stormwater is collected at interception point(s) on the site and is diverted by gravity or by pumping to an untreated stormwater storage pond or other untreated stormwater holding area. The stormwater is stored until treatment occurs. It is important that the holding pond be large enough to provide adequate storage.

The first step in the treatment sequence is to check the pH of the stormwater in the untreated stormwater storage pond. The pH is adjusted by the application of carbon dioxide or a base until the stormwater in the storage pond is within the desired pH range, 6.5 to 8.5. When used, carbon dioxide is added immediately downstream of the transfer pump. Typically sodium bicarbonate (baking soda) is used as a base, although other bases may be used. When needed, base is added directly to the untreated stormwater storage pond. The stormwater is recirculated with the treatment pump to provide mixing in the storage pond. Initial pH adjustments should be based on daily bench tests. Further pH adjustments can be made at any point in the process.

Once the stormwater is within the desired pH range (dependant on polymer being used), the stormwater is pumped from the untreated stormwater storage pond to a treatment cell as polymer is added. The polymer is added upstream of the pump to facilitate rapid mixing.

After polymer addition, the water is kept in a lined treatment cell for clarification of the sediment-floc. In a batch mode process, clarification typically takes from 30 minutes to several hours. Prior to discharge samples are withdrawn for analysis of pH, flocculent chemical concentration, and turbidity. If both are acceptable, the treated water is discharged.

Several configurations have been developed to withdraw treated water from the treatment cell. The original configuration is a device that withdraws the treated water from just beneath the water surface using a

float with adjustable struts that prevent the float from settling on the cell bottom. This reduces the possibility of picking up sediment-floc from the bottom of the pond. The struts are usually set at a minimum clearance of about 12 inches; that is, the float will come within 12 inches of the bottom of the cell. Other systems have used vertical guides or cables which constrain the float, allowing it to drift up and down with the water level. More recent designs have an H-shaped array of pipes, set on the horizontal.

This scheme provides for withdrawal from four points rather than one. This configuration reduces the likelihood of sucking settled solids from the bottom. It also reduces the tendency for a vortex to form. Inlet diffusers, a long floating or fixed pipe with many small holes in it, are also an option.

Safety is a primary concern. Design should consider the hazards associated with operations, such as sampling. Facilities should be designed to reduce slip hazards and drowning. Tanks and ponds should have life rings, ladders, or steps extending from the bottom to the top.

Polymer Batch Treatment Process Description:

At a minimum, a flow-through chemical treatment system consists of the stormwater collection system (either temporary diversion or the permanent site drainage system), an untreated stormwater storage pond, and the chemically enhanced sand filtration system.

Stormwater is collected at interception point(s) on the site and is diverted by gravity or by pumping to an untreated stormwater storage pond or other untreated stormwater holding area. The stormwater is stored until treatment occurs. It is important that the holding pond be large enough to provide adequate storage.

Stormwater is then pumped from the untreated stormwater storage pond to the chemically enhanced sand filtration system where polymer is added. Adjustments to pH may be necessary before chemical addition. The sand filtration system continually monitors the stormwater for turbidity and pH. If the discharge water is ever out of an acceptable range for turbidity or pH, the water is recycled to the untreated stormwater pond where it can be retreated.

For batch treatment and flow-through treatment, the following equipment should be located in a lockable shed:

- The chemical injector.
- Secondary containment for acid, caustic, buffering compound, and treatment chemical.
- Emergency shower and eyewash.
- Monitoring equipment which consists of a pH meter and a turbidimeter.

System Sizing:

Certain sites are required to implement flow control for the developed sites. These sites must also control stormwater release rates during construction. Generally, these are sites that discharge stormwater directly, or indirectly, through a conveyance system, into a fresh water. System sizing is dependent on flow control requirements.

Sizing Criteria for Batch Treatment Systems for Flow Control Exempt Water Bodies:

The total volume of the untreated stormwater storage pond and treatment ponds or tanks must be large enough to treat stormwater that is produced during multiple day storm events. It is recommended that at a minimum the untreated stormwater storage pond be sized to hold 1.5 times the runoff volume of the 10-year, 24-hour storm event. Bypass should be provided around the chemical treatment system to accommodate extreme storm events. Runoff volume shall be calculated using the methods presented in Volume 3, Chapter 2. Worst-case land cover conditions (i.e., producing the most runoff) should be used for analyses (in most cases, this would be the land cover conditions just prior to final landscaping).

Primary settling should be encouraged in the untreated stormwater storage pond. A forebay with access for maintenance may be beneficial.

There are two opposing considerations in sizing the treatment cells. A larger cell is able to treat a larger volume of water each time a batch is processed. However, the larger the cell the longer the time required to empty the cell. A larger cell may also be less effective at flocculation and therefore require a longer settling time. The simplest approach to sizing the treatment cell is to multiply the allowable discharge flow rate times the desired drawdown time. A 4-hour drawdown time allows one batch per cell per 8-hour work period, given 1 hour of flocculation followed by two hours of settling.

If the discharge is directly to a flow control exempt receiving water listed in Appendix I-E of Volume I or to an infiltration system, there is no discharge flow limit.

Ponds sized for flow control water bodies must at a minimum meet the sizing criteria for flow control exempt waters.

Sizing Criteria for Flow-Through Treatment Systems for Flow Control Exempt Water Bodies:

When sizing storage ponds or tanks for flow-through systems for flow control exempt water bodies, the treatment system capacity should be a factor. The untreated stormwater storage pond or tank should be sized to hold 1.5 times the runoff volume of the 10-year, 24-hour storm event minus the treatment system flowrate for an 8-hour period. For a chitosan-enhanced sand filtration system, the treatment system flowrate should be sized using a hydraulic loading rate between 6-8 gpm/ft^2. Other hydraulic

loading rates may be more appropriate for other systems. Bypass should be provided around the chemical treatment system to accommodate extreme storms. Runoff volume shall be calculated using the methods presented in Volume 3, Chapter 2. Worst-case land cover conditions (i.e., producing the most runoff) should be used for analyses (in most cases, this would be the land cover conditions just prior to final landscaping).

Sizing Criteria for Flow Control Water Bodies:

Sites that must implement flow control for the developed site condition must also control stormwater release rates during construction. Construction site stormwater discharges shall not exceed the discharge durations of the pre-developed condition for the range of pre-developed discharge rates from ½ of the 2-year flow through the 10-year flow as predicted by an approved continuous runoff model. The pre-developed condition to be matched shall be the land cover condition immediately prior to the development project. This restriction on release rates can affect the size of the storage pond and treatment cells.

The following is how WWHM can be used to determine the release rates from the chemical treatment systems:

1. Determine the pre-developed flow durations to be matched by entering the existing land use area under the "Pre-developed" scenario in WWHM. The default flow range is from ½ of the 2-year flow through the 10-year flow.
2. Enter the post developed land use area in the "Developed Unmitigated" scenario in WWHM.
3. Copy the land use information from the "Developed Unmitigated" to "Developed Mitigated" scenario.
4. While in the "Developed Mitigated" scenario, add a pond element under the basin element containing the post-developed land use areas. This pond element represents information on the available untreated stormwater storage and discharge from the chemical treatment system. In cases where the discharge from the chemical treatment system is controlled by a pump, a stage/storage/discharge (SSD) table representing the pond must be generated outside WWHM and imported into WWHM. WWHM can route the runoff from the post-developed condition through this SSD table (the pond) and determine compliance with the flow duration standard. This would be an iterative design procedure where if the initial SSD table proved to be inadequate, the designer would have to modify the SSD table outside WWHM and re-import in WWHM and route the runoff through it again. The iteration will continue until a pond that complies with the flow duration standard is correctly sized.

Notes on SSD table characteristics:

- The pump discharge rate would likely be initially set at just below ½ of the 2-year flow from the pre-developed condition. As runoff coming into the untreated stormwater storage pond increases and the available untreated stormwater storage volume gets used up, it would be necessary to increase the pump discharge rate above ½ of the 2-year. The increase(s) above ½ of the 2-year must be such that they provide some relief to the untreated stormwater storage needs but at the same time will not cause violations of the flow duration standard at the higher flows. The final design SSD table will identify the appropriate pumping rates and the corresponding stage and storages.
- When building such a flow control system, the design must ensure that any automatic adjustments to the pumping rates will be as a result of changes to the available storage in accordance with the final design SSD table.

5. It should be noted that the above procedures would be used to meet the flow control requirements. The chemical treatment system must be able to meet the runoff treatment requirements. It is likely that the discharge flow rate of ½ of the 2-year or more may exceed the treatment capacity of the system. If that is the case, the untreated stormwater discharge rate(s) (i.e., influent to the treatment system) must be reduced to allow proper treatment. Any reduction in the flows would likely result in the need for a larger untreated stormwater storage volume.

   If the discharge is to a municipal storm drainage system, the allowable discharge rate may be limited by the capacity of the public system. It may be necessary to clean the municipal storm drainage system prior to the start of the discharge to prevent scouring solids from the drainage system. If the municipal storm drainage system discharges to a water body not on the flow control exempt list, the project site is subject to flow control requirements. Obtain permission from the owner of the collection system before discharging to it.

If system design does not allow you to discharge at the slower rates as described above and if the site has a retention or detention pond that will serve the planned development, the discharge from the treatment system may be directed to the permanent retention/detention pond to comply with the flow control requirement. In this case, the untreated stormwater storage pond and treatment system will be sized according to the sizing criteria for flow-through treatment systems for flow control exempt water bodies described earlier except all discharge (water passing through the treatment system and stormwater bypassing the treatment system) will be directed into the permanent retention/detention pond. If site constraints make locating the untreated stormwater storage pond difficult, the permanent retention/detention pond may be divided to serve as the untreated stormwater

storage pond and the post-treatment flow control pond. A berm or barrier must be used in this case so the untreated water does not mix with the treated water. Both untreated stormwater storage requirements, and adequate post-treatment flow control must be achieved. The post-treatment flow control pond's revised dimensions must be entered into the WWHM and the WWHM must be run to confirm compliance with the flow control requirement.

Maintenance Standards

Monitoring: At a minimum, the following monitoring shall be conducted. Test results shall be recorded on a daily log kept on site. Additional testing may be required by the NPDES permit based on site conditions.

Operational Monitoring:

- Total volume treated and discharged.
- Flow must be continuously monitored and recorded at not greater than 15-minute intervals.
- Type and amount of chemical used for pH adjustment.
- Amount of polymer used for treatment.
- Settling time.

Compliance Monitoring:

- Influent and effluent pH, flocculent chemical concentration, and turbidity must be continuously monitored and recorded at not greater than 15-minute intervals. pH and turbidity of the receiving water.

Biomonitoring:

Treated stormwater must be non-toxic to aquatic organisms. Treated stormwater must be tested for aquatic toxicity or residual chemicals. Frequency of biomonitoring will be determined by Ecology.

Residual chemical tests must be approved by Ecology prior to their use.

If testing treated stormwater for aquatic toxicity, you must test for acute (lethal) toxicity. Bioassays shall be conducted by a laboratory accredited by Ecology, unless otherwise approved by Ecology. Acute toxicity tests shall be conducted per the CTAPE protocol.

Discharge Compliance: Prior to discharge, treated stormwater must be sampled and tested for compliance with pH, flocculent chemical concentration, and turbidity limits. These limits may be established by the Construction Stormwater General Permit or a site-specific discharge permit. Sampling and testing for other pollutants may also be necessary at some sites. pH must be within the range of 6.5 to 8.5 standard units and not cause a change in the pH of the receiving water of more than 0.2 standard units. Treated stormwater samples and measurements shall be taken from the discharge pipe or another location representative of the nature of the treated stormwater discharge. Samples used for determining compliance with the water quality standards in the receiving water shall

not be taken from the treatment pond prior to decanting. Compliance with the water quality standards is determined in the receiving water.

Operator Training: Each contractor who intends to use chemical treatment shall be trained by an experienced contractor. Each site using chemical treatment must have an operator trained and certified by an organization approved by Ecology.

Standard BMPs: Surface stabilization BMPs should be implemented on site to prevent significant erosion. All sites shall use a truck wheel wash to prevent tracking of sediment off site.

Sediment Removal and Disposal:

- Sediment shall be removed from the storage or treatment cells as necessary. Typically, sediment removal is required at least once during a wet season and at the decommissioning of the cells. Sediment remaining in the cells between batches may enhance the settling process and reduce the required chemical dosage.
- Sediment that is known to be non-toxic may be incorporated into the site away from drainages.

BMP C251: Construction Stormwater Filtration

Purpose

Filtration removes sediment from runoff originating from disturbed areas of the site.

Background Information:

Filtration with sand media has been used for over a century to treat water and wastewater. The use of sand filtration for treatment of stormwater has developed recently, generally to treat runoff from streets, parking lots, and residential areas. The application of filtration to construction stormwater treatment is currently under development.

Conditions of Use

Traditional BMPs used to control soil erosion and sediment loss from sites under development may not be adequate to ensure compliance with the water quality standard for turbidity in the receiving water. Filtration may be used in conjunction with gravity settling to remove sediment as small as fine silt (0.5 µm). The reduction in turbidity will be dependent on the particle size distribution of the sediment in the stormwater. In some circumstances, sedimentation and filtration may achieve compliance with the water quality standard for turbidity.

The use of construction stormwater filtration does not require approval from Ecology as long as treatment chemicals are not used. Filtration in conjunction with polymer treatment requires testing under the Chemical Technology Assessment Protocol – Ecology (CTAPE) before it can be initiated. Approval from the appropriate regional Ecology office must be obtained at each site where polymers use is proposed prior to use. For more guidance on stormwater chemical treatment see BMP C250.

Design and Installation Specifications

Two types of filtration systems may be applied to construction stormwater treatment: rapid and slow. Rapid sand filters are the typical system used for water and wastewater treatment. They can achieve relatively high hydraulic flow rates, on the order of 2 to 20 gpm/sf, because they have automatic backwash systems to remove accumulated solids. In contrast, slow sand filters have very low hydraulic rates, on the order of 0.02 gpm/sf, because they do not have backwash systems. Slow sand filtration has generally been used to treat stormwater. Slow sand filtration is mechanically simple in comparison to rapid sand filtration but requires a much larger filter area.

Filtration Equipment. Sand media filters are available with automatic backwashing features that can filter to 50 µm particle size. Screen or bag filters can filter down to 5 µm. Fiber wound filters can remove particles down to 0.5 µm. Filters should be sequenced from the largest to the smallest pore opening. Sediment removal efficiency will be related to particle size distribution in the stormwater.

Treatment Process Description. Stormwater is collected at interception point(s) on the site and is diverted to an untreated stormwater sediment pond or tank for removal of large sediment and storage of the stormwater before it is treated by the filtration system. The untreated stormwater is pumped from the trap, pond, or tank through the filtration system in a rapid sand filtration system. Slow sand filtration systems are designed as flow through systems using gravity.

Maintenance Standards

Rapid sand filters typically have automatic backwash systems that are triggered by a pre-set pressure drop across the filter. If the backwash water volume is not large or substantially more turbid than the untreated stormwater stored in the holding pond or tank, backwash return to the untreated stormwater pond or tank may be appropriate. However, other means of treatment and disposal may be necessary.

- Screen, bag, and fiber filters must be cleaned and/or replaced when they become clogged.
- Sediment shall be removed from the storage and/or treatment ponds as necessary. Typically, sediment removal is required once or twice during a wet season and at the decommissioning of the ponds.

Sizing Criteria for Flow-Through Treatment Systems for Flow Control Exempt Water Bodies:

When sizing storage ponds or tanks for flow-through systems for flow control exempt water bodies the treatment system capacity should be a factor. The untreated stormwater storage pond or tank should be sized to hold 1.5 times the runoff volume of the 10-year, 24-hour storm event minus the treatment system flowrate for an 8-hour period. For a chitosan-enhanced sand filtration system, the treatment system flowrate should be sized using a hydraulic loading rate between 6-8 gpm/ft². Other hydraulic

loading rates may be more appropriate for other systems. Bypass should be provided around the chemical treatment system to accommodate extreme storms. Runoff volume shall be calculated using the methods presented in Volume 3, Chapter 2. Worst-case conditions (i.e., producing the most runoff) should be used for analyses (most likely conditions present prior to final landscaping).

Sizing Criteria for Flow Control Water Bodies:

Sites that must implement flow control for the developed site condition must also control stormwater release rates during construction. Construction site stormwater discharges shall not exceed the discharge durations of the pre-developed condition for the range of pre-developed discharge rates from 1/2 of the 2-year flow through the 10-year flow as predicted by an approved continuous runoff model. The pre-developed condition to be matched shall be the land cover condition immediately prior to the development project. This restriction on release rates can affect the size of the storage pond, the filtration system, and the flow rate through the filter system.

The following is how WWHM can be used to determine the release rates from the filtration systems:

1. Determine the pre-developed flow durations to be matched by entering the land use area under the "Pre-developed" scenario in WWHM. The default flow range is from ½ of the 2-year flow through the 10-year flow.
2. Enter the post developed land use area in the "Developed Unmitigated" scenario in WWHM.
3. Copy the land use information from the "Developed Unmitigated" to "Developed Mitigated" scenario.
4. There are two possible ways to model stormwater filtration systems:
    a. The stormwater filtration system uses an untreated stormwater storage pond/tank and the discharge from this pond/tank is pumped to one or more filters. In-line filtration chemicals would be added to the flow right after the pond/tank and before the filter(s). Because the discharge is pumped, WWHM can't generate a stage/storage /discharge (SSD) table for this system. This system is modeled the same way as described in BMP C250 and is as follows:

        While in the "Developed Mitigated" scenario, add a pond element under the basin element containing the post-developed land use areas. This pond element represents information on the available untreated stormwater storage and discharge from the filtration system. In cases where the discharge from the filtration system is controlled by a pump, a stage/storage/discharge (SSD) table representing the pond must be generated outside WWHM and

imported into WWHM. WWHM can route the runoff from the post-developed condition through this SSD table (the pond) and determine compliance with the flow duration standard. This would be an iterative design procedure where if the initial SSD table proved to be out of compliance, the designer would have to modify the SSD table outside WWHM and re-import in WWHM and route the runoff through it again. The iteration will continue until a pond that enables compliance with the flow duration standard is designed.

Notes on SSD table characteristics:

- The pump discharge rate would likely be initially set at just below ½ if the 2-year flow from the pre-developed condition. As runoff coming into the untreated stormwater storage pond increases and the available untreated stormwater storage volume gets used up, it would be necessary to increase the pump discharge rate above ½ of the 2-year. The increase(s) above ½ of the 2-year must be such that they provide some relief to the untreated stormwater storage needs but at the same time they will not cause violations of the flow duration standard at the higher flows. The final design SSD table will identify the appropriate pumping rates and the corresponding stage and storages.
- When building such a flow control system, the design must ensure that any automatic adjustments to the pumping rates will be as a result of changes to the available storage in accordance with the final design SSD table.

b. The stormwater filtration system uses a storage pond/tank and the discharge from this pond/tank gravity flows to the filter. This is usually a slow sand filter system and it is possible to model it in WWHM as a Filter element or as a combination of Pond and Filter element placed in series. The stage/storage/discharge table(s) may then be generated within WWHM as follows:

   (i) While in the "Developed Mitigated" scenario, add a Filter element under the basin element containing the post-developed land use areas. The length and width of this filter element would have to be the same as the bottom length and width of the upstream untreated stormwater storage pond/tank.

   (ii) In cases where the length and width of the filter is not the same as those for the bottom of the upstream untreated stormwater storage tank/pond, the treatment system may be modeled as a Pond element followed by a Filter element. By having these two elements, WWHM would then generate a SSD table for the storage pond which then gravity flows to the Filter element. The Filter element downstream of the untreated stormwater

storage pond would have a storage component through the media, and an overflow component for when the filtration capacity is exceeded.

WWHM can route the runoff from the post-developed condition through the treatment systems in 4b and determine compliance with the flow duration standard. This would be an iterative design procedure where if the initial sizing estimates for the treatment system proved to be inadequate, the designer would have to modify the system and route the runoff through it again. The iteration would continue until compliance with the flow duration standard is achieved.

5. It should be noted that the above procedures would be used to meet the flow control requirements. The filtration system must be able to meet the runoff treatment requirements. It is likely that the discharge flow rate of ½ of the 2-year or more may exceed the treatment capacity of the system. If that is the case, the untreated stormwater discharge rate(s) (i.e., influent to the treatment system) must be reduced to allow proper treatment. Any reduction in the flows would likely result in the need for a larger untreated stormwater storage volume.

If system design does not allow you to discharge at the slower rates as described above and if the site has a retention or detention pond that will serve the planned development, the discharge from the treatment system may be directed to the permanent retention/detention pond to comply with the flow control requirements. In this case, the untreated stormwater storage pond and treatment system will be sized according to the sizing criteria for flow-through treatment systems for flow control exempt waterbodies described earlier except all discharges (water passing through the treatment system and stormwater bypassing the treatment system) will be directed into the permanent retention/detention pond. If site constraints make locating the untreated stormwater storage pond difficult, the permanent retention/detention pond may be divided to serve as the untreated stormwater discharge pond and the post-treatment flow control pond. A berm or barrier must be used in this case so the untreated water does not mix with the treated water. Both untreated stormwater storage requirements, and adequate post-treatment flow control must be achieved. The post-treatment flow control pond's revised dimensions must be entered into the WWHM and the WWHM must be run to confirm compliance with the flow control requirement.

BMP C252: High pH Neutralization Using CO_2

Purpose

When pH levels in stormwater rise above 8.5 it is necessary to lower the pH levels to the acceptable range of 6.5 to 8.5, this process is called pH neutralization. pH neutralization involves the use of solid or compressed carbon dioxide gas in water requiring neutralization. Neutralized stormwater may be discharged to surface waters under the General Construction NPDES permit.

Neutralized process water such as concrete truck wash-out, hydro-demolition, or saw-cutting slurry must be managed to prevent discharge to surface waters. Any stormwater contaminated during concrete work is considered process wastewater and must not be discharged to surface waters.

Reason for pH Neutralization:

A pH level range of 6.5 to 8.5 is typical for most natural watercourses, and this neutral pH is required for the survival of aquatic organisms. Should the pH rise or drop out of this range, fish and other aquatic organisms may become stressed and may die.

Calcium hardness can contribute to high pH values and cause toxicity that is associated with high pH conditions. A high level of calcium hardness in waters of the state is not allowed.

The water quality standard for pH in Washington State is in the range of 6.5 to 8.5. Ground water standard for calcium and other dissolved solids in Washington State is less than 500 mg/l.

Conditions of Use

Causes of High pH:

High pH at construction sites is most commonly caused by the contact of stormwater with poured or recycled concrete, cement, mortars, and other Portland cement or lime containing construction materials. (See BMP C151: Concrete Handling for more information on concrete handling procedures). The principal caustic agent in cement is calcium hydroxide (free lime).

Advantages of CO_2 Sparging:

- Rapidly neutralizes high pH water.
- Cost effective and safer to handle than acid compounds.
- CO_2 is self-buffering. It is difficult to overdose and create harmfully low pH levels.
- Material is readily available.

The Chemical Process:

When carbon dioxide (CO_2) is added to water (H_2O), carbonic acid (H_2CO_3) is formed which can further dissociate into a proton (H^+) and a bicarbonate anion (HCO_3^-) as shown below:

$$CO_2 + H_2O \leftrightarrow H_2CO_3 \leftrightarrow H^+ + HCO_3^-$$

The free proton is a weak acid that can lower the pH. Water temperature has an effect on the reaction as well. The colder the water temperature is the slower the reaction occurs and the warmer the water temperature is the quicker the reaction occurs. Most construction applications in Washington State have water temperatures in the 50°F or higher range so the reaction is almost simultaneous.

Design and Installation Specifications

Treatment Process:

High pH water may be treated using continuous treatment, continuous discharge systems. These manufactured systems continuously monitor influent and effluent pH to ensure that pH values are within an acceptable range before being discharged. All systems must have fail safe automatic shut off switches in the event that pH is not within the acceptable discharge range. Only trained operators may operate manufactured systems. System manufacturers often provide trained operators or training on their devices.

The following procedure may be used when not using a continuous discharge system:

1. Prior to treatment, the appropriate jurisdiction should be notified in accordance with the regulations set by the jurisdiction.
2. Every effort should be made to isolate the potential high pH water in order to treat it separately from other stormwater on-site.
3. Water should be stored in an acceptable storage facility, detention pond, or containment cell prior to treatment.
4. Transfer water to be treated to the treatment structure. Ensure that treatment structure size is sufficient to hold the amount of water that is to be treated. Do not fill tank completely, allow at least 2 feet of freeboard.
5. The operator samples the water for pH and notes the clarity of the water. As a rule of thumb, less CO_2 is necessary for clearer water. This information should be recorded.
6. In the pH adjustment structure, add CO_2 until the pH falls in the range of 6.9-7.1. Remember that pH water quality standards apply so adjusting pH to within 0.2 pH units of receiving water (background pH) is recommended. It is unlikely that pH can be adjusted to within 0.2 pH units using dry ice. Compressed carbon dioxide gas should be introduced to the water using a carbon dioxide diffuser located near

the bottom of the tank, this will allow carbon dioxide to bubble up through the water and diffuse more evenly.

7. Slowly discharge the water making sure water does not get stirred up in the process. Release about 80% of the water from the structure leaving any sludge behind.
8. Discharge treated water through a pond or drainage system.
9. Excess sludge needs to be disposed of properly as concrete waste. If several batches of water are undergoing pH treatment, sludge can be left in treatment structure for the next batch treatment. Dispose of sludge when it fills 50% of tank volume.

Sites that must implement flow control for the developed site must also control stormwater release rates during construction. All treated stormwater must go through a flow control facility before being released to surface waters which require flow control.

Maintenance Standards

Safety and Materials Handling:

- All equipment should be handled in accordance with OSHA rules and regulations.
- Follow manufacturer guidelines for materials handling.

Operator Records:

Each operator should provide:

- A diagram of the monitoring and treatment equipment.
- A description of the pumping rates and capacity the treatment equipment is capable of treating.

Each operator should keep a written record of the following:

- Client name and phone number.
- Date of treatment.
- Weather conditions.
- Project name and location.
- Volume of water treated.
- pH of untreated water.
- Amount of CO_2 needed to adjust water to a pH range of 6.9-7.1.
- pH of treated water.
- Discharge point location and description.

A copy of this record should be given to the client/contractor who should retain the record for three years.

BMP C253: pH Control for High pH Water

Purpose

When pH levels in stormwater rise above 8.5 it is necessary to lower the pH levels to the acceptable range of 6.5 to 8.5, this process is called pH neutralization. Stormwater with pH levels exceeding water quality standards may be treated by infiltration, dispersion in vegetation or compost, pumping to a sanitary sewer, disposal at a permitted concrete batch plant with pH neutralization capabilities, or carbon dioxide sparging. BMP C252 gives guidelines for carbon dioxide sparging.

Reason for pH Neutralization:

A pH level range of 6.5 to 8.5 is typical for most natural watercourses, and this pH range is required for the survival of aquatic organisms. Should the pH rise or drop out of this range, fish and other aquatic organisms may become stressed and may die.

Conditions of Use

Causes of High pH:

High pH levels at construction sites are most commonly caused by the contact of stormwater with poured or recycled concrete, cement, mortars, and other Portland cement or lime containing construction materials. (See BMP C151: Concrete Handling for more information on concrete handling procedures). The principal caustic agent in cement is calcium hydroxide (free lime).

Design and Installation Specifications

Disposal Methods:

Infiltration

- Infiltration is only allowed if soil type allows all water to infiltrate (no surface runoff) without causing or contributing to a violation of surface or ground water quality standards.
- Infiltration techniques should be consistent with Volume V, Chapter 7

Dispersion

Use BMP T5.30 Full Dispersion

Sanitary Sewer Disposal

- Local sewer authority approval is required prior to disposal via the sanitary sewer.

Concrete Batch Plant Disposal

- Only permitted facilities may accept high pH water.
- Facility should be contacted before treatment to ensure they can accept the high pH water.

Stormwater Discharge

Any pH treatment options that generate treated water that must be discharged off site are subject to flow control requirements. Sites that must implement flow control for the developed site must also control

stormwater release rates during construction. All treated stormwater must go through a flow control facility before being released to surface waters which require flow control.

Resource Materials

Association of General Contractors of Washington, Water Quality Manual.

Clark County Conservation District, Erosion and Runoff Control, January 1981.

King County Conservation District, Construction and Erosion Control, December 1981.

King County Department of Transportation Road Maintenance BMP Manual (Final Draft), May 1998.

King County Surface Water Design Manual, September 1998.

Maryland Erosion and Sedimentation Control Manual, 1983.

Michigan State Guidebook for Erosion and Sediment Control, 1975.

Snohomish County Addendum to the 1992 Ecology Stormwater Management Manual for the Puget Sound Basin, September 1998.

University of Washington, by Loren Reinelt, Construction Site Erosion and Sediment Control Inspector Training Manual, Center for Urban Water Resources Management, October 1991.

University of Washington, by Loren Reinelt, Processes, Procedures, and Methods to Control Pollution Resulting from all Construction Activity, Center for Urban Water Resources Management, October 1991.

Virginia Erosion and Sediment Control Handbook, 2nd Edition, 1980.

This page intentionally left blank.

Appendix II-A Recommended Standard Notes for Erosion Control Plans

The following standard notes are suggested for use in erosion control plans. Local jurisdictions may have other mandatory notes for construction plans that are applicable. Plans should also identify with phone numbers the person or firm responsible for the preparation of and maintenance of the erosion control plan.

Standard Notes

Approval of this erosion/sedimentation control (ESC) plan does not constitute an approval of permanent road or drainage design (e.g. size and location of roads, pipes, restrictors, channels, retention facilities, utilities).

The implementation of these ESC plans and the construction, maintenance, replacement, and upgrading of these ESC facilities is the responsibility of the applicant/contractor until all construction is completed and approved and vegetation/landscaping is established.

The boundaries of the clearing limits shown on this plan shall be clearly flagged in the field prior to construction. During the construction period, no disturbance beyond the flagged clearing limits shall be permitted. The flagging shall be maintained by the applicant/contractor for the duration of construction.

The ESC facilities shown on this plan must be constructed in conjunction with all clearing and grading activities, and in such a manner as to insure that sediment and sediment laden water do not enter the drainage system, roadways, or violate applicable water standards.

The ESC facilities shown on this plan are the minimum requirements for anticipated site conditions. During the construction period, these ESC facilities shall be upgraded as needed for unexpected storm events and to ensure that sediment and sediment-laden water do not leave the site.

The ESC facilities shall be inspected daily by the applicant/contractor and maintained as necessary to ensure their continued functioning.

The ESC facilities on inactive sites shall be inspected and maintained a minimum of once a month or within the 48 hours following a major storm event.

At no time shall more than one foot of sediment be allowed to accumulate within a trapped catch basin. All catch basins and conveyance lines shall be cleaned prior to paving. The cleaning operation shall not flush sediment laden water into the downstream system.

Stabilized construction entrances shall be installed at the beginning of construction and maintained for the duration of the project. Additional measures may be required to insure that all paved areas are kept clean for the duration of the project.

This page intentionally left blank.

Appendix II-B Background Information on Chemical Treatment

Coagulation and flocculation have been used for over a century to treat water. It is used less frequently for the treatment of wastewater. The use of coagulation and flocculation for treating stormwater is a very recent application. Experience with the treatment of water and wastewater has resulted in a basic understanding of the process, in particular factors that affect performance. This experience can provide insights as to how to most effectively design and operate similar systems in the treatment of stormwater.

Fine particles suspended in water give it a milky appearance, measured as turbidity. Their small size, often much less than 1 μm in diameter, give them a very large surface area relative to their volume. These fine particles typically carry a negative surface charge. Largely because of these two factors, small size and negative charge, these particles tend to stay in suspension for extended periods of time. Thus, removal is not practical by gravity settling. These are called stable suspensions. Polymers, as well as inorganic chemicals such as alum, speed the process of clarification. The added chemical destabilizes the suspension and causes the smaller particles to agglomerate. The process consists of three steps: coagulation, flocculation, and settling or clarification. Each step is explained below as well as the factors that affect the efficiency of the process.

Coagulation: Coagulation is the first step. It is the process by which negative charges on the fine particles that prevent their agglomeration are disrupted. Chemical addition is one method of destabilizing the suspension, and polymers are one class of chemicals that are generally effective. Chemicals that are used for this purpose are called coagulants. Coagulation is complete when the suspension is destabilized by the neutralization of the negative charges. Coagulants perform best when they are thoroughly and evenly dispersed under relatively intense mixing. This rapid mixing involves adding the coagulant in a manner that promotes rapid dispersion, followed by a short time period for destabilization of the particle suspension. The particles are still very small and are not readily separated by clarification until flocculation occurs.

Flocculation: Flocculation is the process by which fine particles that have been destabilized bind together to form larger particles that settle rapidly. Flocculation begins naturally following coagulation, but is enhanced by gentle mixing of the destabilized suspension. Gentle mixing helps to bring particles in contact with one another such that they bind and continually grow to form "flocs." As the size of the flocs increases they become heavier and tend to settle more rapidly.

Clarification: The final step is the settling of the particles. Particle density, size and shape are important during settling. Dense, compact flocs settle more readily than less dense, fluffy flocs. Because of this, flocculation to form dense, compact flocs is particularly important during water treatment. Water temperature is important during settling. Both the density and viscosity of water are affected by temperature; these in turn affect settling. Cold temperatures increase viscosity and density, thus slowing down the rate at which the particles settle.

The conditions under which clarification is achieved can affect performance. Currents can affect settling. Currents can be produced by wind, by differences between the temperature of the incoming water and the water in the clarifier, and by flow conditions near the inlets and outlets.

Quiescent water such as that which occurs during batch clarification provides a good environment for effective performance as many of these factors become less important in comparison to typical sedimentation basins. One source of currents that is likely important in batch systems is movement of the water leaving the clarifier unit. Given that flocs are relatively small and light the exit velocity of the water must be as low as possible. Sediment on the bottom of the basin can be resuspended and removed by fairly modest velocities.

Coagulants: Polymers are large organic molecules that are made up of subunits linked together in a chain-like structure. Attached to these chain-like structures are other groups that carry positive or negative charges, or have no charge. Polymers that carry groups with positive charges are called cationic, those with negative charges are called anionic, and those with no charge (neutral) are called nonionic.

Cationic polymers can be used as coagulants to destabilize negatively charged turbidity particles present in natural waters, wastewater and stormwater. Aluminum sulfate (alum) can also be used as this chemical becomes positively charged when dispersed in water. In practice, the only way to determine whether a polymer is effective for a specific application is to perform preliminary or on-site testing.

Polymers are available as powders, concentrated liquids, and emulsions (which appear as milky liquids). The latter are petroleum based, which are not allowed for construction stormwater treatment. Polymer effectiveness can degrade with time and also from other influences. Thus, manufacturers' recommendations for storage should be followed. Manufacturer's recommendations usually do not provide assurance of water quality protection or safety to aquatic organisms. Consideration of water quality protection is necessary in the selection and use of all polymers.

Application Considerations: Application of coagulants at the appropriate concentration or dosage rate for optimum turbidity removal is important for management of chemical cost, for effective performance, and to avoid aquatic toxicity. The optimum dose in a given application depends on several site-specific features. Turbidity of untreated water can be important with turbidities greater than 5,000 NTU. The surface charge of particles to be removed is also important. Environmental factors that can influence dosage rate are water temperature, pH, and the presence of constituents that consume or otherwise affect polymer effectiveness. Laboratory experiments indicate that mixing previously settled sediment (floc sludge) with the untreated stormwater significantly improves clarification, therefore reducing the effective dosage rate. Preparation of working solutions and thorough dispersal of polymers in water to be treated is also important to establish the appropriate dosage rate.

For a given water sample, there is generally an optimum dosage rate that yields the lowest residual turbidity after settling. When dosage rates below this optimum value (underdosing) are applied, there is an insufficient quantity of coagulant to react with, and therefore destabilize, all of the turbidity present. The result is residual turbidity (after flocculation and settling) that is higher than with the optimum dose. Overdosing, application of dosage rates greater than the optimum value, can also negatively impact performance. Again, the result is higher residual turbidity than that with the optimum dose.

Mixing in Coagulation/Flocculation: The G-value, or just "G", is often used as a measure of the mixing intensity applied during coagulation and flocculation. The symbol G stands for "velocity gradient", which is related in part to the degree of turbulence generated during mixing. High G-

values mean high turbulence, and vice versa. High G-values provide the best conditions for coagulant addition. With high G's, turbulence is high and coagulants are rapidly dispersed to their appropriate concentrations for effective destabilization of particle suspensions.

Low G-values provide the best conditions for flocculation. Here, the goal is to promote formation of dense, compact flocs that will settle readily. Low G's provide low turbulence to promote particle collisions so that flocs can form. Low G's generate sufficient turbulence such that collisions are effective in floc formation, but do not break up flocs that have already formed.

Design engineers wishing to review more detailed presentations on this subject are referred to the following textbooks.

- Fair, G., J. Geyer and D. Okun, Water and Wastewater Engineering, Wiley and Sons, NY, 1968.
- American Water Works Association, Water Quality and Treatment, McGraw-Hill, NY, 1990.
- Weber, W.J., Physiochemical Processes for Water Quality Control, Wiley and Sons, NY, 1972.

Adjustment of the pH and Alkalinity: The pH must be in the proper range for the polymers to be effective, which is 6.5 to 8.5 for Calgon CatFloc 2953, the most commonly used polymer. As polymers tend to lower the pH, it is important that the stormwater have sufficient buffering capacity. Buffering capacity is a function of alkalinity. Without sufficient alkalinity, the application of the polymer may lower the pH to below 6.5. A pH below 6.5 not only reduces the effectiveness of the polymer, it may create a toxic condition for aquatic organisms. Stormwater may not be discharged without readjustment of the pH to above 6.5. The target pH should be within 0.2 standard units of the receiving water pH.

Experience gained at several projects in the City of Redmond has shown that the alkalinity needs to be at least 50 mg/L to prevent a drop in pH to below 6.5 when the polymer is added.

Appendix E – Chemical Treatment Information

Appendix F – Site Inspection Forms

The results of each inspection and monitoring event shall be summarized in an inspection report or checklist that is entered into or attached to the site log book. An Inspection Report has been included in this appendix for reference. Completed inspection forms should be kept onsite at all times during construction. ,

Inspections should be performed and documented as outlined below:

Inspection date/times

Weather information: general conditions during inspection, approximate amount of precipitation since the last inspection, and approximate amount of precipitation within the last 24 hours.

A summary or list of all BMPs that have been implemented, including observations of all erosion/sediment control structures or practices.

- locations of BMPs that need maintenance,
- the reason maintenance is needed,
- locations of BMPs that failed to operate as designed or intended, and
- locations where additional or different BMPs are needed, and the reason(s) why

A description of stormwater discharged from the site. The presence of suspended sediment, turbid water, discoloration, and/or oil sheen shall be noted, as applicable.

A description of any water quality monitoring performed during inspection, and the results of that monitoring.

General comments and notes, including a brief description of any BMP repairs, maintenance or installations made as a result of the inspection.

A statement that, in the judgment of the person conducting the site inspection, the site is either in compliance or out of compliance with the terms and conditions of the SWPPP and the NPDES permit. If the site inspection indicates that the site is out of compliance, the inspection report shall include a summary of the remedial actions required to bring the site back into compliance, as well as a schedule of implementation.

Name, title, and signature of person conducting the site inspection; and the following statement: “I certify under penalty of law that this report is true, accurate, and complete, to the best of my knowledge and belief”.

When the site inspection indicates that the site is not in compliance with any terms and conditions of the NPDES permit, the Permittee shall take immediate action(s) to: stop, contain, and clean up the unauthorized discharges, or otherwise stop the noncompliance; correct the problem(s); implement appropriate Best Management Practices (BMPs), and/or conduct maintenance of existing BMPs; and achieve compliance with all applicable standards and permit conditions. In addition, if the noncompliance causes a threat to human health or the environment, the Permittee shall comply with the Noncompliance Notification requirements in Special Condition S5.F of the permit.

Construction Stormwater Site Inspection Form

Project Name _____ Permit # _____ Inspection Date _____ Time _____

Name of Certified Erosion Sediment Control Lead (CESCL) or qualified inspector if *less than one acre*
Print Name: _____

Approximate rainfall amount since the last inspection (in inches): _____

Approximate rainfall amount in the last 24 hours (in inches): _____

Current Weather Clear ☐ Cloudy ☐ Mist ☐ Rain ☐ Wind ☐ Fog ☐

A. Type of inspection: Weekly ☐ Post Storm Event ☐ Other ☐

B. Phase of Active Construction (*check all that apply*):

Pre Construction/installation of erosion/sediment controls	☐	Clearing/Demo/Grading	☐	Infrastructure/storm/roads	☐
Concrete pours	☐	Vertical Construction/buildings	☐	Utilities	☐
Offsite improvements	☐	Site temporary stabilized	☐	Final stabilization	☐

C. Questions:

1. Were all areas of construction and discharge points inspected? Yes ___ No ___
2. Did you observe the presence of suspended sediment, turbidity, discoloration, or oil sheen Yes ___ No ___
3. Was a water quality sample taken during inspection? (*refer to permit conditions S4 & S5*) Yes ___ No ___
4. Was there a turbid discharge 250 NTU or greater, or Transparency 6 cm or less?* Yes ___ No ___
5. If yes to #4 was it reported to Ecology? Yes ___ No ___
6. Is pH sampling required? pH range required is 6.5 to 8.5. Yes ___ No ___

If answering yes to a discharge, describe the event. Include when, where, and why it happened; what action was taken, and when.

_____

_____

_____

_____

*If answering yes to # 4 record NTU/Transparency with continual sampling daily until turbidity is 25 NTU or less/ transparency is 33 cm or greater.

Sampling Results: Date: _____

Parameter	Method (circle one)	Result			Other/Note
		NTU	cm	pH	
Turbidity	tube, meter, laboratory				
pH	Paper, kit, meter				

Construction Stormwater Site Inspection Form

D. Check the observed status of all items. Provide "Action Required "details and dates.

Element #	Inspection	BMPs Inspected			BMP needs maintenance	BMP failed	Action required (describe in section F)
		yes	no	n/a			
1 Clearing Limits	Before beginning land disturbing activities are all clearing limits, natural resource areas (streams, wetlands, buffers, trees) protected with barriers or similar BMPs? (high visibility recommended)						
2 Construction Access	Construction access is stabilized with quarry spalls or equivalent BMP to prevent sediment from being tracked onto roads?						
	Sediment tracked onto the road way was cleaned thoroughly at the end of the day or more frequent as necessary.						
3 Control Flow Rates	Are flow control measures installed to control stormwater volumes and velocity during construction and do they protect downstream properties and waterways from erosion?						
	If permanent infiltration ponds are used for flow control during construction, are they protected from siltation?						
4 Sediment Controls	All perimeter sediment controls (e.g. silt fence, wattles, compost socks, berms, etc.) installed, and maintained in accordance with the Stormwater Pollution Prevention Plan (SWPPP).						
	Sediment control BMPs (sediment ponds, traps, filters etc.) have been constructed and functional as the first step of grading.						
	Stormwater runoff from disturbed areas is directed to sediment removal BMP.						
5 Stabilize Soils	Have exposed un-worked soils been stabilized with effective BMP to prevent erosion and sediment deposition?						

Construction Stormwater Site Inspection Form

Element #	Inspection	BMPs Inspected			BMP needs maintenance	BMP failed	Action required (describe in section F)
		yes	no	n/a			
5 Stabilize Soils Cont.	Are stockpiles stabilized from erosion, protected with sediment trapping measures and located away from drain inlet, waterways, and drainage channels?						
	Have soils been stabilized at the end of the shift, before a holiday or weekend if needed based on the weather forecast?						
6 Protect Slopes	Has stormwater and ground water been diverted away from slopes and disturbed areas with interceptor dikes, pipes and or swales?						
	Is off-site storm water managed separately from stormwater generated on the site?						
	Is excavated material placed on uphill side of trenches consistent with safety and space considerations?						
	Have check dams been placed at regular intervals within constructed channels that are cut down a slope?						
7 Drain Inlets	Storm drain inlets made operable during construction are protected.						
	Are existing storm drains within the influence of the project protected?						
8 Stabilize Channel and Outlets	Have all on-site conveyance channels been designed, constructed and stabilized to prevent erosion from expected peak flows?						
	Is stabilization, including armoring material, adequate to prevent erosion of outlets, adjacent stream banks, slopes and downstream conveyance systems?						
9 Control Pollutants	Are waste materials and demolition debris handled and disposed of to prevent contamination of stormwater?						
	Has cover been provided for all chemicals, liquid products, petroleum products, and other material?						
	Has secondary containment been provided capable of containing 110% of the volume?						
	Were contaminated surfaces cleaned immediately after a spill incident?						
	Were BMPs used to prevent contamination of stormwater by a pH modifying sources?						

Construction Stormwater Site Inspection Form

Element #	Inspection	BMPs Inspected			BMP needs maintenance	BMP failed	Action required (describe in section F)
		yes	no	n/a			
9 Cont.	Wheel wash wastewater is handled and disposed of properly.						
10 Control Dewatering	Concrete washout in designated areas. No washout or excess concrete on the ground.						
	Dewatering has been done to an approved source and in compliance with the SWPPP.						
	Were there any clean non turbid dewatering discharges?						
11 Maintain BMP	Are all temporary and permanent erosion and sediment control BMPs maintained to perform as intended?						
12 Manage the Project	Has the project been phased to the maximum degree practicable?						
	Has regular inspection, monitoring and maintenance been performed as required by the permit?						
	Has the SWPPP been updated, implemented and records maintained?						
13 Protect LID	Is all Bioretention and Rain Garden Facilities protected from sedimentation with appropriate BMPs?						
	Is the Bioretention and Rain Garden protected against over compaction of construction equipment and foot traffic to retain its infiltration capabilities?						
	Permeable pavements are clean and free of sediment and sediment laden-water runoff. Muddy construction equipment has not been on the base material or pavement.						
	Have soiled permeable pavements been cleaned of sediments and pass infiltration test as required by stormwater manual methodology?						
	Heavy equipment has been kept off existing soils under LID facilities to retain infiltration rate.						

E. Check all areas that have been inspected. ✔

All in place BMPs ☐ All disturbed soils ☐ All concrete wash out area ☐ All material storage areas ☐
All discharge locations ☐ All equipment storage areas ☐ All construction entrances/exits ☐

F. Elements checked "Action Required" (section D) describe corrective action to be taken. List the element number; be specific on location and work needed. Document, initial, and date when the corrective action has been completed and inspected.

Element #	Description and Location	Action Required	Completion Date	Initials

Attach additional page if needed

Sign the following certification:

"I certify that this report is true, accurate, and complete, to the best of my knowledge and belief"

Inspected by: (print) _____ (Signature) _____ Date: _____

Title/Qualification of Inspector: _____

King County
Wastewater Treatment Division
Industrial Waste Program
Department of Natural Resources and Parks
201 South Jackson Street, Suite 513
Seattle, WA 98104-3855
206-477-5300 Fax 206-263-3001
TTY Relay: 711

January 4, 2019

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

John Moshy
BMR - Dexter LLC
201 Elliott Ave W Suite 150
Seattle,WA 98119

Issuance of Wastewater Discharge Authorization No. 4482-01 to BMR - Dexter LLC - 700 Dexter Project

Dear Mr. Moshy:

The King County Industrial Waste Program (KCIW) has reviewed your application to discharge construction dewatering to the sewer system from the BMR - Dexter LLC - 700 Dexter construction project located at 700 Dexter Ave N, Seattle, Washington, and has issued the enclosed Major Discharge Authorization.

This authorization permits you to discharge limited amounts of industrial wastewater into King County's sewer system in accordance with the effluent limitations and other requirements and conditions set forth in the document and the regulations outlined in King County Code 28.84.060 (enclosed). As long as you maintain compliance with regulations and do not change the nature and volume of your discharge, KCIW will not require you to apply for an industrial wastewater discharge permit, a type of approval that would result in additional requirements and increased fees.

If you propose to increase the volume of your discharge or change the type or quantities of substances discharged, you must contact KCIW at least 60 days before making these changes.

King County Code 28.84 authorizes a fee for each Major Discharge Authorization issued by the King County Department of Natural Resources and Parks. The current fee for issuance of a Major Discharge Authorization is $3000. King County will send you an invoice for this amount.

If you have any questions about this discharge authorization or your wastewater discharge, please call me at 206-477-5457 or email me at dana.heinz@kingcounty.gov. You may also wish to visit our program's Internet pages at: www.kingcounty.gov/industrialwaste.

Thank you for helping support our mission to protect public health and enhance the environment.

Sincerely,

Dana Heinz
Compliance Investigator

Enclosures

cc: Jim Mahady, Seattle Public Utilities
SPU_Construction_Dewatering@seattle.gov

King County

MAJOR DISCHARGE AUTHORIZATION
King County Industrial Waste Program
201 S. Jackson Street, Suite 513
Seattle, WA 98104-3855

NUMBER 4482-01
for

BMR - Dexter LLC - 700 Dexter Project

Site address: 700 Dexter Ave N
Seattle, Washington

Mailing address: 201 Elliott Ave W Suite 150
Seattle,WA 98119

Phone: 858-829-7709

Emergency (24-hour) phone: 206-391-6788

Industry type: Construction Dewatering

Discharge to: West Point Treatment Plant

*Note: This authorization is valid only for the specific discharges shown below:

Discharge process: Wastewater generated by construction dewatering operation

Effective date: March 1, 2018
Expiration date: September 30, 2021

DESCRIPTION OF SAMPLE SITES AND DISCHARGE VOLUMES

Sample Site No.	Description	Maximum Industrial Daily Discharge Volume (gpd)	Maximum Discharge Rate (gpm)
IW1422A	Sample tap after treatment system	76,000	65

Permission is hereby granted to discharge industrial wastewater from the above-identified site into the King County sewer system in accordance with the effluent limitations and monitoring requirements set forth in this authorization.

If the industrial user wishes to continue to discharge after the expiration date, an application must be filed for re-issuance of this discharge authorization at least 90 days prior to the expiration date. For information concerning this King County Discharge Authorization, please call Industrial Waste Compliance Investigator Dana Heinz at 206-477-5457.

24-HOUR EMERGENCY NOTIFICATION
West Point Treatment Plant: 206-263-3801
Washington State Department of Ecology: 425-649-7000

SPECIAL CONDITIONS

A. In accordance with Seattle Public Utilities (SPU) requirements the discharge point will be an existing side sewer or as otherwise approved by SPU personnel.

B. Discharge to the sanitary sewer **shall not** begin until KCIW has conducted a preoperative inspection of the pretreatment facilities and has sent written notification (email is sufficient) to the permittee that discharges may begin.

C. Prior to commencing discharge to the sewer, the permittee must submit a list of BMR - Dexter LLC 700 Dexter Project and contractor personnel responsible for dewatering activities, including operation and maintenance of the wastewater treatment system and monitoring of the discharge to the sanitary sewer. The list shall include the site contacts' name, title, company, and phone numbers (office and cell).

D. Discharge to the sanitary sewer is approved only **until a new public storm drain (PSD) is installed**. Once the installation of the PSD is complete, all site dewatering, stormwater and groundwater will be discharged to surface waters through the PSD. After the PSD installation completion date, any further discharge to the sanitary sewer would only be used as a **relief only** option if water quality limits for discharge to the storm system cannot be met due to temporary failure of the treatment system. For these circumstances, KCIW will permit the discharge of construction dewatering to the sanitary sewer.

E. **Relief Discharge Authorization for National Pollutant Discharge Elimination System (NPDES) Construction Stormwater Permit Holders**

1. The following conditions apply to construction projects that have NPDES General Construction Stormwater permits issued by the Washington State Department of Ecology to send construction stormwater and dewatering waters to surface waters and have failed to meet NPDES requirements after implementing BMPs and treatment and therefore, have requested relief to discharge to the sanitary sewer. This relief option allows discharge of stormwater or groundwater to the sanitary sewer for unanticipated short duration events to prevent degradation of receiving waters.

2. To use relief option, BMR-Dexter LLC must comply with the following conditions:

   a. By no later than **February 15, 2019,** BMR-Dexter LLC shall submit a statement from a professional engineer indicating that the best management practices and treatment system are designed and installed to ensure compliance with the NPDES construction stormwater permit and administrative order. The statement shall also indicate the treatment system would also comply with King County discharge requirements during relief period.

   b. BMR-Dexter LLC must not use the relief option to compensate for an inability to segregate process wastewater from uncontaminated stormwater, or the lack of an appropriate operation and maintenance program that results in inadequate treatment.

c. KCIW reserves the right to require BMR-Dexter LLC additional technical documentation for repeated relief requests.

d. Relief period is for a maximum of 14 days.

e. BMR-Dexter LLC must immediately notify the KCIW at 206-477-5300 by phone during normal business hours, or by email to info.kciw@kingcounty.gov and provide a report to KCIW in writing within five calendar days from the beginning of the relief discharge to sewer. The report must explain the reason and cause for the discharge, provide a date the relief discharge will cease, and describe corrective actions to prevent future recurrences.

f. If BMR-Dexter LLC needs relief for more than 14 days it must provide clear justification to KCIW in writing in advance and must receive authorization from KCIW for the relief discharge to continue.

g. During the early stages of well development, BMR-Dexter LLC may request KCIW to exceed the 14-day relief period if well development takes longer than 14 days. In this case, BMR-Dexter LLC must provide clear justification to KCIW in writing in advance and must receive authorization from KCIW for the relief discharge to continue.

F. All persons responsible for monitoring the discharge to the sanitary sewer shall review a copy of this authorization.

G. A copy of this authorization shall be on site at all times for review and reference.

H. This authorization grants the discharge of limited amounts of wastewater from the following waste streams:

1. Contaminated stormwater runoff
2. Excavation dewatering
3. Well(s) dewatering

Wastes or contaminants from sources other than permitted herein shall not be discharged to the sanitary sewer without prior approval from KCIW.

I. The discharge shall not cause hydraulic overloading conditions of the sewerage conveyance system. During periods of peak hydraulic loading KCIW and Seattle Public Utilities representatives reserve the authority to request that discharge to the sewer be stopped.

J. All wastewater shall be collected and treated in accordance with treatment methods approved by KCIW. Wastewater shall not bypass treatment systems. Modifications to wastewater treatment systems shall not occur without prior approval from KCIW.

K. Totalizing and non-resettable flow meters must be installed on all permitted discharge pipes to the sewer.

L. An accessible sampling spigot must be installed on the discharge pipe from the last treatment unit of the wastewater treatment system. The sample site shall be representative of all industrial waste streams discharged to the sewer from this site. Each sample site shall be accessible to KCIW representatives when discharge to the sewer is occurring.

M. The contractor shall implement erosion control best management practices to minimize the amount of solids discharged to the sanitary sewer system. As a minimum precaution, the wastewater must be pumped to an appropriately sized settling tank(s) prior to entering the sewer system.

N. The permittee shall properly operate and maintain all wastewater treatment units to ensure compliance with established discharge limits. Solids accumulation in tanks used for solids settling shall not exceed 25 percent of the tank's working hydraulic capacity. Each tank's working hydraulic capacity is based on the water column height as measured from the bottom of the tank to either the invert elevation of the tank's outlet pipe (gravity discharges) or discharge pump intake (pumped discharges).

O. Results of all required self-monitoring sampling must be recorded daily. Recorded information for each discharge site must include:

1. Sample date
2. Sample time
3. Sample results
4. Operator name
5. Comments (if applicable)

These records shall be maintained on site and shall be available for review by KCIW personnel during normal business hours.

P. The permittee must establish a sewer account with Seattle Public Utilities and provide necessary reports to ensure accurate assessment of sewer charges for all construction dewatering discharge sites associated with this project.

SELF-MONITORING REQUIREMENTS

A. The following self-monitoring requirements shall be met for this discharge authorization:

Sample Site No.	Parameter	Sample Type	Frequency
IW1422A	pH	Grab	Daily
	Settleable Solids	Grab[B] (by Imhoff Cone)	Daily
	Daily Discharge Volume (gpd)	Meter reading	Daily
	Flow Rate (gpm)	Grab	Daily
	Maximum Daily Discharge Volume	Meter reading	Monthly
	Total Monthly Flow	Meter reading	Monthly
	Nonpolar FOG	3 Grabs[C]	Monthly
	Cis-1,2-Dichloroethylene	Grab	Monthly
	Tetrachloroethylene (PCE)	Grab	Monthly
	1,1,2-Trichloroethylene (TCE)	Grab	Monthly
	Benzene	Grab	Monthly
	Ethylbenzene	Grab	Monthly
	Toluene	Grab	Monthly
	Total Xylenes	Grab	Monthly
	Vinyl Chloride	Grab	Monthly
	Hydrogen sulfide	Meter reading	Only if operating criteria are exceeded
	Explosivity	Meter reading	Only if operating criteria are exceeded

B. The settleable solids field test by Imhoff cone must be performed as follows:

1. Fill Imhoff cone to one-liter mark with well-mixed sample

2. Allow 45 minutes to settle
3. Gently stir sides of cone with a rod or by spinning; settle 15 minutes longer
4. Record volume of settleable matter in the cone as ml/L

C. The three nonpolar fats, oils, and grease (FOG) grab samples shall be of equal volume, collected at least five minutes apart, and analyzed separately. When using U.S. Environmental Protection Agency approved protocols specified in 40 CFR Part 136, the individual grab samples may be composited (at the laboratory) prior to analysis. The result of the composite sample or the average of the concentrations of the three grab samples may be reported as Total FOG unless the value is 100 mg/L or greater, in which case the concentration of nonpolar FOG must be reported.

D. If a violation of any discharge limits or operating criteria is detected in monitoring, you shall notify KCIW immediately upon receipt of analytical data.

E. A self-monitoring report shall be filed with KCIW no later than the 15th day of the time period following the sample collection (e.g., the 15th day of the following month for monthly, weekly, daily samples; the 15th day of the following quarter for quarterly samples). If no discharge takes place during any monitoring period, it shall be noted on the report.

F. All self-monitoring data submitted to KCIW, which required a laboratory analysis, must have been performed by a laboratory accredited by the Washington State Department of Ecology for each parameter tested, using procedures approved by 40 CFR 136. This does not apply to field measurements performed by the industrial user such as pH, temperature, flow, atmospheric hydrogen sulfide, total dissolved sulfides, total settleable solids by Imhoff cone, or process control information.

G. All sampling data collected by the permittee and analyzed using procedures approved by 40 CFR 136, or approved alternatives, shall be submitted to KCIW whether required as part of this authorization or done voluntarily by the permittee.

H. Self-monitoring reports shall be signed by an authorized representative of the industrial user. The authorized representative of the industrial user is defined as:

1. The president, secretary, treasurer, or a vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation

2. The manager of one or more manufacturing, production, or operating facilities, but only if the manager:

   a. Is authorized to make management decisions that govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiate and direct other comprehensive measures to assure long-term environmental compliance with environmental laws and regulations

b. Can ensure that the necessary systems are established or actions taken to gather complete and accurate information for control mechanism requirements and knowledgeable of King County reporting requirements
c. Has been assigned or delegated the authority to sign documents, in accordance with corporate procedures

3. A general partner or proprietor if the industrial user is a partnership or proprietorship, respectively

4. A director or highest official appointed or designated to oversee the operation and performance of the industry if the industrial user is a government agency

5. The individuals described in one through four above may designate an authorized representative if:

   a. The authorization is submitted to King County in writing.
   b. The authorization specifies the individual or position responsible for the overall operation of the facility from which the discharge originates or having overall responsibility for environmental matters for the company or agency.

GENERAL DISCHARGE LIMITATIONS

Operating criteria

There shall be no odor of solvent, gasoline, or hydrogen sulfide (rotten egg odor), oil sheen, or unusual color. If any of the discharge limits are exceeded, you must stop discharging and notify KCIW at 206-477-5300.

Corrosive substances

Limits

Maximum:	pH 12.0 (s.u.)
Instantaneous minimum[1]:	pH 5.0 (s.u.)
Daily minimum[2]:	pH 5.5 (s.u.)

The instantaneous minimum pH limit is violated whenever any single grab sample or any instantaneous recording is less than pH 5.0. The daily minimum pH limit is violated whenever any continuous recording of 15 minutes or longer remains below pH 5.5 or when each pH value of four consecutive grab samples collected at 15-minute intervals or longer within a 24-hour period remains below pH 5.5.

Discharges of more than 50 gallons per day of caustic solutions equivalent to more than 5 percent NaOH by weight or greater than pH 12.0 are prohibited unless authorized by KCIW and subject to special conditions to protect worker safety, the collection system, and treatment works.

Fats, oils, and grease

Discharge of FOG shall not result in significant accumulations that either alone or in combination with other wastes are capable of obstructing flow or interfere with the operation or performance of sewer works or treatment facilities.

Dischargers of polar FOG (oil and grease from animal and/or vegetable origin) shall minimize free-floating polar FOG. Dischargers may not add emulsifying agents exclusively for the purpose of emulsifying free-floating FOG.

Nonpolar FOG limit: 100 mg/L

The limit for nonpolar FOG is violated when the arithmetic mean of the concentration of three grab samples, taken no more frequently than at five minute intervals, or when the results of a composite sample exceed the limitation.

---

[1] The instantaneous minimum pH limit is violated whenever any single grab sample or any instantaneous recording is less than pH 5.0.

[2] The daily minimum pH limit is violated whenever any continuous recording of 15 minutes or longer remains below pH 5.5 or when each pH value of four consecutive grab samples collected at 15-minute intervals or longer within a 24-hour period remains below pH 5.5.

Flammable or explosive materials

No person shall discharge any pollutant, as defined in 40 CFR 403.5, that creates a fire or explosion hazard in any sewer or treatment works, including, but not limited to, waste streams with a closed cup flashpoint of less than 140° Fahrenheit or 60° Centigrade using the test methods specified in 40 CFR 261.21.

At no time shall two successive readings on an explosion hazard meter, at the point of discharge into the system (or at any point in the system), be more than 5 percent nor any single reading be more than 10 percent of the lower explosive limit (LEL) of the meter.

Pollutants subject to this prohibition include, but are not limited to, gasoline, kerosene, naphtha, benzene, toluene, xylene, ethers, alcohols, ketones, aldehydes, peroxides, chlorates, perchlorates, bromates, carbides, hydrides, and sulfides, and any other substances that King County, the fire department, Washington State, or the U.S. Environmental Protection Agency has notified the user are a fire hazard or a hazard to the system.

Heavy metals/cyanide

The industrial user shall not discharge wastes, which exceed the following limitations:

Heavy Metals & Cyanide	Instantaneous Maximum ppm (mg/L)[1]	Daily Average ppm (mg/L)[2]
Arsenic	4.0	1.0
Cadmium	0.6	0.5
Chromium	5.0	2.75
Copper	8.0	3.0
Lead	4.0	2.0
Mercury	0.2	0.1
Nickel	5.0	2.5
Silver	3.0	1.0
Zinc	10.0	5.0
Cyanide	3.0	2.0

[1]The instantaneous maximum is violated whenever the concentration of any sample, including a grab within a series used to calculate daily average concentrations, exceeds the limitation.

[2]The daily average limit is violated: a) for a continuous flow system when a composite sample consisting of four or more consecutive samples collected during a 24-hour period over intervals of 15 minutes or greater exceeds the limitation, or b) for a batch system when any sample exceeds the limitation. A composite sample is defined as at least four grab samples of equal volume taken throughout the processing day from a well-mixed final effluent chamber, and analyzed as a single sample.

High temperature

The industrial user shall not discharge material with a temperature in excess of 65° C (150° F).

Hydrogen sulfide

Atmospheric hydrogen sulfide: 10.0 ppm
(As measured at a monitoring manhole designated by KCIW)

Soluble sulfide limits may be established on a case-by-case basis depending upon volume of discharge and conditions in the receiving sewer, including oxygen content and existing sulfide concentrations.

Organic compounds

No person shall discharge any organic pollutants that result in the presence of toxic gases, vapors, or fumes within a public or private sewer or treatment works in a quantity that may cause worker health and safety problems.

Organic pollutants subject to this restriction include, but are not limited to: Any organic pollutants compound listed in 40 CFR Section 433.11 (e) (total toxic organics [TTO] definition), acetone, 2-butanone (MEK), 4-methyl-2-pentanone (MIBK), and xylenes.

Settleable solids

Settleable solids concentrations: 7.0 mL/L

Organic Compound Screening Levels and Reporting Requirements

1. Discharges that exceed the following screening levels have the potential to cause health hazards in the sewage collection system or indicate that treatment has not been sufficient enough to remove hazardous waste characteristics.

Compound	CAS Number	Wastewater Screening Level (mg/L)
Cis-1,2-Dichloroethylene	156-59-2	1.0
1,1,2-Trichloroethylene (TCE)	79-01-6	0.5
Tetrachloroethylene (PCE)	127-18-4	0.24
Vinyl Chloride	75-01-4	0.012
Benzene	71-43-2	0.07
Ethylbenzene	100-41-4	1.7
Toluene	108-88-3	1.4
Total xylenes	1330-20-7	2.2

2. For each exceedance of the screening levels, the permittee shall:

   a. Notify KCIW within 24 hours of learning of the exceedance

   b. Collect a sample and submit new data to KCIW within 14 days of becoming aware of the exceedance (or the next time discharge occurs if greater than 14 days)

c. Submit a written report within 14 days of learning of the exceedance (*14-Day Report*)

d. The report should explain the cause of the exceedance and corrective actions taken to respond to the exceedance and ensure ongoing compliance

3. Whenever KCIW's monitoring or the permittee's self-monitoring results exceed the screening level for three out of four consecutive sampling events, the permittee shall submit a plan indicating the steps that will be taken to ensure that organic compound discharges do not exceed screening levels. The report:

   a. Shall be submitted within 30 days of the third self-monitoring result that shows organic compound discharges that exceed screening levels

   b. Shall indicate the steps that will be taken to reduce organic chemical concentrations so that they remain consistently below screening levels within 60 days

   c. May be used by the permittee or KCIW to evaluate the adequacy of your pretreatment system and other best management practices in order to identify whether additional waste characterization needs to be performed; or additional operational and structural upgrades are needed that will enable you to consistently meet King County organic compound screening levels

GENERAL CONDITIONS

A. All requirements of King County Code pertaining to the discharge of wastes into the municipal sewer system are hereby made a condition of this discharge authorization.

B. The industrial discharger shall implement measures to prevent accidental spills or discharges of prohibited substances to the municipal sewer system. Such measures include, but are not limited to, secondary containment of chemicals and wastes, elimination of connections to the municipal sewer system, and spill response equipment.

C. Any facility changes, which will result in a change in the character or volume of the pollutants discharged to the municipal sewer system, must be reported to your KCIW representative. Any changes that will cause the violation of the effluent limitations specified herein will not be allowed.

D. In the event the permittee is unable to comply with any of the conditions of this discharge authorization because of breakdown of equipment or facilities, an accident caused by human error, negligence, or any other cause, such as an act of nature the company shall:

1. Take immediate action to stop, contain, and clean up the unauthorized discharges and correct the problem.
2. Immediately notify KCIW and, if after 5 p.m. weekdays and on weekends, call the emergency King County treatment plant phone number on Page 1 so steps can be taken to prevent damage to the sewer system.
3. Submit a written report within 14 days of the event (*14-Day Report*) describing the breakdown, the actual quantity and quality of resulting waste discharged, corrective action taken, and the steps taken to prevent recurrence.

E. Compliance with these requirements does not relieve the permittee from responsibility to maintain continuous compliance with the conditions of the discharge authorization or the resulting liability for failure to comply.

F. The permittee shall, at all reasonable times, allow authorized representatives of KCIW to enter that portion of the premises where an effluent source or disposal system is located or in which any records are required to be kept under the terms and conditions of this authorization.

G. Nothing in this discharge authorization shall be construed as excusing the permittee from compliance with any applicable federal, state, or local statutes, ordinances, or regulations including discharge into waters of the state. Any such discharge is subject to regulation and enforcement action by the Washington State Department of Ecology.

H. This discharge authorization does not authorize discharge after its expiration date. If the permittee wishes to continue to discharge after the expiration date, an application must be filed for reissuance of this discharge authorization at least 90 days prior to the expiration date. If the permittee submits its reapplication in the time specified herein, the permittee shall be deemed to have an effective wastewater discharge authorization until KCIW issues or denies the new wastewater discharge authorization. If the permittee fails to file its reapplication in the time period specified herein, the permittee will be deemed to be discharging without authorization.

Compliance Investigator: Dana Heinz Date: January 4, 2019

Dana Heinz

King County

Industrial Waste Program Monthly Self-Monitoring Report

Send to: King County Industrial Waste Program
201 S. Jackson Street, Suite 513
Seattle, WA 98104-3855
Phone 206-477-5300 / FAX 206-263-3001
Email: info.kciw@kingcounty.gov

Company Name: BMR - Dexter LLC - 700 Dexter Project **Sample Site No.** IW1422A **Permit/DA No.:** 4482-01

Please Specify Month & Year: **Month:** _____ **20**____ **This form is available at: www.kingcounty.gov/industrialwaste.**

All units are mg/L unless otherwise noted.

Sample Date	pH	Settleable Solids (mL/L)	*Cis*-1,2-Dichloro-ethylene	Tetrachloro-ethylene (PCE)	Trichloro-ethylene (TCE)	NP Fats, Oils, and Grease (Average of 3 grabs)	Benzene (µg/L)	Ethylbenzene (µg/L)	Toluene (µg/L)	Vinyl Chloride (µg/L)	Total Xylenes (µg/L)	Maximum Daily Flow Rate (gallons per minute)	Daily Flow (gallons per day)	Notes If relief only, indicate why discharging to sanitary sewer.
1														
2														
3														
4														
5														
6														
7														
8														
9														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														
25														
26														
27														
28														
29														
30														
31														

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. I further certify that all data requiring a laboratory analysis were analyzed by a Washington State Department of Ecology accredited laboratory for each parameter tested.

Signature of Principal Executive or Authorized Agent _____ Date _____

Monthly Min pH _____ & Date _____ Total Monthly Flow (gallons) _____

Monthly Max pH _____ & Date _____ Maximum Daily Flow _____ & Date _____

PLEASE CIRCLE ALL VIOLATIONS

Due Date: **Monthly report is due by the 15th each month.**

APPENDIX H

Site-Specific Health and Safety Plan

AMERICAN LINEN SUPPLY CO – DEXTER AVE SITE

700 DEXTER AVENUE
SEATTLE, WASHINGTON

SITE-SPECIFIC HEALTH AND SAFETY PLAN

Prepared for:

TURNER CONSTRUCTION

Prepared by:

EMB CONSULTING, LLC

Revision date: March 12, 2019

EMB CONSULTING * 22725 44TH AVE W, SUITE 203 * MOUNTLAKE TERRACE, WASHINGTON
206.915.2395 * emblackconsult@gmail.com

TURNER CONSTRUCTION
SITE-SPECIFIC HEALTH AND SAFETY PLAN
AMERICAN LINEN SUPPLY CO
DEXTER AVE SITE
SEATTLE, WASHINGTON

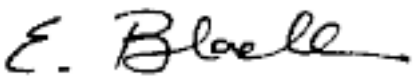
PES Environmental, Turner Construction, and EMB Consulting, LLC (EMB Consulting) have developed this Site-Specific Health and Safety Plan (Plan) for use by Turner Construction, its subcontractors, and visitors to the subject site. Turner Construction and EMB Consulting claim no responsibility for its use by others. The Plan covers activities with the potential for exposure to contaminated environmental media during construction and remediation activities at the American Linen Supply Co Dexter Ave Site Project in Seattle, Washington, as identified in this Plan. This Plan is written for the specific site conditions, operations, purposes, and personnel specified and must be amended if conditions change.

The intent of this plan is to meet the requirements of the Washington State Division of Occupational Safety and Health (DOSH) Hazardous Waste Site Operations regulation (WAC 296-843). It is not intended to address normal safety practices on construction sites, such as those covered in the DOSH Safety Standards for Construction Work (WAC 296-155) and Turner Constructions Accident Prevention Plan.

Each subcontractor is still responsible for the health and safety of their own individual employees and subcontractors.

Plan Approval

PLAN PREPARED BY:



March 12, 2019

Elisabeth Black, CIH
EMB Consulting, LLC

Date

PLAN ACCEPTED FOR TURNER CONSTRUCTION BY:

Ryan Troy
Project Manager
Turner Construction

Date

HEALTH AND SAFETY CONTACT INFORMATION

SITE LOCATION	700 Dexter Avenue Seattle, Washington Site figures are provided with this plan in Section 2.
NEAREST HOSPITAL	Swedish Hospital – Emergency Room 700 Minor Ave Seattle, WA 98122 206.386.6000 The route from the site to the hospital is provided at the end of this plan.
EMERGENCY RESPONDERS	Seattle Police, Fire, and Ambulance 911
EMERGENCY CONTACTS	**Turner Construction** Ryan Troy 206.391.3217 Project Manager Jeff Smith 206.423.6666 James Walcott 206.376.7998 Site Superintendent Celina Sanchez 206.595.1048 Site Safety Officer Jeremy Taylor 206.418.8513 Safety Director **BMR Dexter** John Moshy 858.829.7709 Property Contact **EMB Consulting** Elisabeth Black, CIH 206.915.2395 Project Industrial Hygienist
PROVIDE THE FOLLOWING INFORMATION TO 911 DISPATCH	Give the following information: • Where You Are: Address, cross streets, or landmarks • Phone Number you are calling from • What Happened? Type of injury, accident • How many persons need help • What is being done for the victim(s) • You hang up last • Let whomever you called hang up first

1.0 INTRODUCTION

EMB Consulting has prepared this Site-Specific Health and Safety Plan (SSHSP) on behalf of Turner Construction and BMR-Dexter LLC ("BMRD") to supplement the Final Interim Action Work Plan ("IAWP") [[1]] for the Former American Linen Supply Co – Dexter Ave Site ("Site") located at 700 Dexter Avenue North, Seattle, Washington ("Property").

The IAWP describes the cleanup actions that will be performed on and immediately adjacent to the Property to treat soil and groundwater contaminated by chlorinated volatile organic compounds ("CVOCs"). The interim actions described in the IAWP are integrated into the Property redevelopment (two 14-story office towers over three levels of subgrade parking), and are being performed prior to, during, and after the redevelopment construction. As described in the IAWP, the Contaminated Media Management Plan (CMMP) identifies the type of contaminated media (i.e., soil, groundwater, and stormwater) that will be encountered during the redevelopment construction on the Property, and how that media will be managed consistent with the applicable environmental regulations and requirements.

This Site-Specific Health and Safety Plan (SSHSP) was developed specifically for, and is limited to, the portions of the project in which contaminated soils and groundwater may be encountered. This SSHSP is intended to be used in conjunction with the health and safety programs of Turner Construction and their subcontractors, and will be used as the foundation for training personnel on site for operations with potential exposure to contaminated environmental media.

This SSHSP is intended to be a "living" document. It will be reevaluated and updated periodically as needed in light of work progression and changing conditions. A copy of this SSHSP will be located on the work site. Table 1.1 includes a summary of project information.

[1] *PES Environmental, Inc. 2018. Final Interim Action Work Plan, American Linen Supply Co-Dexter Avenue Site, 700 Dexter Avenue North, Seattle, Washington. August.*

TABLE 1.1
SUMMARY OF PROJECT INFORMATION

Project Name	American Linen Supply Co Dexter Ave Site
Project Description	The project intent is to develop a 13- to 14-story, two tower, 175-foot office building with retail at grade. A pedestrian through-block will provide access to retail, office elevator lobbies, and open gathering space. Approximately three levels of below-grade parking will be provided.
Site Location	700 Dexter Avenue North Seattle, Washington The site is located in the South Lake Union area of Seattle, Washington and is defined by the following streets: • Valley Street to the north • 8th Avenue North to the east • Dexter Avenue North to the west • Roy Street to the south (See Site Maps in Section 2)
Known Chemical Hazards	Chlorinated Volatile Organic Compounds (CVOCs): • tetrachloroethylene (PCE) • trichloroethene (TCE) • dichloroethene (Cis 1,2-DCE) • vinyl chloride • Petroleum Hydrocarbons • gasoline • diesel • oil range petroleum hydrocarbons • BTEX (benzene, toluene, ethyl benzene, and xylene)
Known Physical Hazards	Trucks and heavy machinery, lifting, trips, falls, utilities, excavation, noise
Field Activities	Excavation and disturbance of contaminated soils and contact with contaminated groundwater. In-situ treatment of contaminated soil.

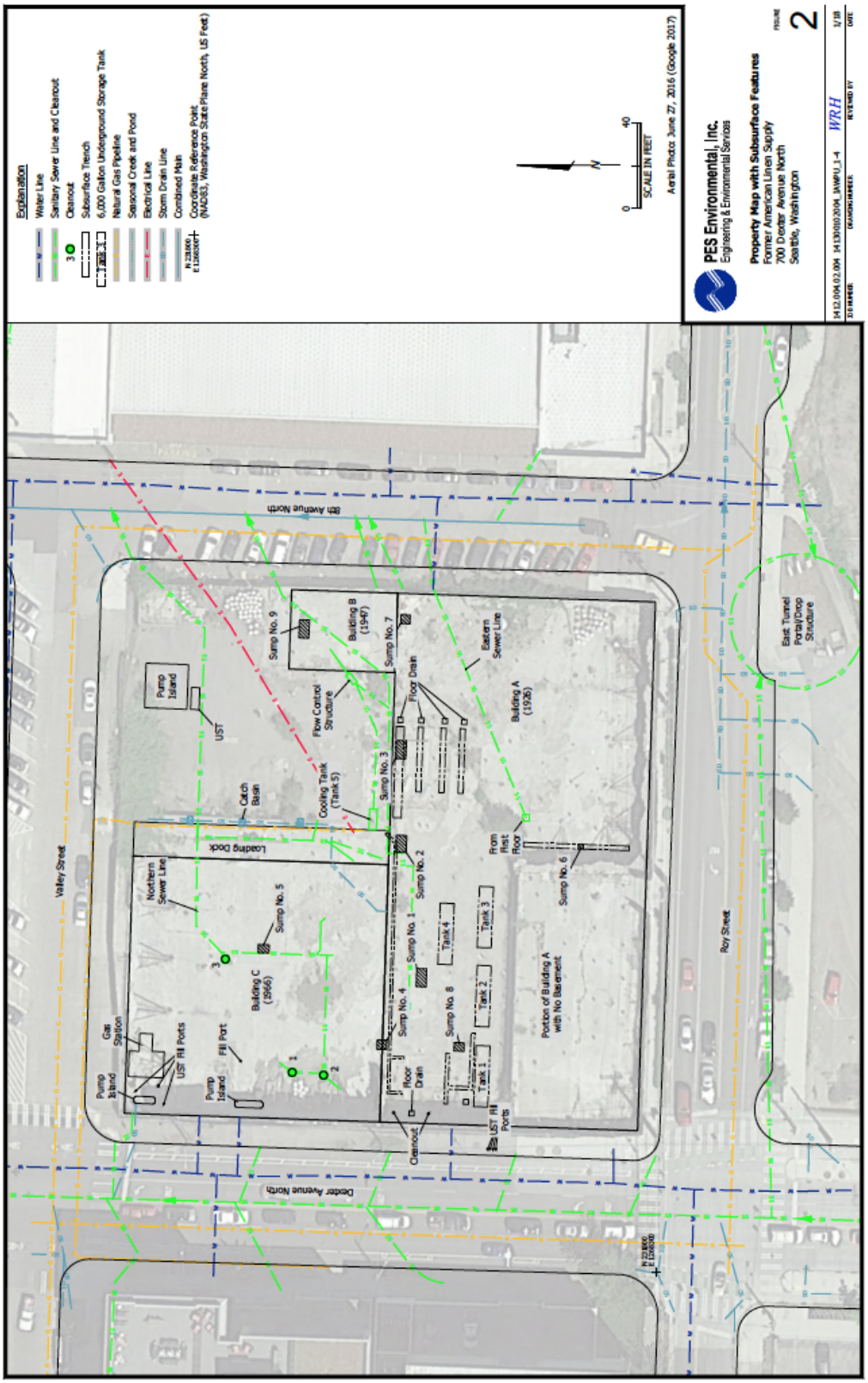
2.0 SITE INFORMATION

2.1 Site History

The following site information was obtained from the State of Washington Department of Ecology site for the former American Linen Supply location at 700 Dexter Avenue North. *(https://fortress.wa.gov/ecy/gsp/Sitepage.aspx?csid=12004)*

> *The American Linen Co. Dexter Avenue Site is located at 700 Dexter Avenue in Seattle. The property is comprised of a single tax parcel (224900-0285) in King County and covers an area of 61,400 square feet. As of the beginning of 2014 the Site is being developed for use as a commercial office space.*
>
> *In 1930 the property was the Site of a refueling facility that included multiple underground storage tanks containing petroleum fuel. Between the dates of 1947 and 1966 an automotive repair shop was also located at the property. Dry cleaning operations began at the property in 1966 and operated through the mid-1990s. In the mid-1990s through 2012, buildings on the property were occupied by businesses that included automotive repair, a bakery, and a car rental office. The property was vacant during 2013 in preparation for demolition of the existing structures and redevelopment of the lot.*
>
> *Contaminants of concern at this Site include chlorinated volatile organic compounds (CVOCs) which include tetrachloroethylene (PCE), trichloroethene (TCE), dichloroethene (Cis 1,2-DCE), and vinyl chloride. Other contaminants include gasoline, diesel, and oil range petroleum hydrocarbons and BTEX (Benzene, Toluene, Ethyl Benzene, and Xylene). Contamination is present in the soil and in groundwater beneath the property and has migrated in groundwater off property several hundred yards to the east. Depth to water beneath the property is between 10 to 20 feet below ground surface. Groundwater flows toward Lake Union, which is located about 600 feet to the east.*

The site plan below represents data developed by PES Environmental and provided by Turner Construction. It shows the site layout and subsurface features.


Explanation
Water Line
Sanitary Sewer Line and Cleanout
Cleanout
Subsurface Trench
6,000 Gallon Underground Storage Tank
Natural Gas Pipeline
Seasonal Creek and Pond
Electrical Line
Storm Drain Line
Combined Main
Coordinate Reference Point (NAD83, Washington State Plane North, US Feet)
N 23000
E 12000
0
40
SCALE IN FEET
Aerial Photo: June 27, 2016 (Google 2017)
PES Environmental, Inc.
Engineering & Environmental Services
Property Map with Subsurface Features
Former American Linen Supply
700 Dexter Avenue North
Seattle, Washington
FIGURE
2
WRH
8th Avenue North
Dexter Avenue North
Valley Street
Roy Street
Loading Dock
Pump Island
UST
Catch Basin
Flow Control Structure
Cooling Tank (Tank 5)
Building B (1947)
Building A (1926)
Building C (1966)
Gas Station
UST Fill Ports
Fill Port
Northern Sewer Line
Eastern Sewer Line
Floor Drain
Roof Drain
Cleanout
From Rest Room
Portion of Building A with No Basement
East Tunnel Portal/Drop Structure
Sump No. 1
Sump No. 2
Sump No. 3
Sump No. 4
Sump No. 5
Sump No. 6
Sump No. 7
Sump No. 8
Sump No. 9
Tank 1
Tank 2
Tank 3
Tank 4

2.2 CONTAMINATION CHARACTERIZATION

The contaminants of concern (COCs) for this project, based on available environmental data, are as follows.

Chlorinated Volatile Organic Compounds (CVOCs):

- tetrachloroethylene (PCE)
- trichloroethene (TCE)
- dichloroethene (Cis 1,2-DCE)
- vinyl chloride
-

Petroleum Hydrocarbons

- gasoline
- diesel
- oil range petroleum hydrocarbons
- BTEX (benzene, toluene, ethyl benzene, and xylene)

Tetrachloroethylene

Tetrachloroethylene (PCE) is most commonly used in industry as a dry cleaning solvent and metal degreaser. It is a nonflammable liquid at room temperature. It evaporates easily into the air and has a sharp, sweet odor that can be detected at very low concentrations. High concentrations of PCE can cause dizziness, headache, sleepiness, confusion, nausea, difficulty in speaking and walking, unconsciousness, and death. Symptoms from low levels of exposure are not known, but long-term exposure may cause fertility problems and kidney and liver damage. PCE is considered a likely carcinogen. The current Washington State Division of Occupational Safety and Health Permissible Exposure Limit (DOSH PEL) 8-hour time-weighted average (TWA) for PCE is 25 parts per million (ppm) with a short-term exposure limit (STEL) of 38 ppm.

Trichloroethylene

Trichloroethylene (TCE) is a colorless liquid used as a solvent for cleaning metal parts. Drinking or breathing high levels of trichloroethylene may cause nervous system effects, liver and lung damage, abnormal heartbeat, coma, and possibly death. The current DOSH PEL-TWA for TCE is 50 ppm with an STEL of 200 ppm.

1,2-Dichloroethylene

1,2-Dichloroethane (1,2-DCE) is a clear, manufactured liquid that is not found naturally in the environment. It evaporates quickly at room temperature and has a pleasant smell and a sweet taste. People who were accidentally exposed to large amounts of 1,2-DCE in the air or who swallowed the compound by accident or on purpose often developed nervous system disorders and liver and kidney disease. Lung effects were also seen after a large amount of 1,2-DCE was inhaled. People often died from heart failure. Studies in laboratory animals also found that breathing or swallowing large amounts of 1,2-DCE produced nervous system disorders, kidney disease, or lung effects. Reduced ability to fight infection was also seen in laboratory animals who breathed or swallowed 1,2-DCE, but we do not know if this also occurs in humans. Longer-term exposure to lower doses also caused kidney disease in animals. Exposure to 1,2-DCE has not been associated with cancer in humans. The current DOSH PEL for 1,2-DCE is 200 ppm with a STEL of 250 ppm.

Vinyl Chloride
The major route of vinyl chloride toxicity is via inhalation of vapor, with percutaneous absorption and ingestion of liquid playing lesser roles. Vinyl chloride can cause dizziness, drowsiness and fatigue, headache, euphoria and irritability, nervousness and sleep disturbances, nausea, visual and hearing disturbances, and loss of consciousness at high exposure levels. Chronic exposure to vapors via inhalation may cause liver damage or cancer. Vinyl chloride is a confirmed human carcinogen. The current PEL-TWA for vinyl chloride is 1 ppm with a STEL of 5 ppm.

Petroleum Hydrocarbons
Petroleum distillate fuels are mixtures of aliphatic and aromatic hydrocarbons, the constituent concentrations of which can vary significantly dependent upon the crude feedstock, refining process, and seasonal variations. Predominant compounds in fuels are paraffins (e.g., pentane, hexane), naphthenes (e.g., cyclohexane), and aromatics (e.g., benzene, toluene, xylene, ethylbenzene). Gasoline contains about 80 percent paraffins, 6 percent naphthenes, and 14 percent aromatics. Fuel oils contain about 10 percent paraffin, up to 23 percent naphthenes, and up to 78 percent non-volatile aromatic hydrocarbons.

Petroleum distillate fuels exhibit relatively low acute inhalation and dermal toxicity. Concentrations of 160 to 270 ppm gasoline vapor have been reported to cause eye, nose, and throat irritation in people after several hours of exposure. Levels of 500 to 900 ppm have been reported to cause irritation and dizziness in one hour and 2,000 ppm has been reported to cause mild anesthesia in 30 minutes. Gasoline, kerosene, and some jet fuels will cause severe eye irritation on contact with the eye and low to moderate skin irritation on contact with the skin.

Aromatics of greatest concern are a group known as BTEX (benzene, toluene, ethylbenzene and xylenes) due to their volatility and toxicity. Effects of the aromatics include kidney failure, liver damage, central nervous system damage and respiratory tract damage. Benzene and other aromatics can be absorbed through the respiratory tract and the skin, so both inhalation and dermal contact are routes of concern for exposure.

Petroleum distillate fuels are flammable. Under certain conditions, fire and explosion pose a greater risk than toxicity. Fuels are classified by the USDOT as flammable liquids if their flash points are 100 degrees F or less, which includes gasoline and No. 1 fuel oil.

Gasoline or fuel oil contamination in soil or water may be recognized by visual means or by sampling. However, the absence of visible contamination is not a reliable method of detecting potential health hazards.

Table 2.1 lists potential hazards and applicable Washington State worker exposure limits for the COCs.

TABLE 2.1. CHEMICAL HAZARDS

Chemical Name	DOSH PEL	Chronic Health Hazards/ Target Organs	Symptoms of Overexposure
PCE	25 ppm	Eye and throat irritant	Headache, nausea, dizziness, and blurred vision
TCE	50 ppm	Skin irritant and central nervous system depressant	Headache, nausea, dizziness, incoordination, and vomiting
1,2-DCE and isomers	200 ppm	Skin irritant and central nervous system depressant	Irritation of eyes and respiratory system; central nervous system depression
Vinyl Chloride	1ppm C 5 ppm (5 min)	Carcinogen/Skin; liver; central nervous system	Weakness; abdominal pain, gastrointestinal bleeding; enlarged liver; pallor or cyanosis of extremities; frostbite (liquid)
Gasoline	300 ppm	Skin and eye irritant, central nervous system, cancer	Rash, headache, dizziness
Benzene	1 ppm	Skin and eye irritant, central nervous system, cancer	Rash, headache, dizziness
Toluene	100 ppm	Skin and eye irritant, central nervous system	Rash, headache, dizziness
Ethylbenzene	100 ppm	Skin and eye irritant, central nervous system	Rash, headache, dizziness
Xylenes	100 ppm	Skin and eye irritant, central nervous system	Rash, headache, dizziness
Diesel	None	Skin irritant and central nervous system depressant	Headache, nausea, dizziness, incoordination, and vomiting

DOSH PEL *Washington State Division of Occupational Safety and Health Permissible Exposure Limit 8-hour time-weighted average*
ppm *parts per million*
C *Ceiling Limit*

2.3 OTHER CHEMICAL HAZARDS

Other hazards may be posed by chemicals brought on site by Turner Construction or their subcontractors. In accordance with DOSH requirements for hazard communication, Safety Data Sheets (SDS) are available for all products brought on site. In order to facilitate the accessibility by site workers, all SDSs will be maintained in a separate binder and kept in the job site trailer.

Turner Construction employees and subcontractors will bring on site only those materials required to perform work on site. As of this writing, it is assumed that potassium permanganate will be brought onsite for soil remediation.

The following procedures will be followed to optimize use of the SDSs.

- All Turner Construction employees will be briefed on materials safety procedures, use of SDSs for employee health information, and use of SDSs for mishap response during safety meetings.

- Selected SDSs will be reviewed as a normal part of the safety briefing.

- In the event of a spill or other emergency event involving a material brought on site by Turner Construction employees, the SDS binder will be brought to the mishap location for use by the Superintendent or Safety Officer.

3.0 CHEMICAL HAZARD/RISK ANALYSIS

This SSHSP addresses only the chemical exposures that may occur when coming into contact with contaminated soils and groundwater. It is intended to be used in conjunction with the comprehensive safety and health program of Turner Construction and its subcontractors, in which physical work hazards of the construction industry are addressed.

Site activities which may involve chemical exposures include excavation of contaminated soils, groundwater management, and soil remediation. Potential chemical hazards that may be encountered during site work include exposure to chlorinated solvents and petroleum hydrocarbons.

Workers could be exposed through the following routes:

- Inhalation of airborne dust during soil disturbance
- Inhalation of chemical vapors during project activities
- Skin absorption following exposure to soils during site activities
- Accidental ingestion of contaminated soils

Health risks for the known chemical contamination on this site are low if appropriate controls are implemented. However, unknown contamination is always a possibility. Any unexpected contamination should be treated with caution and reported for evaluation at the soonest opportunity. On sites contaminated with petroleum hydrocarbons, hazardous atmospheres can develop in below grade spaces.

Air monitoring for the COCs will be conducted in accordance with the attached Air Monitoring Plan for the project.

4.0 RESPONSIBILITIES AND LINES OF AUTHORITY

No one is allowed on site without prior approval of the Turner Construction Site Safety Officer or their designee if the visit is unanticipated or not previously approved.

4.1 SITE ORGANIZATIONAL STRUCTURE

Team Member	Function
Ryan Troy	Project Manager
Jeff Smith / James Walcott	Superintendent
Celina Sanchez	Site Safety Officer
Jeremy Taylor	Safety Director
Elisabeth Black, CIH	Project Certified Industrial Hygienist

4.2 RESPONSIBILITIES

Duties of the Superintendent and Site Safety Officer include:

- Ensure employer's responsibilities for safety and health are being implemented by daily inspections.
- Implement site safety and health requirements in the field.
- Monitor site conditions during work activities where hazardous compounds may be present.
- Record any variances in conditions.
- Record any illness, disease, injury, pulmonary disorder, or death of any person on the site.
- Determine appropriate monitoring, if necessary, so that employees are not exposed to levels that exceed established PELs for hazardous substances or action levels per this plan.
- Communicate requirements to field personnel and subcontractors.
- Consult with CIH regarding new or unanticipated site hazards.
- Perform safety record keeping.
- Verify that medical monitoring and training have been performed.

Duties of the Certified Industrial Hygienist include:

- Develop and coordinate Site-Specific Health and Safety Plan and Air Monitoring Plan.
- Communicate requirements to the Safety Director.
- Provide staffing and equipment for air monitoring, as specified in the Air Monitoring Plan.
- Respond to field requests for assistance in safety and health from Turner and the Project Site Safety Officer.

Duties of the Site Workers include:

- Read and follow the Site-Specific Health and Safety Plan.
- Check all personal safety equipment to ensure it is in good working condition prior to entering the exclusion zone.
- Immediately report any accidents/illness, spills, unsafe conditions, any unusual smells or chemical smell to the Site Safety Officer.
- Incidents must be reported on a daily basis in detail for spills or accidents. Immediately report any symptoms of exposure.

4.3 SUBCONTRACTORS SUPPLIERS

The SSO will ensure the Subcontractor's personnel are briefed on the procedures in this site specific SSHSP and are aware of its location should it be needed for reference. Subcontractors will be responsible for the safety and health of their own personnel. The SSO will have the authority to ensure Subcontractors follow the health and safety procedures set forth in the SSHSP. All subcontractors on site must follow site zone restrictions.

5.0 TRAINING

5.1 GENERAL HAZARDOUS WASTE OPERATIONS TRAINING

At a minimum, all personnel who will enter the site when impacted soils or groundwater are exposed will meet the requirements of WAC 296-843, related to Hazardous Waste Operations (HAZWOP) training. This training requires a 40-hour initial class followed by 8-hour annual refresher training. Those who are in a supervisory position on site are also required to have the 8-hour supervisor course. Workers who are on site, but would have limited exposure to site contaminants may take the 24- hour initial course, but would still be required to have the 8-hour refresher. All supervisory personnel (and at least two persons on-site whenever work is performed) will be CPR/First Aid trained.

5.2 SITE-SPECIFIC TRAINING

A pre-work safety conference will be held prior to commencement of field activities and attended by all field personnel. This meeting will be conducted by the SSO to ensure that all personnel are familiar with requirements and responsibilities for maintaining a safe and healthful work environment, including the hazards related to the contaminants on site.

Daily site-wide pre-work meetings will be held to further assist site personnel in conducting their activities safely. A briefing will be provided when changes in work practices must be implemented due to new information made available or if site environmental conditions change. Briefings will also be given to facilitate conformance with prescribed safety practices when conformances with these practices are not being followed or if deficiencies are identified during safety inspections.

Personnel who may potentially wear respirators will have had training in the use of respirators, fit tested, undergone a baseline medical exam, and have been cleared to wear respirators. Information concerning the hazards associated with chlorinated solvents and petroleum hydrocarbons shall be communicated to employees according to the requirements of the Hazard Communication Standard (WAC 296-800-170). This information shall include but not be limited to health effects, PPE requirements, the requirements concerning warning signs and labels, material safety data sheets/safety data sheets, and the contents of this SSHSP.

Training shall include:

- The specific nature of operations which could result in exposure to COCs;
- Routes of exposure and signs and symptoms of exposure;
- The specific PPE, engineering controls and work practices associated with the employee's job assignments, including training of employees to follow relevant good work practices; and
- The employee's right of access to records under part B, chapter 296-62 WAC.

Employee training records shall be maintained by the employer for the duration of employment plus two (2) years.

6.0 PERSONAL PROTECTIVE EQUIMENT (PPE)

This PPE program has been implemented to ensure that no personnel have dermal or airborne exposures to Site COCs.

6.1 PPE PROGRAM

The PPE program of contractors on site will comply with WAC 296-800-160 and the respiratory protection requirements of WAC 296-842. As per WAC 296-800-160, protective equipment, including personal protective equipment for eyes, face, head, and extremities, protective clothing, respiratory devices, and protective shields and barriers, will be provided, used, and maintained in a sanitary and reliable condition whenever it is necessary by reason of hazards of processes or environment, chemical hazards, or mechanical irritants encountered in a manner capable of causing injury or impairment in the function of any part of the body through absorption, inhalation, or physical contact.

6.2 ANTICIPATED LEVELS OF PROTECTION

During the initial phase of field activities, all personnel on site will wear Level D PPE. If chemical odors are identified, PPE may be upgraded in accordance with the Air Monitoring Plan.

Level D Personal Protective Equipment will include the following:

- Chemical resistant boot covers or safety shoes (shoes will require decon every day on site)
- High-visibility safety vest
- Safety glasses or goggles
- Hard hat
- Work gloves, as appropriate
- Ear plugs when conditions require hearing protection (>85 dBA)
- Rain gear, as necessary

Once disturbance of site environmental media begins (deconstruction, excavation, slab removal, etc), the air monitoring will guide the use of PPE. If indicated, PPE will be upgraded to Level C. Level C Personal Protective Equipment will include the following:

- Half-face air-purifying respirator with P-100/organic vapor cartridges
- Chemical resistant boot covers or safety shoes (shoes will require decon every day on site)
- Chemical resistant Nitrile gloves
- Chemical resistant clothing, such as Tyvek
- High-visibility safety vest
- Safety glasses or goggles
- Hard hat
- Ear plugs when conditions require hearing protection (>85 dBA)

6.3 Maintenance and Storage

Clothing and respirators must be maintained and stored properly to prevent damage or malfunction due to exposure to dust, moisture, sunlight, damaging chemicals, extreme temperatures, and impact. PPE on site will be stored in a designated area within the personnel/office trailer, or if no job site trailer is available, they will be properly stored in the SSO's or employee's vehicle in such a way as to prevent damage.

- Potentially contaminated clothing will be stored in an area separate from street clothing.
- Potentially contaminated clothing will be stored in a well-ventilated area, with good airflow around each item, if possible.
- Protective clothing will be folded or hung in accordance with manufacturers' recommendations.

6.4 Decontamination and Disposal

Potentially contaminated clothing will be washed separately from street clothes or thrown away depending on the severity of the contamination. Used Tyvek® suits will be disposed of, at a minimum, at the end of each shift, or when damaged. Tyvek® suits will not be reused.

6.5 Training and Fitting

Training will be completed prior to actual PPE use in the field. The training will delineate the user's responsibilities and explain the following:

- DOSH requirements as delineated in WAC 296-800-160.
- The proper use and maintenance of the selected PPE, including capabilities and limitations.
- The nature and the hazards and the consequences of not using the PPE.
- The human factors influencing PPE performance.
- Instruction in inspecting, donning, checking, fitting, and using PPE.
- Individualized respirator fit testing to ensure proper fit, and use of respirator in normal air for a familiarity period.
- The user's responsibility (if any) for decontamination, cleaning, maintenance, and repair of PPE.
- Emergency procedures and self-rescue in the event of PPE failure.

Individualized employee fit testing will be conducted prior to arrival on site. Any other person needing PPE will be fitted onsite outside the exclusion and contamination reduction zone.

6.6 Equipment Donning

Proper procedures for dressing prior to entering the regulated areas will minimize the potential for contaminants to bypass the protective clothing and escape decontamination. In general, all fasteners will be fully used (i.e., zippers fully closed, all buttons used, all snaps closed, etc.). Gloves and boots will be tucked under the sleeves and legs of outer clothing, and hoods (if not attached) will be worn outside the collar. Another pair of tough outer gloves may be worn over the sleeves. All punctures will be temporarily taped to prevent contaminants from running inside the gloves, boots, and jackets (or suits, if one-piece construction). Torn PPE will be replaced. Prior to each use, the PPE will be checked to ensure that it contains no cuts or punctures that could expose workers to wastes. Similarly, any injuries to the skin surface, such as cuts and scratches, may enhance the potential for chemicals to penetrate into the body. Particular care

should be taken to protect these areas. Workers with large areas of damaged skin will be kept from working on-site until the skin heals.

Donning Level D PPE will include the following:

- Inspect clothing before donning.
- Don suit or worker's attire appropriate for removal work (i.e., no exposed skin). Disposable Tyvek® coveralls may be used for full body covering but are not required.
- Put on work boots.
- Put on safety glasses.
- Put on hardhat.
- Don gloves.

Donning Level C PPE will include the following:

- Inspect clothing before donning.
- Don suit or worker's attire appropriate for removal work (i.e., no exposed skin).
- Put on work boots.
- For Level C, don half mask respirator, as required, and adjust it to be secure, but comfortable, make sure cartridges are securely attached, and perform negative and positive respirator seal test.
- Put on hardhat.
- Don inner and outer chemical resistant gloves.

7.0 MEDICAL SURVEILLANCE

7.1 Medical Examination Requirements

Personnel working directly with the potential contaminants within the site boundaries will have undergone a medical examination prior to participation in fieldwork that complies with WAC 296-843-210. The medical examination must be conducted by a board-certified occupational health physician. The physician is made familiar with the job-related duties of each worker examined. Personnel who may potentially wear respirators will have undergone the medical exam and have been cleared to wear respirators.

Each employee who has received full medical monitoring shall be provided with a copy of the physician's written opinion within five working days of the receipt of the results.

The physician will address the employee's ability to perform hazardous remediation work and will contain the following:

- The physician's recommended limitations, if any, upon the employee's assigned work and/or PPE usage.
- The physician's opinion about increased risk to the employee's health resulting from work; and
- A statement that the employee has been informed and advised about the results of the examination.

7.2 Recordkeeping

All medical monitoring and surveillance records shall be maintained by the employer for the duration of employment plus 30 years.

8.0 PERSONAL HYGIENE AND DECONTAMINATION

Personnel entering the work area or otherwise exposed or subject to exposure to hazardous chemical vapors, liquids, or contaminated solids will adhere to the following personal hygiene and decontamination provisions. Decontamination will be at the edge of the work zone prior to leaving the work area. Employees will be trained in the procedures that will be enforced throughout site operations.

8.1 Decontamination Facilities

The decontamination station will be located within the Site boundaries, as illustrated on the attached Exhibit 2. The decontamination station will be lowered with the excavation over the course of the project. The decontamination station and its access and egress points will be considered the contaminant reduction zone.

A conex box is planned to be used as the decontamination station. Workers entering the site will first enter the conex box and remove and store their regular construction clothing. They will then put on the prescribed PPE and exit the conex onto the Site. When leaving the Site, they will enter the conex from the Site side, perform personnel decon procedures as described below, and recover their regulatory construction clothing.

Inside the conex will be the supplies required for personal decontamination, such as boot wash, equipment wash, and receptacles for disposable PPE. A portable restroom, including a hand wash station, soap and paper towels will be located just outside of the contaminant reduction zone for the duration of the project. Workers will wash hands and face before breaks, lunch, and before leaving the job site.

8.2 Personnel Decontamination Procedures

To minimize personnel contact with waste and thus the potential for contamination, personnel will follow these procedures:

- Implement work practices that minimize contact with hazardous substances (e.g., do not walk through areas of obvious contamination, do not directly touch potentially hazardous substances).

- Wear disposable outer garments and use disposable equipment where appropriate.

- Gloves and boots will be tucked under the sleeves and legs of outer clothing and hoods (if not attached) will be worn outside the collar.

- All punctures will be temporarily taped to prevent contaminants from running inside the gloves, boots, and jackets. Torn PPE will be replaced.

All personnel, clothing, equipment, and samples leaving the contaminated area of a site must be decontaminated to remove any chemicals or dust that may have adhered to them:

- Boots and hard hats will be washed with detergent and rinsed with water
- Gloves will be removed and disposed of in a trash barrel lined with plastic
- Respirators will be dismantled, washed, and disinfected after each use or as needed.

All personnel will be trained in decontamination procedures to minimize contact with possible contaminants and maximize worker protection. These procedures will be enforced throughout site operations.

8.3 Vehicle Decontamination

If necessary, vehicles will be decontaminated as follows: all vehicles exiting the site following the commencement of excavation will be swept clean of gross soil particles.

9.0 SITE MANAGEMENT

Effective site management is critical in controlling the migration of chemical contaminants, eliminating physical hazards, and enforcing site security. The purpose of site boundaries is twofold: to define the site for field investigators and to prevent unauthorized personnel from entering the area. Barrier tape, traffic cones or some other means (locked fences, in some cases) will be used to establish an exclusion zone. The following paragraphs briefly discuss required site management procedures.

9.1 Work Zones

A traditional approach to designating areas in hazardous waste work sites is to be used in areas of suspected or confirmed contamination. To reduce the accidental spread of contaminants by workers and equipment and to assure that the proper PPE is worn, whenever feasible, the following work zones are delineated while engaging in excavation activities. Work zones are not required when field activities are limited to reconnaissance inspections, surveying from outside of excavations, or work on uncontaminated soils or groundwater.

9.1.1 Exclusion Zone

The exclusion zone (EZ) will be established around the areas of contamination indicated by past environmental investigations. EZ dimensions will be determined based on the size of the excavation, site limitations, and the potential for exposure to contaminated soils. It is anticipated that any work within the excavation will be considered exclusion zone work and will initiate the use of PPE, training, etc.

Excavation activities shall have controlled entrance and accessible exit areas. The edges of the excavation shall be marked with tape and candlesticks to identify the exclusion zone.

The outer boundary of the EZ initially will be established as the area of the excavation as indicated by soil contamination sampling and/or data from initial or previous site surveys. Factors that may determine the extent of the exclusion zone include, the physical area necessary to conduct site operations and the potential for airborne contaminants to reach non-contaminated areas shall be considered.

9.1.2 Contamination Reduction Zone

The Contamination Reduction Zone (CRZ) will consist of a decon trailer at the perimeter of the site and a demarcated lane leading from the EZ to the decon trailer. Whenever work is being conducted in the EZ, the CRZ lane will be established. When the EZ is not being worked in, it will remain marked off, but the CRZ lane will be removed. The CRZ is intended to provide a buffer to ensure that the physical transfer of contaminants by personnel, equipment, or through the air is limited by a combination of decontamination, distance between the EZ and population, air dilution, zone restrictions, and work functions. The CRZ will be physically marked or well defined by barrier tape, signs, or physical barriers (e.g., chains, fences, ropes, etc.). Personnel entering the CRZ will wear prescribed PPE for each task to be performed. Prior to reentering the Support Zone (see below), personnel will remove any PPE worn in the CRZ.

A plastic waste bag will be available for all disposable outer boots, gloves, and external PPE and will be located within the CRZ adjacent to the access control point from the EZ into the CRZ.

9.1.3 Support Zone

This is the outermost area of the site and is considered to be a non-contaminated or clean area. Access is restricted to authorized site personnel and visitors. Because normal work clothes are appropriate within this zone, potentially contaminated personnel clothing, equipment, and samples are not permitted until they are decontaminated, if necessary, in the CRZ. Functions performed in the Support zone include the following:

- Administration
- Sanitary facilities (toilets and hand-washing station)
- Equipment and supply storage
- Sample storage

The location of support facilities in the Support Zone must be easily accessible.

TURNER CONSTRUCTION
SITE-SPECIFIC HEALTH AND SAFETY PLAN
AMERICAN LINENT SUPPLY CO
DEXTER AVE SITE
SEATTLE, WASHINGTON

REVIEW SIGNATURE SHEET

Health and Safety Plan Certification: This Site-Specific Health and Safety Plan is written in compliance with industry standards and the requirements of WAC 296-843 for application at the subject site in Seattle, Washington for the tasks specified in this plan.

March 12, 2019

Elisabeth Black, CIH — Date
EMB Consulting LLC

We, the undersigned, have reviewed this plan, are familiar with its contents, and agree to abide by all the provisions herein:

Signature — Date

Signature — Date

Signature — Date

Signature — Date

Signature — Date

Signature — Date

Signature — Date

Signature — Date

Signature — Date

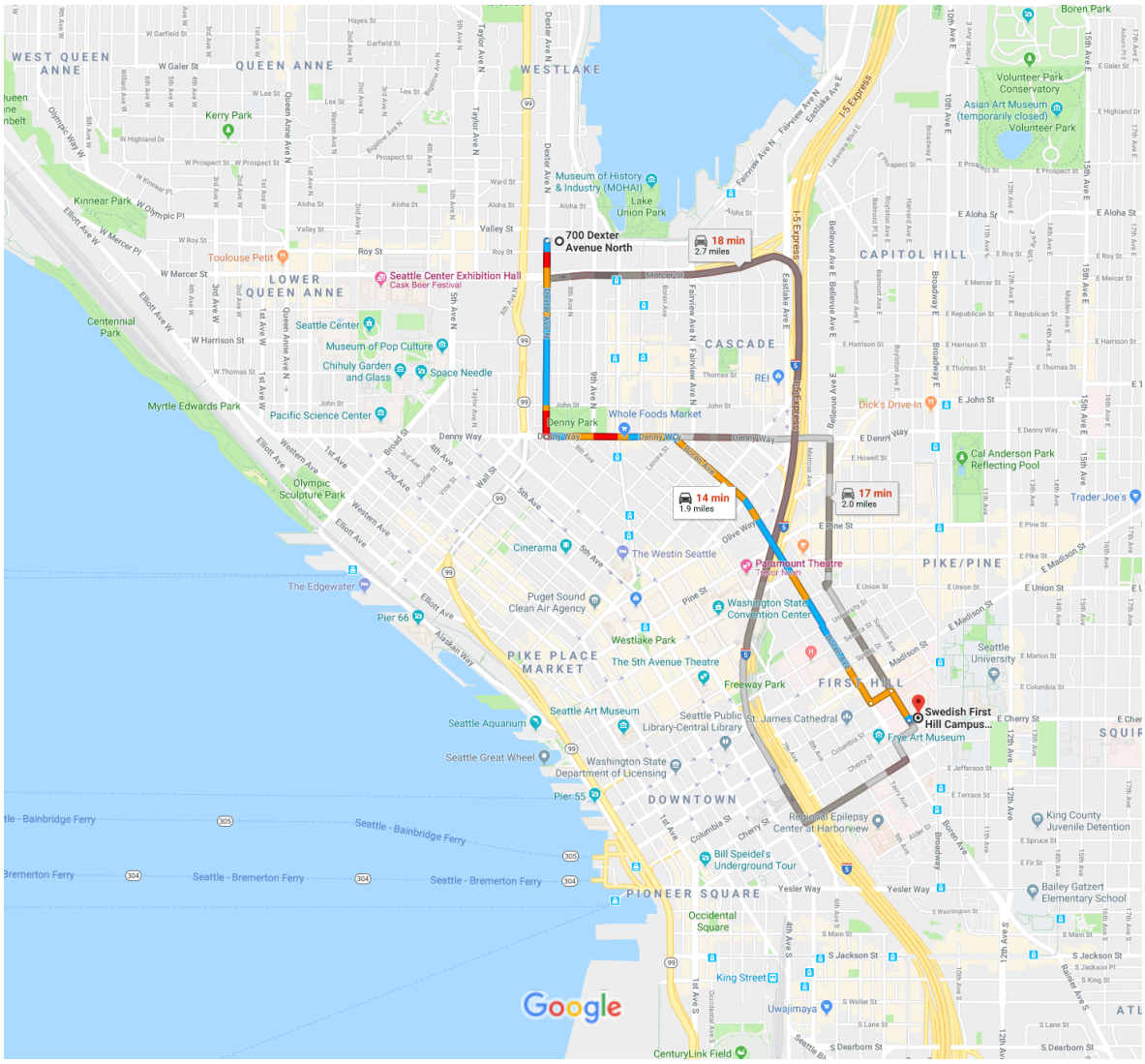
Exhibit 1: DIRECTIONS TO HOSPITAL

Google Maps

700 Dexter Ave N, Seattle, WA 98109 to Swedish First Hill Campus Emergency Room

Drive 1.9 miles, 14 min

Route to Hospital



Map data ©2018 Google 1000 ft

Exhibit 2: DECONTAMINATION STATION LOCATION

Decontamination Station with Stair Tower
(Movable Based on Excavation Needs)

Soil Management Area 3

Excavation Continues

Surge Pile

Containment Pad

Stair Ladders

Well and Site Water De-Watering

DEXTER AVE N

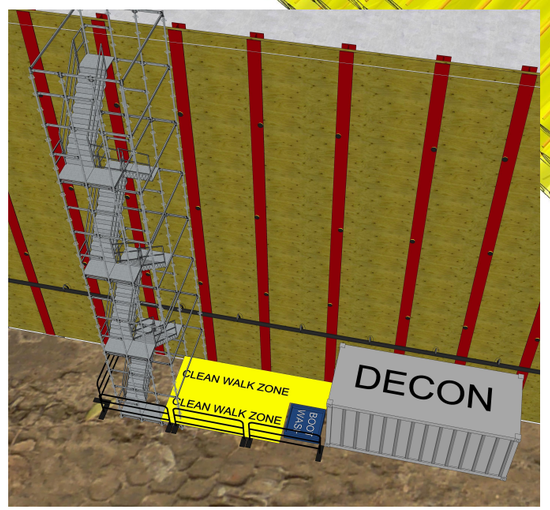
VALLEY ST

ROY ST

8th AVE N

DAY 01
DAY 03
DAY 04
DAY 05
DAY 06
DAY 07
DAY 10
DAY 12
DAY 13
DAY 20

+/- 33'-6"



700 Dexter

Excavation Cut 04 View from SE Corner

Notes:

Turner VDC

Rev.8 February 04, 2019

APPENDIX I

Air Monitoring Plan

AMERICAN LINEN SUPPLY CO – DEXTER AVE SITE
700 DEXTER AVENUE
SEATTLE, WASHINGTON

SITE WORKER AND COMMUNITY AIR MONITORING PLAN

Prepared for:

TURNER CONSTRUCTION

Prepared by:

EMB CONSULTING, LLC

Revision date: March 12, 2019

EMB CONSULTING * 22725 44TH AVE W, SUITE 203 * MOUNTLAKE TERRACE, WASHINGTON
206.915.2395 * emblackconsult@gmail.com

1.0 INTRODUCTION

EMB Consulting has prepared this Draft Air Monitoring Plan (AMP) on behalf of Turner Construction and BMR-Dexter LLC ("BMRD") to supplement the Final Interim Action Work Plan ("IAWP")[1] for the Former American Linen Supply Co – Dexter Ave Site ("Site") located at 700 Dexter Avenue North, Seattle, Washington ("Property"). The IAWP describes the cleanup actions that will be performed on and immediately adjacent to the Property to treat soil and groundwater contaminated by chlorinated volatile organic compounds ("CVOCs"). The interim actions described in the IAWP are integrated into the Property redevelopment (two 14-story office towers over three levels of subgrade parking), and are being performed prior to, during, and after the redevelopment construction. As described in the IAWP, the Contaminated Media Management Plan (CMMP) identifies the type of contaminated media (i.e., soil, groundwater, and stormwater) that will be encountered during the redevelopment construction on the Property, and how that media will be managed consistent with the applicable environmental regulations and requirements.

Turner Construction activities will disturb contaminated media, which could potentially result in chemical releases to air. Air monitoring will be conducted to provide worker exposure monitoring for Turner and its subcontractors performing site work. Fence line air monitoring will also be conducted to ensure community protection and allow for timely response to control potential migration of contaminants off site.

The monitoring scope and procedures presented in this Plan were based on a review of available environmental data for the site and on the anticipated remediation approach at the time of writing. If the remediation design changes or additional contaminants are discovered, this Plan may be revised to more accurately address Site worker and community air monitoring needs.

As of this writing, environmental investigations on the property have identified the Contaminants of Concern (COCs) as tetrachloroethylene (PCE) and its degradation products trichloroethylene (TCE), cis-dichloroethylene (1,2-DCE), and vinyl chloride (VC) in site soil and/or groundwater at levels exceeding applicable cleanup levels. Petroleum hydrocarbons have also been identified on site, but are considered to be a secondary concern for this project. The air monitoring protocol designed to measure and control the listed COCs should also be protective for petroleum hydrocarbons.

The proposed remediation involves in-situ remediation of soils and dewatering, followed by mass excavation of treated soils. The scope of air monitoring is as follows:

- Baseline air monitoring for volatile organic compounds (VOCs) will be conducted to document pre-remediation air concentrations of the COCs on and around the Site. This will be conducted using photoionization detectors (PIDs) and diffusion badges

- During site activities with the potential to disturb contaminated media, PIDs will be used to monitor potential site worker and community exposure. PIDs will be stationed at four

[1] PES Environmental, Inc. 2018. *Final Interim Action Work Plan, American Linen Supply Co-Dexter Avenue Site, 700 Dexter Avenue North, Seattle, Washington.* August.

locations on the fence line that delineates the site. A fifth PID will be used by a field technician to monitor active work and areas of potential COC release. The data obtained from the PIDs will be used to guide the use of personal protective equipment (PPE) and the application of other worker and community exposure controls in the field.

- Exposure assessment monitoring for the COCs on Turner staff or subcontractors will be conducted during remediation to ensure that exposure controls are sufficient for worker protection.

- Community air monitoring will also be conducted weekly using diffusion badges to develop a record of exposure control for the project. The diffusion badges give compound-specific results, but are delayed by shipping and laboratory analysis. The results will be used to improve controls and monitoring over the duration of the project, as appropriate.

The Plan is organized to provide the monitoring scope, protocols, evaluation criteria, quality control measures, and reporting.

2.0 MONITORING SCOPE

Air monitoring at the Site will be managed and conducted by EMB Consulting LLC, with an Air Monitoring Technician on site every workday with activities that have the potential to disturb contaminated media.. The implementation of air monitoring at the Site at the stated frequencies and locations will rely on the construction and remediation schedule for the project. The time frames provided are an estimate based on project expectations at the time of writing.

2.1 Weather Monitoring

Weather conditions will be recorded for the duration of the air monitoring project to track temperature, humidity, barometric pressure, wind direction, and wind speed. All weather parameters in the area of the Site will be obtained from the Weather Underground weather station KWASEATT116 located near Valley Street and Warren Avenue North, approximately 0.5 miles to the west of the Site. For on-Site wind direction and to provide instantaneous visual assessment of downwind areas, a windsock will be installed on one corner of the site.

2.2 Baseline Air Monitoring

Baseline air monitoring will be conducted to document conditions prior to the start of construction. Air monitoring equipment will be mobilized to collect background ambient VOC, PCE, TCE, 1,2-DCE, and VC concentrations at the Site fence line and Site interior within the month prior to the start of construction activities. The baseline monitoring will be conducted during the workweek, Monday to Friday, to capture typical contributors to ambient VOCs, such as vehicle exhaust and industrial operations in the area. Baseline monitoring will be conducted using the following two methods:

- Direct-read datalogging PIDs in environmental enclosures will be positioned just within the fence line on the north, east, west, and south sides of the site. The PIDs will be set

to datalog one-minute averages over the duration of a typical construction day (8 to 9 hours) for one five-day workweek.

- Up to eight ambient air samples will be collected from the site and from areas within the site. The data will be collected using diffusion badges set to collect data over 8-hours coinciding with a typical construction day. Four of the diffusion badges will be co-located with the perimeter PIDs for comparison of the results.

Conditions during baseline monitoring will be documented, to include weather and activities on and around the site that might impact results. The project action limits presented in this AMP may be adjusted if background VOCs are consistently elevated. This will allow for project monitoring to account for only contributions to air quality introduced by Site activities.

2.3 Site Worker Air Monitoring

2.2.1 Work Area Assessment for Volatile Organics

An Air Monitoring Technician will use a hand-held PID for direct read measurements of VOCs during activities that may disturb contaminated media and other activities with the potential to release the COCs to the air (surge pile, etc). The PID will provide instantaneous readings during fieldwork that will be used to guide the use of PPE and the application of other exposure controls in the field. It may also be used to evaluate potential VOC migration off site to the community in targeted areas.

2.2.2 Worker Assessment for Chlorinated Solvents

Air monitoring will be conducted during excavation and other activities with the potential to disturb contaminated media to provide a worker exposure assessment for Turner or its subcontractors for specific chlorinated solvent vapors. It is anticipated that the assessment will be conducted over at least one full workday per week during the excavation phase of the project to determine the appropriate level of PPE and the need for additional exposure controls. Additional monitoring may be conducted during days with potential high exposures. Worker assessment for chlorinated solvents will be conducted using 3M 3520 diffusion badges.

2.4 Community Air Monitoring

During all project activities with the potential to disturb contaminated media, four PIDs will be placed on the fence line at the north, east, west, and south sides of the property. The PIDs will be programmed to alert of project action limit exceedances with audio and visual alarms so that the Air Monitoring Technician and Contractor can respond. In addition, at least once per week or when indicated by PID project action levels, additional community air monitoring will be conducted using diffusion badges placed upwind and downwind of project activities. The monitoring may also be conducted near a potentially exposed population, such as on a busy sidewalk. Diffusion badges will be sent to the project Industrial Hygiene laboratory for analysis, so the data will not be available to assess exposure and apply controls in real time.

The purpose of the data collection by diffusion badge is to provide actual CVOC concentrations during certain conditions. Those data can be compared with the PID data collected to ensure that the action levels specified in this Plan are protective and allow for revisions, as needed.

3.0 AIR MONITORING PROTOCOL

3.1 Volatile Organics by PID

Four PIDs in environmental enclosures will be installed on each perimeter side fence for direct read measurements of VOCs continuously during excavation activities and other tasks with a potential for contaminant vapor release (surge pile management). The PIDs will provide instantaneous readings during fieldwork that may be used to guide the use of PPE and the application of other exposure controls in the field. A PID with 10.6 eV lamp should be adequate to evaluate the potential presence of the COCs.

The PIDs used for this project will have a non-compound specific response to VOCs. The mixture of anticipated VOCs have PELs that vary from 1.0 ppm to 200.0 ppm. The action levels of 5.0 and 10.0 ppm represent industry standard and were selected to provide for a conservative response to vapor concentrations at the worksite. They are intended to provide guidance to Turner and its subcontractors when release of Site COCs is indicated so that they can take the appropriate actions to protect workers and the community before exposure can occur. The action levels are not based on occupational or community health-based exposure criteria.

Action Levels for workers and the community are provided below.

TABLE 3.1
ACTION LEVELS FOR VOCs ON SITE FOR WORKER PROTECTION

PID Readings on Site (in ppm)	Action	Personal Protective Equipment
< or = 5 ppm *sustained for 1 minute*	Continued monitoring	Level D
> 5 ppm but < or = 20 ppm *sustained for 1 minute*	Inform site workers of potentially high VOC levels. Increase existing engineering controls, such as fans or reducing the size of the open excavation. Site workers must wear half-face air-purifying respirators with combined particulate/VOC filter until monitoring data shows that levels are below the project Action Limit.	Level C Add ½ mask with P100/VOC cartridges and chemically protective clothing.
> 20 ppm *sustained for 1 minute*	STOP WORK; notify Site Superintendent.	If work is resumed, upgrade PPE as specified by the Project CIH

VOCs = volatile organic compounds
PID = photoionization detector
ppm = parts per million

TABLE 3.2
ACTION LEVELS FOR VOCs AT FENCE LINE FOR COMMUNITY PROTECTION

PID Readings on Site at Fence Line (in ppm)	Action
< or = 5 ppm *sustained for 1 minute*	Continued monitoring
> 5 ppm but < or = 10 ppm *sustained for 1 minute*	Air Monitoring Technician will check on status of the alarming perimeter monitor and document existing conditions Inform Site Superintendent of VOC levels. Increase existing engineering controls, such as fans or reducing the size of the open excavation.
> 10 ppm *sustained for 1 minute*	STOP WORK; notify Site Superintendent. Implement additional engineering controls including covering exposed soils with plastic, crushed rock, foam, or other vapor suppressant.

VOCs = volatile organic compounds
PID = photoionization detector
ppm = parts per million

If action levels are reached or exceeded, the following actions will be initiated to reduce vapor concentrations. These actions are not listed in order of application or preference. Turner or its subcontractors may select the actions deemed most effective at the time of the occurrence.

- reduce the amount of contaminated soil exposed at any point in time;
- use plastic or soil to cover exposed contaminated soil and reduce vapor release;
- use fans to dilute and redirect vapors in the work areas; and
- apply foam to exposed contaminated soil to reduce vapor release.

Additional air monitoring will be conducted to evaluate the effectiveness of these control actions.

3.2 Worker and Community Assessment for Chlorinated Solvents

At least one day per week, diffusion badges will be used for compound-specific data. If PID readings are consistently elevated, select that day to implement air sampling for chlorinated solvents, including personal exposure sampling for workers during construction to establish PPE requirements and additional exposure controls.

Baseline, worker, and community exposure sampling will be conducted using diffusion badges by the National Institute for Occupational Safety and Health (NIOSH) Manual of Analytical Methods, Method 1003-Hydrocarbons Halogenated using 3M 3520 diffusion badges. Samples will be delivered to the Project Industrial Hygiene Laboratory, ALS Laboratory in Salt Lake City, Utah for analysis for PCE, TCE, DCE, and VC. The results will not be received until several days following the sampling event.

The purpose of the data collection by diffusion badge is to provide actual CVOC concentrations during certain conditions. Those data can be compared with the PID data collected to ensure that the action levels specified in this Plan are protective and allow for revisions, as needed. In addition, the diffusion badge data will be added to the overall project air monitoring data set to demonstrate control during project activities.

Worker exposure assessment data will be evaluated using the following criteria to initiate changes in project protections.

TABLE 3.3
ACTION LEVELS FOR VOCs For SITE WORKERS

COC	Action Level (in ppm)	DOSH PEL (in ppm)	Action
Cis-DCE	<200.0		Continue work and maintain specified controls
		>/= 200.0	Reassess controls
PCE	<25.0		Continue work and maintain specified controls
		>/= 25.0	Reassess controls
TCE	<50.0		Continue work and maintain specified controls
		>/= 50.0	Reassess controls
VC	<1.0		Continue work and maintain specified controls
		>/= 1.0	Reassess controls

Washington State Division of Occupational Safety and Health (DOSH)
Permissible Exposure Limit as an 8-hour time-weighted average (PEL)

If action levels are reached or exceeded, the following actions will be initiated to reduce vapor concentrations. These actions are not listed in order of application or preference. Turner or its subcontractors may select the actions deemed most effective at the time of the occurrence.

- reduce the amount of contaminated soil exposed at any point in time;
- use plastic or soil to cover exposed contaminated soil and reduce vapor release;
- use fans to dilute and redirect vapors in the work areas ; and
- apply foam to exposed contaminated soil to reduce vapor release.

Additional air monitoring may be conducted to evaluate the effectiveness of these control action.

3.3 Quality Control Requirements

A field logbook will be used to record daily field conditions and to document equipment inspection, calibration checks, and operation. Weather conditions, temperatures, general wind direction, barometric pressure, and other environmental conditions will be recorded daily. Instrument monitoring frequency, results, and readings will also be recorded. Action Level exceedances and associated control measures will be closely documented, including the time of

exceedance, time that actions were implemented, and time that readings decreased to within acceptable levels.

Daily calibration and operational checks, along with any instrument problems such as battery failures, will be recorded in the project logbook. The logbook will document instrument makes and models, serial numbers, and factory calibration data. The most recent factory calibration date will be compared against manufacturer-recommended criteria to ensure that calibration dates are valid. Any maintenance and repair operations required during the project will also be recorded.

4.0 REPORTING

Site worker and community air monitoring results will be provided at the following times and frequency:

- PID data will be available instantaneously to allow for immediate response. The Air Monitoring Field Technician will report exceedances verbally to the Site Superintendent in accordance with the Action Level tables provided in this report.

- At the end of each field day, the Air Monitoring Technician will download data from each of the PIDs and report any exceedances for that day. The Air Monitoring Technician will also document any diffusion badge sampling conducted on that day. EMB Consulting will review the data and monitoring and provide an e-mail report to Turner prior to the start of the next field day so that additional controls can be implemented, as needed.

- EMB Consulting will prepare a weekly Community Air Monitoring Report, targeted to be available by the Friday of the following week. The weekly reports will provide a summary of the site perimeter PID data and the results of site perimeter diffusion badge analysis from that week. The weekly Community Air Monitoring Report will be provided to PES Environmental, Inc. and Turner Construction.

- EMB Consulting will prepare a separate Site Worker Air Monitoring Report, targeted to be available by the Friday of the following week. The weekly reports will provide a summary of the worker site PID data and the results of worker diffusion badge analysis from that week. The weekly Site Worker Air Monitoring Report will be provided to Turner Construction.

- At project end, all air monitoring data will be provided in a summary report to Turner Construction and PES Environmental, Inc. to be maintained with archived project files.