SOUNDTRANSIT

Federal Way Link Extension (F200)
Contract No. RTA/CN 0009-17

Soil Characterization and Interim Action Remediation Report Parcel FL-358 Former Y Pay Mor Dry Cleaner

February 19, 2020

Prepared by:

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February 19, 2020

Kiewit Infrastructure West Co.
2200 Columbia House Blvd.
Vancouver, WA 98661

Attention: Ms. Andrea Scheele

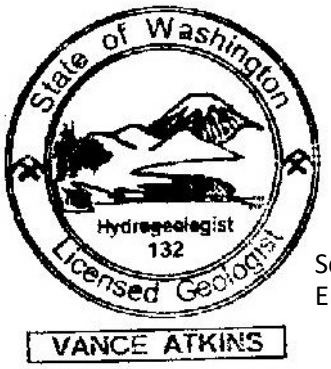
Subject: Soil Characterization and Interim Action Remediation Report
Parcel FL-358
Former Y Pay Mor Dry Cleaner
VCP Project No. NW3265
Federal Way Link Extension Project
2210 South 320th Street
Federal Way, Washington

Dear Ms. Scheele:

Transmitted herewith is the Soil Characterization and Interim Action Remediation Report for remedial actions associated with Parcel FL-358/Former Y Pay Mor Dry Cleaner Site located at 2210 South 320th Street in Federal Way, Washington as a part of the Sound Transit Federal Way Link Extension Contract within the cities of SeaTac, Des Moines, Kent, and Federal Way Washington. This report includes our field procedures and observations, analytical testing results, documentation of proper soil disposal and recommendations.

We trust the information presented in this report meets your needs. Should you require additional information or have questions regarding this report, please contact us at (425) 429-7800.

Sincerely,



Vance Atkins, LG, LHG
Project Manager

Scott Darst
Environmental Group Manager

Attachment: Soil Characterization and Interim Action Remediation Report

Revision History

Revision Number	Revision Date	Description of Changes
00	11/11/2020	Initial Submittal
01	12/23/2020	Revision per ST reviewer comments
02	01/14/2021	Revision per ST reviewer comments
03	01/28/2021	Revision per ST reviewer comments
04	02/12/2021	Revision per ST reviewer comments
05	02/19/2021	Revision per ST reviewer comments

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1.0 INTRODUCTION AND BACKGROUND

This report presents the findings of O'Neill Service Group's (OSG) soil characterization and interim action soil remediation conducted at Federal Way Link Extension (F200) Parcel Number FL-358 located at 2210 South 320th Street in Federal Way, Washington. This report was prepared for Kiewit Infrastructure West Co. (Kiewit) in support of the F200 project.

This report presents the field activities and findings for: 1) soil and groundwater sampling to characterization site contaminant conditions, and 2) removal and disposal of volatile organic compound (VOC)-contaminated soils identified during the prior investigations. The interim remedial action is part of an overall soil and groundwater remediation and monitoring program associated with the Former Y Pay Mor Drycleaner Site, Washington Department of Ecology (Ecology) Voluntary Cleanup Program (VCP) Site No. NW3265.

Ecology issued a No Further Action (NFA) determination for the site in 1998, conditioned with a Restrictive Covenant, prohibiting actions that may disturb contaminants remaining on site without prior written approval by Ecology. Pursuant to the Covenant, Sound Transit notified Ecology of proposed site redevelopment and investigation activities. Sound Transit prepared a proposed interim action alternative in June 2020 for submittal to Ecology. The preferred alternative letter summarized supplemental investigations and characterization at the Site (discussed in Section 3.3, below) and proposed an interim action consisting of "hot spot" remedial soil excavations at two locations where known or suspected solvent releases had occurred at the Site. Sound Transit also requested that the area defined in the original Restrictive Covenant to be reduced based on the supplemental investigation findings (Sound Transit, 2020). The preferred alternative was accepted and the approval for construction and remedial activities was approved by Ecology in June 2020 (Ecology 2020a,b). Copies of the preferred alternative letter and Ecology responses are included in Appendix B. Site characterization and interim action activities proceeded as allowed by and following the conditions in the environmental covenants.

1.1 SITE LOCATION

The remedial action took place at F200 Parcel Number FL-358 located at 2210 South 320th Street in Federal Way, Washington (Figure 1). The Site is bounded by 23rd Avenue South to the east and the current Federal Way Transit Center to the north. The Site was previously bounded on the south and west by commercial retail and restaurant development. The Site and surrounding parcels are under development as a transit station, right of way and transit-oriented development. The design for the new development is underway. The Site elevation at the time of remediation was between approximately 423 feet above project datum NAVD 1988 at the north end of the Site (loading dock and storm drain) and 426 feet above project datum NAVD 1988 in the center and southern end of the Site (former building slab). Project construction plans included placement of up to 15 feet of fill at the Site to raise the site elevation consistent with an existing transit center adjacent to the north.

1.2 SITE BACKGROUND

Details of historic property use, and the site assessments performed to date at the Site can be found in GeoEngineers, 2017a,b; 2019. The following is a summary of those assessments.

Parcel FL-358 (portions of former King County Tax Parcel No. 2423200050) is located at 2210 South 320th Street in Federal Way, Washington. The Site formerly contained a dry cleaner (Y Pay Mor Dry Cleaners), which operated between 1979 and 1994. Y Pay More Dry Cleaners was formerly located in tenant space A-6 at the east end of the parcel's commercial building. The dry cleaner is identified on Ecology's listing of remedial sites. The status of the cleanup prior to this interim remedial action is recorded as "No Further Action" with an environmental covenant in place as of 1998. According to Ecology file reviews, a release of tetrachloroethylene (PCE) was reported at the site in 1991. Subsequent subsurface investigations at the tenant space identified PCE impacts to soils and groundwater. A soil vapor extraction (SVE) remediation system was installed under the tenant space in 1993 and operated for approximately 1.5 years. Seven post-remedial borings were advanced to collect soil samples under the tenant space in 1994. The soil sampling found one PCE and one cis-1,2-dichloroethyene (cis-1,2-DCE) concentration exceeding MTCA cleanup levels in the seven borings completed as part of the confirmation sampling. Groundwater samples collected at the time of the original subsurface investigation detected PCE and trichloroethylene (TCE, a degradation product of PCE) in exceedance of MTCA cleanup levels. After remedial actions, PCE

was not detected in the installed groundwater wells. Ecology issued an NFA determination for the site in 1998, conditioned with a Restrictive Covenant, prohibiting actions that may disturb contaminants remaining on site without prior written approval by Ecology (discussed above).

GeoEngineers conducted a Phase II investigation at the Site in 2017, consisting of completing six soil borings at locations north, east, and south of the former dry cleaner tenant space. Four borings were subsequently completed as monitoring wells. Soil samples collected from the boring north of the tenant space (FL358-B1) contained tetrachloroethylene (PCE) above the MTCA cleanup level in one soil sample. PCE and degradation products were detected in other samples at concentrations below cleanup levels. Groundwater was sampled from the four monitoring wells, as well as an existing monitoring well located south of the tenant space. PCE and associated degradation products were detected at concentrations below groundwater cleanup levels, and significantly below concentrations previously detected at the Site. GeoEngineers concluded that soil contamination likely remained on site in the vicinity of the original 1991 release location, as well as potentially north of the former tenant space. GeoEngineers conducted a supplemental Phase II investigation within the tenant space in 2019, consisting of installation and sampling of 18 shallow soil gas probes through the tenant space floor. Soil vapor samples were collected and analyzed for PCE and degradation products. Soil gas concentrations confirmed the presence of PCE and degradation products in the vicinity of the known 1991 release location, and along subfloor utilities (likely sanitary sewer line). Soil samples were not collected during this investigation. GeoEngineers recommended preparing a remedial cost estimate and soil and groundwater handling plans for site construction and remedial activities. Because PCE is considered a F-listed hazardous waste, soils and groundwater would require handling and disposal under Hazardous Waste regulations or securing a Contained-in Determination for delisting of the wastes prior to disposal. Phase II Figures and Tables are included in Appendix A.

Sound Transit acquired the property parcel for construction of the Federal Way Link Extension (F200) of Sound Transit's regional light rail service. The site building was demolished in May 2020 during construction preparation activities.

2.0 SCOPE OF SERVICES

OSG prepared a Cleanup Action Plan (OSG, 2020) for supplemental characterization and remediation of contaminated soils at the parcel. Based upon the historical data and GeoEngineers' initial soil and groundwater characterization results, OSG proposed to conduct additional soil characterization to further assess the nature and extent of the VOC concentrations, as well as assess areas not previously sampled during the prior investigations. Two rounds of supplemental characterization were conducted at the parcel. The supplemental investigations were developed and conducted to support Ecology approval of the selected interim action in accordance with the restrictive covenant. A copy of Ecology's approval letter is included in Appendix B (Ecology, 2020b). Based on the findings of the prior investigation and supplemental investigations, OSG also directed removing and properly disposing of VOC contaminated soil identified and delineated at the parcel as negotiated with Ecology.

The purpose of the field program was to identify, remove, and properly dispose of VOC contaminated soils identified underlying the former dry cleaners at the parcel. This overall field program included characterization and delineation of the remedial area, observing, and documenting the excavation activities, performing field screening and the collection of post-excavation soil samples for laboratory analysis and documentation of soil disposal activities. Analytical results from post-excavation soil samples were compared to Ecology's MTCA Method A soil cleanup levels for Unrestricted Land Use in accordance with Ecology's interim action agreement letter (Ecology, 2020b).

To accomplish these objectives, OSG scope of services included:

- Conducting two rounds of delineation sampling surrounding and underlying the former Y Pay Mor dry cleaner tenant space;
- Soil screening and soil testing during the supplemental soil characterizations;
- Groundwater sampling and analysis from existing groundwater monitoring wells and temporary well points during the supplemental characterizations;
- Preparing a Contained-In determination for VOC-contaminated soils meeting non-hazardous waste criteria;
- Soil screening and soil testing during the interim action remedial excavation activities;
- Submitting soil samples to an Ecology-accredited laboratory to be analyzed for the presence of volatile organic compounds by EPA Method 8260D;

- Coordinating and documenting the excavation, transportation and disposal of VOC contaminated soil to Republic Services and Waste Management disposal facilities; and
- Preparing this report to summarize the characterization and remedial soil removal activities, soil sample analytical results, and conclusions.

3.0 SUPPLEMENTAL CHARACTERIZATION

3.1 SOIL CHARACTERIZATIONS

3.1.1 May 2020 Soil Investigation

Between May 7 and 11, 2020, an OSG environmental scientist was on-site to observe and document soil borings 358-B1 through 358-B9 completed in the vicinity of and underlying the former Y Pay Mor dry cleaners tenant space. Cascade Drilling, a Washington licensed drilling contractor, provided a truck mounted hollow-stem drilling rig to complete soil borings at selected locations on the parcel. Boring locations were selected to further delineate areas of known PCE and degradation products, as well as investigate current soil and groundwater conditions underlying the former tenant space, which was made accessible by recent building demolition.

Borings were completed to a maximum depth of 25 feet below ground surface (bgs). Soil samples were collected at 2.5- to 5-foot intervals, with soil samples selected for analysis based on prior detections, groundwater occurrence, and field screening. Shallow (5-foot) soil samples were also analyzed from borings completed in and adjacent to the tenant space to assess soil conditions near the original source area. Borings were backfilled, sealed, and patched according to Ecology's well drilling regulations. Supplemental samples were analyzed to further delineate the vertical extent of detections. Boring logs are included as Appendix C. Photographs of investigation activities are included as Appendix D.

Boring 358-B1 was advanced adjacent to a sewer line and vault on the east side of the former tenant space. Boring 358-B2 was advanced in an assumed upgradient position (east) from the tenant space, as well as within an area of future subsurface construction (elevated rail piers). Borings 358-B3 and 358-B4 were completed north of the tenant space and were intended to delineate a PCE exceedance previously detected in GeoEngineers boring FL358-B1. Borings 358-B5 through 358-B9 were completed within and west of the former tenant space to delineate residual solvent concentrations and to assess the sub-floor soil conditions after the 1990s soil remedial actions. Soil boring locations are shown on Figure 2.

Soil samples were collected from each soil boring and field screened for the presence of VOCs with a PID. The sample locations were marked with stakes for surveying. The depths of all soil samples collected from the soil borings are shown in Table 1.

Thirty soil samples were submitted to Fremont Analytical, an Ecology-accredited analytical laboratory, located in Seattle, Washington. Soil samples were analyzed for volatile organic compounds by EPA Method 8260D. Soil samples were placed in individual laboratory supplied decontaminated glass jars. Sample labels were fixed to each sample jar and contained the following information: sample number, project name, date and time of collection, and sampler's initials. Sealed samples were stored in an ice chest and were maintained in a cooled condition until delivery to the analytical laboratory. A copy of the laboratory analytical reports and completed Chain-of-Custody documentation is presented in Appendix E.

3.1.2 June 2020 Soil Investigation

Based on the findings of the preliminary subsurface investigation, a supplemental soil characterization was completed between June 9 and 11, 2020. The investigation consisted of completion of test pits (358-PH1 through 358-PH8) and soil borings (358-B10 through 358-B15) at the former tenant space to further characterize potential source areas and delineate the lateral extent of soil and groundwater contamination at the parcel. Boring 358-B10 was also intended to delineate the vertical extent of soil contamination. Holt Drilling, a Washington licensed drilling contractor, provided a truck mounted hollow-stem drilling rig to complete soil borings at selected locations on the parcel. KLB, Kiewit's earthwork subcontractor, provided a track mounted excavator for completion of test pits at selected locations. Boring logs are included as Appendix C. Photographs of investigation activities are included as Appendix D.

Test pits were completed to a maximum depth of 15 feet bgs. Soil samples were collected at 1- to 5-foot intervals, with soil samples selected for analysis based on prior detections, groundwater occurrence, and field screening. Test pits were backfilled with excavated soils. Soils were backfilled in the sequence of removal to reduce disturbance of potential contamination. Borings were completed to a maximum depth of 50 feet bgs. Borings were backfilled, sealed, and patched according to Ecology's well drilling regulations. Supplemental samples were analyzed to further delineate the vertical extent of detections.

Eight test pits were completed at the parcel. Test pits 358-PH1 through 358-PH4 and 358-PH8 were collected at locations surrounding the 1991 release location. 358-PH8 was completed adjacent to 358-PH3 to sample soil at the five-foot interval where field screening (PID headspace reading 68 ppm) indicated the presence of contamination, but the 358-PH3 five-foot depth interval was not sampled

during the prior investigation. The test pit 358-PH8 location was mis-located on prior submittals (Sound Transit, 2020). Test pits 358-PH5 and 358-PH6 were completed along a sewer line along the west side of the former tenant space. Test pit 358-PH7 was collected adjacent to a catch basin and stormwater line adjacent north of the former dry cleaner tenant space. Test pits were completed to depths of up to 15 feet bgs. Test pit locations are shown on Figure 2.

Soil boring 358-B10 was completed under the former tenant space adjacent to boring 358-B5 to further delineate the vertical extent of VOC contamination. Soil borings 358-B11, and 358-B13 through 358-B15 were completed west, north, and southwest of the tenant space to delineate soil and groundwater contamination. Soil boring 358-B12 was completed in the northern portion of the former tenant space to assess potential secondary source areas. Soil boring locations are shown on Figure 2.

Sixty-nine additional soil samples were submitted to Fremont Analytical, an Ecology-accredited analytical laboratory, located in Seattle, Washington. Soil samples were analyzed for volatile organic compounds by EPA Method 8260D. Complete Chain-of-Custody records were transferred with the samples to the analytical laboratory. A copy of the laboratory analytical reports and completed Chain-of-Custody documentation is presented in Appendix E.

3.2 SOIL AND GROUNDWATER OBSERVATIONS

Soils encountered during drilling and test pit explorations at the site consisted of up to three feet sandy fill soils underlying the original paved or concrete surface. Drain line piping was encountered in test pits 358-PH5 and 358-PH6 at depths of approximately 1.5 feet bgs. Native soils underlying the fill were comprised of silty sands with occurrences of peat and organic silt to a depth of approximately seven to ten feet. Deeper soils were comprised of dense silty sands and sandy silts to depths of up to 20 feet. Silty sand with gravel was encountered in most borings below the finer-grained soils at depths between 15 and 25 feet. Boring 358-B10, complete to 50 feet bgs, encountered hard silt between 30 and 40 feet, and sand and silt from 40 feet to the total depth of 50 feet. Boring logs are included as Appendix C.

Limited, perched groundwater was observed in saturated lenses within the peat and silty soils at depths of approximately five to ten feet in borings 358-B1, -B3, -B4, -B5, -B8, -B11 and -B13. Groundwater was encountered during drilling at depths of ten to 16 feet. Water levels in temporary wells (discussed

below) rose to approximately eight to eleven feet below grade, indicating confined groundwater conditions at the site.

3.3 SOIL SAMPLE RESULTS

Analytical results indicated that two likely source areas were present at the parcel and former dry cleaner tenant space. The "South" source area was in the vicinity of the original 1991 release. The "North" source area was in the vicinity of the loading dock and a catch basin at the north end of the tenant space building (Figure 4).

A soil sample collected from test pit 358-PH3/358-PH8 (Sample 358-PH8-5), adjacent to the floor drain and 1991 release location contained concentrations of F-listed wastes (PCE and TCE) exceeding Hazardous Waste screening concentrations (173-303 WAC, 2019) requiring direct disposal in a Subtitle C landfill. Soil sample 358-PH7-9 collected from test pit 358-PH7, adjacent to the catch basin north of the tenant space, contained concentrations of F-listed wastes (PCE) exceeding Hazardous Waste concentrations requiring secondary treatment and stabilization prior to disposal in a Subtitle C landfill. Remaining soil samples within the two source areas containing concentrations of F-listed solvents below Hazardous Waste limits were delisted via a Contained-in Determination for direct disposal at a Subtitle D landfill.

Soil samples collected from test pits (358-PH1 through 358-PH4 and 358-PH8) and soil borings (358-B7 and 358-B8) at the south source area detected concentrations of VOCs in exceedance of MTCA cleanup levels at depths of up to five feet bgs. Based on the supplemental investigations, and prior site investigations, VOC contamination in the vicinity was estimated to be seven feet in depth. The lateral extent of contaminated soil was delineated to the south by test pit 358-PH1, to the north by test pit 358-PH5 and to the west by boring 358-B7. The eastern extent was not fully delineated.

Soil samples collected from test pits (358-PH7) and soil borings (358-B1, 358-B3, 358-B4, 358-B12, and 358-B14) at the north source area detected concentrations of VOCs in exceedance of MTCA cleanup levels at depths of up to 26 feet bgs. The vertical extent of VOC contamination was not delineated at the assumed northern source area (vicinity of 358-PH7), but VOC contamination appeared to have migrated southwest from the source area and was bounded vertically within silty soils encountered between 25 and 30 feet bgs in boring 358-B12. The lateral extent of PCE-contaminated soil in shallow soil (less than

ten feet bgs) appeared to be bounded by FL358-B1 to the north, 358-B3 to the west, 358-B5 to the south and FL358-MW1 to the southeast.

A summary of the test pit and boring soil sample results is presented in Table 1. Copies of Laboratory Analytical Reports are presented in Appendix E.

Based on field observations and screening during the preliminary sampling, and the supplemental sampling, Sound Transit prepared an evaluation of remedial alternatives for the parcel. The evaluation was submitted to Ecology for review. Sound Transit proposed a "Hot Spot" soil interim remedial action consisting of removal of soils above the site groundwater table containing VOCs in exceedance of MTCA cleanup levels in the two areas of concern (Appendix B). Two roughly rectangular remedial areas were proposed surrounding the two identified source areas: the south 1991 release location, and the north catch basin. Soils at the south location were proposed to be excavated to depths of eight feet bgs, with lateral and vertical excavation until VOC concentrations exceeding MTCA cleanup levels for soil were removed. Soils at the north location were proposed to be excavated to depths of ten feet bgs, with lateral excavation until VOC concentrations exceeding MTCA cleanup levels for soil were removed. VOC concentrations in the base of the north excavation would be documented, and excavation below the site groundwater surface or soil remediation to MTCA cleanup levels was not required. Subsequent remedial actions and groundwater monitoring will be implemented after site construction.

3.4 GROUNDWATER CHARACTERIZATION

Groundwater at the parcel was delineated by sampling of existing groundwater monitoring wells and temporary well points installed in selected soil borings. The existing wells (FL358-MW1 through MW4 and YPayMor-MW3) were sampled on April 29, 2020.

Groundwater samples were also collected from selected borings (358-B3 through B7, 358-B11 through B15) during the subsurface investigation to assess current groundwater conditions below and adjacent to the former tenant space. Temporary screens with sand filter packs were installed in the borings through the hollow stem auger. Screen lengths were between five and ten feet and screen depths are summarized in Table 2. The auger was withdrawn from the boring and bentonite annular seal placed above the sand pack. The water levels were allowed to stabilize prior to sampling, and wells were developed by purging using a submersible pump. Groundwater samples were collected in general

accordance with United States Environmental Protection Agency (USEPA, 2017) low-flow groundwater sampling guidelines. Borings and temporary wells were backfilled and decommissioned according to Ecology's well drilling regulations. No permanent groundwater monitoring wells were installed.

PCE and its degradation products (TCE, Cis-1,2-dichloroethene, and Vinyl Chloride) were not detected at laboratory reporting limits in samples collected from the existing monitoring wells, which were located to the east and south of the former dry cleaning tenant space.

PCE and its degradation products exceeding MTCA Method A or B groundwater cleanup levels were detected in groundwater sampled from borings 358-B3 and 358-B5, where PCE and TCE concentrations exceeding MTCA Method A soil cleanup levels were also detected in one or more soil samples. PCE and/or its degradation products exceeding MTCA Method A or B groundwater cleanup levels were also detected in groundwater sampled from borings 358-B6 and 358-B7, located to the west (assumed downgradient) of the former tenant space. VOCs were not detected in groundwater samples collected from borings 358-B11, 358-B13, 358-B14, or 358-B15. These borings were completed to the northwest, north, southwest, and west of the former tenant space, respectively.

A summary of the groundwater sample results is presented in Table 2. The approximate extent of groundwater contamination at the parcel is shown on Figure 3. Copies of Laboratory Analytical Reports are presented in Appendix E.

4.0 REMEDIAL EXCAVATION

4.1 SOIL EXCAVATION FIELD PROCEDURES

The purpose of the soil excavation activities was to remove VOC-contaminated soils identified in shallow soils at the parcel. Soil excavations were completed in general accordance with a proposed interim action alternative review prepared by Sound Transit and accepted by Ecology (Sound Transit, 2020; Ecology, 2020b). Copies of the alternatives review and Ecology acceptance are attached as Appendix B. Prior to soil excavation, Sound Transit applied for and received a Contained-In determination from Ecology to de-list soils containing non-hazardous concentrations of PCE and degradation products for handling and disposal (Ecology, 2020c). A copy of the Contained-In determination is included as Appendix F. Soils identified as Hazardous Waste were delineated prior to excavation activities and handled and disposed of under separate soil profiles. One waste profile was prepared for Hazardous

Waste soils requiring direct disposal in a Subtitle C landfill. A separate waste profile was prepared for Hazardous Waste soils containing concentrations of F-listed waste (PCE) requiring secondary treatment and stabilization prior to disposal in a Subtitle C landfill.

The proposed interim action soil remediation consisted of "hot spot" soil remediations of two locations of soils characterized as Hazardous Waste. Following removal of those soils, surrounding soils meeting Contained-in criteria would be excavated to proposed depths of eight to ten feet bgs, and excavated laterally until confirmation samples met MTCA soil cleanup levels. The interim action allowed soils exceeding MTCA cleanup levels to be documented in the excavation floor of the north remedial area, while the floor of the south remedial area met MTCA soil cleanup levels. Limited utility removal (remnant sewer and stormwater utilities) was also proposed. The locations of the two remedial areas are shown on Figure 4, with details of the south and north interim action remediations on Figures 5 and 6, respectively.

The primary remedial excavation took place between July 15 and August 4, 2020 with limited supplemental excavations occurring on August 14 and August 27, 2020. Excavation was performed by KLB using a track-mounted excavator. Excavated soil was loaded directly into containers for direct transport to the disposal facilities.

Post-excavation soil samples were placed in individual laboratory supplied decontaminated glass jars. Sample labels were fixed to all sample jars and contained the following information: sample number, project name, date and time of collection, and sampler's initials. Sealed samples were stored in an ice chest and were maintained in a cooled condition until delivery to the analytical laboratory.

Soil samples were submitted to Fremont Analytical and Libby Environmental for analytical testing. Soil samples were analyzed for volatile organic compounds by EPA Method 8260D. Complete Chain-of-Custody records were transferred with the samples to the analytical laboratory. A copy of the completed Chain-of-Custody documentation is presented in Appendix E.

4.1.1 Hazardous Waste Excavations

Two areas of soils characterized as Hazardous Waste were identified at the parcel.

The southern hazardous waste area was located in the vicinity of the original 1991 release (358-PH3/PH8). Per the interim action plan, an area of 10 feet square between ground surface and seven feet deep surrounding the test pit location was delineated for excavation and disposal as Hazardous Waste soils requiring direct disposal in a Subtitle C landfill. The soils were excavated and placed into containers for disposal on July 15, 2020. The extent of the excavated soils is shown on Figure 5.

Five post excavation soil samples were collected at the limits of excavation to confirm that soils classifying as Hazardous Waste had been removed. Four post-excavation samples (358-PEX-1-5 through 358-PEX-4-5) were collected from the sidewalls. One post-excavation sample (214-PEX-5-7) was collected from the excavation base. The VOC concentrations in the all five samples were below Hazardous Waste limits, and remaining soils in the remedial area were handled and disposed of as non-hazardous waste under the Contained-In determination.

The northern hazardous waste area was located in the vicinity of the former catch basin and the north side of the tenant space (358-PH7). Per the interim action plan, an area of ten feet square and between depths of seven and eleven feet bgs surrounding the test pit location was delineated for excavation and disposal as Hazardous Waste containing concentrations of F-listed waste (PCE) requiring secondary treatment and stabilization prior to disposal in a Subtitle C landfill. Soils excavated from ten to eleven feet were characterized as Hazardous Waste containing concentrations of F-listed waste (PCE) acceptable for direct disposal in a Subtitle C landfill. Soils overlying the volume of Hazardous Waste (ground surface to seven feet bgs) were handled and disposed of as non-hazardous waste under a Contained-in determination. The soils were excavated and placed into containers for disposal on July 20, 2020. The extent of the excavated soils is shown on Figure 6.

Six post excavation soil samples were collected at the limits of excavation to confirm that soils classifying as Hazardous Waste had been removed. Five post-excavation samples (358-PEX-18-10, 358-PEX-19-10, 358-PEX-21-10, 358-PEX-22-11 and 358-PEX-43-10) were collected from the sidewalls. One post-excavation sample (358-PEX-20-11) was collected from the excavation base. The VOC concentrations in all six samples were below Hazardous Waste limits, and remaining soils in the

remedial area were handled and disposed of as non-hazardous wastes under the Contained-In determination.

A summary of the Hazardous Waste area post-excavation soil sample results is presented in Table 1.

4.1.2 South Remedial Area, Contained-In Soils

The excavation was approximately rectangular in shape oriented west-east and was roughly 40 feet long and 30 feet wide. Excavation was continued vertically and laterally until post-excavation confirmation samples met the interim action objectives of both sidewall and base sample analytical results meeting MTCA Method A soil cleanup levels for VOCs. The average depth of the excavation was ten feet bgs, with benched excavations of four to eight feet along the boundaries. The extent of the excavated soils is shown on Figure 5. Soil conditions were consistent with those observed during the subsurface investigation (Section 3.2). Piping and wells (probable remnants of the SVE system) were observed in the central portion of the excavation, and floor drains and piping were also removed from the west half of the excavation.

Post-excavation soil samples were collected at the limits of excavation. Twenty post-excavation samples were collected from the four sidewalls at depths of one to six feet to document remediation. Sidewall samples were collected over one-foot intervals with the bottom depth shown in the last digits of the sample name. Twelve post-excavation samples were collected from the excavation base at depths of six to ten feet to document remediation and residual VOC concentrations.

During remedial activities, water accumulated in the remedial excavation (stormwater and groundwater seeps). During remediation and prior to backfilling, Kiewit and KLB pumped the accumulated water to on-site 20,000-gallon Baker tanks for sampling and proper disposal (See Section 4.4).

A summary of the post-excavation soil sample results is presented in Table 1. The south remediation extent and locations of the post-excavation soil samples are shown on Figure 5. Cross-sectional profiles of the excavations are shown on Figure 7. Site photographs are included in Appendix D.

4.1.3 North Remedial Area, Contained-In Soils

The excavation was irregular in shape and oriented northeast-southwest and was approximately 35 feet long and 30 feet wide. The average depth of the excavation was ten feet bgs, with soils at the Hazardous Waste remedial area and select areas of the overall excavation excavated to eleven feet bgs (Section 4.1.1). The extent of the excavated soils is shown on Figure 6. Soils were excavated sequentially until all sidewall samples were below the MTCA Method A cleanup level for PCE and degradation products. Soil conditions were consistent with those observed during the subsurface investigation (Section 3.2).

Post excavation soil samples were collected at the limits of excavation. Twenty post-excavation samples from the excavation sidewalls at depths between four and ten feet bgs. Sidewall samples were collected over one-foot intervals with the bottom depth shown in the last digits of the sample name. Thirteen post-excavation samples were collected from the excavation base at depths of ten to eleven feet to document remediation and residual VOC concentrations.

During remedial activities, water accumulated in the remedial excavations (stormwater, groundwater seeps, and overflow from an adjacent wheel wash). During remediation and prior to backfilling, Kiewit and KLB pumped the accumulated water to on-site 20,000-gallon Baker tanks for sampling and proper disposal (See Section 4.4).

A summary of the post-excavation soil sample results is presented in Table 1. The north remediation extent and locations of the post-excavation soil samples are shown on Figure 6, respectively. Cross-sectional profiles of the excavations are shown on Figure 7. Site photographs are included in Appendix D.

4.2 POST-EXCAVATION SOIL SAMPLE RESULTS

Post-excavation soil sampling analytical results indicated that VOCs were either not detected at concentrations greater than laboratory reporting limits or at concentrations below MTCA soil cleanup levels along the final excavation sidewalls and base of the south interim action remedial area. At the north interim action area, VOC concentrations were below MTCA soil cleanup levels in the final sidewall samples, except for a sample collected in the northeastern sidewall underlying the in-place storm line (Sample 358-PEX-98-10, with a PCE concentration of 0.076 mg/kg, Figure 6). The storm line location and supplemental sampling is discussed in Section 4.3, below. Base-of-excavation sample concentrations for

VOCs ranged from 0.028 to 9.33 mg/kg. The interim action was considered complete with respect to the preferred alternative proposed by Sound Transit and accepted by Ecology.

A summary of the post-excavation soil sample analytical testing results is shown in Table 1.

4.3 CONCRETE AND UTILITY REMOVAL AND SAMPLING

In accordance with the interim action plan, utilities associated with or adjacent to the former tenant space were removed and assessed for VOC contamination and potential pathways.

4.3.1 North Catch Basin, Loading Dock and Storm Sewer Concrete

On July 16, 2020, concrete associated with the north catch basin (Figure 6) and associated concrete stormwater piping was sampled to determine if the concrete was VOC-contaminated. Two samples (358-Storm and 358-CB) were collected. Five samples were also collected from stockpiled building slab concrete removed during the demolition of the former tenant space floor slab (CONCRETE-SP1 through SP5). VOCs were not detected at laboratory reporting limits in the seven concrete samples, and the concrete debris was disposed of with other site concrete debris (Table 1).

On July 22, 2020, an additional concrete sample was collected from a demolished loading dock at the north end of the former tenant space building (358-DOCK). VOCs were not detected at laboratory reporting limits in the concrete sample, and the concrete debris was disposed of with other site concrete debris (Table 1).

4.3.2 North Catch Basin Storm Sewer Soil Sampling

On July 22 and 29, 2020, remnant storm sewer piping north of the north catch basin was removed. Two composite samples of excavated stockpiled soils (358-TRENCH-SP and 358-SD-SP) and three in-place soil samples were collected (358-SD-1-3, 358-SD-2-3, 358-SD-3-4) to document soil conditions (Figure 6). Stockpiled soils containing detectable concentrations of VOCs were disposed of with other CID-remediated soils from the north remedial area. Stockpiled soils that did not contain detectable concentrations of VOCs were reused on-site as fill. VOCs were not detected at laboratory reporting limits in the in-place soil samples. The soils were subsequently removed during lateral excavation of the north remedial area.

4.3.3 Remnant Floor Drain Piping

On August 14, 2020, remnant building floor drain piping was removed between the north and south remedial areas. The remainder of the piping and floor drains had been removed during remedial activities. The pipe consisted of six-inch diameter ABS piping and was removed from approximately 1.5 feet below the original ground surface. Approximately 20 feet of piping was removed. After removal, OSG collected three trench soil samples to confirm that residual VOCs were not present and that the piping did not represent a potential contaminant pathway (SS-1-1.5 SS2-1.5 SS-3-2.5, Figure 5). VOCs were not detected at laboratory reporting limits in any of the three samples and no further remediation was recommended (Table 1).

4.3.4 Remnant Stormwater Piping

On August 27, 2020, remnant stormwater piping was removed north and northeast of the former tenant space (Figure 6). Approximately 75 feet of 15-inch concrete piping was removed. The excavation ranged from approximately six feet bgs at the west end of the removal, to approximately 20 feet bgs at the east end of the removal, due to elevation change of the ground surface. The storm drain removal ended at an existing manhole structure, which was left in place with the inlet plugged. OSG collected a test pit soil sample (358-PH-105-10) adjacent north of the piping location, and north of post-excavation samples 358-PEX-98-10 and 358-PEX-104-7 to document extent of residual contaminated soil at depths of nine to ten feet bgs in the area. VOCs were not detected at laboratory reporting limits in the sample, and the remediation was considered completed. OSG also collected three stockpile samples of excavated soils removed during the stormwater utility removal (358-SP1, 358-SP2, and 358-SP3, Table 1). VOCs were not detected at laboratory reporting limits in the samples, and the soils were reused on-site as fill.

4.4 EXCAVATION WATER CONTAINMENT AND CHARACTERIZATION

Accumulated groundwater seeps, stormwater, and wheel wash overflow were pumped from the two remedial excavations into three Baker tanks on site for holding prior to sampling and proper disposal. Initial samples of ponded water at the north remedial area and run-in from the adjacent wheel wash were collected on June 16, 2020 (358-Pond, 358-Influent, respectively, Table 2). A composite sample of accumulated water in the Baker tanks was collected for waste characterization purposes on July 20,

2020 (358-Tank-Comp, Table 2). The water was designated as Hazardous Waste due to presence of F-Listed VOCs and profiled for disposal by evaporation at a Subtitle C facility.

5.0 SOIL AND WATER DISPOSAL

A total of 85.77 tons of VOC-contaminated soil designated as Hazardous Waste was transported offsite for proper disposal at the Waste Management's ChemWaste facility in Arlington, Oregon. 51.21 tons were profiled and transported under manifest for direct landfilling (Waste Management Profile Number OR345220). 34.56 tons were profiled and transported under manifest for secondary treatment and stabilization prior to landfilling (Waste Management Profile Number OR343853). These soils were containerized on site into covered and lined roll-off boxes and transported by Waste Management to the ChemWaste facility. A total of 4,116.46 tons of VOC contaminated soil designated as non-hazardous under the Contained-In determination were transported to Republic Services Subtitle D landfill in Roosevelt, Washington (Republic Services Profile Number 4178209005). The soils were excavated and directly containerized into covered and lined roll-off boxes and transported to Republic Services' Black River transfer facility for direct rail transport to the landfill in accordance with the Contained-In Determination.

Approximately 39,634 gallons of water designated as Hazardous Waste was transported offsite for treatment and disposal at Waste Management's ChemWaste facility in Arlington, Oregon (Waste Management Profile Number OR345291). The water was containerized into 'Iso-tanks' and transported under manifest by Waste Management for disposal by evaporation at the facility.

The contaminated soil and water were transported in accordance with applicable local, state and federal regulations. Copies of Hazardous Waste disposal documentation and Certificates of Disposal are presented in Appendix G. Copies of the non-hazardous Contained-in Determination soils and Certificates of Disposal are presented in Appendix H. Copies of Certificates of Disposal for all wastes were also provided to Ecology in accordance with the Contained-In determination.

6.0 CONCLUSIONS AND RECOMMENDATIONS

Based on prior Phase I and Phase II ESAs performed at Parcel FL358 of the Sound Transit FWLE (F200), VOC-contaminated soils were identified underlying the former Y Pay Mor dry cleaner in the eastern portion of the parcel. Supplemental characterizations performed by OSG partially delineated the area of

contaminated soils and groundwater. The characterization identified a second, previously unknown additional contamination source at the parcel, a catch basin at the north side of the tenant space. Two areas of soils characterized as Hazardous Waste were delineated prior to remedial activities. Two soil excavations constituting an interim remedial action was completed at the parcel in July and August 2020.

Based on the field observations and analytical testing results, a total of approximately 85.7 tons of contaminated soil designated as Hazardous Waste, and approximately 4,116.5 tons of non-hazardous soils were removed from two remedial excavation areas as part of an interim remedial action at the parcel. Hazardous Waste soils were transported to Waste Management's ChemWaste facility in Arlington, Oregon for disposal. Non-hazardous soils were transported for final disposal at Republic's Subtitle D landfill in Roosevelt, Washington. Contaminated soil was excavated and transported to the disposal facilities in accordance with applicable local, state and federal regulations.

Post-excavation soil sampling analytical results indicated that the south and north remedial excavations met the agreed objectives of the interim action soil remediation. Contaminated soils exceeding MTCA cleanup levels for VOCs were removed laterally and vertically in the south excavation. Contaminated soils exceeding MTCA cleanup levels for VOCs were removed laterally in the north excavation with the exception of sample PEX-98-10, located along the northeast sidewall. Residual VOC concentrations in the north excavation floor were documented. Stormwater and floor drain utilities were also removed as part of the interim action.

The interim remedial action is considered complete with respect to the preferred alternative proposed by Sound Transit and accepted by Ecology. Future soil and groundwater remedial actions are planned to complete remedial activities after site development and construction has advanced.

7.0 LIMITATIONS

This Soil Characterization and Interim Action Remediation Report was performed in general accordance with the approved Cleanup Action Plan, Selection of Preferred Alternative, and applicable regulations and guidelines referenced therein. This work was not designed to identify all potential concerns or to eliminate all risk associated with the subject property. Even the most rigorous of professional assessments may fail to identify all existing conditions. This work will not provide a guarantee regarding

site contamination and may not generate sufficient data to accurately define the lateral and vertical extent of contamination. This work does not include other services not specifically described in the scope of services presented above.

Property activities and regulations beyond OSG's control could change at any time after the completion of our Scope of Services. Therefore, OSG observations, findings, and opinions can be considered valid only as of the date of this Report and at the locations where samples were collected and tested.

This report may be used only by the client and only for the purposes stated, within a reasonable time from its issuance. Land use, site conditions (both on- and off-site), or other factors may change over time, and additional work may be required. Based on the intended use of the report, OSG may require that additional work be performed and that an updated report be issued. Non-compliance with any of these requirements by the client or anyone else, unless specifically agreed to in advance by OSG in writing, releases OSG from any liability resulting from the use of this report by any unauthorized party.

No warranty, expressed or implied, is made.

8.0 REFERENCES

GeoEngineers, Inc., 2017a, *Federal Way Link Extension, AE 0044-12 WP 3.S Phase I Environmental Site Assessment, FL-358, FL-361 and FL-363, Tax Parcels 2423200050, 2423200010 and 2423200060.* Prepared for Sound Transit, March, 2017.

GeoEngineers, Inc., 2017b*, AE 0044-12 3.7.N, Phase II Environmental Site Assessment, Parcels FL-358, FL-361 and FL-363. Sea-Tac Plaza Shopping Center, 2200 South 320th Street, Federal Way, Washington.* Prepared for Sound Transit, December 19, 2017.

GeoEngineers, Inc., 2019, *AE 0044-12 3.7.N, Phase II Environmental Site Assessment Addendum, Parcel FL-358, Tax Parcel 2423200050.* Prepared for Sound Transit, February 18, 2019.

O'Neill Service Group, 2020a, *Revised Cleanup Action Plan, Parcels FL-358, FL361, Federal Way Link Extension Project, 2200 South 320th Street, Federal Way, Washington*, Prepared for Kiewit Infrastructure West, April 17, 2020.

O'Neill Service Group, 2020b, *Contained-In Determination Request, Supplemental Investigation, Parcel FL-358, Sound Transit Federal Way Link Extension Project, 2200 South 320th Street, Federal Way, Washington*, June 23, 2020.

Sound Transit, 2020, *Selection of Preferred Alternative, Y Pay Mor Drycleaner, VCP Project No. NW3265, Federal Way Link Extension Parcel FL-358,* June 19, 2020.

Washington Administrative Code Chapter 173-303 WAC, Dangerous Waste Regulations, 2019.

Washington Department of Ecology, 2020a, *Environmental Covenant – Ecology Approval for Activities at King County Parcel 2423200050*, June 26, 2020.

Washington Department of Ecology, 2020b, *Opinion pursuant to WAC 173-340-515(5) on Remedial Action for the following Hazardous Waste Site: Site Name: Y Pay Mor Drycleaner; Site Address: 2210 S 320th Street, Federal Way, Washington 98003; Facility/Site No.: 2518; Cleanup Site ID: 3180; VCP Project No.: NW3265*, June 26, 2020.

Washington Department of Ecology, 2020c, *Contained-In Determination for F002 Contaminated Soils at the Parcel FL-358 Sound Transit Federal Way Link Extension Project 2200 South 320th Street Federal Way, Washington*, July 9, 2020.

Table 1 - Soil Sample Analytical Results

Table 1
Soil Analytical Results
Former Y Pay Mor Drycleaner
2210 S 320th St
Federal Way, Washington

Lab Report ID	Date	Sample ID	Depth (ft bgs)	Remediation area*	Confirmation Sample?	VOCs (mg/kg)[1]					VOCs (mg/l)[2]		
						PCE	TCE	Cis-1,2-DCE	Trans-1,2-DCE	Vinyl Chloride	PCE	TCE	Cis-1,2-DCE
Characterization													
2005069	5/7/20	**358-B1-10**	10-11	Outside of interim action area	N	< 0.0280	< 0.0224	< 0.0224	<0.0224	<0.0280	NA	NA	NA
2005069	5/7/20	**358-B1-20**	20-20.5	Outside of interim action area	N	<0.0224	<0.0179	<0.0179	<0.0179	<0.0224	NA	NA	NA
2005069	5/7/20	**358-B2-12.5**	12-13	Outside of interim action area	N	<0.0317	<0.0253	<0.0253	<0.0253	<0.0317	NA	NA	NA
2005069	5/7/20	**358-B2-25**	25-25.5	Outside of interim action area	N	<0.0297	<0.0238	<0.0238	<0.0238	<0.0297	NA	NA	NA
2005069	5/7/20	**358-B3-10**	10-11	North CID	Y-S	<0.0254	<0.0204	<0.0204	<0.0204	<0.0254	NA	NA	NA
2005069	5/7/20	**358-B3-12.5**	12-13.5	Outside of interim action area	N	**0.0830**	<0.0196	**0.0235**	<0.0196	<0.0244	NA	NA	NA
2005069	5/7/20	**358-B3-15**	15-16.5	Outside of interim action area	N	**0.121**	**0.0379**	**0.0669**	<0.0171	<0.0214	NA	NA	NA
2005069	5/7/20	**358-B3-20**	20-20.5	Outside of interim action area	N	**0.0384**	<0.0189	<0.0189	<0.0189	<0.0236	NA	NA	NA
2005085	5/8/20	**358-B4-15**	15-16	Outside of interim action area	N	<0.0344	<0.0275	<0.0275	<0.0275	<0.0344	NA	NA	NA
2005085	5/8/20	**358-B4-20**	20-21.5	Outside of interim action area	N	<0.0294	<0.0235	<0.0235	<0.0235	<0.0294	NA	NA	NA
2005085	5/8/20	**358-B5-2.5**	2.5-4	Outside of interim action area	N	<0.0382	<0.0306	<0.0306	<0.0306	<0.0382	NA	NA	NA
2005085	5/8/20	**358-B5-5**	5-6.5	Outside of interim action area	N	<0.0321	<0.0257	**0.0810**	<0.0257	<0.0321	NA	NA	NA
2005085	5/8/20	**358-B5-10**	10-11.5	Outside of interim action area	N	<0.0281	<0.0225	<0.0225	<0.0225	<0.0281	NA	NA	NA
2005085	5/8/20	**358-B5-15**	15-16.5	Outside of interim action area	N	<0.0275	<0.0220	<0.0220	<0.0220	<0.0275	NA	NA	NA
2005085	5/8/20	**358-B5-20**	20-21	Outside of interim action area	N	**0.358**	<0.0188	<0.0188	<0.0188	<0.0234	NA	NA	NA
2005085	5/8/20	**358-B5-25**	25-25.5	Outside of interim action area	N	**0.123**	<0.0236	<0.0236	<0.0236	<0.0295	NA	NA	NA
2005085	5/8/20	**358-B6-5**	5-6.5	Outside of interim action area	N	<0.0395	<0.0316	**0.0949**	<0.0316	<0.0395	NA	NA	NA
2005085	5/8/20	**358-B6-10**	10-11.5	Outside of interim action area	N	<0.0233	<0.0187	<0.0187	<0.0187	<0.0233	NA	NA	NA
2005085	5/8/20	**358-B6-20**	20-20.5	Outside of interim action area	N	**0.0269**	<0.0197	<0.0197	<0.0197	<0.0246	NA	NA	NA
2005098	5/11/20	**358-B7-5**	5-6.5	South CID	Removed	**0.0438**	<0.0185	**0.0509**	<0.0185	<0.0231	NA	NA	NA
2005098	5/11/20	**358-B7-10**	10-11	South CID	Y-B	<0.0218	<0.0174	<0.0174	<0.0174	<0.0218	NA	NA	NA
2005098	5/11/20	**358-B7-20**	20-21	Outside of interim action area	N	<0.0213	<0.0170	**0.0245**	<0.0170	<0.0213	NA	NA	NA
2005098	5/11/20	**358-B8-2.5**	2.5-4	South CID	Removed	**0.0539**	<0.0208	<0.0208	<0.0208	<0.0260	NA	NA	NA
2005098	5/11/20	**358-B8-5**	5-6.5	South CID	Removed	<0.0331	<0.0265	**0.205**	<0.0265	<0.0331	NA	NA	NA
2005098	5/11/20	**358-B8-12.5**	12.5-13	Outside of interim action area	N	<0.0249	<0.0199	<0.0199	<0.0199	<0.0249	NA	NA	NA
2005098	5/11/20	**358-B8-20**	20-20.5	Outside of interim action area	N	<0.0305	<0.0244	<0.0244	<0.0244	<0.0305	NA	NA	NA
2005098	5/11/20	**358-B9-2.5**	2.5-4	Outside of interim action area	N	<0.0396	<0.0317	<0.0317	<0.0317	<0.0396	NA	NA	NA
2005098	5/11/20	**358-B9-7.5**	7.5-9	Outside of interim action area	N	<0.0124	<0.00989	<0.00989	<0.00989	<0.0124	NA	NA	NA
2005098	5/11/20	**358-B9-12.5**	12.5-13.5	Outside of interim action area	N	<0.0219	<0.0175	<0.0175	<0.0175	<0.0219	NA	NA	NA
2005098	5/11/20	**358-B9-20**	20-20.5	Outside of interim action area	N	<0.0276	<0.0221	<0.0221	<0.0221	<0.0276	NA	NA	NA
2006154	6/9/20	**358-B10-0.5**	0.5-2	Outside of interim action area	N	<0.0282	<0.0226	<0.0226	<0.0226	<0.0282	NA	NA	NA
2006154	6/9/20	**358-B10-25**	25-25.5	Outside of interim action area	N	<0.0122	<0.00976	<0.00976	<0.00976	<0.0122	NA	NA	NA
2006154	6/9/20	**358-B10-30**	30-30.5	Outside of interim action area	N	<0.0227	<0.0182	<0.0182	<0.0182	<0.0227	NA	NA	NA
2006154	6/9/20	**358-B10-35**	35-36	Outside of interim action area	N	<0.0209	<0.0167	<0.0167	<0.0167	<0.0209	NA	NA	NA
2006154	6/9/20	**358-B10-40**	40-40.75	Outside of interim action area	N	<0.0224	<0.0179	<0.0179	<0.0179	<0.0224	NA	NA	NA
2006154	6/9/20	**358-B10-45**	45-45.75	Outside of interim action area	N	<0.0262	<0.0209	<0.0209	<0.0209	<0.0262	NA	NA	NA
2006154	6/9/20	**358-B10-50**	50-50.5	Outside of interim action area	N	<0.0311	<0.0249	<0.00249	<0.0249	<0.0311	NA	NA	NA
2006195	6/10/20	**358-B11-1**	1-2.5	Outside of interim action area	N	<0.0199	<0.0159	<0.0159	<0.0159	<0.0199	NA	NA	NA
2006195	6/10/20	**358-B11-2.5**	2.5-4	Outside of interim action area	N	<0.0368	<0.0294	<0.0294	<0.0294	<0.0368	NA	NA	NA
2006195	6/10/20	**358-B11-10**	10-11.5	Outside of interim action area	N	<0.0235	<0.0188	<0.0188	<0.0188	<0.0235	NA	NA	NA
2006195	6/10/20	**358-B11-25**	25-26.5	Outside of interim action area	N	<0.0279	<0.0223	<0.0223	<0.0223	<0.0279	NA	NA	NA
2006195	6/10/20	**358-B12-2.5**	2.5-4	North CID	Removed	<0.0257	<0.0206	<0.0206	<0.0206	<0.0257	NA	NA	NA
2006195	6/10/20	**358-B12-7.5**	7.5-9	North CID	Removed	**0.319**	**0.110**	**0.0289**	<0.0207	<0.0259	NA	NA	NA
2006195	6/10/20	**358-B12-15**	15-16.5	Outside of interim action area	N	**0.387**	**0.0612**	<0.0186	<0.0186	<0.0232	NA	NA	NA
2006195	6/10/20	**358-B12-25**	25-26	Outside of interim action area	N	**0.0600**	<0.0270	<0.0270	<0.0270	<0.0338	NA	NA	NA
2006195	6/10/20	**358-B12-30**	30-30.75	Outside of interim action area	N	<0.0254	<0.0203	<0.0203	<0.0203	<0.0254	NA	NA	NA
2006220	6/11/20	**358-B13-2.5**	2.5-4	Outside of interim action area	N	<0.0328	<0.0263	<0.0263	<0.0263	<0.0328	NA	NA	NA
2006220	6/11/20	**358-B13-10**	10-11.5	Outside of interim action area	N	<0.0286	<0.0229	<0.0229	<0.0229	<0.0286	NA	NA	NA
2006220	6/11/20	**358-B13-20**	20-21.5	Outside of interim action area	N	<0.0233	<0.0187	<0.0187	<0.0187	<0.0233	NA	NA	NA
2006220	6/11/20	**358-B13-25**	25-26.5	Outside of interim action area	N	<0.0227	<0.0182	<0.0182	<0.0182	<0.0227	NA	NA	NA
2006216	6/11/20	**358-B14-7.5**	7.5-9	Outside of interim action area	N	<0.0216	<0.0173	<0.0173	<0.0173	<0.0216	NA	NA	NA
2006216	6/11/20	**358-B14-10**	10-11.5	Outside of interim action area	N	<0.0225	<0.0180	<0.0180	<0.0180	<0.0225	NA	NA	NA
2006216	6/11/20	**358-B14-12.5**	12.5-14	Outside of interim action area	N	<0.0316	<0.0253	<0.0253	<0.0253	<0.0316	NA	NA	NA

Table 1
Soil Analytical Results
Former Y Pay Mor Drycleaner
2210 S 320th St
Federal Way, Washington

Lab Report ID	Date	Sample ID	Depth (ft bgs)	Remediation area*	Confirmation Sample?	VOCs (mg/kg)[1]					VOCs (mg/l)[2]		
						PCE	TCE	Cis-1,2-DCE	Trans-1,2-DCE	Vinyl Chloride	PCE	TCE	Cis-1,2-DCE
2006216	6/11/20	**358-B14-15**	15-16.5	Outside of interim action area	N	<0.0387	<0.0310	<0.0310	<0.0310	<0.0387	NA	NA	NA
2006216	6/11/20	**358-B14-20**	20-20.75	Outside of interim action area	N	<0.0249	<0.0199	<0.0199	<0.0199	<0.0249	NA	NA	NA
2006216	6/11/20	**358-B14-25**	25-26.5	Outside of interim action area	N	<0.0292	<0.0233	<0.0233	<0.0233	<0.0292	NA	NA	NA
2006216	6/11/20	**358-B15-1**	1-2.5	Outside of interim action area	N	<0.0251	<0.0200	<0.0200	<0.0200	<0.0251	NA	NA	NA
2006216	6/11/20	**358-B15-5**	5-6.5	Outside of interim action area	N	<0.0342	<0.0274	<0.0274	<0.0274	<0.0342	NA	NA	NA
2006216	6/11/20	**358-B15-10**	10-12.5	Outside of interim action area	N	<0.0217	<0.0174	<0.0174	<0.0174	<0.0217	NA	NA	NA
2006216	6/11/20	**358-B15-20**	20-21.5	Outside of interim action area	N	<0.0168	<0.0134	<0.0134	<0.0134	<0.0168	NA	NA	NA
2006216	6/11/20	**358-B15-25**	25-26.5	Outside of interim action area	N	<0.0275	<0.0220	**0.0380**	<0.0220	<0.0275	NA	NA	NA
2006155	6/9/20	**358-PH1-1**	0-1	South CID	Removed	<0.00275	<0.0220	<0.0220	<0.0220	<0.00275	NA	NA	NA
2006155	6/9/20	**358-PH1-2**	1-2	South CID	Removed	<0.0244	<0.0196	<0.0196	<0.0196	<0.0244	NA	NA	NA
2006155	6/9/20	**358-PH1-4**	3-4	South CID	Removed	<0.0255	<0.0204	**0.0233**	<0.0204	<0.0255	NA	NA	NA
2006155	6/9/20	**358-PH1-7**	6-7	South CID	Removed	<0.0280	<0.0224	<0.0224	<0.0224	<0.0280	NA	NA	NA
2006155	6/9/20	**358-PH1-10**	9-10	South CID	Y-B	<0.0226	<0.0180	<0.0180	<0.0180	<0.0226	NA	NA	NA
2006190	6/10/20	**358-PH2-1**	0-1	South CID	Removed	**0.0905**	<0.0251	<0.0251	<0.0251	<0.0313	NA	NA	NA
2006190	6/10/20	**358-PH2-2**	1-2	South CID	Removed	<0.0274	<0.0219	<0.0219	<0.0219	<0.0274	NA	NA	NA
2006190	6/10/20	**358-PH2-4**	3-4	South CID	Removed	<0.0300	<0.0240	**0.136**	<0.0240	<0.0300	NA	NA	NA
2006190	6/10/20	**358-PH2-7**	6-7	South CID	Removed	<0.0374	<0.0299	**0.551**	<0.0299	<0.0374	NA	NA	NA
2006190	6/10/20	**358-PH2-10**	9-10	South CID	Y-B	<0.0318	<0.0255	<0.0255	<0.0255	<0.0318	NA	NA	NA
2006155	6/9/20	**358-PH3-1**	0-1	South CID	Removed	<0.0305	<0.0244	<0.0244	<0.0244	<0.0305	NA	NA	NA
2006155	6/9/20	**358-PH3-2**	1-2	South CID	Removed	<0.0296	<0.0237	<0.0237	<0.0237	<0.0296	NA	NA	NA
2006155	6/9/20	**358-PH3-4**	3-4	South CID	Removed	**0.269**	**0.124**	**5.71**	**0.153**	**0.124**	NA	NA	NA
2006155	6/9/20	**358-PH3-7**	6-7	South CID	Removed	<0.0366	<0.0293	**10.7**	**0.219**	**0.190**	NA	NA	NA
2006155	6/9/20	**358-PH3-10**	9-10	South CID	Y-B	<0.0261	<0.0209	**0.0407**	<0.0209	<0.0261	NA	NA	NA
2006155	6/9/20	**358-PH4-1**	0-1	South CID	Removed	**0.0351**	<0.0198	<0.0198	<0.0198	<0.0248	NA	NA	NA
2006155	6/9/20	**358-PH4-2**	1-2	South CID	Removed	**0.0758**	<0.0219	<0.0219	<0.0219	<0.0273	NA	NA	NA
2006155	6/9/20	**358-PH4-4**	3-4	South CID	Removed	**0.0286**	<0.0197	**0.0993**	<0.0197	<0.0246	NA	NA	NA
2006155	6/9/20	**358-PH4-7**	6-7	South CID	Removed	<0.0324	<0.0259	<0.0259	<0.0259	<0.0324	NA	NA	NA
2006155	6/9/20	**358-PH4-10**	9-10	South CID	Y-B	<0.0287	<0.0230	<0.0230	<0.0230	<0.0287	NA	NA	NA
2006190	6/10/20	**358-PH5-1**	0-1	South CID	Y-S	**0.0471**	<0.0238	<0.0238	<0.0238	<0.0297	NA	NA	NA
2006190	6/10/20	**358-PH5-2**	1-2	South CID	Y-S	**0.0415**	<0.0238	<0.0238	<0.0238	<0.0298	NA	NA	NA
2006190	6/10/20	**358-PH5-4**	3-4	South CID	Y-S	<0.0269	<0.0215	<0.0215	<0.0215	<0.0269	NA	NA	NA
2006190	6/10/20	**358-PH5-7**	6-7	South CID	Y-S	<0.0495	<0.0396	<0.0396	<0.0396	<0.0495	NA	NA	NA
2006190	6/10/20	**358-PH5-10**	9-10	South CID	Y-S	<0.0281	<0.0225	<0.0225	<0.0225	<0.0281	NA	NA	NA
2006190	6/10/20	**358-PH6-1**	0-1	North CID	Y-S	<0.0291	<0.0233	<0.0233	<0.0233	<0.0291	NA	NA	NA
2006190	6/10/20	**358-PH6-2**	1-2	North CID	Y-S	<0.0251	<0.0201	<0.0201	<0.0201	<0.0251	NA	NA	NA
2006190	6/10/20	**358-PH6-4**	3-4	North CID	Y-S	<0.0262	<0.0209	<0.0209	<0.0209	<0.0262	NA	NA	NA
2006190	6/10/20	**358-PH6-7**	6-7	North CID	Y-S	<0.0293	<0.0235	<0.0235	<0.0235	<0.0293	NA	NA	NA
2006190	6/10/20	**358-PH6-10**	9-10	North CID	Y-S	<0.0326	<0.0260	**0.0554**	<0.0260	<0.0326	NA	NA	NA
2006190	6/10/20	**358-PH7-1**	0-1	North CID	Removed	<0.0348	<0.0278	<0.0278	<0.0278	<0.0348	NA	NA	NA
2006190	6/10/20	**358-PH7-2**	1-2	North CID	Removed	<0.0296	<0.0237	<0.0237	<0.0237	<0.0296	NA	NA	NA
2006190	6/10/20	**358-PH7-4**	3-4	North CID	Removed	**0.683**	**0.161**	**0.0733**	<0.0253	<0.0317	NA	NA	NA
2006190	6/10/20	**358-PH7-7**	6-7	North CID	Removed	**1.05**	**0.118**	**0.124**	<0.0249	<0.0311	NA	NA	NA
2006190	6/10/20	**358-PH7-9**	9-10	North HW	Removed	**400**	**1.01**	**0.0747**	<0.0236	<0.0295	NA	NA	NA
2006190	6/10/20	**358-PH7-12**	11-12	North HW	Y-B**	**1.95**	**0.0968**	**0.186**	<0.0264	<0.0331	NA	NA	NA
2006190	6/10/20	**358-PH7-15**	14-15	Outside of interim action area	N	**10.1**	**0.403**	**0.757**	<0.0329	<0.0411	NA	NA	NA
2006190	6/10/20	**358-PH8-5**	4-5	South HW	Removed	**15.3**	**16.9**	**8.91**	**0.305**	**0.0365**	**0.202**	**0.175**	**0.065**
2006286	6/16/20	**358-Storm**	--	North storm drain concrete sample	N	<0.0592	<0.0474	<0.0474	<0.0474	<0.0592	NA	NA	NA
2006286	6/16/20	**358-CB**	--	North catchbasin concrete sample	N	<0.0819	<0.0655	<0.0655	<0.0655	<0.0819	NA	NA	NA
2006287	6/16/20	**CONCRETE-SP1**	--	Building slab concrete stockpile	N	<0.0433	<0.0346	<0.0346	<0.0346	<0.0433	NA	NA	NA
2006287	6/16/20	**CONCRETE-SP2**	--	Building slab concrete stockpile	N	<0.0368	<0.0295	<0.0295	<0.0295	<0.0368	NA	NA	NA
2006287	6/16/20	**CONCRETE-SP3**	--	Building slab concrete stockpile	N	<0.0428	<0.0343	<0.0343	<0.0343	<0.0428	NA	NA	NA
2006287	6/16/20	**CONCRETE-SP4**	--	Building slab concrete stockpile	N	<0.0423	<0.0338	<0.0338	<0.0338	<0.0423	NA	NA	NA
2006287	6/16/20	**CONCRETE-SP5**	--	Building slab concrete stockpile	N	<0.0382	<0.0306	<0.0306	<0.0306	<0.0382	NA	NA	NA

Table 1
Soil Analytical Results
Former Y Pay Mor Drycleaner
2210 S 320th St
Federal Way, Washington

Lab Report ID	Date	Sample ID	Depth (ft bgs)	Remediation area*	Confirmation Sample?	VOCs (mg/kg)[1]					VOCs (mg/l)[2]		
						PCE	TCE	Cis-1,2-DCE	Trans-1,2-DCE	Vinyl Chloride	PCE	TCE	Cis-1,2-DCE
Remediation													
L200715-1	7/15/20	**358-PEX-1-5**	4-5	South HW	Y-S** (Removed)	<0.03	**0.038**	**0.64**	**0.048**	<0.02	NA	NA	NA
L200715-1	7/15/20	**358-PEX-2-5**	4-5	South HW	Y-S** (Removed)	**10.6**	**4.1**	**4.0**	**0.25**	**0.036**	NA	NA	NA
L200715-1	7/15/20	**358-PEX-3-5**	4-5	South HW	Y-S** (Removed)	**0.053**	**0.026**	**1.1**	**0.62**	<0.02	NA	NA	NA
L200715-1	7/15/20	**358-PEX-4-5**	4-5	South HW	Y-S** (Removed)	**0.22**	**0.33**	**0.13**	**0.72**	<0.02	NA	NA	NA
L200715-1	7/15/20	**358-PEX-5-7**	7	South HW	Y-B** (Removed)	**2.4**	**1.5**	**4.4**	**0.15**	**0.19**	NA	NA	NA
L200717-1	7/16/20	**358-PEX-6-4**	3-4	North CID	Y-S	<0.03	<0.02	<0.03	<0.03	<0.02	NA	NA	NA
L200717-1	7/16/20	**358-PEX-7-7**	6-7	North CID	Removed	**0.041**	**0.019**	<0.03	<0.03	<0.02	NA	NA	NA
L200717-1	7/16/20	**358-PEX-8-4**	3-4	North CID	Removed	**0.75**	**0.16**	**0.075**	<0.03	<0.02	NA	NA	NA
L200717-1	7/16/20	**358-PEX-9-4**	3-4	North CID	Removed	<0.03	<0.02	<0.03	<0.03	<0.02	NA	NA	NA
L200720-2	7/20/20	**358-PEX-10-1**	0-1	South CID	Y-S	<0.02	<0.02	<0.02	<0.02	<0.02	NA	NA	NA
L200720-2	7/20/20	**358-PEX-11-6**	5-6	South CID	Y-S	<0.03	<0.02	<0.02	<0.02	<0.02	NA	NA	NA
L200720-2	7/20/20	**358-PEX-12-1**	0-1	South CID	Removed	**0.019**	<0.02	<0.02	<0.02	<0.02	NA	NA	NA
L200720-2	7/20/20	**358-PEX-13-6**	6	South CID	Y-S	<0.02	<0.02	<0.02	<0.02	<0.02	NA	NA	NA
L200720-2	7/20/20	**358-PEX-14-1**	0-1	South CID	Removed	**0.052**	**0.025**	<0.02	<0.02	<0.02	NA	NA	NA
L200720-2	7/20/20	**358-PEX-15-6**	6	South CID	Y-S	0.02	<0.02	**0.037**	<0.02	<0.02	NA	NA	NA
L200720-2	7/20/20	**358-PEX-16-1**	0-1	South CID	Removed	**0.021**	<0.02	<0.02	<0.02	<0.02	NA	NA	NA
L200720-2	7/20/20	**358-PEX-17-6**	5-6	South CID	Removed	<0.02	<0.02	**0.44**	<0.02	<0.02	NA	NA	NA
L200720-2	7/20/20	**358-PEX-18-10**	9-10	North HW	Y-S** (Removed)	**10.3**	<0.02	<0.02	<0.02	<0.02	NA	NA	NA
L200720-2	7/20/20	**358-PEX-19-10**	9-10	North HW	Y-S** (Removed)	**4.48**	**0.93**	**0.12**	<0.02	<0.02	NA	NA	NA
L200720-2	7/20/20	**358-PEX-20-11**	11	North HW	Y-B**	**9.33**	**0.029**	**0.049**	<0.02	<0.02	NA	NA	NA
L200720-2	7/20/20	**358-PEX-21-10**	9-10	North HW	Y-S** (Removed)	**3.58**	**0.049**	**0.074**	<0.02	<0.02	NA	NA	NA
L200721-2	7/21/20	**BIN 8725**	--	North HW Container (recharacterization of soils from 10-11 feet bgs)	Removed	**44**	**0.022**	**0.027**	<0.02	<0.02	NA	NA	NA
L200721-3	7/21/20	**358-PEX-22-11**	10-11	North HW	Y-S**	**1.3**	**0.12**	**0.17**	<0.02	<0.02	NA	NA	NA
L200721-3	7/21/20	**358-PEX-23-2**	1-2	South CID	Removed	**0.048**	<0.02	<0.02	<0.02	<0.02	NA	NA	NA
L200721-3	7/21/20	**358-PEX-24-6**	5-6	South CID	Removed	<0.02	**0.056**	**1.6**	<0.02	<0.02	NA	NA	NA
L200721-3	7/21/20	**358-PEX-25-2**	1-2	South CID	Removed	<0.02	<0.02	**0.050**	<0.02	<0.02	NA	NA	NA
L200721-3	7/21/20	**358-PEX-26-6**	5-6	South CID	Removed	**0.13**	**0.046**	**0.21**	<0.02	<0.02	NA	NA	NA
L200721-3	7/21/20	**358-PEX-27-2**	1-2	South CID	Removed	**0.068**	<0.02	<0.02	<0.02	<0.02	NA	NA	NA
L200721-3	7/21/20	**358-PEX-28-6**	5-6	South CID	Removed	<0.02	<0.02	**0.77**	<0.02	<0.02	NA	NA	NA
L200721-3	7/21/20	**358-PEX-29-8**	8	South CID	Y-B	<0.02	<0.02	<0.02	<0.02	<0.02	NA	NA	NA
L200721-3	7/21/20	**358-PEX-30-8**	8	South CID	Y-B	**0.030**	<0.02	<0.02	<0.02	<0.02	NA	NA	NA
L200721-3	7/21/20	**358-PEX-31-8**	8	South CID	Removed	<0.02	<0.02	<0.02	<0.02	<0.02	NA	NA	NA
L200721-7	7/21/20	**358-PEX-32-10**	10	North CID	Y-B	**0.36**	<0.02	<0.02	<0.02	<0.02	NA	NA	NA
L200721-7	7/21/20	**358-PEX-33-7**	6-7	North CID	Y-S	**0.035**	<0.02	<0.02	<0.02	<0.02	NA	NA	NA
L200721-7	7/21/20	**358-PEX-34-10**	9-10	North CID	Y-S	**0.038**	<0.02	<0.02	<0.02	<0.02	NA	NA	NA
L200721-7	7/21/20	**358-PEX-35-10**	9-10	North CID	Y-S	<0.02	<0.02	<0.02	<0.02	<0.02	NA	NA	NA
L200721-7	7/21/20	**358-PEX-36-7**	6-7	North CID	Removed	<0.02	<0.02	<0.02	<0.02	<0.02	NA	NA	NA
L200721-7	7/21/20	**358-PEX-37-10**	10	North CID	Removed	**0.37**	**0.086**	**0.095**	<0.02	<0.02	NA	NA	NA
L200721-7	7/21/20	**358-PEX-38-8**	8	South CID	Removed	<0.02	**0.029**	**0.20**	<0.02	<0.02	NA	NA	NA
L200721-7	7/21/20	**358-PEX-39-1**	0-1	South CID	Removed	<0.02	<0.02	<0.02	<0.02	<0.02	NA	NA	NA
L200721-7	7/21/20	**358-PEX-40-6**	6-7	South CID	Removed	<0.02	<0.02	**0.046**	<0.02	<0.02	NA	NA	NA
L200721-7	7/21/20	**358-PEX-41-1**	0-1	South CID	Y-S	<0.02	<0.02	<0.02	<0.02	<0.02	NA	NA	NA
L200721-7	7/21/20	**358-PEX-42-6**	6-7	South CID	Y-S	<0.02	<0.02	<0.02	<0.02	<0.02	NA	NA	NA
L200721-7	7/21/20	**358-PEX-43-10**	9-10	North HW	Y-S** (Removed)	**0.84**	**0.10**	**0.12**	<0.02	<0.02	NA	NA	NA
L200723-1	7/22/20	**358-PEX-44-1**	0-1	South CID	Removed	**0.054**	<0.02	<0.02	<0.02	<0.02	NA	NA	NA
L200723-1	7/22/20	**358-PEX-45-1**	0-1	South CID	Y-S	**0.042**	<0.02	<0.02	<0.02	<0.02	NA	NA	NA
L200723-1	7/22/20	**358-PEX-46-1**	0-1	South CID	Y-S	**0.020**	<0.02	<0.02	<0.02	<0.02	NA	NA	NA

Table 1
Soil Analytical Results
Former Y Pay Mor Drycleaner
2210 S 320th St
Federal Way, Washington

Lab Report ID	Date	Sample ID	Depth (ft bgs)	Remediation area*	Confirmation Sample?	VOCs (mg/kg)[1]					VOCs (mg/l)[2]		
						PCE	TCE	Cis-1,2-DCE	Trans-1,2-DCE	Vinyl Chloride	PCE	TCE	Cis-1,2-DCE
L200722-12	7/22/20	**358-PEX-47-7**	6-7	North CID	Removed	<0.02	<0.02	<0.02	<0.02	<0.02	NA	NA	NA
L200722-12	7/22/20	**358-PEX-48-10**	9-10	North CID	Removed	<0.02	**0.083**	<0.02	<0.02	<0.02	NA	NA	NA
L200722-12	7/22/20	**358-PEX-49-11**	11	North CID	Y-B	**0.14**	**0.024**	<0.02	<0.02	<0.02	NA	NA	NA
L200722-12	7/22/20	**358-PEX-50-4**	4-5	North CID	Y-S	<0.02	<0.02	<0.02	<0.02	<0.02	NA	NA	NA
L200722-12	7/22/20	**358-PEX-51-10**	9-10	North CID	Y-S	<0.02	<0.02	<0.02	<0.02	<0.02	NA	NA	NA
L200722-12	7/22/20	**358-PEX-52-7**	6-7	North CID	Removed	<0.02	<0.02	**0.032**	<0.02	<0.02	NA	NA	NA
L200722-12	7/22/20	**358-PEX-53-10**	9-10	North CID	Removed	**0.15**	**0.034**	**0.31**	<0.02	<0.02	NA	NA	NA
L200722-13	7/22/10	**358-TRENCH-SP**	--	Stormwater piping soil stockpile	N	<0.02	<0.02	<0.02	<0.02	<0.02	NA	NA	NA
L200722-14	7/22/20	**358-DOCK**	--	Concrete sample	N	<0.02	<0.02	<0.02	<0.02	<0.02	NA	NA	NA
L200723-4	7/23/20	**358-PEX-54-10**	10	South CID	Y-B	<0.02	<0.02	<0.02	<0.02	<0.02	NA	NA	NA
L200723-4	7/23/20	**358-PEX-55-10**	10	South CID	Y-B	<0.02	<0.02	<0.02	<0.02	<0.02	NA	NA	NA
L200723-4	7/23/20	**358-PEX-56-6**	5-6	South CID	Y-S	<0.02	<0.02	<0.02	<0.02	<0.02	NA	NA	NA
L200723-4	7/23/20	**358-PEX-57-6**	5-6	South CID	Y-S	<0.02	<0.02	**0.062**	<0.02	<0.02	NA	NA	NA
L200723-4	7/23/20	**358-PEX-58-6**	6	South CID	Y-B	<0.02	<0.02	<0.02	<0.02	<0.02	NA	NA	NA
L200723-4	7/23/20	**358-PEX-59-10**	10	South CID	Y-B	<0.02	<0.02	<0.02	<0.02	<0.02	NA	NA	NA
L200723-4	7/23/20	**358-PEX-60-8**	8	South CID	Y-B	<0.02	<0.02	<0.02	<0.02	<0.02	NA	NA	NA
L200723-4	7/23/20	**358-PEX-61-6**	5-6	South CID	Y-S	<0.02	<0.02	<0.02	<0.02	<0.02	NA	NA	NA
L200723-4	7/23/20	**358-PEX-62-2**	1-2	South CID	Y-S	<0.02	<0.02	<0.02	<0.02	<0.02	NA	NA	NA
L200723-4	7/23/20	**358-PEX-63-2**	1-2	South CID	Y-S	<0.02	<0.02	<0.02	<0.02	<0.02	NA	NA	NA
L200723-4	7/23/20	**358-PEX-64-6**	5-6	South CID	Y-S	<0.02	<0.02	<0.02	<0.02	<0.02	NA	NA	NA
L200723-4	7/23/20	**358-PEX-65-4**	4	South CID	Removed	<0.02	<0.02	<0.02	<0.02	<0.02	NA	NA	NA
L200723-4	7/23/20	**358-PEX-66-2**	1-2	South CID	Y-S	<0.02	<0.02	<0.02	<0.02	<0.02	NA	NA	NA
L200723-4	7/23/20	**358-PEX-67-2**	1-2	South CID	Y-S	<0.02	<0.02	<0.02	<0.02	<0.02	NA	NA	NA
L200723-4	7/23/20	**358-PEX-68-9**	9	South CID	Y-B	<0.02	<0.02	<0.02	<0.02	<0.02	NA	NA	NA
L200723-4	7/23/20	**358-PEX-69-6**	5-6	South CID	Removed	<0.02	<0.02	**1.4**	**0.027**	<0.02	NA	NA	NA
L200723-4	7/23/20	**358-PEX-70-6**	5-6	South CID	Y-S	<0.02	<0.02	**0.062**	<0.02	<0.02	NA	NA	NA
L200723-4	7/23/20	**358-PEX-71-6**	5-6	South CID	Y-S	<0.02	<0.02	**0.037**	<0.02	<0.02	NA	NA	NA
L200723-4	7/23/20	**358-PEX-72-4**	3-4	North CID	Removed	**0.041**	<0.02	<0.02	<0.02	<0.02	NA	NA	NA
L200723-4	7/23/20	**358-PEX-73-10**	9-10	North CID	Removed	**1.9**	**0.15**	**0.10**	<0.02	<0.02	NA	NA	NA
L200723-4	7/23/20	**358-PEX-74-10**	9-10	North CID	Removed	**0.097**	**0.027**	<0.02	<0.02	<0.02	NA	NA	NA
L200723-4	7/23/20	**358-PEX-75-4**	3-4	North CID	Removed	<0.02	<0.02	<0.02	<0.02	<0.02	NA	NA	NA
L200724-6	7/24/20	**358-PEX-76-6**	5-6	South CID	Y-S	<0.02	<0.02	<0.02	<0.02	<0.02	NA	NA	NA
L200724-6	7/24/20	**358-PEX-77-1**	0-1	South CID	Y-S	<0.02	<0.02	<0.02	<0.02	<0.02	NA	NA	NA
L200724-6	7/24/20	**358-PEX-78-10**	9-10	North CID	Removed	**0.050**	**0.043**	<0.02	<0.02	<0.02	NA	NA	NA
L200724-6	7/24/20	**358-PEX-79-10**	9-10	North CID	Y-S	<0.02	<0.02	<0.02	<0.02	<0.02	NA	NA	NA
L200727-3	7/27/20	**358-PEX-80-6**	5-6	South CID	Y-S	<0.02	<0.02	<0.02	<0.02	<0.02	NA	NA	NA
L200727-3	7/27/20	**358-PEX-81-8**	8	South CID	Y-B	<0.02	<0.02	<0.02	<0.02	<0.02	NA	NA	NA
L200728-5	7/28/20	**358-PEX-82-10**	9-10	North CID	Removed	**0.62**	**0.14**	**0.095**	<0.02	<0.02	NA	NA	NA
L200728-5	7/28/20	**358-PEX-83-10**	9-10	North CID	Y-S	<0.02	<0.02	<0.02	<0.2	<0.2	NA	NA	NA
L200728-5	7/28/20	**358-PEX-84-10**	10	North CID	Y-B	**0.028**	<0.02	<0.02	<0.02	<0.02	NA	NA	NA
L200728-5	7/28/20	**358-PEX-85-10**	10	North CID	Y-B	**1.1**	**0.099**	**0.042**	<0.02	<0.02	NA	NA	NA
L200728-5	7/28/20	**358-PEX-86-10**	10	North CID	Y-B	**0.39**	**0.037**	**0.034**	<0.02	<0.02	NA	NA	NA
L200728-5	7/28/20	**358-PEX-87-10**	10	North CID	Y-B	**0.33**	**0.028**	<0.02	<0.02	<0.02	NA	NA	NA
L200728-5	7/28/20	**358-PEX-88-10**	10	North CID	Y-B	**0.029**	<0.02	<0.02	<0.02	<0.02	NA	NA	NA
L200728-5	7/28/20	**358-PEX-89-10**	9-10	North CID	Y-S	<0.02	<0.02	<0.02	<0.02	<0.02	NA	NA	NA
L200729-3	7/29/20	**358-SD-SP**	--	North stormdrain removal	N	**0.028**	<0.02	<0.02	<0.02	<0.02	NA	NA	NA
L200729-3	7/29/20	**358-SD-1-3**	2-3	North stormdrain removal	Removed	<0.02	<0.02	<0.02	<0.02	<0.02	NA	NA	NA
L200729-3	7/29/20	**358-SD-2-3**	2-3	North stormdrain removal	Removed	<0.02	<0.02	<0.02	<0.02	<0.02	NA	NA	NA
L200729-3	7/29/20	**358-SD-3-4**	4	North stormdrain removal	Removed	<0.02	<0.02	<0.02	<0.02	<0.02	NA	NA	NA

Table 1
Soil Analytical Results
Former Y Pay Mor Drycleaner
2210 S 320th St
Federal Way, Washington

Lab Report ID	Date	Sample ID	Depth (ft bgs)	Remediation area*	Confirmation Sample?	VOCs (mg/kg)[1]					VOCs (mg/l)[2]		
						PCE	TCE	Cis-1,2-DCE	Trans-1,2-DCE	Vinyl Chloride	PCE	TCE	Cis-1,2-DCE
L200731-2	7/31/20	**358-PEX-90-10**	9-10	North CID	Removed	**0.044**	**0.12**	**0.11**	<0.02	<0.02	NA	NA	NA
L200731-2	7/31/20	**358-PEX-91-11**	11	North CID	Y-B	**0.58**	**0.091**	**0.082**	<0.02	<0.02	NA	NA	NA
L200731-2	7/31/20	**358-PEX-92-10**	9-10	North CID	Y-S	<0.02	<0.02	<0.02	<0.02	<0.02	NA	NA	NA
L200731-2	7/31/20	**358-PEX-93-10**	9-10	North CID	Y-S	<0.02	<0.02	<0.02	<0.02	<0.02	NA	NA	NA
L200731-2	7/31/20	**358-PEX-94-10**	9-10	North CID	Removed	**0.11**	<0.02	<0.02	<0.02	<0.02	NA	NA	NA
L200731-2	7/31/20	**358-PEX-95-10**	10	North CID	Y-B	**0.13**	<0.02	<0.02	<0.02	<0.02	NA	NA	NA
L200731-2	7/31/20	**358-PEX-96-10**	9-10	North CID	Y-S	<0.02	<0.02	<0.02	<0.02	<0.02	NA	NA	NA
L200803-6	8/3/20	**358-PEX-97-11**	11	North CID	Y-B	**0.12**	<0.02	<0.02	<0.02	<0.02	NA	NA	NA
L200803-6	8/3/20	**358-PEX-98-10**	9-10	North CID	Y-S	**0.076**	<0.02	<0.02	<0.02	<0.02	NA	NA	NA
L200803-6	8/3/20	**358-PEX-99-10**	9-10	North CID	Y-S	<0.02	<0.02	<0.02	<0.02	<0.02	NA	NA	NA
L200803-6	8/3/20	**358-PEX-100-6**	5-6	North CID	Y-S	<0.02	<0.02	<0.02	<0.02	<0.02	NA	NA	NA
L200804-3	8/4/20	**358-PEX-101-11**	11	North CID	Y-B	**0.044**	**0.042**	<0.02	<0.02	<0.02	NA	NA	NA
L200804-3	8/4/20	**358-PEX-102-10**	9-10	North CID	Y-S	<0.02	<0.02	<0.02	<0.02	<0.02	NA	NA	NA
L200804-3	8/4/20	**358-PEX-103-6**	5-6	North CID	Y-S	<0.02	<0.02	<0.02	<0.02	<0.02	NA	NA	NA
L200805-4	8/5/20	**358-PEX-104-7**	6-7	North CID	Y-S	<0.02	<0.02	<0.02	<0.02	<0.02	NA	NA	NA
L200814-2	8/14/20	**SS-1-1.5**	1.5-2	Remnant sewer removal	Y-S	<0.02	<0.02	<0.02	<0.02	<0.02	NA	NA	NA
L200814-2	8/14/20	**SS-2-1.5**	1.5-2	Remnant sewer removal	Y-S	<0.02	<0.02	<0.02	<0.02	<0.02	NA	NA	NA
L200814-2	8/14/20	**SS-3-2.5**	2.5	Remnant sewer removal	Y-B	<0.02	<0.02	<0.02	<0.02	<0.02	NA	NA	NA
2008386	8/27/20	**358-SP1**	--	North stormdrain removal	N	<0.0273	<0.0273	<0.0273	<0.0273	<0.0273	NA	NA	NA
2008386	8/27/20	**358-SP2**	--	North stormdrain removal	N	<0.0124	<0.0124	<0.0124	<0.0124	<0.0124	NA	NA	NA
2008386	8/27/20	**358-SP3**	--	North stormdrain removal	N	<0.0203	<0.0203	<0.0203	<0.0203	<0.0203	NA	NA	NA
2008387	8/27/20	**358-PH-105-10**	9-10	North CID	Y-S	<0.0196	<0.0196	<0.0196	<0.0196	<0.0196	NA	NA	NA
MTCA Method A Soil Cleanup Level, Unrestricted (Ecology, 2013)						0.05	0.03	n/a	n/a	n/a			
MTCA Method B Soil Cleanup Level (Ecology, 2015)						476.19	40	160	1600	240			
WAC 173-303 Dangerous Waste Limit (mg/l, TCLP Methodology)											0.7	0.5	n/a
WAC 173-303 Dangerous Waste Screening (mg/kg, 20 times TCLP limit)						14	10	n/a	n/a	4			
EPA Land Disposal Restriction Limit, mg/kg						60	60	n/a	n/a	60			

Notes:
ft bgs - Feet Below Ground Surface
mg/kg - milligrams per kilogram
mg/l - miligrams per liter
PH - Supplemental investigation sample; PEX - Post-excavation confirmation sample
Confirmation samples document that soil remaining in place meets MTCA cleanup levels: Y - Confirmation Sample; N - Not Used; S - Excavation Sidewall; B - Base of Excavation
* - CID: Non-Hazardous (Contained-in Determination) Soils; HW - Hazardous Waste Soils
** - Confirmation sample to document removal of Hazardous Waste soils.
< - Not detected at listed laboratory reporting limit
Bold - Analyte detected
Bold/Highlighted - Concentration exceeds MTCA Method A Cleanup Level for soil
NA - Not Analyzed
1 - Samples analyzed for VOCs by EPA Method 8260. See laboratory report for complete list.
2 - Samples analyzed for VOCs by EPA Method SW8260D/TCLP ZHE. See laboratory report for complete list.

Table 2 - Groundwater Analytical Results

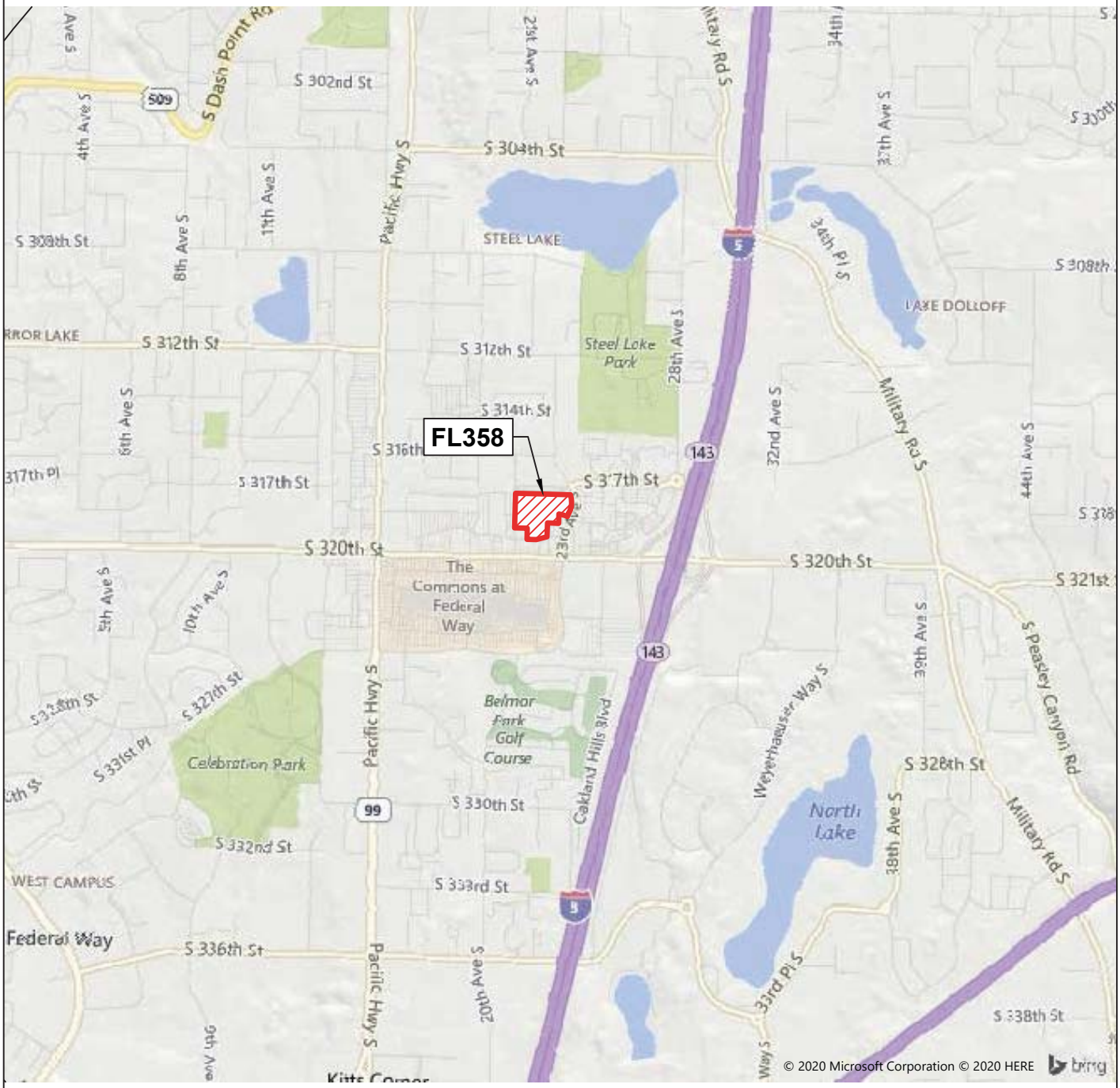
Table 2
Groundwater Analytical Results
Former Y Pay Mor Drycleaner
2210 S 320th St
Federal Way, Washington

Lab Report ID	Date	Sample ID	Screened interval (ft bgs)	Ground surface Elevation (ft NAVD88)[2]	Top of Casing Elevation (ft NAVD88)	Depth to Water (ft below TOC)	Water level Elevation (ft NAVD88)	Field Parameters					VOCs (ug/l)[1]			
								Temp (°C)	pH	Dissolved Oxygen (mg/l)	Conductivity (µS/cm)	Turbidity (NTU)	PCE	TCE	Cis-1,2-DCE	Vinyl Chloride
1710-083	10/6/17	**FL358-MW1**	**6-25**	**425.59**	**425.18**	7.18	418	NA	NA	NA	NA	--	**0.21**	**1.0**	**0.61**	<0.20
2004413	4/29/20					6.61	418.57	13.2	5.94	0.09	545	--	<1.0	<0.50	<1.0	<0.20
1710-083	10/6/17	**FL358-MW2**	**6-24**	**425.37**	**424.99**	7.12	417.87	NA	NA	NA	NA	--	<0.20	<0.20	<0.20	<0.20
2004413	4/29/20					6.0	418.99	13.5	5.34	0.22	447	--	<1.0	<0.50	<1.0	<0.20
1710-105	10/9/17	**FL358-MW3**	**8-19.5**	**425.55**	**425.13**	7.65	417.48	NA	NA	NA	NA	--	<0.20	<0.20	<0.20	<0.20
2004413	4/29/20					7.4	417.73	14.1	5.90	0.15	503	--	<1.0	<0.50	<1.0	<0.20
1710-083	10/6/17	**FL358-MW4**	**8-19.5**	**424.34**	**423.92**	9.36	414.56	NA	NA	NA	NA	--	<0.20	<0.20	**0.34**	<0.20
2004413	4/29/20					8.98	414.94	13.5	5.79	0.19	610	--	<1.00	<0.500	<1.00	<0.200
1710-031	10/3/17	**YPayMor-MW3**	**5-15?**	**424.8**	**424.3**	7.81	416.49	NA	NA	NA	NA	--	<0.20	<0.20	**0.2**	<0.20
2004413	4/29/20					7.0	417.3	14.1	5.87	0.13	517	--	<1.00	<0.500	<1.00	<0.200
2005086	5/8/20	**358-B3-GW**	**15-20**	**423**	--	9.8	413.2	13	6.42	6.26	714	--	**5.71**	**2.08**	**6.41**	<0.20
2005086	5/8/20	**358-B4-GW**	**20-25**	**427**	--	8.1	418.9	14.4	6.58	5.7	1750	--	<1.00	<0.500	<1.00	<0.200
2005086	5/8/20	**358-B5-GW**	**15-25**	**426.37**	--	9.3	417.07	16.5	6.93	6.61	2406	--	**136**	**69.9**	**68.3**	**2.2**
2005099	5/11/20	**358-B6-GW**	**15-25**	**426.37**	--	8.8	417.57	15.7	6.07	0.3	1422	--	**6.08**	**6.24**	**17.8**	<0.20
2005099	5/11/20	**358-B7-GW**	**15-25**	**426.37**	--	8.9	417.47	17.7	5.91	1.15	901	--	<1.00	**2.99**	**33.6**	**18.8**
2006234	6/12/20	**358-B11-GW**	**15-25**	**425.06**	**424.93**	7.63	417.3	13.3	6.34	4.49	597	1.66	<1.00	<0.500	**3.37**	<0.200
2006234	6/12/20	**358-B13-GW**	**15-25**	**425.51**	**425.51**	11.6	413.91	16.5	6.23	7.13	523	12	<1.00	<0.500	<1.00	<0.200
2006234	6/12/20	**358-B14-GW**	**15-25**	**426.47**	**426.99**	7.8	419.19	13.9	6.29	0.83	493	452	<1.00	<0.500	<1.00	<0.200
2006234	6/12/20	**358-B15-GW**	**15-25**	**425.61**	**426.04**	8.9	417.14	16.8	6.1	0.31	850	--	<1.00	**1.89**	**9.95**	<0.200
2006285	6/16/20	**358-Influent**	--	--	--	--	--	--	--	--	--	--	<1.00	<0.500	<1.00	<0.200
2006285	6/16/20	**358-Pond**	--	--	--	--	--	--	--	--	--	--	**16.3**	**1.19**	**1.16**	<0.200
L2000720-3	7/20/20	**358-Tank-Comp**	--	--	--	--	--	--	--	--	--	--	**38**	**12**	**11**	<0.200
MTCA Method A or B Cleanup Level (ug/l)													5	5	16 (B)	0.2

Notes:
< - Not detected at listed laboratory reporting limit
Bold - Analyte detected
Bold/Highlighted - Analyte exceeds MTCA Method A or B cleanup level
1 - Samples analyzed for VOCs by EPA Method 8260. See laboratory report for complete list.
2 - NAVD88 - The North American vertical datum of 1988, derived from benchmarks published by the Washington State Department of Transportation.

Figure 1 - Vicinity Map

12/16/2020 3:32 PM



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Not to Scale

O'Neill Service Group

FEDERAL WAY LINK EXTENSION
SEATAC AND FEDERAL WAY
KING COUNTY, WASHINGTON

VICINITY MAP

Drawn By:	J. Stewart
Reviewed By:	V. Atkins
Approved By:	V. Atkins
Date:	December 2020
Project No.:	2021

FIGURE

1

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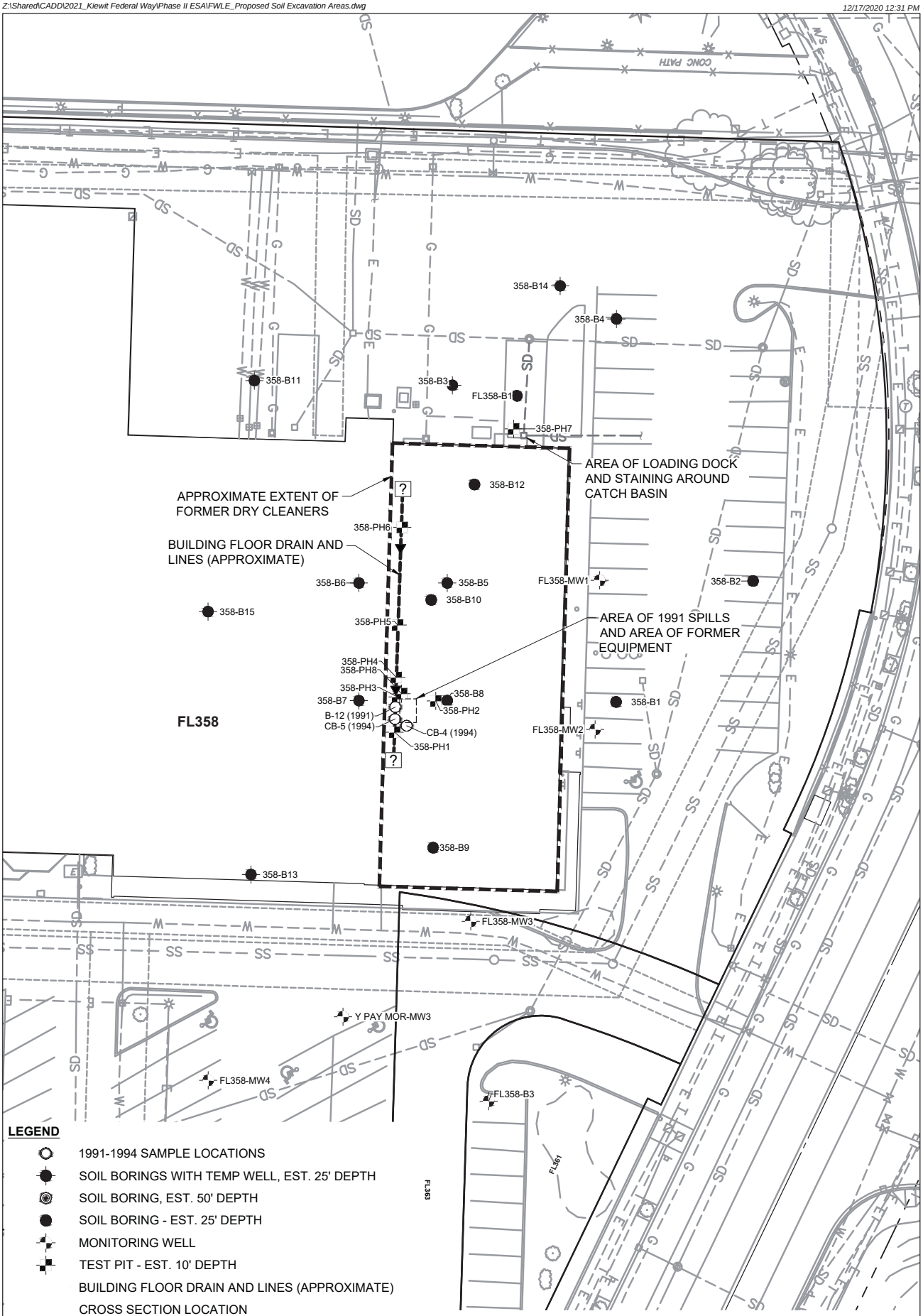
Figure 2 - FL358 Site Plan



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FEDERAL WAY LINK EXTENSION
PARCEL FL358, FEDERAL WAY
KING COUNTY, WASHINGTON

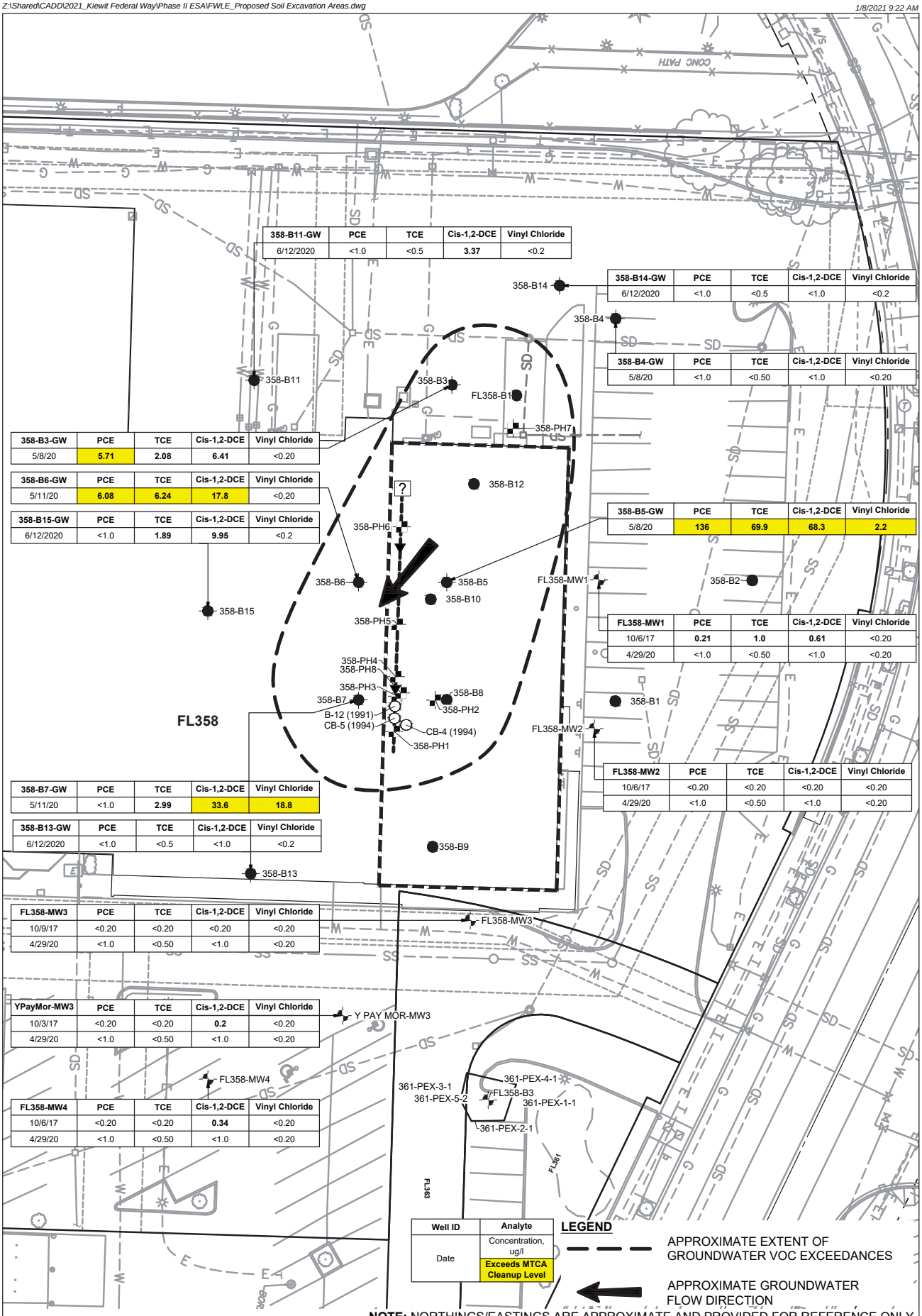
OVERVIEW SITE PLAN

Drawn By:	J. Stewart
Reviewed By:	V. Atkins
Approved By:	S. Darst
Date:	June 2020
Project No.:	2021

FIGURE

2

Figure 3 - Site Specific Groundwater Sample Results



358-B11-GW	PCE	TCE	Cis-1,2-DCE	Vinyl Chloride
6/12/2020	<1.0	<0.5	**3.37**	<0.2

358-B14-GW	PCE	TCE	Cis-1,2-DCE	Vinyl Chloride
6/12/2020	<1.0	<0.5	<1.0	<0.2

358-B4-GW	PCE	TCE	Cis-1,2-DCE	Vinyl Chloride
5/8/20	<1.0	<0.50	<1.0	<0.20

358-B3-GW	PCE	TCE	Cis-1,2-DCE	Vinyl Chloride
5/8/20	**5.71**	**2.08**	**6.41**	<0.20

358-B6-GW	PCE	TCE	Cis-1,2-DCE	Vinyl Chloride
5/11/20	**6.08**	**6.24**	**17.8**	<0.20

358-B15-GW	PCE	TCE	Cis-1,2-DCE	Vinyl Chloride
6/12/2020	<1.0	**1.89**	**9.95**	<0.2

358-B5-GW	PCE	TCE	Cis-1,2-DCE	Vinyl Chloride
5/8/20	**136**	**69.9**	**68.3**	**2.2**

FL358-MW1	PCE	TCE	Cis-1,2-DCE	Vinyl Chloride
10/6/17	**0.21**	**1.0**	**0.61**	<0.20
4/29/20	<1.0	<0.50	<1.0	<0.20

FL358-MW2	PCE	TCE	Cis-1,2-DCE	Vinyl Chloride
10/6/17	<0.20	<0.20	<0.20	<0.20
4/29/20	<1.0	<0.50	<1.0	<0.20

358-B7-GW	PCE	TCE	Cis-1,2-DCE	Vinyl Chloride
5/11/20	<1.0	**2.99**	**33.6**	**18.8**

358-B13-GW	PCE	TCE	Cis-1,2-DCE	Vinyl Chloride
6/12/2020	<1.0	<0.5	<1.0	<0.2

FL358-MW3	PCE	TCE	Cis-1,2-DCE	Vinyl Chloride
10/9/17	<0.20	<0.20	<0.20	<0.20
4/29/20	<1.0	<0.50	<1.0	<0.20

YPayMor-MW3	PCE	TCE	Cis-1,2-DCE	Vinyl Chloride
10/3/17	<0.20	<0.20	**0.2**	<0.20
4/29/20	<1.0	<0.50	<1.0	<0.20

FL358-MW4	PCE	TCE	Cis-1,2-DCE	Vinyl Chloride
10/6/17	<0.20	<0.20	**0.34**	<0.20
4/29/20	<1.0	<0.50	<1.0	<0.20

Well ID	Analyte
Date	Concentration, ug/l **Exceeds MTCA Cleanup Level**

LEGEND

APPROXIMATE EXTENT OF GROUNDWATER VOC EXCEEDANCES

APPROXIMATE GROUNDWATER FLOW DIRECTION

NOTE: NORTHINGS/EASTINGS ARE APPROXIMATE AND PROVIDED FOR REFERENCE ONLY.

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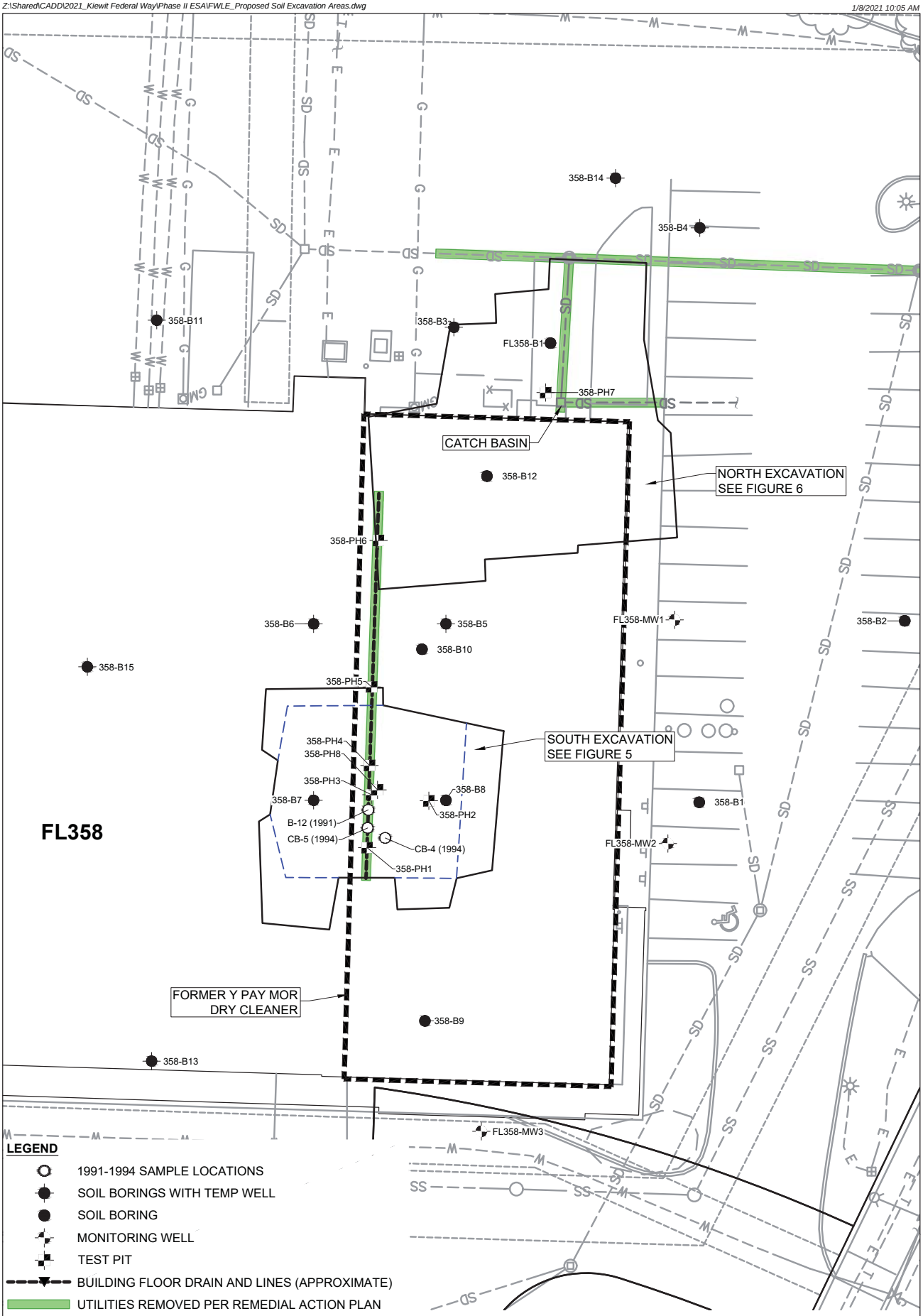
FEDERAL WAY LINK EXTENSION
PARCEL FL358, FEDERAL WAY
KING COUNTY, WASHINGTON

SITE SPECIFIC GROUNDWATER SAMPLE RESULTS

Drawn By:	J. Stewart
Reviewed By:	V. Atkins
Approved By:	S. Darst
Date:	May 2020
Project No.:	2021

FIGURE 3

Figure 4 - Overview of Excavations



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O'Neill Service Group

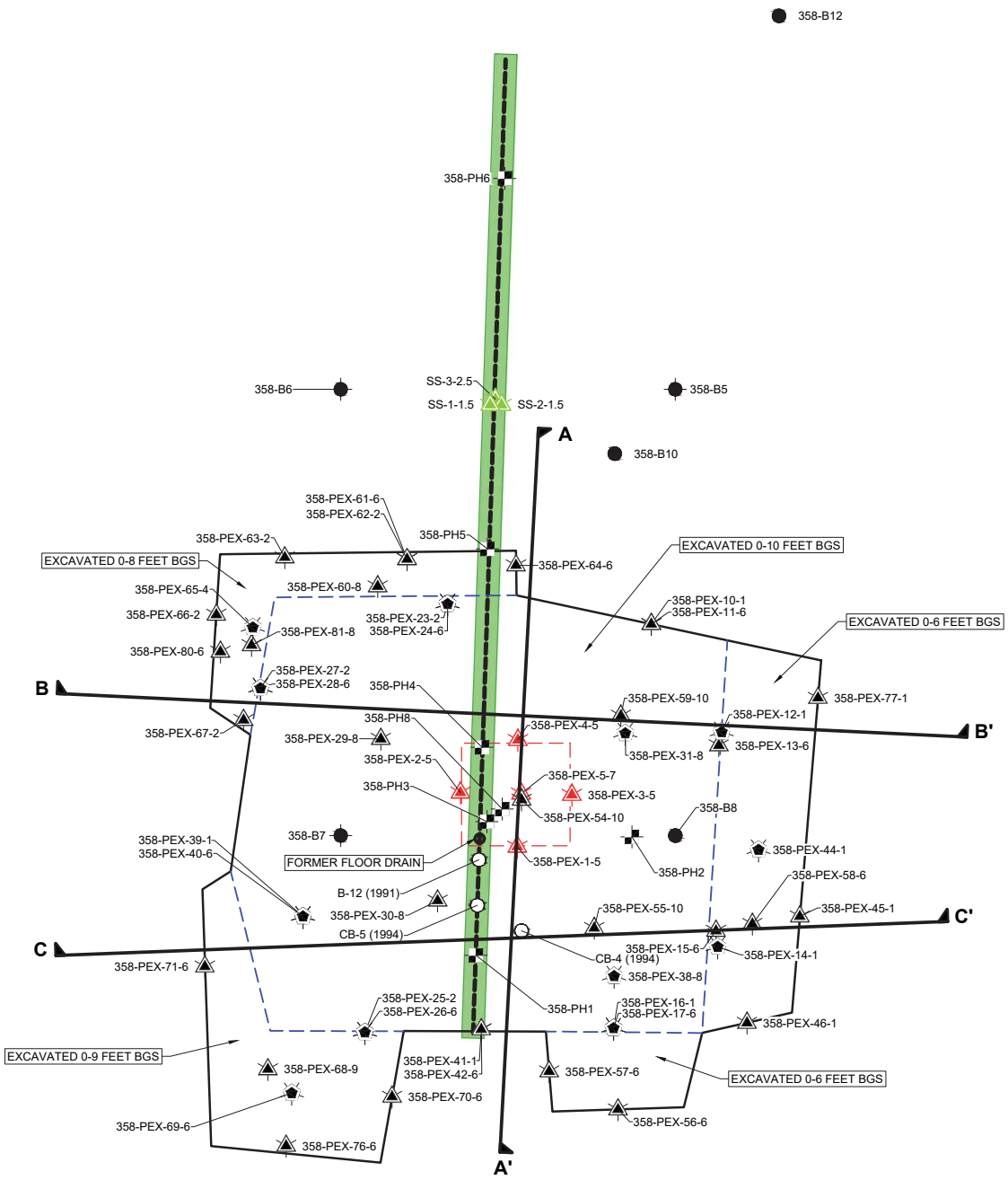
FEDERAL WAY LINK EXTENSION
SEATAC AND FEDERAL WAY
KING COUNTY, WASHINGTON

OVERVIEW OF EXCAVATIONS

Drawn By:	J. Stewart
Reviewed By:	V. Atkins
Approved By:	S. Darst
Date:	October 2020
Project No.:	2021

FIGURE
4

Figure 5 - South Excavation Detail



LEGEND

- CONFIRMATION SAMPLE - NON-HAZARDOUS WASTE SOILS
- CONFIRMATION SAMPLE - HAZARDOUS WASTE SOILS
- CONFIRMATION SAMPLE - REMNANT STORM SEWER/DRAIN REMOVAL
- REMOVED CONFIRMATION SAMPLE
- 1991-1994 SAMPLE LOCATIONS
- SOIL BORINGS WITH TEMP WELL
- SOIL BORING
- MONITORING WELL
- TEST PIT
- BUILDING FLOOR DRAIN AND LINES (APPROXIMATE) (REMOVED)
- AREA OF HAZARDOUS WASTE SOILS, EXCAVATED 0-7 FEET BGS
- UTILITIES REMOVED PER REMEDIAL ACTION PLAN

358-B9

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SCALE IN FEET

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O'Neill Service Group

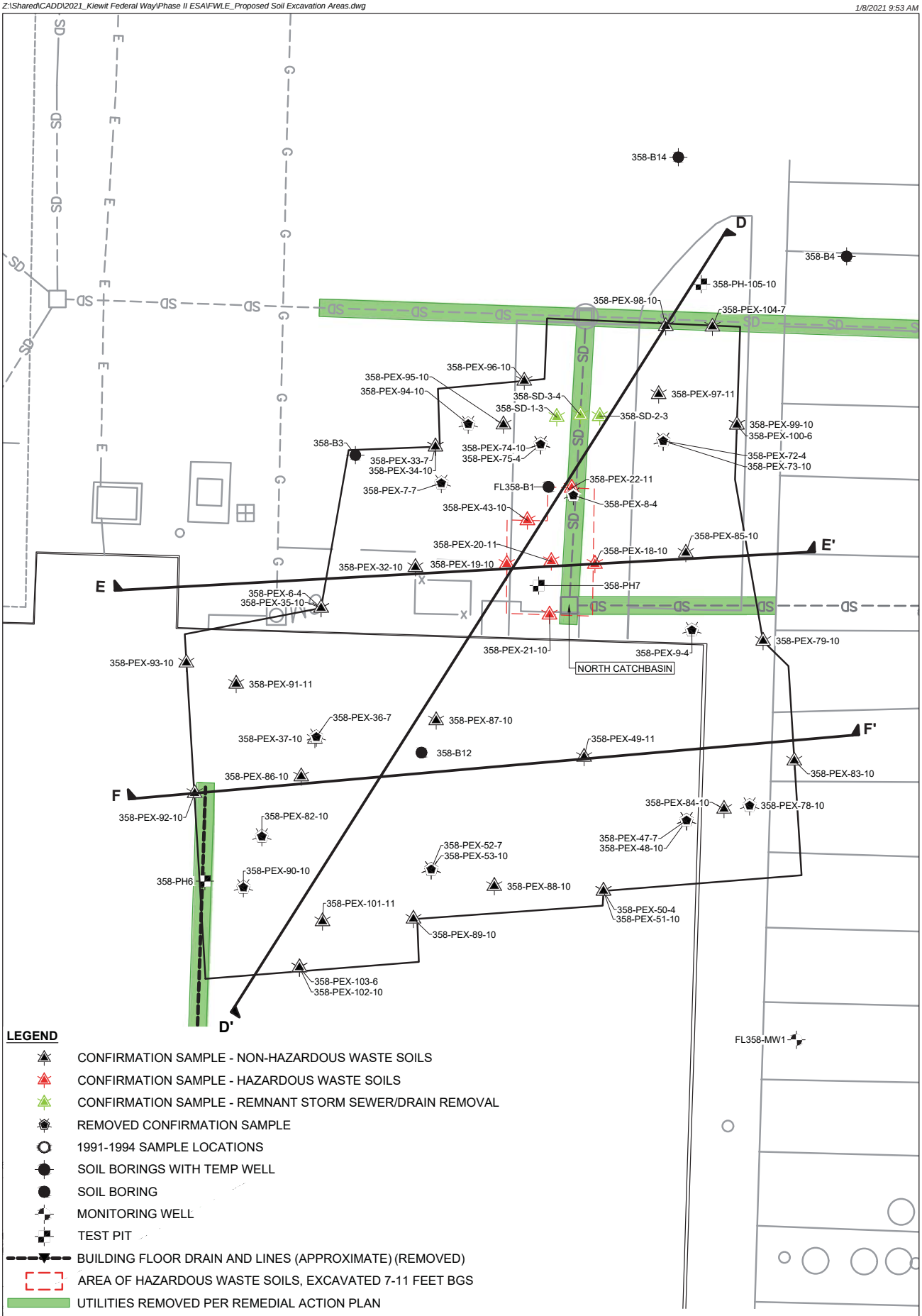
FEDERAL WAY LINK EXTENSION
SEATAC AND FEDERAL WAY
KING COUNTY, WASHINGTON

SOUTH EXCAVATION DETAIL

Drawn By:	J. Stewart
Reviewed By:	V. Atkins
Approved By:	S. Darst
Date:	October 2020
Project No.:	2021

FIGURE 5

Figure 6 - North Excavation Detail



LEGEND

- CONFIRMATION SAMPLE - NON-HAZARDOUS WASTE SOILS
- CONFIRMATION SAMPLE - HAZARDOUS WASTE SOILS
- CONFIRMATION SAMPLE - REMNANT STORM SEWER/DRAIN REMOVAL
- REMOVED CONFIRMATION SAMPLE
- 1991-1994 SAMPLE LOCATIONS
- SOIL BORINGS WITH TEMP WELL
- SOIL BORING
- MONITORING WELL
- TEST PIT
- BUILDING FLOOR DRAIN AND LINES (APPROXIMATE) (REMOVED)
- AREA OF HAZARDOUS WASTE SOILS, EXCAVATED 7-11 FEET BGS
- UTILITIES REMOVED PER REMEDIAL ACTION PLAN

N

5 0 5 10
SCALE IN FEET

O'Neill Service Group

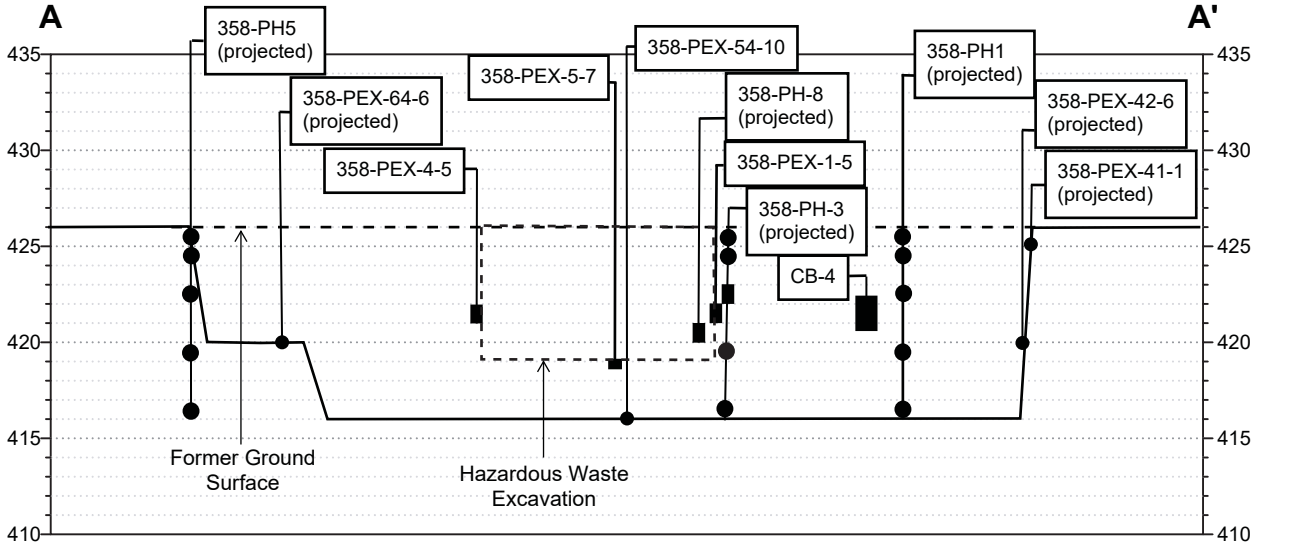
FEDERAL WAY LINK EXTENSION
SEATAC AND FEDERAL WAY
KING COUNTY, WASHINGTON

NORTH EXCAVATION DETAIL

Drawn By:	J. Stewart
Reviewed By:	V. Atkins
Approved By:	S. Darst
Date:	October 2020
Project No.:	2021

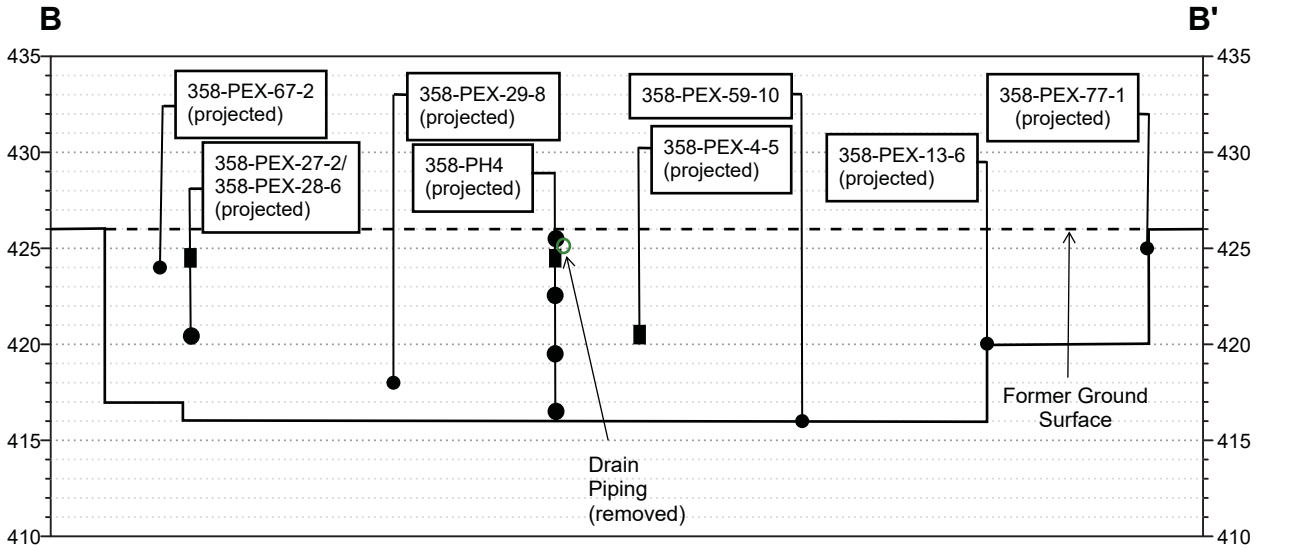
FIGURE 6

Figure 7 - FL358 Cross Sections



FL358 CROSS SECTION A-A'

Elevation [feet NAVD88]



FL358 CROSS SECTION B-B'

Elevation [feet NAVD88]

LEGEND

PH358-5 — Soil exploration location and ID with sample depth exceeding MTCA cleanup levels (remediated) (▮) and not exceeding or below MTCA cleanup levels (●)

358-PEX-7-5 — Post-excavation soil sample location and ID with depth/elevation exceeding MTCA cleanup levels (remediated) (▮) and not exceeding or below MTCA cleanup levels (●)

O'Neill Service Group

FEDERAL WAY LINK EXTENSION
SEATAC AND FEDERAL WAY
KING COUNTY, WASHINGTON

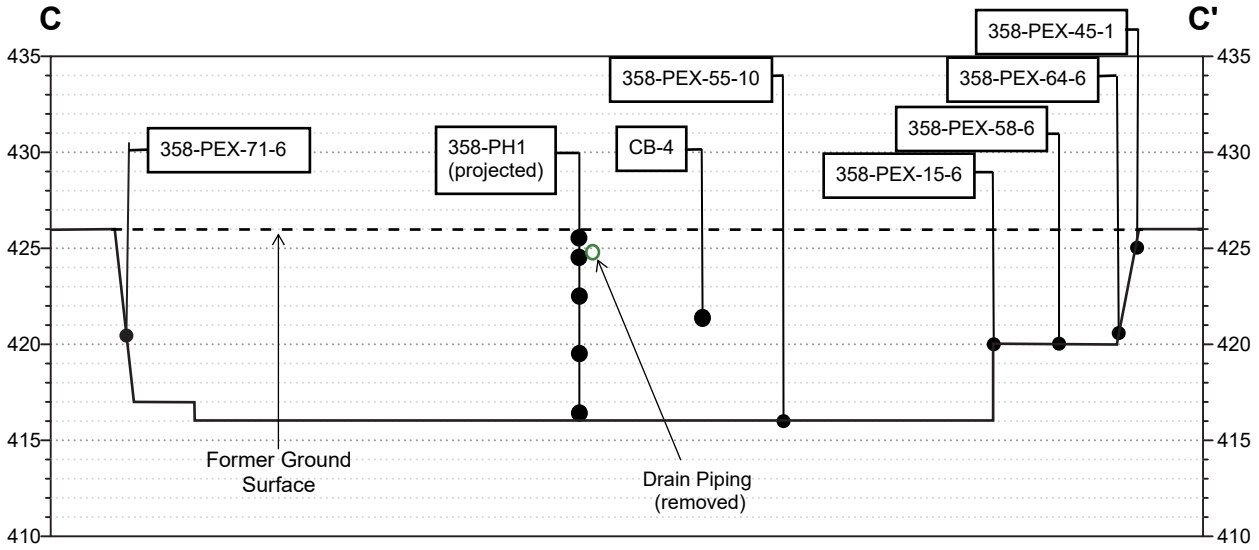
FL358 CROSS SECTIONS

Drawn By:	J. Stewart
Reviewed By:	V. Atkins
Approved By:	S. Darst
Date:	November 2020
Project No.:	2021

FIGURE **7ab**

12/22/2020 9:53 AM

Z:\Shared\CADD\2021_Kiewit Federal Way\Phase II ESA\FWLE_Proposed Soil Excavation Areas.dwg Layout:FL358 (Fig7ab)



FL358 CROSS SECTION C-C'

Elevation [feet NAVD88]

LEGEND

PH358-5 — Soil exploration location and ID with sample depth exceeding MTCA cleanup levels (remediated) (▮) and not exceeding or below MTCA cleanup levels (●)

358-PEX-7-5 — Post-excavation soil sample location and ID with depth/elevation exceeding MTCA cleanup levels (remediated) (▮) and not exceeding or below MTCA cleanup levels (●)

O'Neill Service Group

FEDERAL WAY LINK EXTENSION
SEATAC AND FEDERAL WAY
KING COUNTY, WASHINGTON

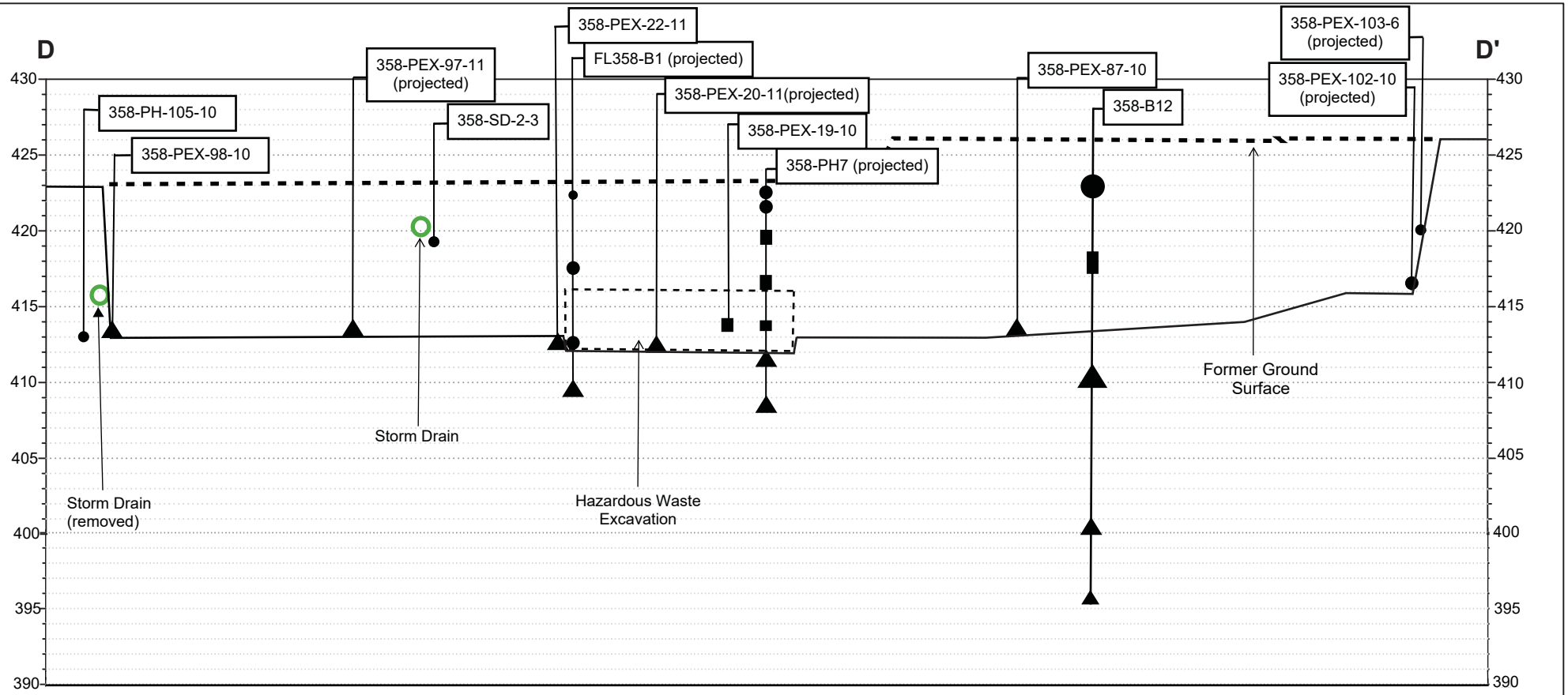
FL358 CROSS SECTIONS

Drawn By:	J. Stewart
Reviewed By:	V. Atkins
Approved By:	S. Darst
Date:	November 2020
Project No.:	2021

FIGURE **7c**

12/22/2020 9:54 AM

Z:\Shared\CADD\2021_Kiewit Federal Way\Phase II ESA\FWLE_Proposed Soil Excavation Areas.dwg Layout:FL358 (Fig7c)



FL358 CROSS SECTION D-D'

Elevation [feet NAVD88]

LEGEND

PH358-5 — Soil exploration location and ID with sample depth exceeding MTCA cleanup levels (remediated) (▮) and not exceeding or below MTCA cleanup levels (●)

358-PEX-7-5 — Post-excavation soil sample location and ID with depth/elevation exceeding MTCA cleanup levels (remediated) (▮), not exceeding or below MTCA cleanup levels (●) or Above MTCA cleanup levels (▲)

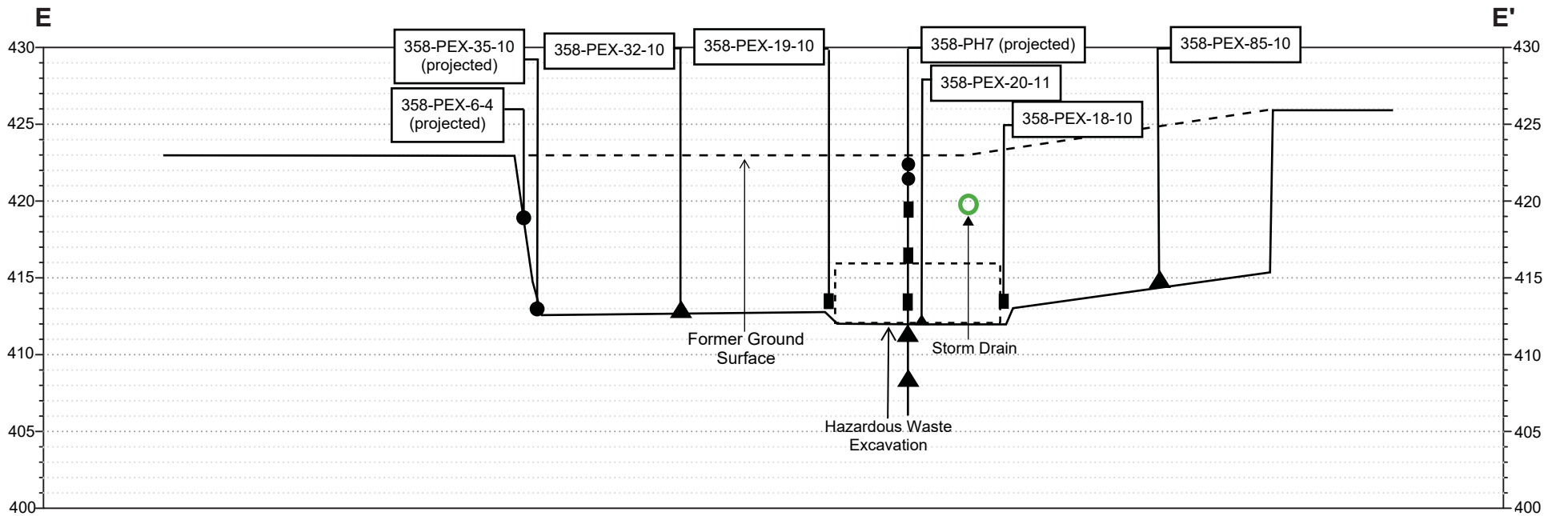
O'Neill Service Group

FEDERAL WAY LINK EXTENSION
SEATAC AND FEDERAL WAY
KING COUNTY, WASHINGTON

FL358 CROSS SECTIONS

Drawn By:	J. Stewart
Reviewed By:	V. Atkins
Approved By:	S. Darst
Date:	November 2020
Project No.:	2021

FIGURE **7d**



FL358 CROSS SECTION E-E'

Elevation [feet NAVD88]

LEGEND

PH358-5 — Soil exploration location and ID with sample depth exceeding MTCA cleanup levels (remediated) (▮) and not exceeding or below MTCA cleanup levels (●)

358-PEX-7-5 — Post-excavation soil sample location and ID with depth/elevation exceeding MTCA cleanup levels (remediated) (▮), not exceeding or below MTCA cleanup levels (●) or Above MTCA cleanup levels (▲)

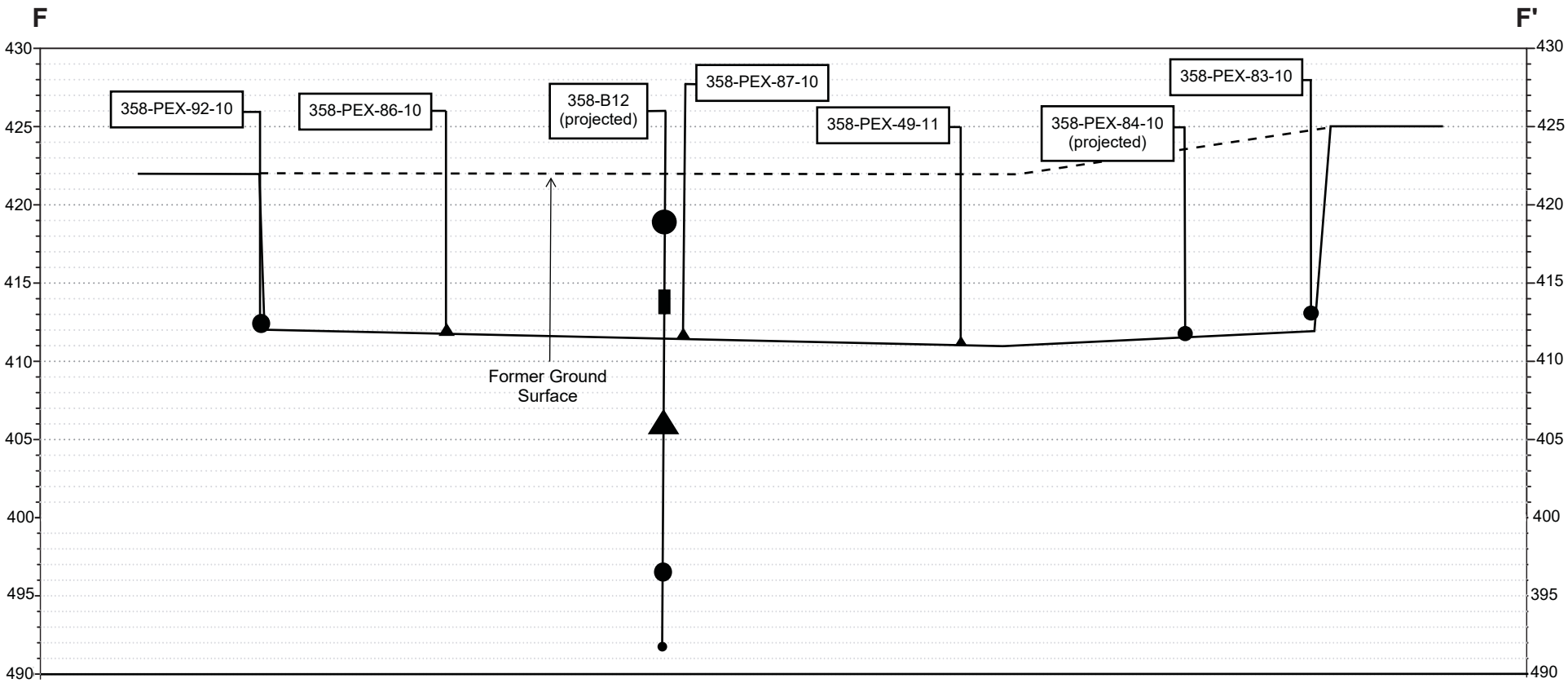
O'Neill Service Group

FEDERAL WAY LINK EXTENSION
SEATAC AND FEDERAL WAY
KING COUNTY, WASHINGTON

FL358 CROSS SECTIONS

Drawn By:	J. Stewart
Reviewed By:	V. Atkins
Approved By:	S. Darst
Date:	November 2020
Project No.:	2021

FIGURE **7e**



FL358 CROSS SECTION F-F'

Elevation [feet NAVD88]

LEGEND

PH358-5 — Soil exploration location and ID with sample depth exceeding MTCA cleanup levels (remediated) (▮) and not exceeding or below MTCA cleanup levels (●)

358-PEX-7-5 — Post-excavation soil sample location and ID with depth/elevation exceeding MTCA cleanup levels (remediated) (▮), not exceeding or below MTCA cleanup levels (●) or Above MTCA cleanup levels (▲)

O'Neill Service Group

FEDERAL WAY LINK EXTENSION
SEATAC AND FEDERAL WAY
KING COUNTY, WASHINGTON

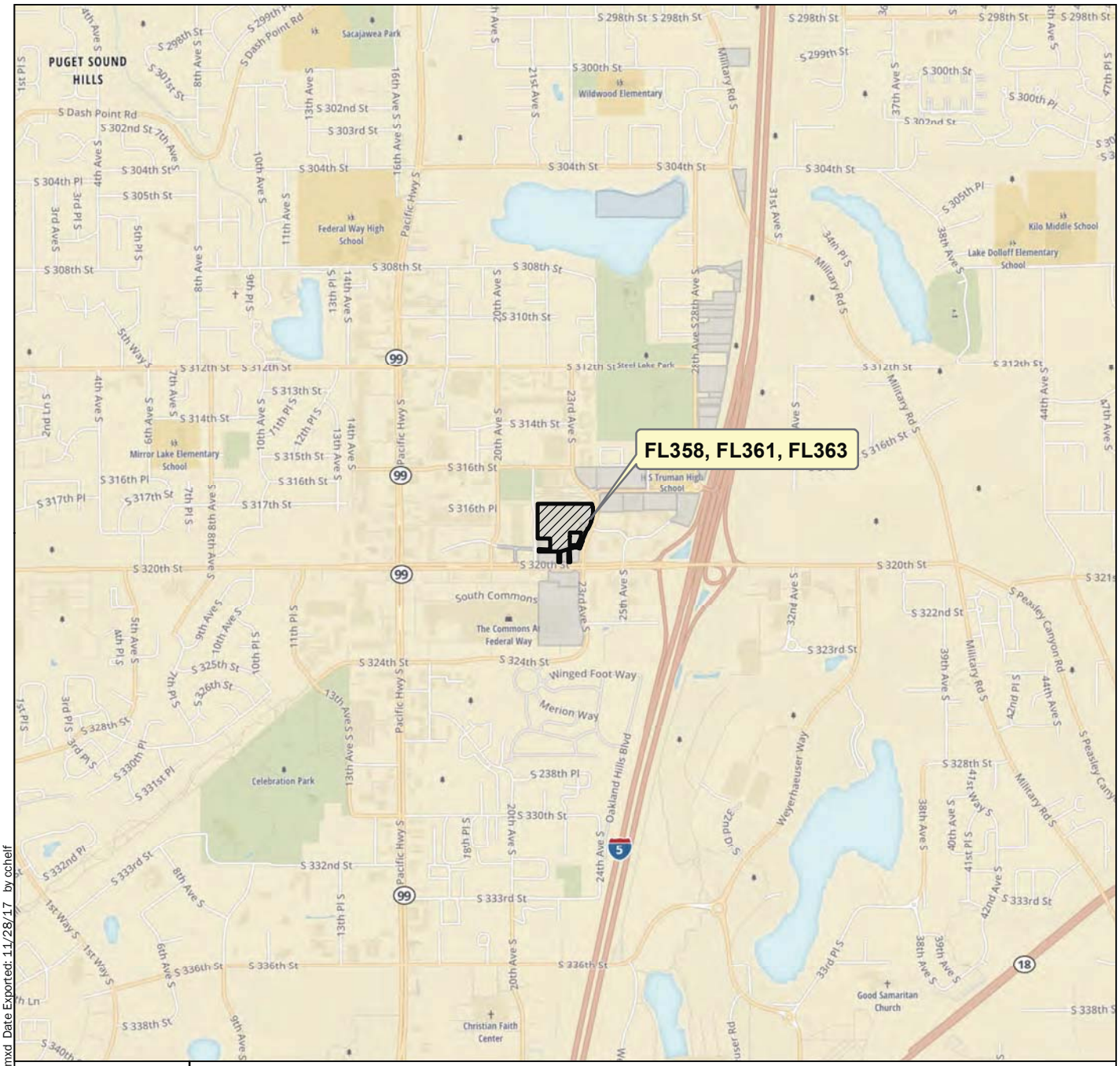
FL358 CROSS SECTIONS

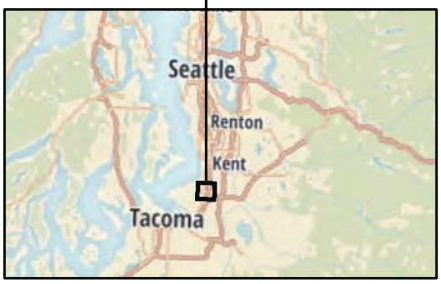
Drawn By:	J. Stewart
Reviewed By:	V. Atkins
Approved By:	S. Darst
Date:	November 2020
Project No.:	2021

FIGURE **7f**

APPENDIX A

Phase II Figures and Tables





Legend

- Subject Property
- Project Parcel

N
W E
S

2,000 0 2,000
Feet

Notes:

1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Data Source: Mapbox Open Street Map, 2017

Projection: NAD 1983 UTM Zone 10N

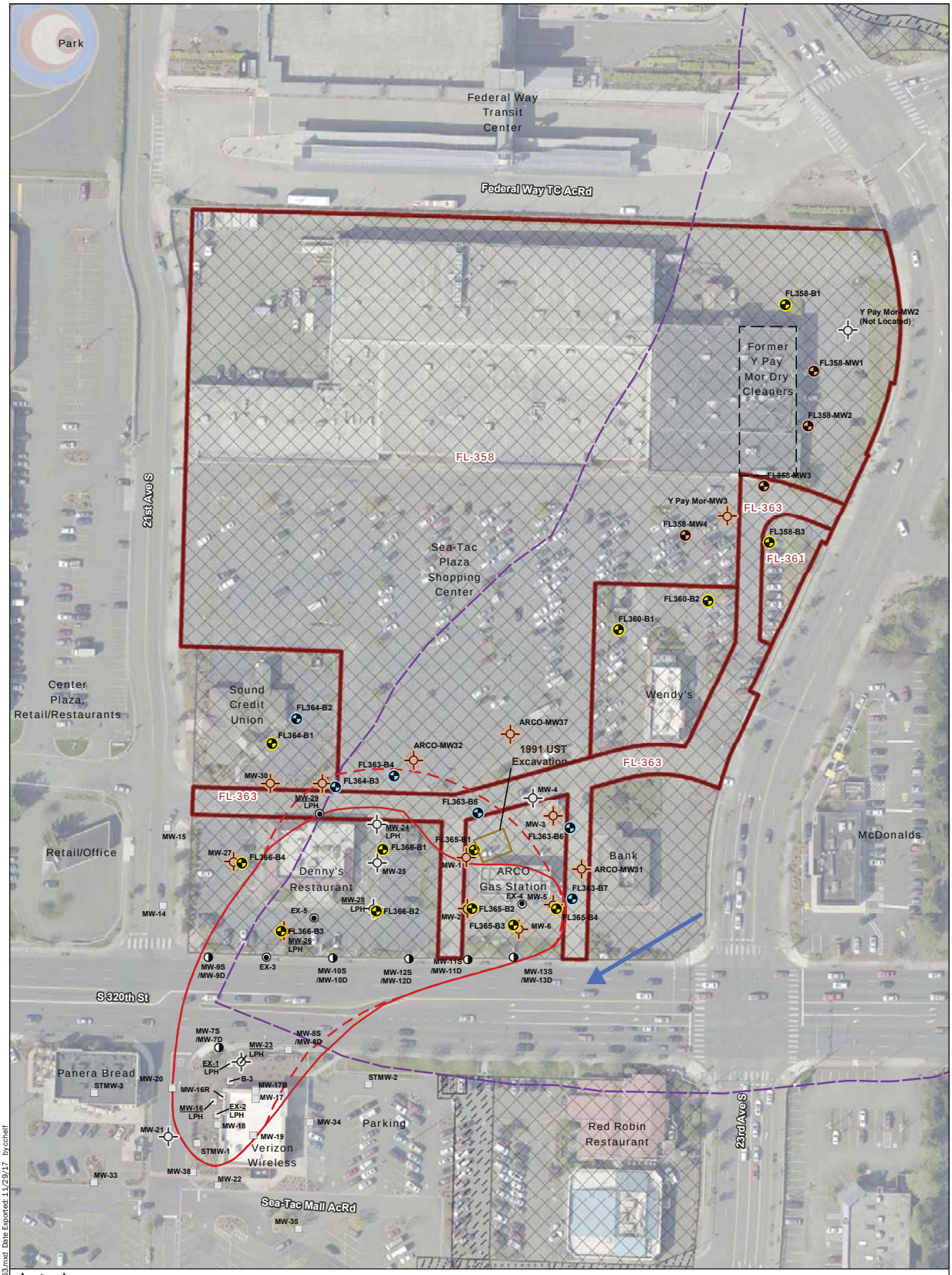
Vicinity Map
FL358, FL361, FL363

Phase I Environmental Site Assessment
Federal Way Link Extension
Federal Way, Washington

GEOENGINEERS

Figure 1

P:\4\4082039\GIS\MXD\408203900_F01_VicinityMapComboFL358FL361FL363.mxd Date Exported: 11/28/17 by cchelf



Legend

- GeoEngineers Phase II ESA Monitoring Well
- GeoEngineers Phase II ESA Soil Boring
- GeoEngineers Phase II ESA Boring with Grab Water Sample
- Monitoring Well by Others Not Sampled or Located
- Monitoring Well by Others Sampled for Phase II ESA
- LPH Liquid Phase Hydrocarbons in Past
- Dual Completion Well Location
- Extraction Well Location
- Abandoned or Destroyed Well Location
- Estimate of gas plume >MTCA based on 2015 data
- Estimate of gas plume >MTCA based on 2017 data
- Boundary Mapped Historic Drainage Area (c. 1949)
- Subject Property
- Parcel
- Access Easement
- Fee Take
- Guideway Easement
- Permanent and Slope Easement
- Temporary Construction Easement
- Approximate Groundwater Flow Direction

100 0 100 Feet

N W E S

Notes:

1. Based on current design information for the FWLE project (HDR, provided in October 2017)
2. The locations of all features shown are approximate. 3. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Data Source: Aerial and road names from King County 2015.

Parcel #: 2423200050, 2423200010, 2423200060
Address: 2200 S 320TH ST
City: Federal Way
Owner: WINSON AT FEDERAL WAY, LLC.
Current Use: Sea-Tac Plaza, Vacant(Commercial), Right of Way/Utility, Road

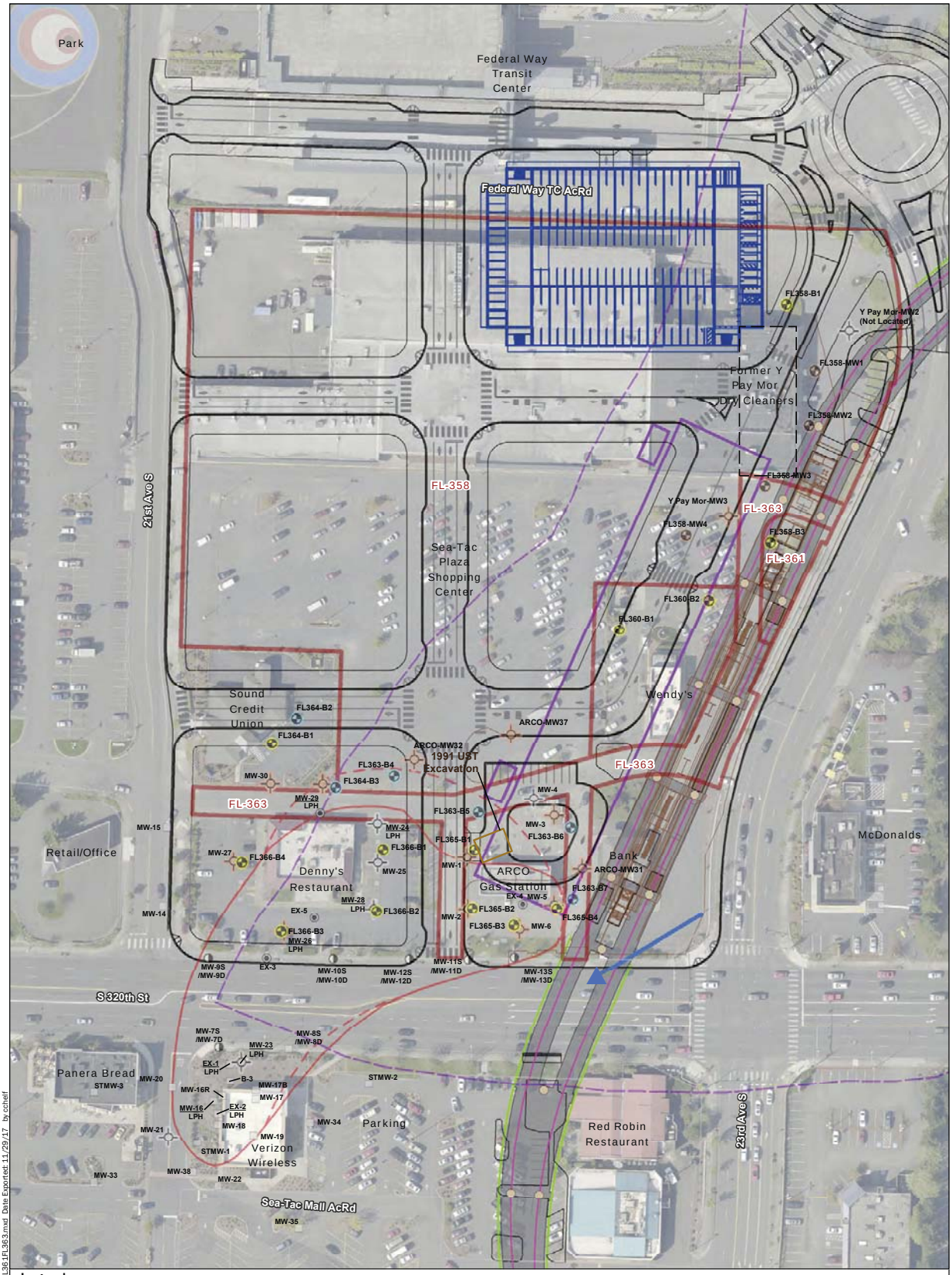
Site Plan and Boring Location Map
FL358, FL361, FL363

Phase II ESA
Federal Way Link Extension
Federal Way, Washington

GeoEngineers

Figure 2

P:\4\4082039\GIS\MXD\408203901_F02_SitePlanPhase2FL358FL361F363.mxd Date Exported: 11/29/17 by cchelf



Legend

- GeoEngineers Phase II ESA Monitoring Well
- GeoEngineers Phase II ESA Soil Boring
- GeoEngineers Phase II ESA Boring with Grab Water Sample
- Monitoring Well by Others Not Sampled or Located
- Monitoring Well by Others Sampled for Phase II ESA
- LPH Liquid Phase Hydrocarbons in Past
- Dual Completion Well Location
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- Estimate of gas plume >MTCA based on 2015 data
- Estimate of gas plume >MTCA based on 2017 data
- Boundary Mapped Historic Drainage Area (c. 1949)
- Subject Property
- Parcel

Planned Construction Features

- Column
- Track
- Parking Structure
- Road/Parking/Sidewalk
- Approximate Groundwater Flow Direction
- Station (line)
- Stormwater Ponds and Vaults
- Wall
- TPSS - Traction
- Striping (Pavement Markings)
- Sewer
- Structure

100 0 100 Feet

N W E S

Notes:

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City: Federal Way
Owner: WINSON AT FEDERAL WAY, LLC.
Current Use: Sea-Tac Plaza, Vacant(Commercial), Right of Way/Utility, Road

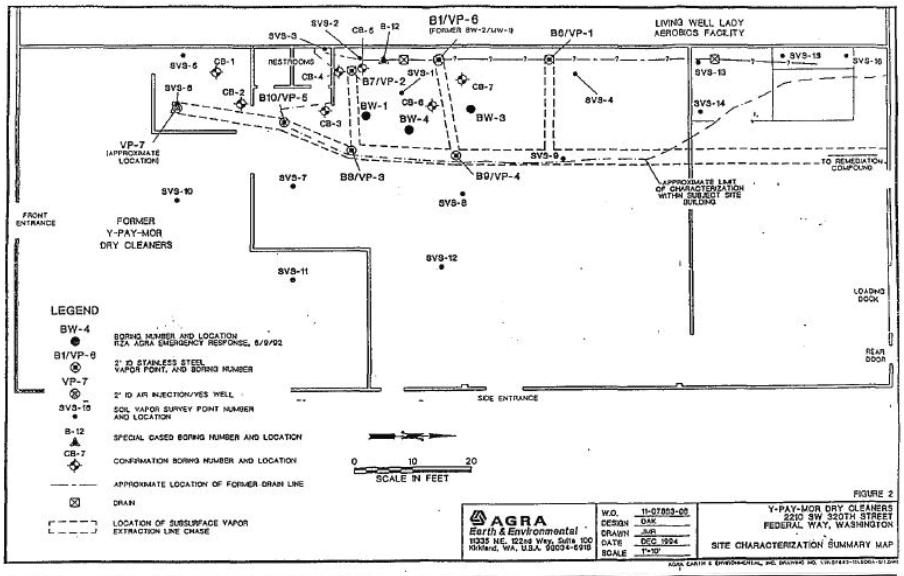
Proposed Construction Plan - FL358, FL361, FL363

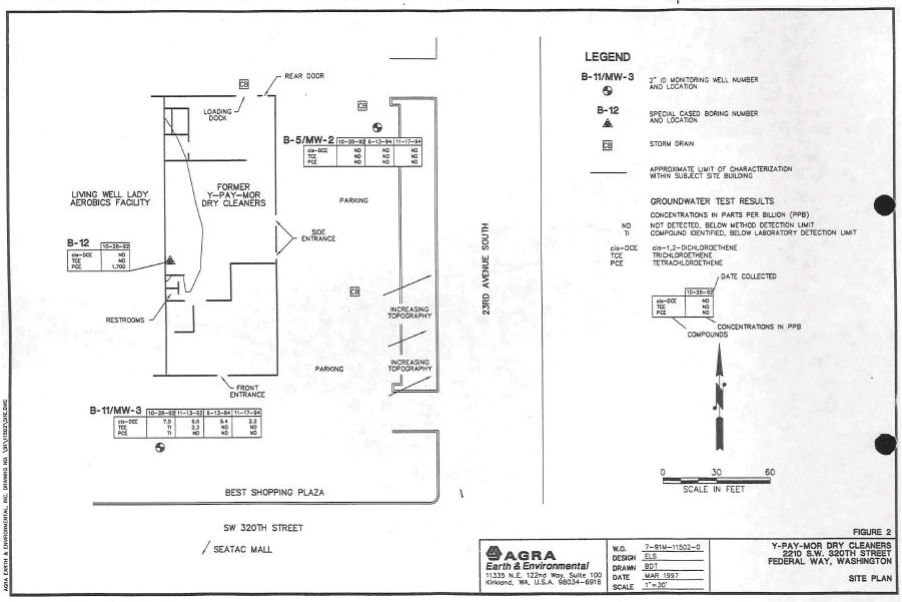
Phase II ESA
Federal Way Link Extension
Federal Way, Washington

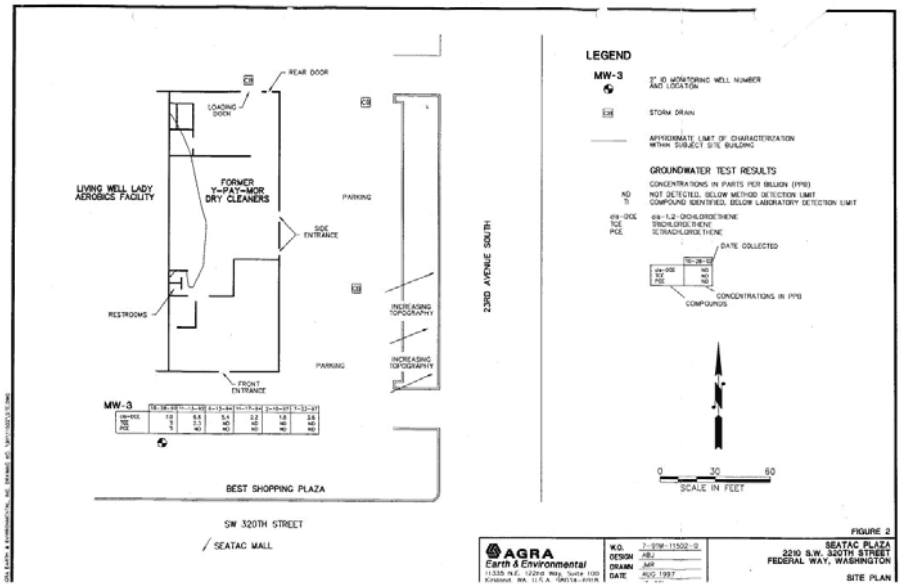
GEOENGINEERS

Figure 3

P:\4\4082039\GIS\MXD\408203901_F03_ConstructionPlanPhase2FL358FL361FL363.mxd Date Exported: 11/29/17 by cchelf







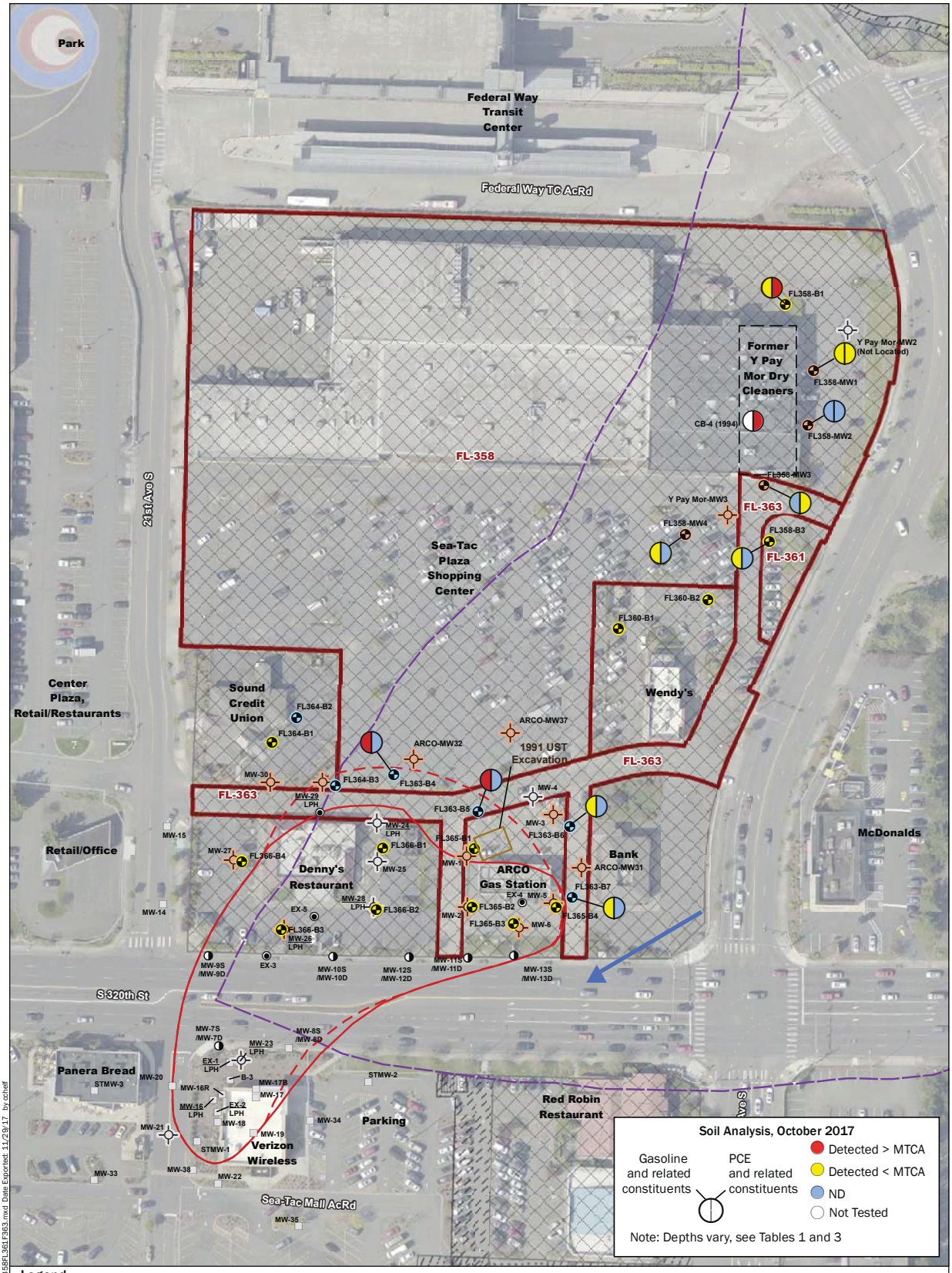
Y Pay Mor Previous Explorations
FL358, FL361, FL363

Phase II ESA
Federal Way Link Extension
Federal Way, Washington

GEOENGINEERS

Figure 4

Fig 4 FL_358_361_363 Y Pay Mor PrevExp.pptx004082-039-01 Date: 11/27/2017 by jyoung



Legend

- GeoEngineers Phase II ESA Monitoring Well
- GeoEngineers Phase II ESA Soil Boring
- GeoEngineers Phase II ESA Boring with Grab Water Sample
- Monitoring Well by Others Not Sampled or Located
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- Fee Take
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- Temporary Construction Easement
- Approximate Groundwater Flow Direction

100 0 100 Feet

N W E S

Notes:

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Address: 2200 S 320TH ST
City: Federal Way
Owner: WINSON AT FEDERAL WAY, LLC.
Current Use: Sea-Tac Plaza, Vacant(Commercial), Right of Way/Utility, Road

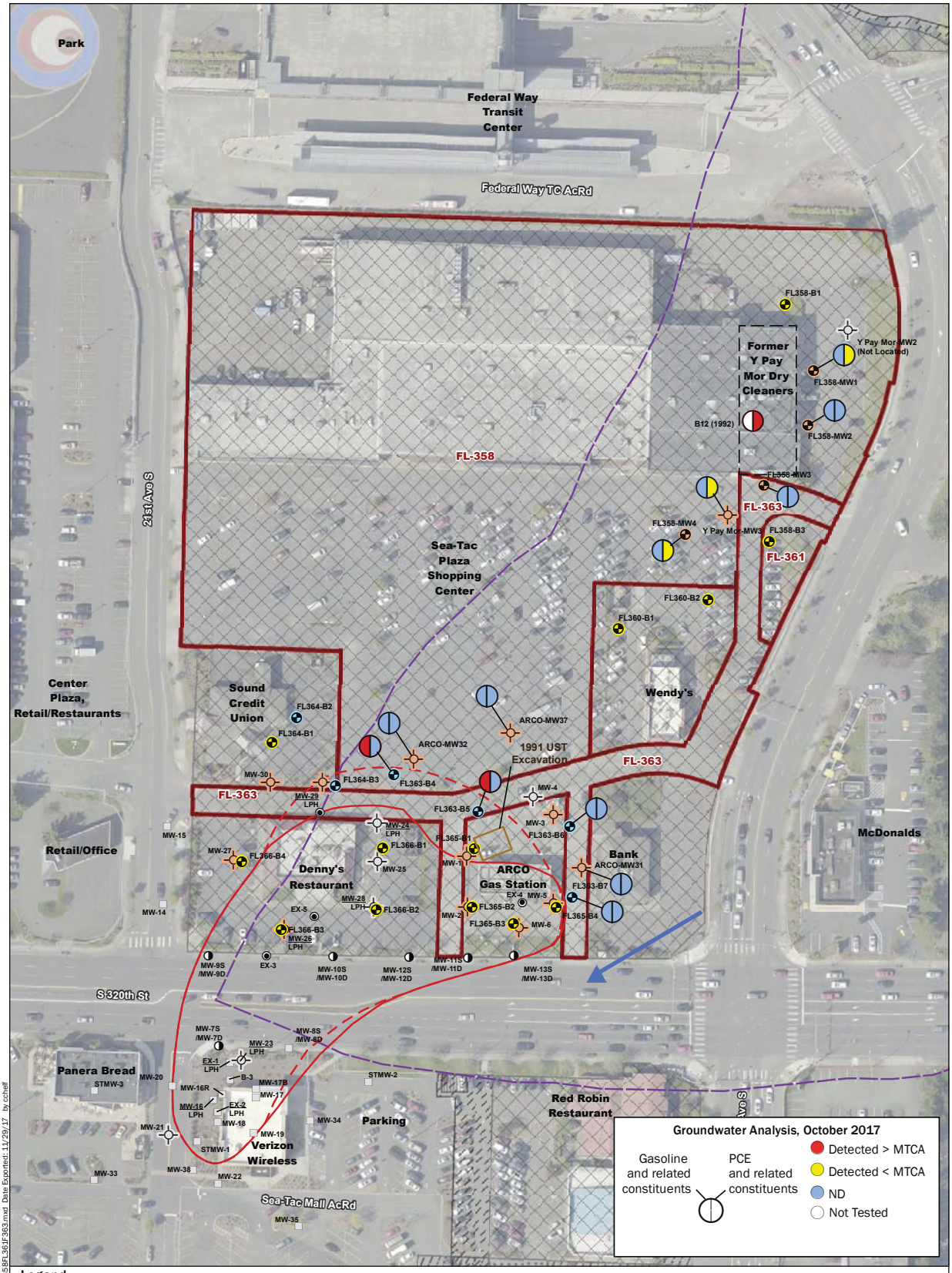
Chemical Analytical Results Soil
FL358, FL361, FL363

Phase II ESA
Federal Way Link Extension
Federal Way, Washington

GeoEngineers

Figure 5

P:\4\408203\9\GIS\MXD\408203901_F05_ChemicalAnalyticsSoilPhase2FL358FL361FL363.mxd Date Exported: 11/29/17 by cchelf



Legend

- GeoEngineers Phase II ESA Monitoring Well
- GeoEngineers Phase II ESA Soil Boring
- GeoEngineers Phase II ESA Boring with Grab Water Sample
- Monitoring Well by Others Not Sampled or Located
- Monitoring Well by Others Sampled for Phase II ESA
- LPH Liquid Phase Hydrocarbons in Past
- Dual Completion Well Location
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- Estimate of gas plume >MTCA based on 2017 data
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- Parcel
- Access Easement
- Fee Take
- Guideway Easement
- Permanent and Slope Easement
- Temporary Construction Easement
- Approximate Groundwater Flow Direction

100 0 100 Feet

N W E S

Notes:

1. Based on current design information for the FWLE project (HDR, provided in October 2017)
2. The locations of all features shown are approximate. 3. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

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Address: 2200 S 320TH ST
City: Federal Way
Owner: WINSON AT FEDERAL WAY, LLC.
Current Use: Sea-Tac Plaza, Vacant(Commercial), Right of Way/Utility, Road

Chemical Analytical Results Groundwater
FL358, FL361, FL363

Phase II ESA
Federal Way Link Extension
Federal Way, Washington

GeoEngineers

Figure 6

P:\4\408203\9\GIS\MXD\408203901_F06_ChemicalAnalyticsGW\Phase2FL358FL361FL363.mxd Date Exported: 11/29/17 by cchelf

Table 1

Summary of Soil Chemical Analytical Results[1] - Y Pay Mor Dry Cleaner Explorations

Sound Transit - Federal Way Link Extension FL358/FL361/FL363

Federal Way, Washington

Boring Identification	FL358-B1				FL358-B3					MTCA Method A/B Cleanup Level[12]	Naturally Occurring Background Metals in Puget Sound Soils[15]
Sample Identification[2]	FL358-B1-0.5-1	FL358-B1-5-6	FL358-B1-10-11	FL358-B1-13-14	FL358-B3-0-0.5	FL358-B3-0.5-1	FL358-B3-5-6	FL358-B3-7-8	FL358-B3-12-13		
Sample Date	10/5/2017	10/5/2017	10/5/2017	10/5/2017	10/5/2017	10/5/2017	10/5/2017	10/5/2017	10/5/2017		
Sample Start Depth (feet bgs)	0.5	5.0	10	13	0.0	0.5	5.0	7.0	12		
Sample End Depth (feet bgs)	1.0	6.0	11	14	0.5	1.0	6.0	8.0	13		
NWTPH-Gx[3] (mg/kg)											
Gasoline-range hydrocarbons	--	--	--	--	--	--	--	--	--	30/100[13]	N/A
NWTPH-Dx[4] (mg/kg)											
Diesel-range hydrocarbons	--	--	--	--	--	--	--	--	--	2,000	N/A
Lube Oil-range hydrocarbons	--	--	--	--	--	--	--	--	--	2,000	
Metals[5] (mg/kg)											
Arsenic	--	--	--	--	5.4 U	**46**	--	--	--	20	7
Lead	--	--	--	--	5.4 U	**11**	--	--	--	250	24
BTEX[6] (mg/kg)											
Benzene	--	--	--	--	--	--	--	--	--	0.03	N/A
Ethylbenzene	--	--	--	--	--	--	--	--	--	7	
Toluene	--	--	--	--	--	--	--	--	--	6	
Xylene, m-,p-	--	--	--	--	--	--	--	--	--	9	
Xylene, o-	--	--	--	--	--	--	--	--	--		
Total Xylenes[7]	--	--	--	--	--	--	--	--	--		
VOCs[8] (mg/kg)											
1,1,1,2-Tetrachloroethane	0.0011 U	0.00097 U	0.0010 U	0.00080 U	--	--	0.00098 U	0.0012 U	0.0015 U	38.5	N/A
1,1,1-Trichloroethane	0.0011 U	0.00097 U	0.0010 U	0.00080 U	--	--	0.00098 U	0.0012 U	0.0015 U	2	
1,1,2,2-Tetrachloroethane	0.0011 U	0.057 U	0.0010 U	0.00080 U	--	--	0.00098 U	0.0012 U	0.068 U	5	
1,1,2-Trichloroethane	0.0011 U	0.00097 U	0.0010 U	0.00080 U	--	--	0.00098 U	0.0012 U	0.0015 U	17.5	
1,1-Dichloroethane	0.0011 U	0.00097 U	0.0010 U	0.00080 U	--	--	0.00098 U	0.0012 U	0.0015 U	175	
1,1-Dichloroethene	0.0011 U	0.00097 U	0.0010 U	0.00080 U	--	--	0.00098 U	0.0012 U	0.0015 U	4,000	
1,1-Dichloropropene	0.0011 U	0.00097 U	0.0010 U	0.00080 U	--	--	0.00098 U	0.0012 U	0.0015 U	NE	
1,2,3-Trichlorobenzene	0.0011 U	0.057 U	0.0010 U	0.00080 U	--	--	0.00098 U	0.0012 U	0.068 U	NE	
1,2,3-Trichloropropane	0.0011 U	0.057 U	0.0010 U	0.00080 U	--	--	0.00098 U	0.0012 U	0.068 U	0.0333	
1,2,4-Trichlorobenzene	0.0011 U	0.057 U	0.0010 U	0.00080 U	--	--	0.00098 U	0.0012 U	0.068 U	34.5	
1,2,4-Trimethylbenzene	0.0011 U	0.057 U	0.0010 U	0.00080 U	--	--	0.00098 U	0.0012 U	0.068 U	NE	
1,2-Dibromo-3-Chloropropane	0.0054 U	0.29 U	0.0050 U	0.0040 U	--	--	0.0049 U	0.0059 U	0.34 U	1.25	
1,2-Dibromoethane	0.0011 U	0.00097 U	0.0010 U	0.00080 U	--	--	0.00098 U	0.0012 U	0.0015 U	0.005	
1,2-Dichlorobenzene (o-Dichlorobenzene)	0.0011 U	0.057 U	0.0010 U	0.00080 U	--	--	0.00098 U	0.0012 U	0.068 U	7,200	
1,2-Dichloroethane	0.0011 U	0.00097 U	0.0010 U	0.00080 U	--	--	0.00098 U	0.0012 U	0.0015 U	11	
1,2-Dichloropropane	0.0011 U	0.00097 U	0.0010 U	0.00080 U	--	--	0.00098 U	0.0012 U	0.0015 U	27.8	
1,3,5-Trimethylbenzene	0.0011 U	0.057 U	0.0010 U	0.00080 U	--	--	0.00098 U	0.0012 U	0.068 U	800	
1,3-Dichlorobenzene (m-Dichlorobenzene)	0.0011 U	0.057 U	0.0010 U	0.00080 U	--	--	0.00098 U	0.0012 U	0.068 U	NE	
1,3-Dichloropropane	0.0011 U	0.00097 U	0.0010 U	0.00080 U	--	--	0.00098 U	0.0012 U	0.0015 U	NE	
1,4-Dichlorobenzene (p-Dichlorobenzene)	0.0011 U	0.057 U	0.0010 U	0.00080 U	--	--	0.00098 U	0.0012 U	0.068 U	185	
2,2-Dichloropropane	0.0011 U	0.00097 U	0.0010 U	0.00080 U	--	--	0.00098 U	0.0012 U	0.0015 U	NE	

Boring Identification	FL358-B1				FL358-B3					MTCA Method A/B Cleanup Level[12]	Naturally Occurring Background Metals in Puget Sound Soils[15]
Sample Identification[2]	FL358-B1-0.5-1	FL358-B1-5-6	FL358-B1-10-11	FL358-B1-13-14	FL358-B3-0-0.5	FL358-B3-0.5-1	FL358-B3-5-6	FL358-B3-7-8	FL358-B3-12-13		
Sample Date	10/5/2017	10/5/2017	10/5/2017	10/5/2017	10/5/2017	10/5/2017	10/5/2017	10/5/2017	10/5/2017		
Sample Start Depth (feet bgs)	0.5	5.0	10	13	0.0	0.5	5.0	7.0	12		
Sample End Depth (feet bgs)	1.0	6.0	11	14	0.5	1.0	6.0	8.0	13		
2-Butanone (MEK)	0.0054 U	**0.0067**	0.0050 U	0.0040 U	--	--	**0.0074**	**0.049**	**0.070**	48,000	N/A
2-Chloroethyl vinyl ether	0.0054 U	0.0048 U	0.0050 U	0.0040 U	--	--	0.0049 U	0.0059 U	0.0074 U	NE	
2-Chlorotoluene	0.0011 U	0.057 U	0.0010 U	0.00080 U	--	--	0.00098 U	0.0012 U	0.068 U	1,600	
2-Hexanone	0.0054 U	0.0048 U	0.0050 U	0.0040 U	--	--	0.0049 U	0.0059 U	0.0074 U	NE	
4-Chlorotoluene	0.0011 U	0.057 U	0.0010 U	0.00080 U	--	--	0.00098 U	0.0012 U	0.068 U	NE	
4-Methyl-2-Pentanone (Methyl isobutyl ketone)	0.0054 U	0.0048 U	0.0050 U	0.0040 U	--	--	0.0049 U	0.0059 U	0.0074 U	6,400	
Acetone[9]	**0.011**	**0.060**	**0.0060**	0.0040 U	--	--	**0.058**	**0.16**	**0.46**	72,000	
Benzene	0.0011 U	**0.0010**	0.0010 U	0.00080 U	--	--	0.00098 U	0.0012 U	0.0015 U	0.03	
Bromobenzene	0.0011 U	0.057 U	0.0010 U	0.00080 U	--	--	0.00098 U	0.0012 U	0.068 U	NE	
Bromochloromethane	0.0011 U	0.00097 U	0.0010 U	0.00080 U	--	--	0.00098 U	0.0012 U	0.0015 U	NE	
Bromodichloromethane	0.0011 U	0.00097 U	0.0010 U	0.00080 U	--	--	0.00098 U	0.0012 U	0.0015 U	16.1	
Bromoform (Tribromomethane)	0.0054 U	0.0048 U	0.0050 U	0.0040 U	--	--	0.0049 U	0.0059 U	0.0074 U	127	
Bromomethane	0.0011 U	0.00097 U	0.0010 U	0.00080 U	--	--	0.00098 U	0.0012 U	0.0015 U	112	
Carbon Disulfide	0.0011 U	**0.0012**	0.0010 U	0.00080 U	--	--	0.00098 U	**0.0015**	**0.0020**	8,000	
Carbon Tetrachloride	0.0011 U	0.00097 U	0.0010 U	0.00080 U	--	--	0.00098 U	0.0012 U	0.0015 U	14.3	
Chlorobenzene	0.0011 U	0.00097 U	0.0010 U	0.00080 U	--	--	0.00098 U	0.0012 U	0.0015 U	1,600	
Chloroethane	0.0054 U	0.0048 U	0.0050 U	0.0040 U	--	--	0.0049 U	0.0059 U	0.0074 U	NE	
Chloroform	0.0011 U	0.00097 U	0.0010 U	0.00080 U	--	--	0.00098 U	0.0012 U	0.0015 U	32.3	
Chloromethane	0.0073 U	0.0066 U	0.0068 U	0.0054 U	--	--	0.0066 U	0.0080 U	0.011 U	NE	
cis-1,2-Dichloroethene	0.0011 U	**0.0053**	**0.014**	**0.0043**	--	--	0.00098 U	0.0012 U	0.0015 U	160	
cis-1,3-Dichloropropene	0.0011 U	0.00097 U	0.0010 U	0.00080 U	--	--	0.00098 U	0.0012 U	0.0015 U	NE	
Dibromochloromethane	0.0011 U	0.00097 U	0.0010 U	0.00080 U	--	--	0.00098 U	0.0012 U	0.0015 U	11.9	
Dibromomethane	0.0011 U	0.00097 U	0.0010 U	0.00080 U	--	--	0.00098 U	0.0012 U	0.0015 U	800	
Dichlorodifluoromethane (CFC-12)	0.0026 U	0.0023 U	0.0024 U	0.0019 U	--	--	0.0023 U	0.0028 U	0.0040 U	16,000	
Ethylbenzene	0.0011 U	0.00097 U	0.0010 U	0.00080 U	--	--	0.00098 U	0.0012 U	**0.014**	6	
Hexachlorobutadiene	0.0054 U	0.29 U	0.0050 U	0.0040 U	--	--	0.0049 U	0.0059 U	0.34 U	12.8	
Isopropylbenzene (Cumene)	0.0011 U	0.00097 U	0.0010 U	0.00080 U	--	--	0.00098 U	0.0012 U	0.0015 U	8,000	
Methyl Iodide (Iodomethane)	0.0079 U	0.0072 U	0.0074 U	0.0059 U	--	--	0.0072 U	0.0087 U	0.011 U	NE	
Methyl t-butyl ether	0.0011 U	0.00097 U	0.0010 U	0.00080 U	--	--	0.00098 U	0.0012 U	0.0015 U	0.1	
Methylene Chloride	0.0054 U	0.0048 U	0.0050 U	0.0040 U	--	--	0.0049 U	0.0059 U	0.0074 U	0.02	
Naphthalene	0.0011 U	0.057 U	0.0010 U	0.00080 U	--	--	0.00098 U	0.0012 U	0.068 U	5	
n-Butylbenzene	0.0011 U	0.057 U	0.0010 U	0.00080 U	--	--	0.00098 U	0.0012 U	0.068 U	4,000	
n-Propylbenzene	0.0011 U	0.057 U	0.0010 U	0.00080 U	--	--	0.00098 U	0.0012 U	0.068 U	8,000	
p-Isopropyltoluene	0.0011 U	0.057 U	0.0010 U	0.00080 U	--	--	0.00098 U	0.0012 U	**96**	NE	
Sec-Butylbenzene	0.0011 U	0.057 U	0.0010 U	0.00080 U	--	--	0.00098 U	0.0012 U	0.068 U	8,000	
Styrene	0.0011 U	0.00097 U	0.0010 U	0.00080 U	--	--	0.00098 U	0.0012 U	0.0015 U	16,000	
Tert-Butylbenzene	0.0011 U	0.057 U	0.0010 U	0.00080 U	--	--	0.00098 U	0.0012 U	0.068 U	8,000	
Tetrachloroethene	0.0011 U	0.00097 U	**0.016**	**0.066**	--	--	0.00098 U	0.0012 U	0.0015 U	0.05	
Toluene	0.0054 U	0.0048 U	0.0050 U	0.0040 U	--	--	0.0049 U	0.0059 U	**0.032**	7	
Trans-1,2-Dichloroethene	0.0011 U	0.00097 U	0.0010 U	0.00080 U	--	--	0.00098 U	0.0012 U	0.0015 U	1,600	
Trans-1,3-Dichloropropene	0.0011 U	0.00097 U	0.0010 U	0.00080 U	--	--	0.00098 U	0.0012 U	0.0015 U	NE	
Trichloroethene	0.0011 U	0.00097 U	**0.0076**	**0.0022**	--	--	0.00098 U	0.0012 U	0.0015 U	0.03	
Trichlorofluoromethane (CFC-11)	0.0011 U	0.00097 U	0.0010 U	0.00080 U	--	--	0.00098 U	0.0012 U	0.0015 U	24,000	
Vinyl Acetate	0.0054 U	0.0048 U	0.0050 U	0.0040 U	--	--	0.0049 U	0.0059 U	0.0074 U	80,000	

Boring Identification	FL358-B1				FL358-B3					MTCA Method A/B Cleanup Level[12]	Naturally Occurring Background Metals in Puget Sound Soils[15]
Sample Identification[2]	FL358-B1-0.5-1	FL358-B1-5-6	FL358-B1-10-11	FL358-B1-13-14	FL358-B3-0-0.5	FL358-B3-0.5-1	FL358-B3-5-6	FL358-B3-7-8	FL358-B3-12-13		
Sample Date	10/5/2017	10/5/2017	10/5/2017	10/5/2017	10/5/2017	10/5/2017	10/5/2017	10/5/2017	10/5/2017		
Sample Start Depth (feet bgs)	0.5	5.0	10	13	0.0	0.5	5.0	7.0	12		
Sample End Depth (feet bgs)	1.0	6.0	11	14	0.5	1.0	6.0	8.0	13		
Vinyl Chloride	0.0011 U	0.00097 U	0.0010 U	0.00080 U	--	--	0.00098 U	0.0012 U	0.0019 U	240	N/A
Xylene, m-,p-	0.0021 U	0.0019 U	0.0020 U	0.0016 U	--	--	0.0020 U	0.0024 U	0.14 U	9	
Xylene, o-	0.0011 U	0.00097 U	0.0010 U	0.00080 U	--	--	0.00098 U	0.0012 U	0.0015 U		
Total Xylenes[7]	0.0021 U	0.0019 U	0.0020 U	0.0016 U	--	--	0.0020 U	0.0024 U	0.14 U		
PAHs[10] (mg/kg)											
1-Methylnaphthalene	--	--	--	--	--	--	--	--	--	5	N/A
2-Methylnaphthalene	--	--	--	--	--	--	--	--	--		
Naphthalene	--	--	--	--	--	--	--	--	--		
Total Naphthalenes[11]	--	--	--	--	--	--	--	--	--		
Acenaphthene	--	--	--	--	--	--	--	--	--	4,800	
Acenaphthylene	--	--	--	--	--	--	--	--	--	NE	
Anthracene	--	--	--	--	--	--	--	--	--	24,000	
Benzo(a)anthracene	--	--	--	--	--	--	--	--	--	See cPAHs	
Benzo(a)pyrene	--	--	--	--	--	--	--	--	--	See cPAHs	
Benzo(b)fluoranthene	--	--	--	--	--	--	--	--	--	See cPAHs	
Benzo(g,h,i)perylene	--	--	--	--	--	--	--	--	--	NE	
Benzo(j,k)fluoranthene	--	--	--	--	--	--	--	--	--	See cPAHs	
Chrysene	--	--	--	--	--	--	--	--	--	See cPAHs	
Dibenzo(a,h)anthracene	--	--	--	--	--	--	--	--	--	See cPAHs	
Fluoranthene	--	--	--	--	--	--	--	--	--	3,200	
Fluorene	--	--	--	--	--	--	--	--	--	3,200	
Indeno(1,2,3-c,d)pyrene	--	--	--	--	--	--	--	--	--	See cPAHs	
Phenanthrene	--	--	--	--	--	--	--	--	--	NE	
Pyrene	--	--	--	--	--	--	--	--	--	2,400	
cPAHs (benzo(a)pyrene toxicity equivalent concentration)[14]	--	--	--	--	--	--	--	--	--	0.1	

Boring Identification	FL358-MW1						FL358-MW2					MTCA Method A/B Cleanup Level[12]	Naturally Occurring Background Metals in Puget Sound Soils[15]
Sample Identification[2]	FL358-MW1-0-0.5	FL358-MW1-0.5-1	FL358-MW1-1.5-2.5	FL358-MW1-5-6	FL358-MW1-12-13	FL358-MW1-19-20	FL358-MW2-0-0.5	FL358-MW2-0.5-1	FL358-MW2-1.5-2.5	FL358-MW2-9-10	FL358-MW2-13-14		
Sample Date	10/2/2017	10/2/2017	10/2/2017	10/2/2017	10/2/2017	10/2/2017	10/2/2017	10/2/2017	10/2/2017	10/2/2017	10/2/2017		
Sample Start Depth (feet bgs)	0.0	0.5	1.5	5.0	12	19	0.0	0.5	1.5	9.0	13		
Sample End Depth (feet bgs)	0.5	1.0	2.5	6.0	13	20	0.5	1.0	2.5	10	14		
NWTPH-Gx[3] (mg/kg)													
Gasoline-range hydrocarbons	--	--	5.2 U	6.5 U	--	--	--	--	--	--	--	30/100[13]	N/A
NWTPH-Dx[4] (mg/kg)													
Diesel-range hydrocarbons	--	--	29 U	30 U	--	--	--	--	--	--	--	2,000	N/A
Lube Oil-range hydrocarbons	--	--	**100**	**79**	--	--	--	--	--	--	--	2,000	
Metals[5] (mg/kg)													
Arsenic	2.9 U	2.8 U	--	--	--	--	2.8 U	2.8 U	--	--	--	20	7
Lead	5.8 U	5.7 U	--	--	--	--	5.6 U	5.5 U	--	--	--	250	24
BTEX[6] (mg/kg)													
Benzene	--	--	--	--	--	--	--	--	--	--	--	0.03	N/A
Ethylbenzene	--	--	--	--	--	--	--	--	--	--	--	7	
Toluene	--	--	--	--	--	--	--	--	--	--	--	6	
Xylene, m-,p-	--	--	--	--	--	--	--	--	--	--	--	9	
Xylene, o-	--	--	--	--	--	--	--	--	--	--	--		
Total Xylenes[7]	--	--	--	--	--	--	--	--	--	--	--		
VOCs[8] (mg/kg)													
1,1,1,2-Tetrachloroethane	--	--	0.00098 U	0.00091 U	0.00099 U	0.00084 U	--	--	0.0011 U	0.00087 U	0.00088 U	38.5	N/A
1,1,1-Trichloroethane	--	--	0.00098 U	0.00091 U	0.00099 U	0.00084 U	--	--	0.0011 U	0.00087 U	0.00088 U	2	
1,1,2,2-Tetrachloroethane	--	--	0.00098 U	0.00091 U	0.00099 U	0.00084 U	--	--	0.065 U	0.00087 U	0.00088 U	5	
1,1,2-Trichloroethane	--	--	0.00098 U	0.00091 U	0.00099 U	0.00084 U	--	--	0.0011 U	0.00087 U	0.00088 U	17.5	
1,1-Dichloroethane	--	--	0.00098 U	0.00091 U	0.00099 U	0.00084 U	--	--	0.0011 U	0.00087 U	0.00088 U	175	
1,1-Dichloroethene	--	--	0.00098 U	0.00091 U	0.00099 U	0.00084 U	--	--	0.0011 U	0.00087 U	0.00088 U	4,000	
1,1-Dichloropropene	--	--	0.00098 U	0.00091 U	0.00099 U	0.00084 U	--	--	0.0011 U	0.00087 U	0.00088 U	NE	
1,2,3-Trichlorobenzene	--	--	0.00098 U	0.00091 U	0.00099 U	0.00084 U	--	--	0.065 U	0.00087 U	0.00088 U	NE	
1,2,3-Trichloropropane	--	--	0.00098 U	0.00091 U	0.00099 U	0.00084 U	--	--	0.065 U	0.00087 U	0.00088 U	0.0333	
1,2,4-Trichlorobenzene	--	--	0.00098 U	0.00091 U	0.00099 U	0.00084 U	--	--	0.065 U	0.00087 U	0.00088 U	34.5	
1,2,4-Trimethylbenzene	--	--	0.00098 U	0.00091 U	0.00099 U	0.00084 U	--	--	0.065 U	0.00087 U	0.00088 U	NE	
1,2-Dibromo-3-Chloropropane	--	--	0.0049 U	0.0045 U	0.0049 U	0.0042 U	--	--	0.32 U	0.0044 U	0.0044 U	1.25	
1,2-Dibromoethane	--	--	0.00098 U	0.00091 U	0.00099 U	0.00084 U	--	--	0.0011 U	0.00087 U	0.00088 U	0.005	
1,2-Dichlorobenzene (o-Dichlorobenzene)	--	--	0.00098 U	0.00091 U	0.00099 U	0.00084 U	--	--	0.065 U	0.00087 U	0.00088 U	7,200	
1,2-Dichloroethane	--	--	0.00098 U	0.00091 U	0.00099 U	0.00084 U	--	--	0.0011 U	0.00087 U	0.00088 U	11	
1,2-Dichloropropane	--	--	0.00098 U	0.00091 U	0.00099 U	0.00084 U	--	--	0.0011 U	0.00087 U	0.00088 U	27.8	
1,3,5-Trimethylbenzene	--	--	0.00098 U	0.00091 U	0.00099 U	0.00084 U	--	--	0.065 U	0.00087 U	0.00088 U	800	
1,3-Dichlorobenzene (m-Dichlorobenzene)	--	--	0.00098 U	0.00091 U	0.00099 U	0.00084 U	--	--	0.065 U	0.00087 U	0.00088 U	NE	
1,3-Dichloropropane	--	--	0.00098 U	0.00091 U	0.00099 U	0.00084 U	--	--	0.0011 U	0.00087 U	0.00088 U	NE	
1,4-Dichlorobenzene (p-Dichlorobenzene)	--	--	0.00098 U	0.00091 U	0.00099 U	0.00084 U	--	--	0.065 U	0.00087 U	0.00088 U	185	
2,2-Dichloropropane	--	--	0.00098 U	0.00091 U	0.00099 U	0.00084 U	--	--	0.0011 U	0.00087 U	0.00088 U	NE	

Boring Identification	FL358-MW1						FL358-MW2					MTCA Method A/B Cleanup Level[12]	Naturally Occurring Background Metals in Puget Sound Soils[15]
Sample Identification[2]	FL358-MW1-0-0.5	FL358-MW1-0.5-1	FL358-MW1-1.5-2.5	FL358-MW1-5-6	FL358-MW1-12-13	FL358-MW1-19-20	FL358-MW2-0-0.5	FL358-MW2-0.5-1	FL358-MW2-1.5-2.5	FL358-MW2-9-10	FL358-MW2-13-14		
Sample Date	10/2/2017	10/2/2017	10/2/2017	10/2/2017	10/2/2017	10/2/2017	10/2/2017	10/2/2017	10/2/2017	10/2/2017	10/2/2017		
Sample Start Depth (feet bgs)	0.0	0.5	1.5	5.0	12	19	0.0	0.5	1.5	9.0	13		
Sample End Depth (feet bgs)	0.5	1.0	2.5	6.0	13	20	0.5	1.0	2.5	10	14		
2-Butanone (MEK)	--	--	**0.024**	**0.039**	0.0049 U	0.0042 U	--	--	**0.018**	0.0044 U	0.0044 U	48,000	
2-Chloroethyl vinyl ether	--	--	0.0049 U	0.0045 U	0.0049 U	0.0042 U	--	--	0.0053 U	0.0044 U	0.0044 U	NE	
2-Chlorotoluene	--	--	0.00098 U	0.00091 U	0.00099 U	0.00084 U	--	--	0.065 U	0.00087 U	0.00088 U	1,600	
2-Hexanone	--	--	0.0049 U	0.0045 U	0.0049 U	0.0042 U	--	--	0.0053 U	0.0044 U	0.0044 U	NE	
4-Chlorotoluene	--	--	0.00098 U	0.00091 U	0.00099 U	0.00084 U	--	--	0.065 U	0.00087 U	0.00088 U	NE	
4-Methyl-2-Pentanone (Methyl isobutyl ketone)	--	--	0.0049 U	0.0045 U	0.0049 U	0.0042 U	--	--	0.0053 U	0.0044 U	0.0044 U	6,400	
Acetone[9]	--	--	**0.20**	**0.34**	**0.069**	**0.014**	--	--	**0.18**	**0.052**	**0.018**	72,000	
Benzene	--	--	0.00098 U	0.00091 U	0.00099 U	0.00084 U	--	--	0.0011 U	0.00087 U	0.00088 U	0.03	
Bromobenzene	--	--	0.00098 U	0.00091 U	0.00099 U	0.00084 U	--	--	0.065 U	0.00087 U	0.00088 U	NE	
Bromochloromethane	--	--	0.00098 U	0.00091 U	0.00099 U	0.00084 U	--	--	0.0011 U	0.00087 U	0.00088 U	NE	
Bromodichloromethane	--	--	0.00098 U	0.00091 U	0.00099 U	0.00084 U	--	--	0.0011 U	0.00087 U	0.00088 U	16.1	
Bromoform (Tribromomethane)	--	--	0.0049 U	0.0045 U	0.0049 U	0.0042 U	--	--	0.0053 U	0.0044 U	0.0044 U	127	
Bromomethane	--	--	0.0013 U	0.0012 U	0.0013 U	0.0011 U	--	--	0.0014 U	0.0011 U	0.0011 U	112	
Carbon Disulfide	--	--	0.0015 U	**0.0018**	0.0015 U	0.0013 U	--	--	0.0016 U	0.0013 U	0.0013 U	8,000	
Carbon Tetrachloride	--	--	0.00098 U	0.00091 U	0.00099 U	0.00084 U	--	--	0.0011 U	0.00087 U	0.00088 U	14.3	
Chlorobenzene	--	--	0.00098 U	0.00091 U	0.00099 U	0.00084 U	--	--	0.0011 U	0.00087 U	0.00088 U	1,600	
Chloroethane	--	--	0.0049 U	0.0045 U	0.0049 U	0.0042 U	--	--	0.0053 U	0.0044 U	0.0044 U	NE	
Chloroform	--	--	0.00098 U	0.00091 U	0.00099 U	0.00084 U	--	--	0.0011 U	0.00087 U	0.00088 U	32.3	
Chloromethane	--	--	0.0049 U	0.0045 U	0.0049 U	0.0042 U	--	--	0.0053 U	0.0044 U	0.0044 U	NE	
cis-1,2-Dichloroethene	--	--	0.00098 U	0.00091 U	0.00099 U	**0.0016**	--	--	0.0011 U	0.00087 U	0.00088 U	160	
cis-1,3-Dichloropropene	--	--	0.00098 U	0.00091 U	0.00099 U	0.00084 U	--	--	0.0011 U	0.00087 U	0.00088 U	NE	
Dibromochloromethane	--	--	0.00098 U	0.00091 U	0.00099 U	0.00084 U	--	--	0.0011 U	0.00087 U	0.00088 U	11.9	
Dibromomethane	--	--	0.00098 U	0.00091 U	0.00099 U	0.00084 U	--	--	0.0011 U	0.00087 U	0.00088 U	800	N/A
Dichlorodifluoromethane (CFC-12)	--	--	0.0020 U	0.0018 U	0.0020 U	0.0017 U	--	--	0.0021 U	0.0017 U	0.0018 U	16,000	
Ethylbenzene	--	--	0.00098 U	0.00091 U	0.00099 U	0.00084 U	--	--	0.0011 U	0.00087 U	0.00088 U	6	
Hexachlorobutadiene	--	--	0.0049 U	0.0045 U	0.0049 U	0.0042 U	--	--	0.32 U	0.0044 U	0.0044 U	12.8	
Isopropylbenzene (Cumene)	--	--	0.00098 U	0.00091 U	0.00099 U	0.00084 U	--	--	0.0011 U	0.00087 U	0.00088 U	8,000	
Methyl Iodide (Iodomethane)	--	--	0.0049 U	0.0045 U	0.0049 U	0.0042 U	--	--	0.0053 U	0.0044 U	0.0044 U	NE	
Methyl t-butyl ether	--	--	0.00098 U	0.00091 U	0.00099 U	0.00084 U	--	--	0.0011 U	0.00087 U	0.00088 U	0.1	
Methylene Chloride	--	--	0.0098 U	0.0091 U	0.0099 U	0.0084 U	--	--	0.011 U	0.0087 U	0.0088 U	0.02	
Naphthalene	--	--	0.00098 U	0.00091 U	0.00099 U	0.00084 U	--	--	0.065 U	0.00087 U	0.00088 U	5	
n-Butylbenzene	--	--	0.00098 U	0.00091 U	0.00099 U	0.00084 U	--	--	0.065 U	0.00087 U	0.00088 U	4,000	
n-Propylbenzene	--	--	0.00098 U	0.00091 U	0.00099 U	0.00084 U	--	--	0.065 U	0.00087 U	0.00088 U	8,000	
p-Isopropyltoluene	--	--	**0.0028**	**0.017**	0.00099 U	0.00084 U	--	--	0.065 U	0.00087 U	0.00088 U	NE	
Sec-Butylbenzene	--	--	0.00098 U	0.00091 U	0.00099 U	0.00084 U	--	--	0.065 U	0.00087 U	0.00088 U	8,000	
Styrene	--	--	0.00098 U	0.00091 U	0.00099 U	0.00084 U	--	--	0.0011 U	0.00087 U	0.00088 U	16,000	
Tert-Butylbenzene	--	--	0.00098 U	0.00091 U	0.00099 U	0.00084 U	--	--	0.065 U	0.00087 U	0.00088 U	8,000	
Tetrachloroethene	--	--	0.00098 U	0.00091 U	0.00099 U	**0.0049**	--	--	0.0011 U	0.00087 U	0.00088 U	0.05	
Toluene	--	--	0.0049 U	0.0045 U	0.0049 U	0.0042 U	--	--	0.0053 U	0.0044 U	0.0044 U	7	
Trans-1,2-Dichloroethene	--	--	0.00098 U	0.00091 U	0.00099 U	0.00084 U	--	--	0.0011 U	0.00087 U	0.00088 U	1,600	
Trans-1,3-Dichloropropene	--	--	0.00098 U	0.00091 U	0.00099 U	0.00084 U	--	--	0.0011 U	0.00087 U	0.00088 U	NE	
Trichloroethene	--	--	0.00098 U	0.00091 U	0.00099 U	**0.0033**	--	--	0.0011 U	0.00087 U	0.00088 U	0.03	
Trichlorofluoromethane (CFC-11)	--	--	0.00098 U	0.00091 U	0.00099 U	0.00084 U	--	--	0.0011 U	0.00087 U	0.00088 U	24,000	
Vinyl Acetate	--	--	0.0049 U	0.0045 U	0.0049 U	0.0042 U	--	--	0.0053 U	0.0044 U	0.0044 U	80,000	

Boring Identification	FL358-MW1						FL358-MW2					MTCA Method A/B Cleanup Level[12]	Naturally Occurring Background Metals in Puget Sound Soils[15]
Sample Identification[2]	FL358-MW1-0-0.5	FL358-MW1-0.5-1	FL358-MW1-1.5-2.5	FL358-MW1-5-6	FL358-MW1-12-13	FL358-MW1-19-20	FL358-MW2-0-0.5	FL358-MW2-0.5-1	FL358-MW2-1.5-2.5	FL358-MW2-9-10	FL358-MW2-13-14		
Sample Date	10/2/2017	10/2/2017	10/2/2017	10/2/2017	10/2/2017	10/2/2017	10/2/2017	10/2/2017	10/2/2017	10/2/2017	10/2/2017		
Sample Start Depth (feet bgs)	0.0	0.5	1.5	5.0	12	19	0.0	0.5	1.5	9.0	13		
Sample End Depth (feet bgs)	0.5	1.0	2.5	6.0	13	20	0.5	1.0	2.5	10	14		
Vinyl Chloride	--	--	0.00098 U	0.00091 U	0.00099 U	0.00084 U	--	--	0.0011 U	0.00087 U	0.00088 U	240	N/A
Xylene, m-,p-	--	--	0.0020 U	0.0018 U	0.0020 U	0.0017 U	--	--	0.0021 U	0.0017 U	0.0018 U	9	
Xylene, o-	--	--	0.00098 U	0.00091 U	0.00099 U	0.00084 U	--	--	0.0011 U	0.00087 U	0.00088 U		
Total Xylenes[7]	--	--	0.0020 U	0.0018 U	0.0020 U	0.0017 U	--	--	0.0021 U	0.0017 U	0.0018 U		
PAHs[10] (mg/kg)													
1-Methylnaphthalene	--	--	--	--	--	--	--	--	--	--	--	5	N/A
2-Methylnaphthalene	--	--	--	--	--	--	--	--	--	--	--		
Naphthalene	--	--	--	--	--	--	--	--	--	--	--		
Total Naphthalenes[11]	--	--	--	--	--	--	--	--	--	--	--		
Acenaphthene	--	--	--	--	--	--	--	--	--	--	--	4,800	
Acenaphthylene	--	--	--	--	--	--	--	--	--	--	--	NE	
Anthracene	--	--	--	--	--	--	--	--	--	--	--	24,000	
Benzo(a)anthracene	--	--	--	--	--	--	--	--	--	--	--	See cPAHs	
Benzo(a)pyrene	--	--	--	--	--	--	--	--	--	--	--	See cPAHs	
Benzo(b)fluoranthene	--	--	--	--	--	--	--	--	--	--	--	See cPAHs	
Benzo(g,h,i)perylene	--	--	--	--	--	--	--	--	--	--	--	NE	
Benzo(j,k)fluoranthene	--	--	--	--	--	--	--	--	--	--	--	See cPAHs	
Chrysene	--	--	--	--	--	--	--	--	--	--	--	See cPAHs	
Dibenzo(a,h)anthracene	--	--	--	--	--	--	--	--	--	--	--	See cPAHs	
Fluoranthene	--	--	--	--	--	--	--	--	--	--	--	3,200	
Fluorene	--	--	--	--	--	--	--	--	--	--	--	3,200	
Indeno(1,2,3-c,d)pyrene	--	--	--	--	--	--	--	--	--	--	--	See cPAHs	
Phenanthrene	--	--	--	--	--	--	--	--	--	--	--	NE	
Pyrene	--	--	--	--	--	--	--	--	--	--	--	2,400	
cPAHs (benzo(a)pyrene toxicity equivalent concentration)[14]	--	--	--	--	--	--	--	--	--	--	--	0.1	

Boring Identification	FL358-MW3					FL358-MW4				MTCA Method A/B Cleanup Level[12]	Naturally Occurring Background Metals in Puget Sound Soils[15]
Sample Identification[2]	FL358-MW3-0-0.5	FL358-MW3-0.5-1	FL358-MW3-4-5	FL358-MW3-7-8	FL358-MW3-11-12	FL358-MW4-0-0.5	FL358-MW4-0.5-1	FL358-MW4-6.5-7.5	FL358-MW4-8.5-9.5		
Sample Date	10/3/2017	10/3/2017	10/3/2017	10/3/2017	10/3/2017	10/3/2017	10/3/2017	10/3/2017	10/3/2017		
Sample Start Depth (feet bgs)	0.0	0.5	4.0	7.0	11	0.0	0.5	6.5	8.5		
Sample End Depth (feet bgs)	0.5	1.0	5.0	8.0	12	0.5	1.0	7.5	9.5		
NWTPH-Gx[3] (mg/kg)											
Gasoline-range hydrocarbons	--	--	--	--	--	--	--	--	--	30/100[13]	N/A
NWTPH-Dx[4] (mg/kg)											
Diesel-range hydrocarbons	--	--	--	--	--	--	--	--	--	2,000	N/A
Lube Oil-range hydrocarbons	--	--	--	--	--	--	--	--	--	2,000	
Metals[5] (mg/kg)											
Arsenic	**6.2**	2.7 U	--	--	--	2.8 U	2.8 U	--	--	20	7
Lead	5.3 U	5.3 U	--	--	--	5.5 U	5.5 U	--	--	250	24
BTEX[6] (mg/kg)											
Benzene	--	--	--	--	--	--	--	--	--	0.03	N/A
Ethylbenzene	--	--	--	--	--	--	--	--	--	7	
Toluene	--	--	--	--	--	--	--	--	--	6	
Xylene, m-,p-	--	--	--	--	--	--	--	--	--	9	
Xylene, o-	--	--	--	--	--	--	--	--	--		
Total Xylenes[7]	--	--	--	--	--	--	--	--	--		
VOCs[8] (mg/kg)											
1,1,1,2-Tetrachloroethane	--	--	0.00095 U	0.00089 U	0.00078 U	--	--	0.0010 U	0.00094 U	38.5	N/A
1,1,1-Trichloroethane	--	--	0.00095 U	0.00089 U	0.00078 U	--	--	0.0010 U	0.00094 U	2	
1,1,2,2-Tetrachloroethane	--	--	0.00095 U	0.00089 U	0.00078 U	--	--	0.065 U	0.00094 U	5	
1,1,2-Trichloroethane	--	--	0.00095 U	0.00089 U	0.00078 U	--	--	0.0010 U	0.00094 U	17.5	
1,1-Dichloroethane	--	--	0.00095 U	0.00089 U	0.00078 U	--	--	0.0010 U	0.00094 U	175	
1,1-Dichloroethene	--	--	0.00095 U	0.00089 U	0.00078 U	--	--	0.0010 U	0.00094 U	4,000	
1,1-Dichloropropene	--	--	0.00095 U	0.00089 U	0.00078 U	--	--	0.0010 U	0.00094 U	NE	
1,2,3-Trichlorobenzene	--	--	0.00095 U	0.00089 U	0.00078 U	--	--	0.065 U	0.00094 U	NE	
1,2,3-Trichloropropane	--	--	0.00095 U	0.00089 U	0.00078 U	--	--	0.065 U	0.00094 U	0.0333	
1,2,4-Trichlorobenzene	--	--	0.00095 U	0.00089 U	0.00078 U	--	--	0.065 U	0.00094 U	34.5	
1,2,4-Trimethylbenzene	--	--	0.00095 U	0.00089 U	0.00078 U	--	--	0.065 U	0.00094 U	NE	
1,2-Dibromo-3-Chloropropane	--	--	0.0048 U	0.0045 U	0.0039 U	--	--	0.32 U	0.0047 U	1.25	
1,2-Dibromoethane	--	--	0.00095 U	0.00089 U	0.00078 U	--	--	0.0010 U	0.00094 U	0.005	
1,2-Dichlorobenzene (o-Dichlorobenzene)	--	--	0.00095 U	0.00089 U	0.00078 U	--	--	0.065 U	0.00094 U	7,200	
1,2-Dichloroethane	--	--	0.00095 U	0.00089 U	0.00078 U	--	--	0.0010 U	0.00094 U	11	
1,2-Dichloropropane	--	--	0.00095 U	0.00089 U	0.00078 U	--	--	0.0010 U	0.00094 U	27.8	
1,3,5-Trimethylbenzene	--	--	0.00095 U	0.00089 U	0.00078 U	--	--	0.065 U	0.00094 U	800	
1,3-Dichlorobenzene (m-Dichlorobenzene)	--	--	0.00095 U	0.00089 U	0.00078 U	--	--	0.065 U	0.00094 U	NE	
1,3-Dichloropropane	--	--	0.00095 U	0.00089 U	0.00078 U	--	--	0.0010 U	0.00094 U	NE	
1,4-Dichlorobenzene (p-Dichlorobenzene)	--	--	0.00095 U	0.00089 U	0.00078 U	--	--	0.065 U	0.00094 U	185	
2,2-Dichloropropane	--	--	0.00095 U	0.00089 U	0.00078 U	--	--	0.0010 U	0.00094 U	NE	

Boring Identification	FL358-MW3					FL358-MW4				MTCA Method A/B Cleanup Level[12]	Naturally Occurring Background Metals in Puget Sound Soils[15]
Sample Identification[2]	FL358-MW3-0-0.5	FL358-MW3-0.5-1	FL358-MW3-4-5	FL358-MW3-7-8	FL358-MW3-11-12	FL358-MW4-0-0.5	FL358-MW4-0.5-1	FL358-MW4-6.5-7.5	FL358-MW4-8.5-9.5		
Sample Date	10/3/2017	10/3/2017	10/3/2017	10/3/2017	10/3/2017	10/3/2017	10/3/2017	10/3/2017	10/3/2017		
Sample Start Depth (feet bgs)	0.0	0.5	4.0	7.0	11	0.0	0.5	6.5	8.5		
Sample End Depth (feet bgs)	0.5	1.0	5.0	8.0	12	0.5	1.0	7.5	9.5		
2-Butanone (MEK)	--	--	0.0048 U	**0.015**	**0.0078**	--	--	**0.056**	0.0047 U	48,000	N/A
2-Chloroethyl vinyl ether	--	--	0.0048 U	0.0045 U	0.0039 U	--	--	0.0051 U	0.0047 U	NE	
2-Chlorotoluene	--	--	0.00095 U	0.00089 U	0.00078 U	--	--	0.065 U	0.00094 U	1,600	
2-Hexanone	--	--	0.0048 U	0.0045 U	0.0039 U	--	--	0.0051 U	0.0047 U	NE	
4-Chlorotoluene	--	--	0.00095 U	0.00089 U	0.00078 U	--	--	0.065 U	0.00094 U	NE	
4-Methyl-2-Pentanone (Methyl isobutyl ketone)	--	--	0.0048 U	0.0045 U	0.0039 U	--	--	0.0051 U	0.0047 U	6,400	
Acetone[9]	--	--	**0.012**	**0.10**	**0.044**	--	--	**0.29**	**0.029**	72,000	
Benzene	--	--	0.00095 U	0.00089 U	0.00078 U	--	--	0.0010 U	0.00094 U	0.03	
Bromobenzene	--	--	0.00095 U	0.00089 U	0.00078 U	--	--	0.065 U	0.00094 U	NE	
Bromochloromethane	--	--	0.00095 U	0.00089 U	0.00078 U	--	--	0.0010 U	0.00094 U	NE	
Bromodichloromethane	--	--	0.00095 U	0.00089 U	0.00078 U	--	--	0.0010 U	0.00094 U	16.1	
Bromoform (Tribromomethane)	--	--	0.0048 U	0.0045 U	0.0039 U	--	--	0.0051 U	0.0047 U	127	
Bromomethane	--	--	0.00095 U	0.00089 U	0.00078 U	--	--	0.0010 U	0.00094 U	112	
Carbon Disulfide	--	--	0.00095 U	0.00089 U	**0.0012**	--	--	**0.0012**	0.00094 U	8,000	
Carbon Tetrachloride	--	--	0.00095 U	0.00089 U	0.00078 U	--	--	0.0010 U	0.00094 U	14.3	
Chlorobenzene	--	--	0.00095 U	0.00089 U	0.00078 U	--	--	0.0010 U	0.00094 U	1,600	
Chloroethane	--	--	0.0048 U	0.0045 U	0.0039 U	--	--	0.0051 U	0.0047 U	NE	
Chloroform	--	--	0.00095 U	0.00089 U	0.00078 U	--	--	0.0010 U	0.00094 U	32.3	
Chloromethane	--	--	0.0065 U	0.0061 U	0.0053 U	--	--	0.0069 U	0.0067 U	NE	
cis-1,2-Dichloroethene	--	--	0.00095 U	0.00089 U	0.00078 U	--	--	0.0010 U	0.00094 U	160	
cis-1,3-Dichloropropene	--	--	0.00095 U	0.00089 U	0.00078 U	--	--	0.0010 U	0.00094 U	NE	
Dibromochloromethane	--	--	0.00095 U	0.00089 U	0.00078 U	--	--	0.0010 U	0.00094 U	11.9	
Dibromomethane	--	--	0.00095 U	0.00089 U	0.00078 U	--	--	0.0010 U	0.00094 U	800	
Dichlorodifluoromethane (CFC-12)	--	--	0.0023 U	0.0021 U	0.0019 U	--	--	0.0024 U	0.0025 U	16,000	
Ethylbenzene	--	--	0.00095 U	0.00089 U	0.00078 U	--	--	**0.0022**	0.00094 U	6	
Hexachlorobutadiene	--	--	0.0048 U	0.0045 U	0.0039 U	--	--	0.32 U	0.0047 U	12.8	
Isopropylbenzene (Cumene)	--	--	0.00095 U	0.00089 U	0.00078 U	--	--	0.0010 U	0.00094 U	8,000	
Methyl Iodide (Iodomethane)	--	--	0.0071 U	0.0066 U	0.0057 U	--	--	0.0075 U	0.0067 U	NE	
Methyl t-butyl ether	--	--	0.00095 U	0.00089 U	0.00078 U	--	--	0.0010 U	0.00094 U	0.1	
Methylene Chloride	--	--	0.0048 U	0.0045 U	0.0039 U	--	--	0.0051 U	0.0047 U	0.02	
Naphthalene	--	--	0.00095 U	0.00089 U	0.00078 U	--	--	0.065 U	0.00094 U	5	
n-Butylbenzene	--	--	0.00095 U	0.00089 U	0.00078 U	--	--	0.065 U	0.00094 U	4,000	
n-Propylbenzene	--	--	0.00095 U	0.00089 U	0.00078 U	--	--	0.065 U	0.00094 U	8,000	
p-Isopropyltoluene	--	--	0.00095 U	**0.0014**	**0.0029**	--	--	0.065 U	0.00094 U	NE	
Sec-Butylbenzene	--	--	0.00095 U	0.00089 U	0.00078 U	--	--	0.065 U	0.00094 U	8,000	
Styrene	--	--	0.00095 U	0.00089 U	0.00078 U	--	--	0.0010 U	0.00094 U	16,000	
Tert-Butylbenzene	--	--	0.00095 U	0.00089 U	0.00078 U	--	--	0.065 U	0.00094 U	8,000	
Tetrachloroethene	--	--	0.00095 U	0.00089 U	0.00078 U	--	--	0.0010 U	0.00094 U	0.05	
Toluene	--	--	0.0048 U	0.0045 U	0.0039 U	--	--	0.0051 U	0.0047 U	7	
Trans-1,2-Dichloroethene	--	--	0.00095 U	0.00089 U	0.00078 U	--	--	0.0010 U	0.00094 U	1,600	
Trans-1,3-Dichloropropene	--	--	0.00095 U	0.00089 U	0.00078 U	--	--	0.0010 U	0.00094 U	NE	
Trichloroethene	--	--	0.00095 U	0.00089 U	0.00078 U	--	--	0.0010 U	0.00094 U	0.03	
Trichlorofluoromethane (CFC-11)	--	--	0.00095 U	0.00089 U	0.00078 U	--	--	0.0010 U	0.00094 U	24,000	
Vinyl Acetate	--	--	0.0048 U	0.0045 U	0.0039 U	--	--	0.0051 U	0.0047 U	80,000	

Boring Identification	FL358-MW3					FL358-MW4				MTCA Method A/B Cleanup Level[12]	Naturally Occurring Background Metals in Puget Sound Soils[15]
Sample Identification[2]	FL358-MW3-0-0.5	FL358-MW3-0.5-1	FL358-MW3-4-5	FL358-MW3-7-8	FL358-MW3-11-12	FL358-MW4-0-0.5	FL358-MW4-0.5-1	FL358-MW4-6.5-7.5	FL358-MW4-8.5-9.5		
Sample Date	10/3/2017	10/3/2017	10/3/2017	10/3/2017	10/3/2017	10/3/2017	10/3/2017	10/3/2017	10/3/2017		
Sample Start Depth (feet bgs)	0.0	0.5	4.0	7.0	11	0.0	0.5	6.5	8.5		
Sample End Depth (feet bgs)	0.5	1.0	5.0	8.0	12	0.5	1.0	7.5	9.5		
Vinyl Chloride	--	--	0.00095 U	0.00089 U	0.00078 U	--	--	0.0010 U	0.0012 U	240	N/A
Xylene, m-,p-	--	--	0.0019 U	0.0018 U	0.0016 U	--	--	0.0020 U	0.0019 U	9	
Xylene, o-	--	--	0.00095 U	0.00089 U	0.00078 U	--	--	0.0010 U	0.00094 U		
Total Xylenes[7]	--	--	0.0019 U	0.0018 U	0.0016 U	--	--	0.0020 U	0.0019 U		
PAHs[10] (mg/kg)											
1-Methylnaphthalene	--	--	--	--	--	--	--	--	--	5	N/A
2-Methylnaphthalene	--	--	--	--	--	--	--	--	--		
Naphthalene	--	--	--	--	--	--	--	--	--		
Total Naphthalenes[11]	--	--	--	--	--	--	--	--	--		
Acenaphthene	--	--	--	--	--	--	--	--	--	4,800	
Acenaphthylene	--	--	--	--	--	--	--	--	--	NE	
Anthracene	--	--	--	--	--	--	--	--	--	24,000	
Benzo(a)anthracene	--	--	--	--	--	--	--	--	--	See cPAHs	
Benzo(a)pyrene	--	--	--	--	--	--	--	--	--	See cPAHs	
Benzo(b)fluoranthene	--	--	--	--	--	--	--	--	--	See cPAHs	
Benzo(g,h,i)perylene	--	--	--	--	--	--	--	--	--	NE	
Benzo(j,k)fluoranthene	--	--	--	--	--	--	--	--	--	See cPAHs	
Chrysene	--	--	--	--	--	--	--	--	--	See cPAHs	
Dibenzo(a,h)anthracene	--	--	--	--	--	--	--	--	--	See cPAHs	
Fluoranthene	--	--	--	--	--	--	--	--	--	3,200	
Fluorene	--	--	--	--	--	--	--	--	--	3,200	
Indeno(1,2,3-c,d)pyrene	--	--	--	--	--	--	--	--	--	See cPAHs	
Phenanthrene	--	--	--	--	--	--	--	--	--	NE	
Pyrene	--	--	--	--	--	--	--	--	--	2,400	
cPAHs (benzo(a)pyrene toxicity equivalent concentration)[14]	--	--	--	--	--	--	--	--	--	0.1	

Notes:

[1] Chemical analysis performed by OnSite Environmental, Inc., of Redmond, Washington.

[2] Sample ID = Parcel ID - boring number - depth of sample [feet bgs]. FL358-B1-0.5-1 = Boring 1 from Parcel FL358, collected from a depth of 0.5 to 1 feet bgs.

[3] Gasoline-range petroleum hydrocarbons by Northwest Method NWTPH-Gx.

[4] Diesel- and lube oil-range petroleum hydrocarbons by Northwest Method NWTPH-Dx.

[5] Resource Conservation Recovery Act (RCRA) metals analyzed by EPA 6000/7000 series method.

[6] Benzene, toluene, ethylbenzene, xylenes (BTEX) by United States Environmental Protection Agency (EPA) Method 8021B.

[7] Total xylenes consists of m,p- and o- xylenes. The higher detection limit is used for non-detects.

[8] Volatile organic compounds (VOCs) analyzed by United States Environmental Protection Agency (EPA) Method 8260C.

[9] Acetone is a common laboratory contaminant.

[10] Polycyclic aromatic hydrocarbons (PAHs) and carcinogenic PAHs (cPAHs) analyzed by EPA Method 8270D/SIM.

[11] Total naphthalenes consists of 1-methylnaphthalene, 2-methylnaphthalene and naphthalene.

[12] MTCA Method B cleanup level used when Method A cleanup level has not been established.

[13] Model Toxics Control Act (MTCA) Method A cleanup level for gasoline is 30 mg/kg if benzene is detected or if the sum of toluene, ethylbenzene and xylenes are greater than or equal to 1% of the total gasoline detection.

[14] Results for cPAHs are shown as the sum of the benzo[a]pyrene toxicity equivalent concentrations, calculated by multiplying each individual cPAH concentration by its corresponding TEF. In this sum, non-detects are represented as ½ of the corresponding analyte reporting limit multiplied by the TEF.

[15] 90th Percentile for natural background soil metals concentrations in Puget Sound region, Department of Ecology, publication #94-115, dated October 1994.

"--" = not tested

mg/kg = milligrams per kilogram

MTCA = Model Toxics Control Act

U = Analyte was not detected at or greater than the listed reporting limit.

TEF = Toxicity Equivalency Factor as defined in WAC 173-340-900 Table 708-2.

bgs = below ground surface

NE = not established

N/A = not applicable

Bold font type indicates that the analyte was detected at a concentration greater than the respective laboratory reporting limit.

Grey shading indicates that the detected result exceeds the specified MTCA Cleanup Level.

Table 2

Summary of Groundwater Chemical Analytical Results[1] - Y Pay Mor Dry Cleaner Explorations

Sound Transit - Federal Way Link Extension FL358/FL361/FL363

Federal Way, Washington

Well Identification	FL358-MW1	FL358-MW2	FL358-MW3		FL358-MW4	Y Pay Mor-MW3	MTCA Method A/B Cleanup Level[10]
Sample Identification[2]	FL358-MW1-20171006	FL358-MW2-20171006	FL358-MW3-20171009	DUP-20171009	FL358-MW4-20171006	FL358-YPAYMOR MW3-20171003	
Sample Date	10/6/2017	10/6/2017	10/9/2017	10/9/2017	10/6/2017	10/3/2017	
NWTPH-Gx[3] (ug/L)							
Gasoline-range hydrocarbons	--	--	--	--	--	--	800/1,000[11]
NWTPH-Dx[4] (mg/L)							
Diesel-range hydrocarbons	--	--	--	--	--	--	0.5
Lube Oil-range hydrocarbons	--	--	--	--	--	--	0.5
Metals[5] (ug/L)							
Lead	--	--	--	--	--	--	15
VOCs[6] (ug/L)							
1,1,1,2-Tetrachloroethane	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	1.68
1,1,1-Trichloroethane	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	200
1,1,2,2-Tetrachloroethane	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.26 U	0.219
1,1,2-Trichloroethane	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.768
1,1-Dichloroethane	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	7.68
1,1-Dichloroethene	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	400
1,1-Dichloropropene	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	NE
1,2,3-Trichlorobenzene	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	NE
1,2,3-Trichloropropane	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.00146
1,2,4-Trichlorobenzene	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	1.51
1,2,4-Trimethylbenzene	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	NE
1,2-Dibromo-3-Chloropropane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.3 U	0.0547
1,2-Dibromoethane	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.01
1,2-Dichlorobenzene (o-Dichlorobenzene)	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	720
1,2-Dichloroethane	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	5
1,2-Dichloropropane	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	1.22
1,3,5-Trimethylbenzene	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	80
1,3-Dichlorobenzene (m-Dichlorobenzene)	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	NE
1,3-Dichloropropane	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	NE
1,4-Dichlorobenzene (p-Dichlorobenzene)	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	8.10
2,2-Dichloropropane	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	NE
2-Butanone (MEK)	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	4,800
2-Chloroethyl vinyl ether	4.5 U	4.5 U	10 U	10 U	4.5 U	3.7 U	NE
2-Chlorotoluene	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	160
2-Hexanone	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.6 U	NE
4-Chlorotoluene	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	NE
4-Methyl-2-Pentanone (Methyl isobutyl ketone)	2.0 U	2.0 U	2.5 U	2.5 U	2.0 U	2.6 U	640
Acetone	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	7,200
Benzene	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	5
Bromobenzene	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	NE
Bromochloromethane	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	NE
Bromodichloromethane	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.706
Bromoform (Tribromomethane)	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.54

Well Identification	FL358-MW1	FL358-MW2	FL358-MW3		FL358-MW4	Y Pay Mor-MW3	MTCA Method A/B Cleanup Level[10]
Sample Identification[2]	FL358-MW1-20171006	FL358-MW2-20171006	FL358-MW3-20171009	DUP-20171009	FL358-MW4-20171006	FL358-YPAYMOR MW3-20171003	
Sample Date	10/6/2017	10/6/2017	10/9/2017	10/9/2017	10/6/2017	10/3/2017	
Bromomethane	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	11.2
Carbon Disulfide	0.20 U	0.20 U	0.27 U	0.27 U	0.20 U	0.20 U	800
Carbon Tetrachloride	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.625
Chlorobenzene	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	160
Chloroethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NE
Chloroform	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	1.41
Chloromethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NE
cis-1,2-Dichloroethene	**0.61**	0.20 U	0.20 U	0.20 U	**0.34**	**0.20**	16
cis-1,3-Dichloropropene	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	NE
Dibromochloromethane	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.521
Dibromomethane	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	80
Dichlorodifluoromethane (CFC-12)	0.39 U	0.39 U	0.20 U	0.20 U	0.39 U	0.20 U	1,600
Ethylbenzene	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	700
Hexachlorobutadiene	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.561
Isopropylbenzene (Cumene)	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	800
Methyl Iodide (Iodomethane)	1.4 U	1.4 U	2.0 U	2.0 U	1.4 U	1.5 U	NE
Methyl t-butyl ether	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	20
Methylene Chloride	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5
Naphthalene	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.4 U	160
n-Butylbenzene	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	400
n-Propylbenzene	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	800
p-Isopropyltoluene	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	NE
Sec-Butylbenzene	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	800
Styrene	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	1,600
Tert-Butylbenzene	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	800
Tetrachloroethene	**0.21**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	5
Toluene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1,000
Trans-1,2-Dichloroethene	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	160
Trans-1,3-Dichloropropene	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	NE
Trichloroethene	**1.0**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	5
Trichlorofluoromethane (CFC-11)	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	2,400
Vinyl Acetate	1.0 U	1.0 U	1.3 U	1.3 U	1.0 U	1.3 U	8,000
Vinyl Chloride	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.2
Xylene, m-,p-	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	1,000
Xylene, o-	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	
Total Xylenes[7]	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	
PAHs[8] (ug/L)							
1-Methylnaphthalene	--	--	--	--	--	--	160
2-Methylnaphthalene	--	--	--	--	--	--	
Naphthalene	--	--	--	--	--	--	
Total Naphthalenes[9]	--	--	--	--	--	--	
Acenaphthene	--	--	--	--	--	--	960
Acenaphthylene	--	--	--	--	--	--	NE
Anthracene	--	--	--	--	--	--	4,800
Benzo(a)anthracene	--	--	--	--	--	--	See cPAHs
Benzo(a)pyrene	--	--	--	--	--	--	See cPAHs
Benzo(b)fluoranthene	--	--	--	--	--	--	See cPAHs
Benzo(g,h,i)perylene	--	--	--	--	--	--	NE
Benzo(j,k)fluoranthene	--	--	--	--	--	--	See cPAHs
Chrysene	--	--	--	--	--	--	See cPAHs

Well Identification	FL358-MW1	FL358-MW2	FL358-MW3		FL358-MW4	Y Pay Mor-MW3	MTCA Method A/B Cleanup Level[10]
Sample Identification[2]	FL358-MW1-20171006	FL358-MW2-20171006	FL358-MW3-20171009	DUP-20171009	FL358-MW4-20171006	FL358-YPAYMOR MW3-20171003	
Sample Date	10/6/2017	10/6/2017	10/9/2017	10/9/2017	10/6/2017	10/3/2017	
Dibenzo(a,h)anthracene	--	--	--	--	--	--	See cPAHs
Fluoranthene	--	--	--	--	--	--	640
Fluorene	--	--	--	--	--	--	640
Indeno(1,2,3-c,d)pyrene	--	--	--	--	--	--	See cPAHs
Phenanthrene	--	--	--	--	--	--	NE
Pyrene	--	--	--	--	--	--	480
cPAHs (benzo(a)pyrene toxicity equivalent concentration)[12]	--	--	--	--	--	--	0.1

Notes:

[1] Chemical analysis performed by OnSite Environmental, Inc., of Redmond, Washington.

[2] Sample ID = Parcel ID - boring number - collection date. FL358-MW1-20171006 = MW 1 from Parcel FL358, collected on 10/6/2017.

[3] Gasoline-range petroleum hydrocarbons by Northwest Method NWTPH-Gx.

[4] Diesel- and lube oil-range petroleum hydrocarbons by Northwest Method NWTPH-Dx.

[5] Resource Conservation Recovery Act (RCRA) metals analyzed by United States Environmental Protection Agency (EPA) Method 200.8.

[6] Volatile organic compounds (VOCs) analyzed by United States Environmental Protection Agency (EPA) Method 8260C.

[7] Total xylenes consists of m,p- and o- xylenes. The higher detection limit is used for non-detects.

[8] Polycyclic aromatic hydrocarbons (PAHs) and carcinogenic PAHs (cPAHs) analyzed by EPA Method 8270D/SIM.

[9] Total naphthalenes consists of 1-methylnaphthalene, 2-methylnaphthalene and naphthalene.

[10] MTCA Method B cleanup level used when Method A cleanup level has not been established.

[11] Model Toxics Control Act (MTCA) Method A cleanup level for gasoline is 800 µg/L if benzene is detected.

[12] Results for cPAHs are shown as the sum of the benzo[a]pyrene toxicity equivalent concentrations, calculated by multiplying each individual cPAH concentration by its corresponding TEF. In this sum, non-detects are represented as ½ of the corresponding analyte reporting limit multiplied by the TEF.

U = Analyte was not detected at or greater than the listed reporting limit.

TEF = Toxicity Equivalency Factor as defined in WAC 173-340-900 Table 708-2.

Bold font type indicates that the analyte was detected at a concentration greater than the respective laboratory reporting limit.

Grey shading indicates that the detected result exceeds the specified MTCA Cleanup Level.

"--" = not tested

mg/L = milligrams per liter

µg/L = micrograms per liter

NE = not established

MTCA = Model Toxics Control Act

Table 3

Summary of Soil Chemical Analytical Results[1] - ARCO Explorations

Sound Transit - Federal Way Link Extension FL358/FL361/FL363

Federal Way, Washington

Boring Identification	FL363-B4						FL363-B5					MTCA Method A/B Cleanup Level[12]	Naturally Occurring Background Metals in Puget Sound Soils[15]
Sample Identification[2]	FL363-B4-0-0.5	FL363-B4-0.5-1	FL363-B4-7-8	FL363-B4-11-12	FL363-B4-12-13	FL363-B4-17-18	FL363-B5-0-0.5	FL363-B5-0.5-1	FL363-B5-5.5-6.5	FL363-B5-11.5-12.5	FL363-B5-17-18		
Sample Date	10/4/2017	10/4/2017	10/4/2017	10/4/2017	10/4/2017	10/4/2017	10/4/2017	10/4/2017	10/4/2017	10/4/2017	10/4/2017		
Sample Start Depth (feet bgs)	0.0	0.5	7.0	11	12	17	0.0	0.5	5.5	11.5	17		
Sample End Depth (feet bgs)	0.5	1.0	8.0	12	13	18	0.5	1.0	6.5	12.5	18		
NWTPH-Gx[3] (mg/kg)													
Gasoline-range hydrocarbons	--	--	8.8 U	**73**	**1,300**	**8.8**	--	--	5.7 U	**500**	5.6 U	30/100[13]	N/A
NWTPH-Dx[4] (mg/kg)													
Diesel-range hydrocarbons	--	--	**74**[16]	130 U	200 U	31 U	--	--	28 U	320 U	27 U	2,000	N/A
Lube Oil-range hydrocarbons	--	--	**500**	58 U	56 U	**98**	--	--	55 U	60 U	54 U	2,000	
Metals[5] (mg/kg)													
Arsenic	5.3 U	5.5 U	--	--	--	--	5.3 U	5.6 U	--	--	--	20	7
Lead	5.3 U	5.5 U	**31**	5.8 U	5.6 U	6.2 U	5.3 U	5.6 U	5.5 U	6.0 U	5.4 U	250	24
BTEX[6] (mg/kg)													
Benzene	--	--	--	--	--	--	--	--	--	--	--	0.03	N/A
Ethylbenzene	--	--	--	--	--	--	--	--	--	--	--	7	
Toluene	--	--	--	--	--	--	--	--	--	--	--	6	
Xylene, m-,p-	--	--	--	--	--	--	--	--	--	--	--	9	
Xylene, o-	--	--	--	--	--	--	--	--	--	--	--		
Total Xylenes[7]	--	--	--	--	--	--	--	--	--	--	--		
VOCs[8] (mg/kg)													
1,1,1,2-Tetrachloroethane	--	--	0.0016 U	0.058 U	0.046 U	0.00097 U	--	--	0.0012 U	0.061 U	0.0010 U	38.5	N/A
1,1,1-Trichloroethane	--	--	0.0016 U	0.058 U	0.046 U	0.00097 U	--	--	0.0012 U	0.061 U	0.0010 U	2	
1,1,2,2-Tetrachloroethane	--	--	0.0016 U	0.058 U	0.046 U	0.00097 U	--	--	0.0012 U	0.061 U	0.0010 U	5	
1,1,2-Trichloroethane	--	--	0.0016 U	0.058 U	0.046 U	0.00097 U	--	--	0.0012 U	0.061 U	0.0010 U	17.5	
1,1-Dichloroethane	--	--	0.0016 U	0.058 U	0.046 U	0.00097 U	--	--	0.0012 U	0.061 U	0.0010 U	175	
1,1-Dichloroethene	--	--	0.0016 U	0.058 U	0.046 U	0.00097 U	--	--	0.0012 U	0.061 U	0.0010 U	4,000	
1,1-Dichloropropene	--	--	0.0016 U	0.058 U	0.046 U	0.00097 U	--	--	0.0012 U	0.061 U	0.0010 U	NE	
1,2,3-Trichlorobenzene	--	--	0.0016 U	0.058 U	0.046 U	0.00097 U	--	--	0.0012 U	0.061 U	0.0010 U	NE	
1,2,3-Trichloropropane	--	--	0.0016 U	0.058 U	0.046 U	0.00097 U	--	--	0.0012 U	0.061 U	0.0010 U	0.0333	
1,2,4-Trichlorobenzene	--	--	0.0016 U	0.058 U	0.046 U	0.00097 U	--	--	0.0012 U	0.061 U	0.0010 U	34.5	
1,2,4-Trimethylbenzene	--	--	**0.053**	0.058 U	**47**	**0.015**	--	--	**0.0025**	**3.8**	**0.0084**	NE	
1,2-Dibromo-3-Chloropropane	--	--	0.0080 U	0.29 U	0.23 U	0.0048 U	--	--	0.0061 U	0.30 U	0.0051 U	1.25	
1,2-Dibromoethane	--	--	0.0016 U	0.058 U	0.046 U	0.00097 U	--	--	0.0012 U	0.061 U	0.0010 U	0.005	
1,2-Dichlorobenzene (o-Dichlorobenzene)	--	--	0.0016 U	0.058 U	0.046 U	0.00097 U	--	--	0.0012 U	0.061 U	0.0010 U	7,200	
1,2-Dichloroethane	--	--	0.0016 U	0.058 U	0.046 U	0.00097 U	--	--	0.0012 U	0.061 U	0.0010 U	11	
1,2-Dichloropropane	--	--	0.0016 U	0.058 U	0.046 U	0.00097 U	--	--	0.0012 U	0.061 U	0.0010 U	27.8	
1,3,5-Trimethylbenzene	--	--	**0.022**	0.058 U	**18**	**0.0024**	--	--	0.0012 U	**0.39**	**0.0014**	800	
1,3-Dichlorobenzene (m-Dichlorobenzene)	--	--	0.0016 U	0.058 U	0.046 U	0.00097 U	--	--	0.0012 U	0.061 U	0.0010 U	NE	
1,3-Dichloropropane	--	--	0.0016 U	0.058 U	0.046 U	0.00097 U	--	--	0.0012 U	0.061 U	0.0010 U	NE	
1,4-Dichlorobenzene (p-Dichlorobenzene)	--	--	0.0016 U	0.058 U	0.046 U	0.00097 U	--	--	0.0012 U	0.061 U	0.0010 U	185	
2,2-Dichloropropane	--	--	0.0016 U	0.058 U	0.046 U	0.00097 U	--	--	0.0012 U	0.061 U	0.0010 U	NE	

Boring Identification	FL363-B4						FL363-B5					MTCA Method A/B Cleanup Level[12]	Naturally Occurring Background Metals in Puget Sound Soils[15]
Sample Identification[2]	FL363-B4-0-0.5	FL363-B4-0.5-1	FL363-B4-7-8	FL363-B4-11-12	FL363-B4-12-13	FL363-B4-17-18	FL363-B5-0-0.5	FL363-B5-0.5-1	FL363-B5-5.5-6.5	FL363-B5-11.5-12.5	FL363-B5-17-18		
Sample Date	10/4/2017	10/4/2017	10/4/2017	10/4/2017	10/4/2017	10/4/2017	10/4/2017	10/4/2017	10/4/2017	10/4/2017	10/4/2017		
Sample Start Depth (feet bgs)	0.0	0.5	7.0	11	12	17	0.0	0.5	5.5	11.5	17		
Sample End Depth (feet bgs)	0.5	1.0	8.0	12	13	18	0.5	1.0	6.5	12.5	18		
2-Butanone (MEK)	--	--	**0.058**	0.29 U	0.23 U	0.0048 U	--	--	**0.015**	0.30 U	**0.0070**	48,000	N/A
2-Chloroethyl vinyl ether	--	--	0.0080 U	0.29 U	0.23 U	0.0048 U	--	--	0.0061 U	0.30 U	0.0051 U	NE	
2-Chlorotoluene	--	--	0.0016 U	0.058 U	0.046 U	0.00097 U	--	--	0.0012 U	0.061 U	0.0010 U	1,600	
2-Hexanone	--	--	0.0080 U	0.29 U	0.23 U	0.0048 U	--	--	0.0061 U	0.30 U	0.0051 U	NE	
4-Chlorotoluene	--	--	0.0016 U	0.058 U	0.046 U	0.00097 U	--	--	0.0012 U	0.061 U	0.0010 U	NE	
4-Methyl-2-Pentanone (Methyl isobutyl ketone)	--	--	0.0080 U	0.29 U	0.23 U	0.0048 U	--	--	0.0061 U	0.30 U	0.0051 U	6,400	
Acetone[9]	--	--	**0.25**	0.29 U	0.23 U	**0.028**	--	--	**0.21**	0.30 U	**0.065**	72,000	
Benzene	--	--	**0.0035**	0.058 U	0.046 U	0.00097 U	--	--	0.0012 U	0.061 U	**0.012**	0.03	
Bromobenzene	--	--	0.0016 U	0.058 U	0.046 U	0.00097 U	--	--	0.0012 U	0.061 U	0.0010 U	NE	
Bromochloromethane	--	--	0.0016 U	0.058 U	0.046 U	0.00097 U	--	--	0.0012 U	0.061 U	0.0010 U	NE	
Bromodichloromethane	--	--	0.0016 U	0.058 U	0.046 U	0.00097 U	--	--	0.0012 U	0.061 U	0.0010 U	16.1	
Bromoform (Tribromomethane)	--	--	0.0080 U	0.29 U	0.23 U	0.0048 U	--	--	0.0061 U	0.30 U	0.0051 U	127	
Bromomethane	--	--	0.0016 U	0.058 U	0.046 U	0.00097 U	--	--	0.0012 U	0.061 U	0.0010 U	112	
Carbon Disulfide	--	--	0.0016 U	0.058 U	0.046 U	0.00097 U	--	--	0.0012 U	0.061 U	0.0010 U	8,000	
Carbon Tetrachloride	--	--	0.0016 U	0.058 U	0.046 U	0.00097 U	--	--	0.0012 U	0.061 U	0.0010 U	14.3	
Chlorobenzene	--	--	0.0016 U	0.058 U	0.046 U	0.00097 U	--	--	0.0012 U	0.061 U	0.0010 U	1,600	
Chloroethane	--	--	0.0080 U	0.29 U	0.23 U	0.0048 U	--	--	0.0061 U	0.30 U	0.0051 U	NE	
Chloroform	--	--	0.0016 U	0.058 U	0.046 U	0.00097 U	--	--	0.0012 U	0.061 U	0.0010 U	32.3	
Chloromethane	--	--	0.0080 U	0.29 U	0.23 U	0.0063 U	--	--	0.0079 U	0.30 U	0.0051 U	NE	
cis-1,2-Dichloroethene	--	--	0.0016 U	0.058 U	0.046 U	0.00097 U	--	--	0.0012 U	0.061 U	0.0010 U	160	
cis-1,3-Dichloropropene	--	--	0.0016 U	0.058 U	0.046 U	0.00097 U	--	--	0.0012 U	0.061 U	0.0010 U	NE	
Dibromochloromethane	--	--	0.0016 U	0.058 U	0.046 U	0.00097 U	--	--	0.0012 U	0.061 U	0.0010 U	11.9	
Dibromomethane	--	--	0.0016 U	0.058 U	0.046 U	0.00097 U	--	--	0.0012 U	0.061 U	0.0010 U	800	
Dichlorodifluoromethane (CFC-12)	--	--	0.0029 U	0.10 U	0.082 U	0.0021 U	--	--	0.0027 U	0.11 U	0.0018 U	16,000	
Ethylbenzene	--	--	0.0016 U	0.058 U	**3.7**	**0.0046**	--	--	**0.0027**	**11**	**0.011**	6	
Hexachlorobutadiene	--	--	0.0080 U	0.29 U	0.23 U	0.0048 U	--	--	0.0061 U	0.30 U	0.0051 U	12.8	
Isopropylbenzene (Cumene)	--	--	**0.021**	0.058 U	**0.98**	**0.0011**	--	--	0.0012 U	**1.5**	**0.0014**	8,000	
Methyl Iodide (Iodomethane)	--	--	0.0080 U	0.29 U	0.23 U	0.0067 U	--	--	0.0084 U	0.30 U	0.0051 U	NE	
Methyl t-butyl ether	--	--	0.0016 U	0.058 U	0.046 U	0.00097 U	--	--	0.0012 U	0.061 U	0.0010 U	0.1	
Methylene Chloride	--	--	0.016 U	0.58 U	0.46 U	0.0097 U	--	--	0.012 U	0.61 U	0.010 U	0.02	
Naphthalene	--	--	**0.0030**	0.058 U	**4.3**	**0.0078**	--	--	0.0012 U	**3.5**	0.0010 U	5	
n-Butylbenzene	--	--	**0.027**	0.058 U	**6.8**	**0.0028**	--	--	0.0012 U	**3.2**	**0.0017**	4,000	
n-Propylbenzene	--	--	**0.076**	0.058 U	**5.1**	**0.0067**	--	--	0.0012 U	**6.2**	**0.0039**	8,000	
p-Isopropyltoluene	--	--	**0.021**	0.058 U	**0.63**	0.00097 U	--	--	0.0012 U	**0.23**	0.0010 U	NE	
Sec-Butylbenzene	--	--	**0.033**	0.058 U	**1.1**	0.00097 U	--	--	0.0012 U	**0.86**	0.0010 U	8,000	
Styrene	--	--	0.0016 U	0.058 U	0.046 U	0.00097 U	--	--	0.0012 U	0.061 U	0.0010 U	16,000	
Tert-Butylbenzene	--	--	0.0016 U	0.058 U	0.046 U	0.00097 U	--	--	0.0012 U	0.061 U	0.0010 U	8,000	
Tetrachloroethene	--	--	0.0016 U	0.058 U	0.046 U	0.00097 U	--	--	0.0012 U	0.061 U	0.0010 U	0.05	
Toluene	--	--	0.0080 U	0.29 U	0.23 U	0.0048 U	--	--	0.0061 U	0.30 U	**0.018**	7	
Trans-1,2-Dichloroethene	--	--	0.0016 U	0.058 U	0.046 U	0.00097 U	--	--	0.0012 U	0.061 U	0.0010 U	1,600	
Trans-1,3-Dichloropropene	--	--	0.0016 U	0.058 U	0.046 U	0.00097 U	--	--	0.0012 U	0.061 U	0.0010 U	NE	
Trichloroethene	--	--	0.0016 U	0.058 U	0.046 U	0.00097 U	--	--	0.0012 U	0.061 U	0.0010 U	0.03	
Trichlorofluoromethane (CFC-11)	--	--	0.0016 U	0.058 U	0.046 U	0.00097 U	--	--	0.0012 U	0.061 U	0.0010 U	24,000	
Vinyl Acetate	--	--	0.0080 U	0.29 U	0.23 U	0.0048 U	--	--	0.0061 U	0.30 U	0.0051 U	80,000	

Boring Identification	FL363-B4						FL363-B5					MTCA Method A/B Cleanup Level[12]	Naturally Occurring Background Metals in Puget Sound Soils[15]
Sample Identification[2]	FL363-B4-0-0.5	FL363-B4-0.5-1	FL363-B4-7-8	FL363-B4-11-12	FL363-B4-12-13	FL363-B4-17-18	FL363-B5-0-0.5	FL363-B5-0.5-1	FL363-B5-5.5-6.5	FL363-B5-11.5-12.5	FL363-B5-17-18		
Sample Date	10/4/2017	10/4/2017	10/4/2017	10/4/2017	10/4/2017	10/4/2017	10/4/2017	10/4/2017	10/4/2017	10/4/2017	10/4/2017		
Sample Start Depth (feet bgs)	0.0	0.5	7.0	11	12	17	0.0	0.5	5.5	11.5	17		
Sample End Depth (feet bgs)	0.5	1.0	8.0	12	13	18	0.5	1.0	6.5	12.5	18		
Vinyl Chloride	--	--	0.0016 U	0.058 U	0.046 U	0.00097 U	--	--	0.0012 U	0.061 U	0.0010 U	240	N/A
Xylene, m-,p-	--	--	**0.049**	0.12 U	**20**	**0.011**	--	--	**0.012**	**0.80**	**0.013**	9	
Xylene, o-	--	--	**0.0017**	0.058 U	**2.8**	**0.0022**	--	--	**0.0037**	**0.069**	**0.0040**		
Total Xylenes[7]	--	--	**0.0507**	0.12 U	**22.8**	**0.0132**	--	--	**0.0157**	**0.869**	**0.0170**		
PAHs[10] (mg/kg)													
1-Methylnaphthalene	--	--	**0.010**	**0.51**	**0.45**	**0.012**	--	--	0.0073 U	**0.55**	0.0073 U	5	N/A
2-Methylnaphthalene	--	--	**0.016**	**1.1**	**0.81**	**0.022**	--	--	0.0073 U	**1.0**	0.0073 U		
Naphthalene	--	--	**0.065**	**0.79**	**1.1**	**0.033**	--	--	**0.029**	**1.3**	0.0073 U		
Total Naphthalenes[11]	--	--	**0.091**	**2.4**	**2.36**	**0.067**	--	--	**0.029**	**2.85**	0.0073 U		
Acenaphthene	--	--	0.0092 U	0.0078 U	0.0075 U	0.0082 U	--	--	0.0073 U	0.0080 U	0.0073 U	4,800	
Acenaphthylene	--	--	0.0092 U	0.0078 U	0.0075 U	0.0082 U	--	--	0.0073 U	0.0080 U	0.0073 U	NE	
Anthracene	--	--	0.0092 U	0.0078 U	0.0075 U	0.0082 U	--	--	0.0073 U	0.0080 U	0.0073 U	24,000	
Benzo(a)anthracene	--	--	0.0092 U	0.0078 U	0.0075 U	0.0082 U	--	--	0.0073 U	0.0080 U	0.0073 U	See cPAHs	
Benzo(a)pyrene	--	--	0.0092 U	0.0078 U	0.0075 U	0.0082 U	--	--	0.0073 U	0.0080 U	0.0073 U	See cPAHs	
Benzo(b)fluoranthene	--	--	0.0092 U	0.0078 U	0.0075 U	0.0082 U	--	--	0.0073 U	0.0080 U	0.0073 U	See cPAHs	
Benzo(g,h,i)perylene	--	--	0.0092 U	0.0078 U	0.0075 U	0.0082 U	--	--	0.0073 U	0.0080 U	0.0073 U	NE	
Benzo(j,k)fluoranthene	--	--	0.0092 U	0.0078 U	0.0075 U	0.0082 U	--	--	0.0073 U	0.0080 U	0.0073 U	See cPAHs	
Chrysene	--	--	0.0092 U	0.0078 U	0.0075 U	0.0082 U	--	--	0.0073 U	0.0080 U	0.0073 U	See cPAHs	
Dibenzo(a,h)anthracene	--	--	0.0092 U	0.0078 U	0.0075 U	0.0082 U	--	--	0.0073 U	0.0080 U	0.0073 U	See cPAHs	
Fluoranthene	--	--	**0.010**	0.0078 U	0.0075 U	0.0082 U	--	--	0.0073 U	0.0080 U	0.0073 U	3,200	
Fluorene	--	--	0.0092 U	**0.0084**	0.0075 U	0.0082 U	--	--	0.0073 U	0.0080 U	0.0073 U	3,200	
Indeno(1,2,3-c,d)pyrene	--	--	0.0092 U	0.0078 U	0.0075 U	0.0082 U	--	--	0.0073 U	0.0080 U	0.0073 U	See cPAHs	
Phenanthrene	--	--	**0.015**	**0.011**	0.0075 U	0.0082 U	--	--	0.0073 U	0.0080 U	0.0073 U	NE	
Pyrene	--	--	0.0092 U	0.0078 U	0.0075 U	0.0082 U	--	--	0.0073 U	0.0080 U	0.0073 U	2,400	
cPAHs (benzo(a)pyrene toxicity equivalent concentration)[14]	--	--	0.0069 U	0.0059 U	0.0057 U	0.0062 U	--	--	0.0055 U	0.006 U	0.0055 U	0.1	

Boring Identification	FL363-B6			FL363-B7					MTCA Method A/B Cleanup Level[12]	Naturally Occurring Background Metals in Puget Sound Soils[15]
Sample Identification[2]	FL363-B6-6-7	FL363-B6-11-12	FL363-B6-17-18	FL363-B7-0-0.5	FL363-B7-0.5-1	FL363-B7-6-7	FL363-B7-10-11	FL363-B7-17-18		
Sample Date	10/4/2017	10/4/2017	10/4/2017	10/4/2017	10/4/2017	10/4/2017	10/4/2017	10/4/2017		
Sample Start Depth (feet bgs)	6.0	11	17	0.0	0.5	6.0	10	17		
Sample End Depth (feet bgs)	7.0	12	18	0.5	1.0	7.0	11	18		
NWTPH-Gx[3] (mg/kg)										
Gasoline-range hydrocarbons	7.5 U	8.6 U	5.5 U	--	--	5.3 U	5.4 U	4.9 U	30/100[13]	N/A
NWTPH-Dx[4] (mg/kg)										
Diesel-range hydrocarbons	28 U	36 U	29 U	--	--	28 U	29 U	28 U	2,000	N/A
Lube Oil-range hydrocarbons	**63**	**100**	57 U	--	--	56 U	58 U	57 U	2,000	
Metals[5] (mg/kg)										
Arsenic	--	--	--	5.6 U	5.6 U	--	--	--	20	7
Lead	5.5 U	**23**	5.7 U	5.6 U	5.6 U	5.6 U	5.8 U	5.7 U	250	24
BTEX[6] (mg/kg)										
Benzene	--	--	0.020 U	--	--	--	--	--	0.03	N/A
Ethylbenzene	--	--	0.055 U	--	--	--	--	--	7	
Toluene	--	--	0.055 U	--	--	--	--	--	6	
Xylene, m-,p-	--	--	0.055 U	--	--	--	--	--	9	
Xylene, o-	--	--	0.055 U	--	--	--	--	--		
Total Xylenes[7]	--	--	0.055 U	--	--	--	--	--		
VOCs[8] (mg/kg)										
1,1,1,2-Tetrachloroethane	0.0012 U	0.0025 U	0.0011 U	--	--	0.0010 U	0.00079 U	0.0010 U	38.5	N/A
1,1,1-Trichloroethane	0.0012 U	0.0025 U	0.0011 U	--	--	0.0010 U	0.00079 U	0.0010 U	2	
1,1,2,2-Tetrachloroethane	0.061 U	0.097 U	0.0011 U	--	--	0.0010 U	0.00079 U	0.0010 U	5	
1,1,2-Trichloroethane	0.0012 U	0.0025 U	0.0011 U	--	--	0.0010 U	0.00079 U	0.0010 U	17.5	
1,1-Dichloroethane	0.0012 U	0.0025 U	0.0011 U	--	--	0.0010 U	0.00079 U	0.0010 U	175	
1,1-Dichloroethene	0.0012 U	0.0025 U	0.0011 U	--	--	0.0010 U	0.00079 U	0.0010 U	4,000	
1,1-Dichloropropene	0.0012 U	0.0025 U	0.0011 U	--	--	0.0010 U	0.00079 U	0.0010 U	NE	
1,2,3-Trichlorobenzene	0.061 U	0.097 U	0.0011 U	--	--	0.0010 U	0.00079 U	0.0010 U	NE	
1,2,3-Trichloropropane	0.061 U	0.097 U	0.0011 U	--	--	0.0010 U	0.00079 U	0.0010 U	0.0333	
1,2,4-Trichlorobenzene	0.061 U	0.097 U	0.0011 U	--	--	0.0010 U	0.00079 U	0.0010 U	34.5	
1,2,4-Trimethylbenzene	0.061 U	0.097 U	0.0011 U	--	--	**0.0041**	**0.0020**	0.0010 U	NE	
1,2-Dibromo-3-Chloropropane	0.31 U	0.49 U	0.0056 U	--	--	0.0052 U	0.0039 U	0.0051 U	1.25	
1,2-Dibromoethane	0.0012 U	0.0025 U	0.0011 U	--	--	0.0010 U	0.00079 U	0.0010 U	0.005	
1,2-Dichlorobenzene (o-Dichlorobenzene)	0.061 U	0.097 U	0.0011 U	--	--	0.0010 U	0.00079 U	0.0010 U	7,200	
1,2-Dichloroethane	0.0012 U	0.0025 U	0.0011 U	--	--	0.0010 U	0.00079 U	0.0010 U	11	
1,2-Dichloropropane	0.0012 U	0.0025 U	0.0011 U	--	--	0.0010 U	0.00079 U	0.0010 U	27.8	
1,3,5-Trimethylbenzene	0.061 U	0.097 U	0.0011 U	--	--	**0.0017**	**0.0012**	0.0010 U	800	
1,3-Dichlorobenzene (m-Dichlorobenzene)	0.061 U	0.097 U	0.0011 U	--	--	0.0010 U	0.00079 U	0.0010 U	NE	
1,3-Dichloropropane	0.0012 U	0.0025 U	0.0011 U	--	--	0.0010 U	0.00079 U	0.0010 U	NE	
1,4-Dichlorobenzene (p-Dichlorobenzene)	0.061 U	0.097 U	0.0011 U	--	--	0.0010 U	0.00079 U	0.0010 U	185	
2,2-Dichloropropane	0.0012 U	0.0025 U	0.0011 U	--	--	0.0010 U	0.00079 U	0.0010 U	NE	

Boring Identification	FL363-B6			FL363-B7					MTCA Method A/B Cleanup Level[12]	Naturally Occurring Background Metals in Puget Sound Soils[15]
Sample Identification[2]	FL363-B6-6-7	FL363-B6-11-12	FL363-B6-17-18	FL363-B7-0-0.5	FL363-B7-0.5-1	FL363-B7-6-7	FL363-B7-10-11	FL363-B7-17-18		
Sample Date	10/4/2017	10/4/2017	10/4/2017	10/4/2017	10/4/2017	10/4/2017	10/4/2017	10/4/2017		
Sample Start Depth (feet bgs)	6.0	11	17	0.0	0.5	6.0	10	17		
Sample End Depth (feet bgs)	7.0	12	18	0.5	1.0	7.0	11	18		
2-Butanone (MEK)	**0.023**	**0.13**	0.0056 U	--	--	**0.0072**	**0.0043**	0.0051 U	48,000	N/A
2-Chloroethyl vinyl ether	0.0059 U	0.012 U	0.0056 U	--	--	0.0052 U	0.0039 U	0.0051 U	NE	
2-Chlorotoluene	0.061 U	0.097 U	0.0011 U	--	--	0.0010 U	0.00079 U	0.0010 U	1,600	
2-Hexanone	0.0059 U	0.012 U	0.0056 U	--	--	0.0052 U	0.0039 U	0.0051 U	NE	
4-Chlorotoluene	0.061 U	0.097 U	0.0011 U	--	--	0.0010 U	0.00079 U	0.0010 U	NE	
4-Methyl-2-Pentanone (Methyl isobutyl ketone)	0.0059 U	0.012 U	0.0056 U	--	--	0.0052 U	0.0039 U	0.0051 U	6,400	
Acetone[9]	**0.23**	**0.56**	0.0056 U	--	--	**0.091**	**0.047**	0.0051 U	72,000	
Benzene	**0.020**	**0.0025**	0.0011 U	--	--	0.0010 U	**0.00089**	0.0010 U	0.03	
Bromobenzene	0.061 U	0.097 U	0.0011 U	--	--	0.0010 U	0.00079 U	0.0010 U	NE	
Bromochloromethane	0.0012 U	0.0025 U	0.0011 U	--	--	0.0010 U	0.00079 U	0.0010 U	NE	
Bromodichloromethane	0.0012 U	0.0025 U	0.0011 U	--	--	0.0010 U	0.00079 U	0.0010 U	16.1	
Bromoform (Tribromomethane)	0.0059 U	0.012 U	0.0056 U	--	--	0.0052 U	0.0039 U	0.0051 U	127	
Bromomethane	0.0012 U	0.0025 U	0.0011 U	--	--	0.0010 U	0.00079 U	0.0010 U	112	
Carbon Disulfide	**0.0026**	0.0025 U	0.0011 U	--	--	0.0010 U	0.00079 U	0.0010 U	8,000	
Carbon Tetrachloride	0.0012 U	0.0025 U	0.0011 U	--	--	0.0010 U	0.00079 U	0.0010 U	14.3	
Chlorobenzene	0.0012 U	0.0025 U	0.0011 U	--	--	0.0010 U	0.00079 U	0.0010 U	1,600	
Chloroethane	0.0059 U	0.012 U	0.0056 U	--	--	0.0052 U	0.0039 U	0.0051 U	NE	
Chloroform	0.0012 U	0.0025 U	0.0011 U	--	--	0.0010 U	0.00079 U	0.0010 U	32.3	
Chloromethane	0.0059 U	0.012 U	0.0056 U	--	--	0.0052 U	0.0039 U	0.0051 U	NE	
cis-1,2-Dichloroethene	0.0012 U	0.0025 U	0.0011 U	--	--	0.0010 U	0.00079 U	0.0010 U	160	
cis-1,3-Dichloropropene	0.0012 U	0.0025 U	0.0011 U	--	--	0.0010 U	0.00079 U	0.0010 U	NE	
Dibromochloromethane	0.0012 U	0.0025 U	0.0011 U	--	--	0.0010 U	0.00079 U	0.0010 U	11.9	
Dibromomethane	0.0012 U	0.0025 U	0.0011 U	--	--	0.0010 U	0.00079 U	0.0010 U	800	
Dichlorodifluoromethane (CFC-12)	0.0021 U	0.0044 U	0.0020 U	--	--	0.0019 U	0.0014 U	0.0018 U	16,000	
Ethylbenzene	**0.0014**	0.0025 U	0.0011 U	--	--	**0.0016**	**0.0013**	0.0010 U	6	
Hexachlorobutadiene	0.31 U	0.49 U	0.0056 U	--	--	0.0052 U	0.0039 U	0.0051 U	12.8	
Isopropylbenzene (Cumene)	0.0012 U	0.0025 U	0.0011 U	--	--	0.0010 U	0.00079 U	0.0010 U	8,000	
Methyl Iodide (Iodomethane)	0.0059 U	0.012 U	0.0056 U	--	--	0.0052 U	0.0039 U	0.0051 U	NE	
Methyl t-butyl ether	0.0012 U	0.0025 U	0.0011 U	--	--	0.0010 U	0.00079 U	0.0010 U	0.1	
Methylene Chloride	0.012 U	0.025 U	0.011 U	--	--	0.010 U	0.0079 U	0.010 U	0.02	
Naphthalene	0.061 U	0.097 U	0.0011 U	--	--	0.0010 U	0.00079 U	0.0010 U	5	
n-Butylbenzene	0.061 U	0.097 U	0.0011 U	--	--	0.0010 U	0.00079 U	0.0010 U	4,000	
n-Propylbenzene	0.061 U	0.097 U	0.0011 U	--	--	**0.0013**	0.00079 U	0.0010 U	8,000	
p-Isopropyltoluene	0.061 U	0.097 U	0.0011 U	--	--	0.0010 U	0.00079 U	0.0010 U	NE	
Sec-Butylbenzene	0.061 U	0.097 U	0.0011 U	--	--	0.0010 U	0.00079 U	0.0010 U	8,000	
Styrene	0.0012 U	0.0025 U	0.0011 U	--	--	0.0010 U	0.00079 U	0.0010 U	16,000	
Tert-Butylbenzene	0.061 U	0.097 U	0.0011 U	--	--	0.0010 U	0.00079 U	0.0010 U	8,000	
Tetrachloroethene	0.0012 U	0.0025 U	0.0011 U	--	--	0.0010 U	0.00079 U	0.0010 U	0.05	
Toluene	0.0059 U	0.012 U	0.0056 U	--	--	0.0052 U	0.0039 U	0.0051 U	7	
Trans-1,2-Dichloroethene	0.0012 U	0.0025 U	0.0011 U	--	--	0.0010 U	0.00079 U	0.0010 U	1,600	
Trans-1,3-Dichloropropene	0.0012 U	0.0025 U	0.0011 U	--	--	0.0010 U	0.00079 U	0.0010 U	NE	
Trichloroethene	0.0012 U	0.0025 U	0.0011 U	--	--	0.0010 U	0.00079 U	0.0010 U	0.03	
Trichlorofluoromethane (CFC-11)	0.0012 U	0.0025 U	0.0011 U	--	--	0.0010 U	0.00079 U	0.0010 U	24,000	
Vinyl Acetate	0.0059 U	0.012 U	0.0056 U	--	--	0.0052 U	0.0039 U	0.0051 U	80,000	

Boring Identification	FL363-B6			FL363-B7					MTCA Method A/B Cleanup Level[12]	Naturally Occurring Background Metals in Puget Sound Soils[15]
Sample Identification[2]	FL363-B6-6-7	FL363-B6-11-12	FL363-B6-17-18	FL363-B7-0-0.5	FL363-B7-0.5-1	FL363-B7-6-7	FL363-B7-10-11	FL363-B7-17-18		
Sample Date	10/4/2017	10/4/2017	10/4/2017	10/4/2017	10/4/2017	10/4/2017	10/4/2017	10/4/2017		
Sample Start Depth (feet bgs)	6.0	11	17	0.0	0.5	6.0	10	17		
Sample End Depth (feet bgs)	7.0	12	18	0.5	1.0	7.0	11	18		
Vinyl Chloride	0.0012 U	0.0025 U	0.0011 U	--	--	0.0010 U	0.00079 U	0.0010 U	240	N/A
Xylene, m-,p-	0.0024 U	0.0049 U	0.0023 U	--	--	**0.011**	**0.0059**	0.0020 U	9	
Xylene, o-	0.0012 U	0.0025 U	0.0011 U	--	--	**0.0025**	**0.0018**	0.0010 U		
Total Xylenes[7]	0.0024 U	0.0049 U	0.0023 U	--	--	**0.0135**	**0.0077**	0.0020 U		
PAHs[10] (mg/kg)										
1-Methylnaphthalene	0.0073 U	0.0096 U	0.0077 U	--	--	0.0074 U	0.0077 U	0.0075 U	5	N/A
2-Methylnaphthalene	0.0073 U	0.0096 U	0.0077 U	--	--	0.0074 U	0.0077 U	0.0075 U		
Naphthalene	0.0073 U	**0.0099**	0.0077 U	--	--	0.0074 U	0.0077 U	0.0075 U		
Total Naphthalenes[11]	0.0073 U	**0.0099**	0.0077 U	--	--	0.0074 U	0.0077 U	0.0075 U		
Acenaphthene	0.0073 U	0.0096 U	0.0077 U	--	--	0.0074 U	0.0077 U	0.0075 U	4,800	
Acenaphthylene	0.0073 U	0.0096 U	0.0077 U	--	--	0.0074 U	0.0077 U	0.0075 U	NE	
Anthracene	0.0073 U	0.0096 U	0.0077 U	--	--	0.0074 U	0.0077 U	0.0075 U	24,000	
Benzo(a)anthracene	0.0073 U	0.0096 U	0.0077 U	--	--	0.0074 U	0.0077 U	0.0075 U	See cPAHs	
Benzo(a)pyrene	0.0073 U	0.0096 U	0.0077 U	--	--	0.0074 U	0.0077 U	0.0075 U	See cPAHs	
Benzo(b)fluoranthene	0.0073 U	0.0096 U	0.0077 U	--	--	0.0074 U	0.0077 U	0.0075 U	See cPAHs	
Benzo(g,h,i)perylene	0.0073 U	0.0096 U	0.0077 U	--	--	0.0074 U	0.0077 U	0.0075 U	NE	
Benzo(j,k)fluoranthene	0.0073 U	0.0096 U	0.0077 U	--	--	0.0074 U	0.0077 U	0.0075 U	See cPAHs	
Chrysene	0.0073 U	0.0096 U	0.0077 U	--	--	0.0074 U	0.0077 U	0.0075 U	See cPAHs	
Dibenzo(a,h)anthracene	0.0073 U	0.0096 U	0.0077 U	--	--	0.0074 U	0.0077 U	0.0075 U	See cPAHs	
Fluoranthene	0.0073 U	0.0096 U	0.0077 U	--	--	0.0074 U	0.0077 U	0.0075 U	3,200	
Fluorene	0.0073 U	0.0096 U	0.0077 U	--	--	0.0074 U	0.0077 U	0.0075 U	3,200	
Indeno(1,2,3-c,d)pyrene	0.0073 U	0.0096 U	0.0077 U	--	--	0.0074 U	0.0077 U	0.0075 U	See cPAHs	
Phenanthrene	0.0073 U	0.0096 U	0.0077 U	--	--	0.0074 U	0.0077 U	0.0075 U	NE	
Pyrene	0.0073 U	0.0096 U	0.0077 U	--	--	0.0074 U	0.0077 U	0.0075 U	2,400	
cPAHs (benzo(a)pyrene toxicity equivalent concentration)[14]	0.0055 U	0.0072 U	0.0058 U	--	--	0.0056 U	0.0058 U	0.0057 U	0.1	

Notes:

[1] Chemical analysis performed by OnSite Environmental, Inc., of Redmond, Washington.

[2] Sample ID = Parcel ID - boring number - depth of sample [feet bgs]. FL358-B1-0.5-1 = Boring 1 from Parcel FL358, collected from a depth of 0.5 to 1 feet bgs.

[3] Gasoline-range petroleum hydrocarbons by Northwest Method NWTPH-Gx.

[4] Diesel- and lube oil-range petroleum hydrocarbons by Northwest Method NWTPH-Dx.

[5] Resource Conservation Recovery Act (RCRA) metals analyzed by EPA 6000/7000 series method.

[6] Benzene, toluene, ethylbenzene, xylenes (BTEX) by United States Environmental Protection Agency (EPA) Method 8021B.

[7] Total xylenes consists of m,p- and o- xylenes. The higher detection limit is used for non-detects.

[8] Volatile organic compounds (VOCs) analyzed by United States Environmental Protection Agency (EPA) Method 8260C.

[9] Acetone is a common laboratory contaminant.

[10] Polycyclic aromatic hydrocarbons (PAHs) and carcinogenic PAHs (cPAHs) analyzed by EPA Method 8270D/SIM.

[11] Total naphthalenes consists of 1-methylnaphthalene, 2-methylnaphthalene and naphthalene.

[12] MTCA Method B cleanup level used when Method A cleanup level has not been established.

[13] Model Toxics Control Act (MTCA) Method A cleanup level for gasoline is 30 mg/kg if benzene is detected or if the sum of toluene, ethylbenzene and xylenes are greater than or equal to 1% of the total gasoline detection.

[14] Results for cPAHs are shown as the sum of the benzo[a]pyrene toxicity equivalent concentrations, calculated by multiplying each individual cPAH concentration by its corresponding TEF. In this sum, non-detects are represented as ½ of the corresponding analyte reporting limit multiplied by the TEF.

[15] 90th Percentile for natural background soil metals concentrations in Puget Sound region, Department of Ecology, publication #94-115, dated October 1994.

[16] Hydrocarbons in the lube oil-range are impacting the diesel-range result.

"–" = not tested

mg/kg = milligrams per kilogram

MTCA = Model Toxics Control Act

U = Analyte was not detected at or greater than the listed reporting limit.

TEF = Toxicity Equivalency Factor as defined in WAC 173-340-900 Table 708-2.

Bold font type indicates that the analyte was detected at a concentration greater than the respective laboratory reporting limit.

Grey shading indicates that the detected result exceeds the specified MTCA Cleanup Level.

Table 4

Summary of Groundwater Chemical Analytical Results[1] - ARCO Explorations
Sound Transit - Federal Way Link Extension FL358/FL361/FL363
Federal Way, Washington

Well Identification	FL363-B4	FL363-B5	FL363-B6	FL363-B7	ARCO-MW31	ARCO-MW32	ARCO-MW37	MTCA Method A/B Cleanup Level[10]
Sample Identification[2]	FL363-B4-171004-W	FL363-B5-171004-W	FL363-B6-171004-W	FL363-B7-171004-W	ARCO-MW31	ARCO-MW32	ARCO-MW37	
Sample Date	10/4/2017	10/4/2017	10/4/2017	10/4/2017	10/9/2017	10/9/2017	10/9/2017	
NWTPH-Gx[3] (ug/L)								
Gasoline-range hydrocarbons	**24,000**	**7,200**	100 U	100 U	100 U	100 U	100 U	800/1,000[11]
NWTPH-Dx[4] (mg/L)								
Diesel-range hydrocarbons	**2.3[13]**	**1.1[13]**	0.31 U	0.28 U	0.26 U	**0.35**	**0.33**	0.5
Lube Oil-range Hydrocarbons	**0.52**	0.42 U	**0.48**	0.44 U	0.41 U	0.41 U	**0.46**	0.5
Metals[5] (ug/L)								
Lead	**29**	**29**	**50**	**180**	**8.1**	1.1 U	1.1 U	15
VOCs[6] (ug/L)								
1,1,1,2-Tetrachloroethane	4.0 U	4.0 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	1.68
1,1,1-Trichloroethane	4.0 U	4.0 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	200
1,1,2,2-Tetrachloroethane	5.0 U	5.0 U	0.25 U	0.25 U	0.20 U	0.20 U	0.20 U	0.219
1,1,2-Trichloroethane	4.0 U	4.0 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.768
1,1-Dichloroethane	4.0 U	4.0 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	7.68
1,1-Dichloroethene	4.0 U	4.0 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	400
1,1-Dichloropropene	4.0 U	4.0 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	NE
1,2,3-Trichlorobenzene	4.0 U	4.0 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	NE
1,2,3-Trichloropropane	4.0 U	4.0 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.00146
1,2,4-Trichlorobenzene	4.0 U	4.0 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	1.51
1,2,4-Trimethylbenzene	**860**	**180**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	NE
1,2-Dibromo-3-Chloropropane	20 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.0547
1,2-Dibromoethane	4.0 U	4.0 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.01
1,2-Dichlorobenzene (o-Dichlorobenzene)	4.0 U	4.0 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	720
1,2-Dichloroethane	4.0 U	4.0 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	5
1,2-Dichloropropane	4.0 U	4.0 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	1.22
1,3,5-Trimethylbenzene	**230**	**41**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	80
1,3-Dichlorobenzene (m-Dichlorobenzene)	4.0 U	4.0 U	**0.31**	0.20 U	0.20 U	0.20 U	0.20 U	NE
1,3-Dichloropropane	4.0 U	4.0 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	NE
1,4-Dichlorobenzene (p-Dichlorobenzene)	4.0 U	4.0 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	8.10
2,2-Dichloropropane	4.0 U	4.0 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	NE
2-Butanone (MEK)	100 U	100 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	4,800
2-Chloroethyl vinyl ether	78 U	78 U	3.9 U	3.9 U	10 U	10 U	10 U	NE
2-Chlorotoluene	4.0 U	4.0 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	160
2-Hexanone	40 U	40 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	NE
4-Chlorotoluene	4.0 U	4.0 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	NE
4-Methyl-2-Pentanone (Methyl isobutyl ketone)	50 U	50 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	640
Acetone	200 U	200 U	10 U	10 U	5.0 U	5.0 U	5.0 U	7,200
Benzene	4.0 U	**510**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	5
Bromobenzene	4.0 U	4.0 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	NE
Bromochloromethane	4.0 U	4.0 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	NE
Bromodichloromethane	4.0 U	4.0 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.706
Bromoform (Tribromomethane)	20 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.54
Bromomethane	4.0 U	4.0 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	11.2
Carbon Disulfide	4.0 U	4.0 U	0.20 U	0.20 U	0.27 U	0.27 U	0.27 U	800
Carbon Tetrachloride	4.0 U	4.0 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.625

Well Identification	FL363-B4	FL363-B5	FL363-B6	FL363-B7	ARCO-MW31	ARCO-MW32	ARCO-MW37	MTCA Method A/B Cleanup Level[10]
Sample Identification[2]	FL363-B4-171004-W	FL363-B5-171004-W	FL363-B6-171004-W	FL363-B7-171004-W	ARCO-MW31	ARCO-MW32	ARCO-MW37	
Sample Date	10/4/2017	10/4/2017	10/4/2017	10/4/2017	10/9/2017	10/9/2017	10/9/2017	
Chlorobenzene	4.0 U	4.0 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	160
Chloroethane	20 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NE
Chloroform	4.0 U	4.0 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	1.41
Chloromethane	20 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	NE
cis-1,2-Dichloroethene	4.0 U	4.0 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	16
cis-1,3-Dichloropropene	4.0 U	4.0 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	NE
Dibromochloromethane	4.0 U	4.0 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.521
Dibromomethane	4.0 U	4.0 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	80
Dichlorodifluoromethane (CFC-12)	7.4 U	7.4 U	0.37 U	0.37 U	0.20 U	0.20 U	0.20 U	1,600
Ethylbenzene	**430**	**340**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	700
Hexachlorobutadiene	4.0 U	4.0 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.561
Isopropylbenzene (Cumene)	**33**	**29**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	800
Methyl Iodide (Iodomethane)	26 U	26 U	1.3 U	1.3 U	2.0 U	2.0 U	2.0 U	NE
Methyl t-butyl ether	4.0 U	4.0 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	20
Methylene Chloride	20 U	20 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5
Naphthalene	**160**	28 U	1.4 U	1.4 U	1.3 U	1.3 U	1.3 U	160
n-Butylbenzene	**33**	**14**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	400
n-Propylbenzene	**120**	**78**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	800
p-Isopropyltoluene	4.0 U	4.0 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	NE
Sec-Butylbenzene	**9.4**	**6.4**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	800
Styrene	4.0 U	4.0 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	1,600
Tert-Butylbenzene	4.0 U	4.0 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	800
Tetrachloroethene	4.0 U	4.0 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	5
Toluene	20 U	**62**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1,000
Trans-1,2-Dichloroethene	4.0 U	4.0 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	160
Trans-1,3-Dichloropropene	4.0 U	4.0 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	NE
Trichloroethene	4.0 U	4.0 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	5
Trichlorofluoromethane (CFC-11)	4.0 U	4.0 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	2,400
Vinyl Acetate	20 U	20 U	1.0 U	1.0 U	1.3 U	1.3 U	1.3 U	8,000
Vinyl Chloride	4.0 U	4.0 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.2
Xylene, m-,p-	**2,000**	**400**	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	1,000
Xylene, o-	**800**	**26**	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	
Total Xylenes[7]	**2,800**	**426**	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	
PAHs[8] (ug/L)								
1-Methylnaphthalene	**35**	**8.2**	0.11 U	0.12 U	--	--	--	160
2-Methylnaphthalene	**68**	**14**	0.11 U	0.12 U	--	--	--	
Naphthalene	**130**	**16**	0.11 U	0.12 U	--	--	--	
Total Naphthalenes[9]	**233**	**38.2**	0.11 U	0.12 U	--	--	--	
Acenaphthene	**0.24**	0.10 U	0.11 U	0.12 U	--	--	--	960
Acenaphthylene	0.11 U	0.10 U	0.11 U	0.12 U	--	--	--	NE
Anthracene	0.11 U	0.10 U	0.11 U	0.12 U	--	--	--	4,800
Benzo(a)anthracene	0.011 U	0.010 U	0.011 U	0.012 U	--	--	--	See cPAHs
Benzo(a)pyrene	0.011 U	0.010 U	0.011 U	0.012 U	--	--	--	See cPAHs
Benzo(b)fluoranthene	0.011 U	0.010 U	0.011 U	0.012 U	--	--	--	See cPAHs
Benzo(g,h,i)perylene	0.011 U	0.010 U	0.011 U	0.012 U	--	--	--	NE
Benzo(j,k)fluoranthene	0.011 U	0.010 U	0.011 U	0.012 U	--	--	--	See cPAHs
Chrysene	0.011 U	0.010 U	0.011 U	0.012 U	--	--	--	See cPAHs
Dibenzo(a,h)anthracene	0.011 U	0.010 U	0.011 U	0.012 U	--	--	--	See cPAHs
Fluoranthene	0.11 U	0.10 U	0.11 U	0.12 U	--	--	--	640
Fluorene	**0.21**	0.10 U	0.11 U	0.12 U	--	--	--	640

Notes:

[1] Chemical analysis performed by OnSite Environmental, Inc., of Redmond, Washington.

[2] Sample ID = Parcel ID - boring number - collection date. FL358-MW1-20171006 = MW 1 from Parcel FL358, collected on 10/6/2017.

[3] Gasoline-range petroleum hydrocarbons by Northwest Method NWTPH-Gx.

[4] Diesel- and lube oil-range petroleum hydrocarbons by Northwest Method NWTPH-Dx.

[5] Resource Conservation Recovery Act (RCRA) metals analyzed by United States Environmental Protection Agency (EPA) Method 200.8.

[6] Volatile organic compounds (VOCs) analyzed by United States Environmental Protection Agency (EPA) Method 8260C.

[7] Total xylenes consists of m,p- and o- xylenes. The higher detection limit is used for non-detects.

[8] Polycyclic aromatic hydrocarbons (PAHs) and carcinogenic PAHs (cPAHs) analyzed by EPA Method 8270D/SIM.

[9] Total naphthalenes consists of 1-methylnaphthalene, 2-methylnaphthalene and naphthalene.

[10] MTCA Method B cleanup level used when Method A cleanup level has not been established.

[11] Model Toxics Control Act (MTCA) Method A cleanup level for gasoline is 800 µg/L if benzene is detected.

calculated by multiplying each individual cPAH concentration by its corresponding TEF. In this sum, non-detects are represented as ½ of the corresponding analyte reporting limit multiplied by the TEF.

[13] According to the laboratory, hydrocarbons in the gasoline range are impacting the diesel range result.

U = Analyte was not detected at or greater than the listed reporting limit.

TEF = Toxicity Equivalency Factor as defined in WAC 173-340-900 Table 708-2.

Bold font type indicates that the analyte was detected at a concentration greater than the respective laboratory reporting limit.

Grey shading indicates that the detected result exceeds the specified MTCA Cleanup Level.

APPENDIX B

Selection of Preferred Alternative

SOUNDTRANSIT

June 19, 2020

Jing Song
Site Manager
NWRO Toxics Cleanup Program
State of Washington Department of Ecology
3190 160th Avenue Southeast
Bellevue, Washington 98008-5452

Subject: Selection of Preferred Alternative
Y Pay Mor Drycleaner
VCP Project No. NW3265
Federal Way Link Extension Parcel FL-358

Dear Jing,

Sound Transit has completed the supplemental investigation and evaluation of remedial alternatives as discussed with you during our June 8, 2020 phone call. We identified six remedial alternatives, three that include soil excavation which would be completed before placement of fill associated with the Federal Way Transit Center (FWTC), and three that use thermal treatment technologies. This package presents a compilation of the supplemental investigation results and data supporting the Conceptual Site Model (CSM), along with the results of our remedial alternatives evaluation. Sound Transit requests Ecology's opinion on the proposed cleanup action and written approval to move forward with the interim action and related activities under the existing Environmental Covenants (EC) by June 26.

Sound Transit also requests Ecology's opinion by June 26 that the area subject to the existing environmental covenants as identified in the Ecology letter dated April 24, 2020 be reduced to the area of the perchloroethylene (PCE) and associated breakdown products groundwater plume shown in the attached figures.

Sound Transit proposes to implement "Alternative 1, Hot Spot Remedial Excavation" as an interim action to remove the highest concentrations of halogenated volatile organic compounds (HVOCs)-contaminated soil associated with releases at the former dry cleaner. Two "hot spot" remedial excavations will be completed, one situated in the building footprint where the 1991 spills occurred, and the second below and surrounding the parking lot catch basin within the loading dock north of the building, near the "back door" of the former

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dry cleaner. Both excavations will remove readily-accessible soil in the upper 8 to 10 feet below existing grade. Storm drain pipes in the vicinity of the northern hot spot will also be removed. The estimated quantity of HVOC-contaminated soil that will be removed during the interim action is 1,600 tons. Following the hot spot soil removal, the excavations will be backfilled to current grade, and then approximately 15 additional feet of fill will be placed across the entire Site surface.

The hot spot soil removal coupled with the extensive layer of fill to be placed will prevent direct contact exposure to residual contaminated soil within the upper 15 feet (the point of compliance for soil direct contact).

The "final remedy" associated with Alternative 1 is surface capping (as part of future site use), groundwater monitored natural attenuation (MNA), and an Environmental Covenant (EC). Groundwater at the Site is not currently used for beneficial purposes and beneficial uses would be prohibited through the future EC. Therefore, the only remaining potential exposure pathway is soil vapor to indoor air. The current plan for the source area of the Site is to be developed as a bus turn-around area without any surface structures. If future structures are likely to overlie residual contaminated soil or groundwater that could pose a risk for indoor air vapor intrusion, a chemically-resistant vapor barrier would be designed in conjunction with future structures.

The attached "Summary Table, Comparison of Remedial Alternatives" and "Remedial Alternatives Comparison Cost and Schedule" provide explanation of the benefits and costs associated with the alternatives. Based on the evaluation of costs and benefits of the six remedial alternatives considered, Alternative 1 was selected as the preferred alternative because Alternative 1 can be implemented in a way that meets the minimum threshold requirements of MTCA[1], and it provides a permanent solution.

The FWTC is planned to be open for service in 2024. An EC can be in place at the Site once the groundwater MNA has started (in late 2020) or subsequently in connection with Site development, with Ecology concurrence. Therefore, Alternative 1 provides for a reasonable restoration time frame. Once source material is removed by hot spot remedial excavation, the HVOC plume in groundwater is expected to continue to reduce in size and concentration given that this plume appears to have reached equilibrium and was managed under ECs since 1994.

We appreciate Ecology's expedited review of the attached information and opinion on the proposed remedial alternative. We understand that Ecology anticipates providing an opinion by June 26, 2020 so we can move forward with the interim action under the EC. We are also requesting Ecology's concurrence by June 26 that the area subject to the existing environmental

[1] Protect human health and the environment; comply with cleanup standards; comply with applicable state and federal laws; and provide compliance monitoring (protection monitoring, performance monitoring and confirmation monitoring).

covenants can be reduced. GeoEngineers and Sound Transit are available to discuss this further and answer any questions you may have. I can be reached at (206) 370-5531.

Sincerely,

DocuSigned by:
Susan Penoyar
6A964DF5D84E4C8...

Susan Penoyar, PE, LEG
Environmental Manager
Planning, Environment and Project Development
Sound Transit

cc:
Mike Warfel, Washington State Department of Ecology
Tricia DeOme, GeoEngineers

Attachments:
Attachment 1. Conceptual Site Model
Attachment 2. Data Analytical Tables
- Table 1. Soil Analytical Results
- Table 2. Groundwater Analytical Results

Attachment 3. Overview, Subsurface Conditions and Data Analytical Figures
- Figure 1. Vicinity Map
- Figure 2. Overview Site Plan
- Figure 3. Cross-Section A-A'
- Figure 4. Site Specific Soil Sample Results
- Figure 5. Soil Sample Results – 1991 Spill Area
- Figure 6. Groundwater Contours
- Figure 7. Site Specific Groundwater Sample Results

Attachment 4. Federal Way Transit Center Conceptual Design with Approximate Extent of Groundwater Plume
Attachment 5. Remedial Alternative Screening and Rough Order of Magnitude Cost Estimates
- Comparative Summary of Remedial Alternatives
- Ballpark Rough Order of Magnitude Remediation Cost Estimates – Summary
- Minimum Requirements of Cleanup Actions – WAC 173-340-360

Attachment 6. Figure Summary of Interim Action

Attachment 1
Conceptual Site Model

CONCEPTUAL SITE MODEL – Y PAY MOR DRY CLEANERS

SURFACE CONDITIONS

The Site is currently within an active construction site. The building has been demolished and the majority of the asphalt and concrete has been removed. Utilities have been disconnected but remain beneath the subsurface. The current ground surface elevations range from approximately Elevation 423 to 426 Feet (North American Vertical Datum of 1988). Approximately 15 feet of fill is planned to be placed on top of the existing surface in connection with development of the Federal Way Link Extension Project, which would bring final subgrades up to approximately Elevation 440 Feet.

SUBSURFACE CONDITIONS

Geology

The four general soil units at the Site consist of fill, glacial till, silt layer (semi-confining to confining), and potentially advance outwash. Approximately 15 feet of fill is planned to be placed on top of the existing surface in connection with development of the Federal Way Link Extension Project (approximately Elevation 440 Feet).

The uppermost soil layer consists of 5 to 8 feet of sand and gravel fill. A 2- to 3-foot thick seam of high organic content silt (based on visual observation) is present below the fill in a portion of the Site, including beneath the former dry cleaner space. The fill and silt are underlain by dense silty sand and sandy silt (glacial till) to depths of approximately 26 feet below ground surface (bgs). The gravel content of this material increases with depth at approximately 20 feet bgs (corresponds to Elevation 405 Feet). The glacial till is underlain by a hard silt layer from approximately 26 feet bgs (Elevation 400 Feet). The silt layer appears to be semi-confining to confining. Sand with silt and gravel was observed in one boring (B10) beneath the hard silt at approximately Elevation 379 Feet.

Hydrogeology

Shallow groundwater is approximately 8 to 12 feet bgs (Elevation 416 to 419 Feet). The shallow groundwater appears perched on top of the semi-confining to confining silt layer at Elevation 400 Feet. The groundwater gradient appears to be relatively flat (for example, there is 2 feet of groundwater elevation change across a 180 feet horizontal distance between FL358-MW1 and YPayMor-MW3) and towards the southwest. At two locations on the Site, the May 2020 groundwater elevation data showed lower than anticipated groundwater elevations; these two areas are north of the former dry cleaner (at 358-B3 – Elevation 413.2 Feet) and southwest of the former dry cleaner (at 358-B13 – Elevation 413.91 Feet). The two wells with lower groundwater elevations may be influenced by nearby underground utilities, or these elevations may be artifacts resulting from the flat gradient or because the measurements were obtained from temporary well screens.

NATURE AND EXTENT OF CONTAMINATION

The Y Pay Mor dry cleaner operated from the late 1980s to 1994. Perchloroethylene (PCE) is present in the shallow soil in two source areas. PCE and associated degradation compounds are present in deeper soil between Elevation 415 and 400 Feet and in groundwater.

Source Areas of Shallow Contaminated Soil (Above 10 Feet Bgs)

There are two source areas where PCE was apparently released to the soil and groundwater at the Site. The two source areas are:

- Beneath the former dry cleaner tenant space where two PCE spills occurred in 1991.
- Parking lot storm drain on the north side of the building.

The nature and extent of contamination at each source area is discussed below. Across the Site in general, the vertical extent of soil with contaminant concentrations greater than Model Toxics Control Act (MTCA) cleanup levels appears to be limited to 25 to 26 feet bgs (approximately Elevation 400 Feet), based on soil chemical analytical data at B10 and B12 and the presence of the semi-confining to confining silt layer.

1991 Spills

Two PCE spills occurred in 1991 inside the western portion of the building near building floor drains. The former dry cleaning equipment appears to have been situated next to the 1991 spill location. An emergency spill response was completed to remove the majority of the spill (free product).

A remedial investigation was completed in 1991 and PCE-contaminated soil was observed to depths of 7.5 feet bgs in the fill material. The maximum depth investigated during prior environmental studies between 1991-1994 was 20 feet bgs.

A soil vapor extraction (SVE) system was installed beneath the dry cleaner tenant space and operated between 1991 and 1994; the SVE wells were screened to a maximum of 7.5 feet bgs. Following SVE operation, PCE-contaminated soil (1.3 milligrams per kilogram [mg/kg] in CB-4 at 5 to 6.5 feet bgs) was left in place beneath the building floor. Borings 358-B8 and 358-B7 and test pits PH1, PH2, PH3, PH4 and PH8 were completed in the area of the 1991 spill in 2020 to evaluate the current extent of remaining PCE-contaminated soil in the spill area.

PCE and associated breakdown products in soil appear to be limited to the area of test pits PH3, PH2, PH4 and PH8 and borings CB-4 and 358-B8. The majority of the concentrations of PCE in this area range between 0.039 mg/kg and 0.269 mg/kg in soil samples from ground surface down to 7 feet bgs. PCE was also detected in one soil sample at 15.3 mg/kg in from PH8 at 5 feet bgs, located adjacent to the former floor drain. The vertical extent of PCE-contaminated soil in the 1991 spill area appears to be limited to a depth of 7 feet bgs. The lateral extent of contaminated soil appears to be bounded to the east between boring 358-B8 and FL358-MW2, to the south by test pit 358-PH1, to the north by test pit 358-PH5 and to the west by boring 358-B7.

PCE was detected at concentrations less than the MTCA cleanup level in soil samples from test pit PH5 at 2 feet bgs; this sample was obtained from the alignment and depth of the former building floor drain line. PCE was not detected in soil samples from PH6 located adjacent to the building floor drain north of the

1991 spill location. Based the interpretation of recent soil vapor sampling data and test pit data, it does not appear that backfill soil historically placed in trenches around the shallow floor drain system is a major contaminant pathway under current conditions.

Storm Drain on North Side of Building

A parking storm drain was located on the north side of the building, within the loading dock area associated with former building tenant spaces. The source of the PCE in the soil in this area is likely historical waste disposal practices associated with the former dry cleaner. PCE was detected at concentrations greater than the MTCA cleanup level in the soil samples from test pit 358-PH7 between 4 and 15 feet bgs, with the highest PCE concentration (400 mg/kg) in the sample at 9 feet bgs.

The vertical limit of PCE-contaminated soil at test pit PH7 was not confirmed; however, the vertical extent of PCE-contaminated soil was verified at downgradient boring B12 at between 25 and 30 feet bgs, within the semi-confining to confining silt layer. The lateral extent of PCE-contaminated soil in soil above 10 feet bgs appears to be bounded by FL358-B1 to the north, 358-B3 to the west, 358-B5 to the south and FL358-MW1 to the southeast.

Deeper Soil and Groundwater Contamination (Below 10 Feet Bgs)

PCE likely migrated vertically from the 1991 spill source location within the building and from discharges north of the building and spread laterally to a degree, depending on the spill quantities and sorption capacity of unsaturated soil.

Upon reaching the water table, PCE continued migrating laterally and vertically downward into groundwater. Vertical migration was likely impeded in most areas by the silt layer at depths of 25 to 26 feet bgs (approximate Elevation 400 Feet). As groundwater flowed within PCE-contaminated soil at the source area, PCE and associated byproducts dissolved into the groundwater and continued migrating downgradient to the southwest. Detected PCE concentrations of soil and groundwater below the groundwater table do not indicate the likely presence of dense non-aqueous phase liquid (DNAPL). Evidence of halogenated volatile organic compound (HVOC) biodegradation is apparent based on the detections of dichloroethene (DCE) and vinyl chloride.

Attachment 2
Data Analytical Tables

Table 1
Soil Analytical Results
Former Y Pay Mor Drycleaner
2200 S 320th St
Federal Way, Washington

Lab Report ID	Date	Sample ID	Depth (ft bgs)	VOCs[1] (mg/kg)				
				PCE	TCE	Cis-1,2-DCE	Trans-1,2-DCE	Vinyl Chloride
94081902	11/16/94	**CB3/S1**	4-5	<0.1	<0.1	**0.11**	<0.1	<0.1
94081902	11/16/94	**CB4/S1**	4-5	**1.3**	<0.1	**0.33**	<0.1	<0.1
94081902	11/16/94	**CB5/S1**	4-5	<0.1	<0.1	**71**	**0.59**	<0.1
94081902	11/16/94	**CB7/S1**	4-5	<0.1	<0.1	**0.75**	<0.1	<0.1
1710-072	10/5/17	**FL358-B1-5-6**	5-6	<0.00097	<0.00097	**0.0053**	<0.00097	<0.00097
1710-072	10/5/17	**FL358-B1-10-11**	10-11	**0.016**	**0.0076**	**0.014**	<0.0010	<0.0010
1710-072	10/5/17	**FL358-B1-13-14**	13-14	**0.066**	**0.0022**	**0.0043**	<0.00080	<0.00080
1710-010	10/2/17	**FL358-MW1-1.5-2.5**	1.5-2.5	<0.00098	<0.00098	<0.00098	<0.00098	<0.00098
1710-010	10/2/17	**FL358-MW1-5-6**	5-6	<0.00091	<0.00091	<0.00091	<0.00091	<0.00091
1710-010	10/2/17	**FL358-MW1-12-13**	12-13	<0.00099	<0.00099	<0.00099	<0.00099	<0.00099
1710-010	10/2/17	**FL358-MW1-19-20**	19-20	**0.0049**	**0.0033**	**0.0016**	<0.00084	<0.00084
1710-010	10/2/17	**FL358-MW2-1.5-2.5**	1.5-2.5	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011
1710-010	10/2/17	**FL358-MW2-9-10**	9-10	<0.00087	<0.00087	<0.00087	<0.00087	<0.00087
1710-010	10/2/17	**FL358-MW2-13-14**	13-14	<0.00088	<0.00088	<0.00088	<0.00088	<0.00088
2005069	5/7/20	**358-B1-10**	10-11	< 0.0280	< 0.0224	< 0.0224	<0.0224	<0.0224
2005069	5/7/20	**358-B1-20**	20-20.5	<0.0224	<0.0179	<0.0179	<0.0179	<0.0224
2005069	5/7/20	**358-B2-12.5**	12-13	<0.0317	<0.0253	<0.0253	<0.0253	<0.0317
2005069	5/7/20	**358-B2-25**	25-25.5	<0.0297	<0.0238	<0.0238	<0.0238	<0.0297
2005069	5/7/20	**358-B3-10**	10-11	<0.0254	<0.0204	<0.0204	<0.0204	<0.0254
2005069	5/7/20	**358-B3-12.5**	12-13.5	**0.083**	<0.0196	**0.0235**	<0.0196	<0.0244
2005069	5/7/20	**358-B3-15**	15-16.5	**0.121**	**0.0379**	**0.0669**	<0.0171	<0.0214
2005069	5/7/20	**358-B3-20**	20-20.5	**0.0384**	<0.0189	<0.0189	<0.0189	<0.0236
2005085	5/8/20	**358-B4-15**	15-16	<0.0344	<0.0275	<0.0275	<0.0275	<0.0344
2005085	5/8/20	**358-B4-20**	20-21.5	<0.0294	<0.0235	<0.0235	<0.0235	<0.0294
2005085	5/8/20	**358-B5-2.5**	2.5-4	<0.0382	<0.0306	<0.0306	<0.0306	<0.0382
2005085	5/8/20	**358-B5-5**	5-6.5	<0.0321	<0.0257	**0.081**	<0.0257	<0.0321
2005085	5/8/20	**358-B5-10**	10-11.5	<0.0281	<0.0225	<0.0225	<0.0225	<0.0281
2005085	5/8/20	**358-B5-15**	15-16.5	<0.0275	<0.0220	<0.0220	<0.0220	<0.0275
2005085	5/8/20	**358-B5-20**	20-21	**0.358**	<0.0188	<0.0188	<0.0188	<0.0234
2005085	5/8/20	**358-B5-25**	25-25.5	**0.123**	<0.0236	<0.0236	<0.0236	<0.0295
2005085	5/8/20	**358-B6-5**	5-6.5	<0.0395	<0.0316	**0.0949**	<0.0316	<0.0395
2005085	5/8/20	**358-B6-10**	10-11.5	<0.0233	<0.0187	<0.0187	<0.0187	<0.0233
2005085	5/8/20	**358-B6-20**	20-20.5	**0.0269**	<0.0197	<0.0197	<0.0197	<0.0246
2005098	5/11/20	**358-B7-5**	5-6.5	**0.0438**	<0.0185	**0.0509**	<0.0185	<0.0231
2005098	5/11/20	**358-B7-10**	10-11	<0.0218	<0.0174	<0.0174	<0.0174	<0.0218
2005098	5/11/20	**358-B7-20**	20-21	<0.0213	<0.0170	**0.0245**	<0.0170	<0.0213
2005098	5/11/20	**358-B8-2.5**	2.5-4	**0.0539**	<0.0208	<0.0208	<0.0208	<0.0260
2005098	5/11/20	**358-B8-5**	5-6.5	<0.0331	<0.0265	**0.205**	<0.0265	<0.0331
2005098	5/11/20	**358-B8-12.5**	12.5-13	<0.0249	<0.0199	<0.0199	<0.0199	<0.0249
2005098	5/11/20	**358-B8-20**	20-20.5	<0.0305	<0.0244	<0.0244	<0.0244	<0.0305
2005098	5/11/20	**358-B9-2.5**	2.5-4	<0.0396	<0.0317	<0.0317	<0.0317	<0.0396
2005098	5/11/20	**358-B9-7.5**	7.5-9	<0.0124	<0.00989	<0.00989	<0.00989	<0.0124
2005098	5/11/20	**358-B9-12.5**	12.5-13.5	<0.0219	<0.0175	<0.0175	<0.0175	<0.0219
2005098	5/11/20	**358-B9-20**	20-20.5	<0.0276	<0.0221	<0.0221	<0.0221	<0.0276
2006154	6/9/20	**358-B10-0.5**	0.5-2	<0.0282	<0.0226	<0.0226	<0.0226	<0.0282
2006154	6/9/20	**358-B10-25**	25-25.5	<0.0122	<0.00976	<0.00976	<0.00976	<0.0122
2006154	6/9/20	**358-B10-30**	30-30.5	<0.0227	<0.0182	<0.0182	<0.0182	<0.0227
2006154	6/9/20	**358-B10-35**	35-36	<0.0209	<0.0167	<0.0167	<0.0167	<0.0209
2006154	6/9/20	**358-B10-40**	40-40.75	<0.0224	<0.0179	<0.0179	<0.0179	<0.0224
2006154	6/9/20	**358-B10-45**	45-45.75	<0.0262	<0.0209	<0.0209	<0.0209	<0.0262
2006154	6/9/20	**358-B10-50**	50-50.5	<0.0311	<0.0249	<0.00249	<0.0249	<0.0311

Table 1
Soil Analytical Results
Former Y Pay Mor Drycleaner
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Lab Report ID	Date	Sample ID	Depth (ft bgs)	VOCs[1] (mg/kg)				
				PCE	TCE	Cis-1,2-DCE	Trans-1,2-DCE	Vinyl Chloride
2006195	6/10/20	**358-B11-1**	1-2.5	<0.099	<0.0159	<0.0159	<0.0159	<0.0199
2006195	6/10/20	**358-B11-2.5**	2.5-4	<0.0368	<0.0294	<0.0294	<0.0294	<0.0368
2006195	6/10/20	**358-B11-10**	10-11.5	<0.0235	<0.0206	<0.0206	<0.0206	<0.0235
2006195	6/10/20	**358-B11-25**	25-26.5	<0.0279	<0.0223	<0.0223	<0.0223	<0.0279
2006195	6/10/20	**358-B12-2.5**	2.5-4	<0.0257	<0.0206	<0.0206	<0.0206	<0.0257
2006195	6/10/20	**358-B12-7.5**	7.5-9	**0.319**	**0.11**	**0.0289**	<0.0207	<0.0259
2006195	6/10/20	**358-B12-15**	15-16.5	**0.387**	**0.0612**	<0.0186	<0.0186	<0.0232
2006195	6/10/20	**358-B12-25**	25-26	**0.06**	<0.0270	<0.0270	<0.0270	<0.0338
2006195	6/10/20	**358-B12-30**	30-30.75	<0.0254	<0.0203	<0.0203	<0.0203	<0.0254
2006220	6/11/20	**358-B13-2.5**	2.5-4	<0.0328	<0.0263	<0.0263	<0.0263	<0.0328
2006220	6/11/20	**358-B13-10**	10-11.5	<0.0286	<0.0229	<0.0229	<0.0229	<0.0286
2006220	6/11/20	**358-B13-20**	20-21.5	<0.0233	<0.0187	<0.0187	<0.0187	<0.0233
2006220	6/11/20	**358-B13-25**	25-26.5	<0.0227	<0.0182	<0.0182	<0.0182	<0.0227
2006216	6/11/20	**358-B14-7.5**	7.5-9	<0.0216	<0.0173	<0.0173	<0.0173	<0.0216
2006216	6/11/20	**358-B14-10**	10-11.5	<0.0225	<0.0180	<0.0180	<0.0180	<0.0225
2006216	6/11/20	**358-B14-12.5**	12.5-14	<0.0316	<0.0253	<0.0253	<0.0253	<0.0316
2006216	6/11/20	**358-B14-15**	15-16.5	<0.0387	<0.0310	<0.0310	<0.0310	<0.0387
2006216	6/11/20	**358-B14-20**	20-20.75	<0.0249	<0.0199	<0.0199	<0.0199	<0.0249
2006216	6/11/20	**358-B14-25**	25-26.5	<0.0292	<0.0233	<0.0233	<0.0233	<0.0292
2006216	6/11/20	**358-B15-1**	1-2.5	<0.0251	<0.0200	<0.0200	<0.0200	<0.0251
2006216	6/11/20	**358-B15-5**	5-6.5	<0.0342	<0.0274	<0.0274	<0.0274	<0.0342
2006216	6/11/20	**358-B15-10**	10-12.5	<0.0217	<0.0174	<0.0174	<0.0174	<0.0217
2006216	6/11/20	**358-B15-20**	20-21.5	<0.0168	<0.0134	<0.0134	<0.0134	<0.0168
2006216	6/11/20	**358-B15-25**	25-26.5	<0.0275	<0.0220	**0.038**	<0.0220	<0.0275
2006155	6/9/20	**358-PH1-1**	0-1	<0.00275	<0.0220	<0.0220	<0.0220	<0.00275
2006155	6/9/20	**358-PH1-2**	1-2	<0.0244	<0.0196	<0.0196	<0.0196	<0.0244
2006155	6/9/20	**358-PH1-4**	3-4	<0.0255	<0.0204	**0.0233**	<0.0204	<0.0255
2006155	6/9/20	**358-PH1-7**	6-7	<0.0280	<0.0224	<0.0224	<0.0224	<0.0280
2006155	6/9/20	**358-PH1-10**	9-10	<0.0226	<0.0180	<0.0180	<0.0180	<0.0226
2006190	6/10/20	**358-PH2-1**	0-1	**0.0905**	<0.0251	<0.0251	<0.0251	<0.0313
2006190	6/10/20	**358-PH2-2**	1-2	<0.0274	<0.0219	<0.0219	<0.0219	<0.0274
2006190	6/10/20	**358-PH2-4**	3-4	<0.0300	<0.0240	**0.136**	<0.0240	<0.0300
2006190	6/10/20	**358-PH2-7**	6-7	<0.0374	<0.0299	**0.551**	<0.0299	<0.0374
2006190	6/10/20	**358-PH2-10**	9-10	<0.0318	<0.0255	<0.0255	<0.0255	<0.0318
2006155	6/9/20	**358-PH3-1**	0-1	<0.0305	<0.0244	<0.0244	<0.0244	<0.0305
2006155	6/9/20	**358-PH3-2**	1-2	<0.0296	<0.0237	<0.0237	<0.0237	<0.0296
2006155	6/9/20	**358-PH3-4**	3-4	**0.269**	**0.124**	**5.71**	**0.153**	**0.12**
2006155	6/9/20	**358-PH3-7**	6-7	<0.0366	<0.0293	**10.7**	**0.219**	**0.19**
2006155	6/9/20	**358-PH3-10**	9-10	<0.0261	<0.0209	**0.0407**	<0.0209	<0.0261
2006155	6/9/20	**358-PH4-1**	0-1	**0.0351**	<0.0198	<0.0198	<0.0198	<0.0248
2006155	6/9/20	**358-PH4-2**	1-2	**0.0758**	<0.0219	<0.0219	<0.0219	<0.0273
2006155	6/9/20	**358-PH4-4**	3-4	**0.0286**	<0.0197	**0.0993**	<0.0197	<0.0246
2006155	6/9/20	**358-PH4-7**	6-7	<0.0324	<0.0259	<0.0259	<0.0259	<0.0324
2006155	6/9/20	**358-PH4-10**	9-10	<0.0287	<0.0230	<0.0230	<0.0230	<0.0287
2006190	6/10/20	**358-PH5-1**	0-1	**0.0471**	<0.0238	<0.0238	<0.0238	<0.0297
2006190	6/10/20	**358-PH5-2**	1-2	**0.0415**	<0.0238	<0.0238	<0.0238	<0.0298
2006190	6/10/20	**358-PH5-4**	3-4	<0.0269	<0.0215	<0.0215	<0.0215	<0.0269
2006190	6/10/20	**358-PH5-7**	6-7	<0.0495	<0.0396	<0.0396	<0.0396	<0.0495
2006190	6/10/20	**358-PH5-10**	9-10	<0.0281	<0.0225	<0.0225	<0.0225	<0.0281
2006190	6/10/20	**358-PH6-1**	0-1	<0.0291	<0.0233	<0.0233	<0.0233	<0.0291
2006190	6/10/20	**358-PH6-2**	1-2	<0.0251	<0.0201	<0.0201	<0.0201	<0.0251

Table 1
Soil Analytical Results
Former Y Pay Mor Drycleaner
2200 S 320th St
Federal Way, Washington

Lab Report ID	Date	Sample ID	Depth (ft bgs)	VOCs[1] (mg/kg)				
				PCE	TCE	Cis-1,2-DCE	Trans-1,2-DCE	Vinyl Chloride
2006190	6/10/20	**358-PH6-4**	3-4	<0.0262	<0.0209	<0.0209	<0.0209	<0.0262
2006190	6/10/20	**358-PH6-7**	6-7	<0.0293	<0.0235	<0.0235	<0.0235	<0.0293
2006190	6/10/20	**358-PH6-10**	9-10	<0.0326	<0.0260	**0.0554**	<0.0260	<0.0326
2006190	6/10/20	**358-PH7-1**	0-1	<0.0348	<0.0278	<0.0278	<0.0278	<0.0348
2006190	6/10/20	**358-PH7-2**	1-2	<0.0296	<0.0237	<0.0237	<0.0237	<0.0296
2006190	6/10/20	**358-PH7-4**	3-4	**0.683**	**0.161**	**0.0733**	<0.0253	<0.0317
2006190	6/10/20	**358-PH7-7**	6-7	**1.05**	**0.118**	**0.124**	<0.0249	<0.0311
2006190	6/10/20	**358-PH7-9**	9-10	**400**	**1.01**	**0.0747**	<0.0236	<0.0295
2006190	6/10/20	**358-PH7-12**	11-12	**1.95**	**0.0968**	**0.186**	<0.0264	<0.0331
2006190	6/10/20	**358-PH7-15**	14-15	**10.1**	**0.403**	**0.757**	<0.0329	<0.0411
2006190	6/10/20	**358-PH8-5**	4-5	**15.3**	**16.9**	**8.91**	**0.305**	**0.0365**
MTCA Method A Soil Cleanup Level, Unrestricted (Ecology, 2013)				0.05	0.03	n/a	n/a	n/a
MTCA Method B Soil Cleanup Level (Ecology, 2015)				476.19	40	160	1600	240
WAC 173-303 Dangerous Waste Limit (mg/l, TCLP Methodology)				0.7	0.5	n/a	n/a	0.2
WAC 173-303 Dangerous Waste Screening (mg/kg, 20 times TCLP limit)				14	10	n/a	n/a	4
EPA Land Disposal Restriction Limit, mg/kg				60	60	n/a	n/a	60

Notes:
< - Not detected at listed laboratory reporting limit
Bold - Analyte detected
Bold/Highlighted - Concentration exceeds MTCA Method A Cleanup Level for soil
1 - Samples analyzed for VOCs by EPA Method 8260. See laboratory report for complete list.

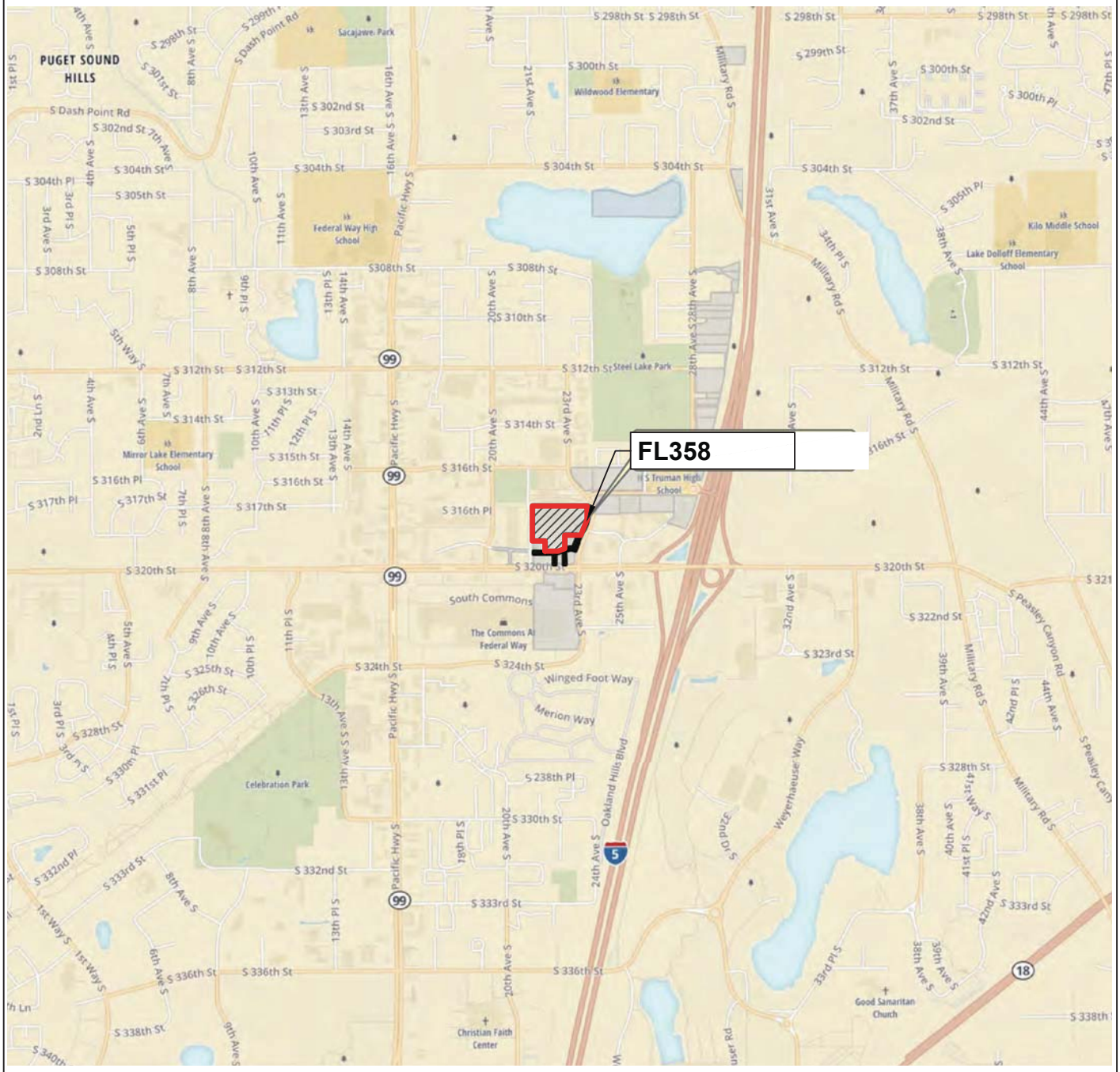
Table 2
Groundwater Analytical Results
Former Y Pay Mor Drycleaner
2210 S 320th St
Federal Way, Washington

Lab Report ID	Date	Sample ID	Screened interval (ft bgs)	Ground surface Elevation (ft NAVD88)[2]	Top of Casing Elevation (ft NAVD88)	Depth to Water (ft below TOC)	Water level Elevation (ft NAVD88)	Field Parameters					VOCs (ug/l)[1]			
								Temp (°C)	pH	Dissolved Oxygen (mg/l)	Conductivity (µS/cm)	Turbidity (NTU)	PCE	TCE	Cis-1,2-DCE	Vinyl Chloride
1710-083	10/6/17	**FL358-MW1**	**6-25**	**425.59**	**425.18**	7.18	418	NA	NA	NA	NA	--	**0.21**	**1.0**	**0.61**	<0.20
2004413	4/29/20					6.61	418.57	13.2	5.94	0.09	545	--	<1.0	<0.50	<1.0	<0.20
1710-083	10/6/17	**FL358-MW2**	**6-24**	**425.37**	**424.99**	7.12	417.87	NA	NA	NA	NA	--	<0.20	<0.20	<0.20	<0.20
2004413	4/29/20					6.0	418.99	13.5	5.34	0.22	447	--	<1.0	<0.50	<1.0	<0.20
1710-105	10/9/17	**FL358-MW3**	**8-19.5**	**425.55**	**425.13**	7.65	417.48	NA	NA	NA	NA	--	<0.20	<0.20	<0.20	<0.20
2004413	4/29/20					7.4	417.73	14.1	59	0.15	503	--	<1.0	<0.50	<1.0	<0.20
1710-083	10/6/17	**FL358-MW4**	**8-19.5**	**424.34**	**423.92**	9.36	414.56	NA	NA	NA	NA	--	<0.20	<0.20	**0.34**	<0.20
2004413	4/29/20					8.98	414.94	13.5	5.79	0.19	610	--	<1.0	<0.50	<1.0	<0.20
1710-031	10/3/17	**YPayMor-MW3**	**5-15?**	**424.8**	**424.3**	7.81	416.49	NA	NA	NA	NA	--	<0.20	<0.20	**0.2**	<0.20
2004413	4/29/20					7.0	417.3	14.1	5.87	0.13	517	--	<1.0	<0.50	<1.0	<0.20
2005086	5/8/20	**358-B3-GW**	**10-20**	**423**	**--**	9.8	413.2	13	6.42	6.26	714	--	**5.71**	**2.08**	**6.41**	<0.20
2005086	5/8/20	**358-B4-GW**	**15-25**	**427**	**--**	8.1	418.9	14.4	6.58	5.7	1750	--	<1.0	<0.50	<1.0	<0.20
2005086	5/8/20	**358-B5-GW**	**15-25**	**426.37**	**--**	9.3	417.07	16.5	6.93	6.61	2406	--	**136**	**69.9**	**68.3**	**2.2**
2005099	5/11/20	**358-B6-GW**	**15-25**	**426.37**	**--**	8.8	417.57	15.7	6.07	0.3	1422	--	**6.08**	**6.24**	**17.8**	<0.20
2005099	5/11/20	**358-B7-GW**	**15-25**	**426.37**	**--**	8.9	417.47	17.7	5.91	1.15	901	--	<1.0	**2.99**	**33.6**	**18.8**
2006234	6/12/20	**358-B11-GW**	**15-25**	**425.06**	**424.93**	7.63	417.3	13.3	6.34	4.49	597	1.66	<1.0	<0.5	**3.37**	<0.2
2006234	6/12/20	**358-B13-GW**	**15-25**	**425.51**	**425.51**	11.6	413.91	16.5	6.23	7.13	523	12	<1.0	<0.5	<1.0	<0.2
2006234	6/12/20	**358-B14-GW**	**15-25**	**426.47**	**426.99**	7.8	419.19	13.9	6.29	0.83	493	452	<1.0	<0.5	<1.0	<0.2
2006234	6/12/20	**358-B15-GW**	**15-25**	**425.61**	**426.04**	8.9	417.14	16.8	6.1	0.31	850	--	<1.0	**1.89**	**9.95**	<0.2
												MTCA Method A or B Cleanup Level (ug/l)	5	5	16 (B)	0.2

Notes:
< - Not detected at listed laboratory reporting limit
Bold - Analyte detected
Bold/Highlighted - Analyte exceeds MTCA Method A or B cleanup level
1 - Samples analyzed for VOCs by EPA Method 8260. See laboratory report for complete list.
2 - NAVD88 - The North American vertical datum of 1988, derived from benchmarks published by the Washington State Department of Transportation.

Attachment 3
Overview, Subsurface Conditions and Data Analytical Figures

6/19/2020 6:10 AM



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Not to Scale

Reference: Base file Vicinity Map FL358, FL361, FL363 by GeoEngineers, dated 11-28-17.

O'Neill Service Group

FEDERAL WAY LINK EXTENSION
PARCEL FL358, FEDERAL WAY
KING COUNTY, WASHINGTON

VICINITY MAP

Drawn By:	J. Stewart
Reviewed By:	V. Atkins
Approved By:	V. Atkins
Date:	June 2020
Project No.:	2021

FIGURE

1

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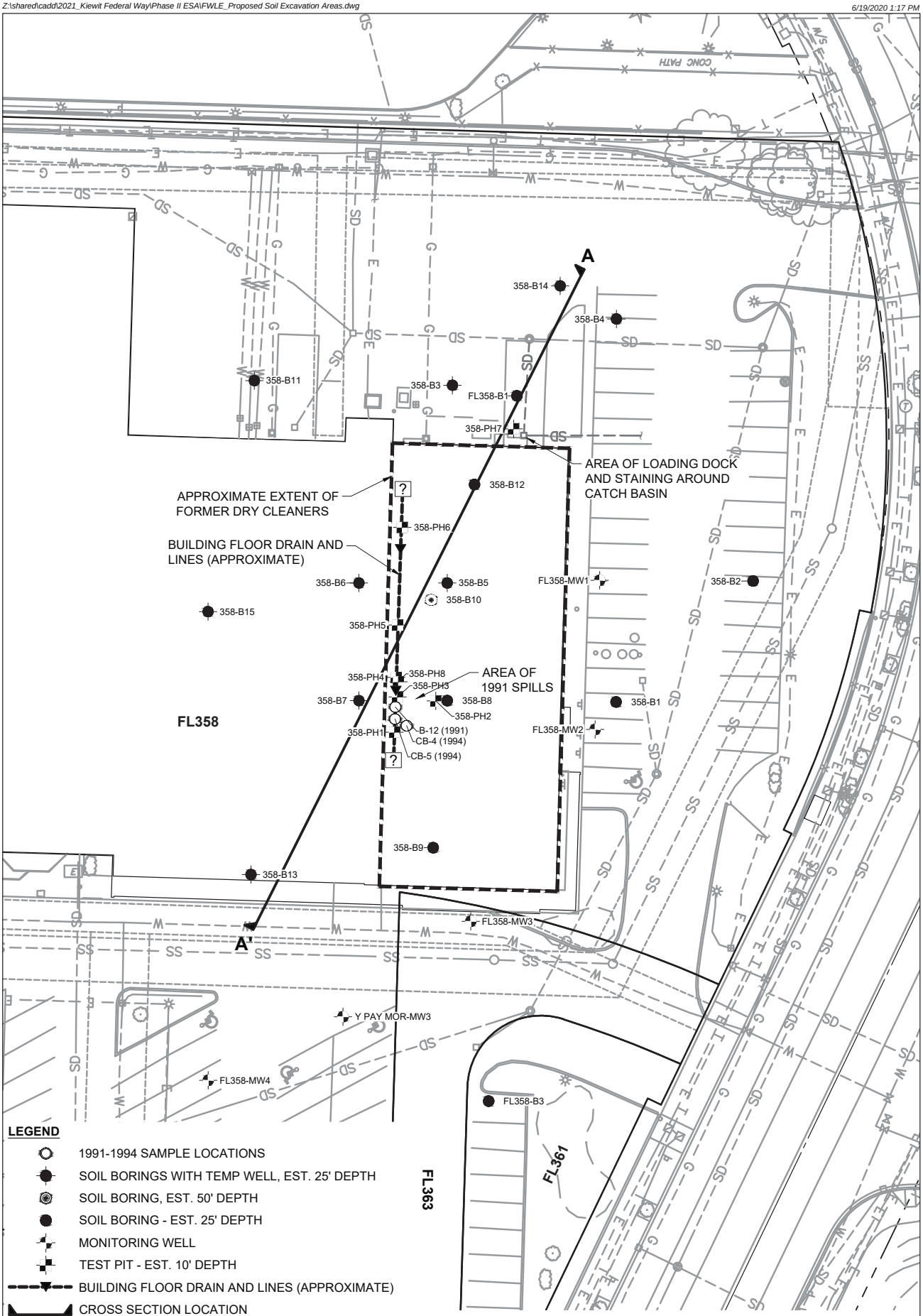

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SCALE IN FEET

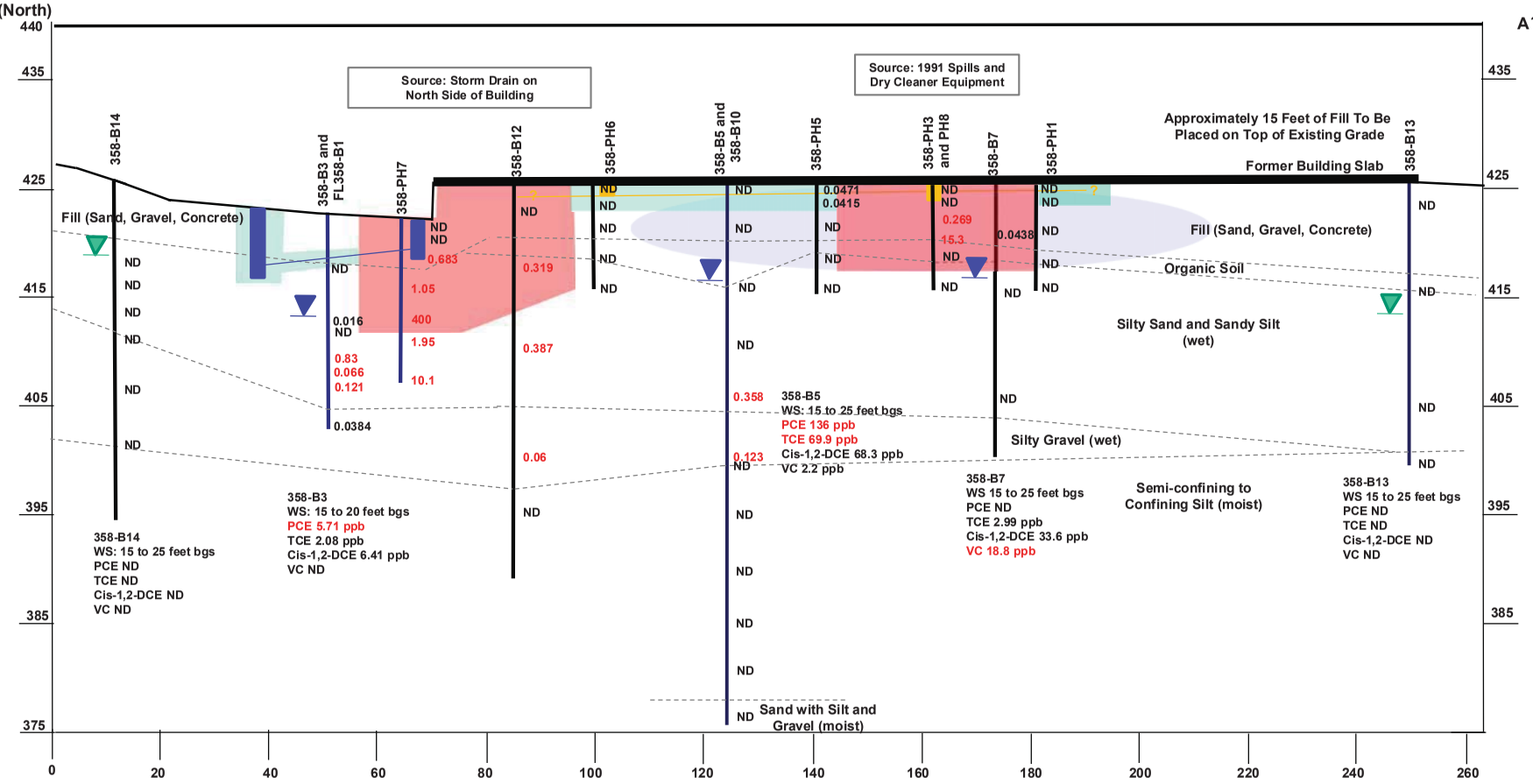
O'Neill Service Group

FEDERAL WAY LINK EXTENSION
PARCEL FL358, FEDERAL WAY
KING COUNTY, WASHINGTON

OVERVIEW SITE PLAN

Drawn By:	J. Stewart
Reviewed By:	V. Atkins
Approved By:	S. Darst
Date:	June 2020
Project No.:	2021

FIGURE 2



Legend

- May 2020 Groundwater Level in Well at Time of Sampling
- June 2020 Groundwater Level in Well at Time of Sampling
- Interpreted Soil Contact
- Approximate Extent of Soil Vapor Extraction System Influence (1991 to 1994)
- Storm Catch Basin and Line
- Building Floor Drain and Line
- 0.358/ND — PCE Concentration in Soil Sample (mg/kg) or Groundwater (ppb) – Red = Detected Concentration is Greater Than the MTCA Method A ULU Cleanup Level
- Soil Remediation If PCE/TCE Detected in Confirmation Samples Exceed MTCA Method A ULU Cleanup Level During Utility Removal
- Planned Interim Action Remedial Excavation Area

Notes:

1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

PCE = tetrachloroethene, TCE = trichloroethene, Cis-1,2-DCE = cis-1,2-dichloroethene, VC = vinyl chloride
MTCA = Model Toxics Control Act, ULU = unrestricted land use, WS = well screen, bgs = below ground surface, ppb = parts per billion
mg/kg = milligram per kilogram, ND = not detected at concentration greater than laboratory reporting limits
Vertical Datum: North American Vertical datum of 1988

Horizontal Scale: 1 inch = 20 feet
Vertical Scale: 1 inch = 10 feet

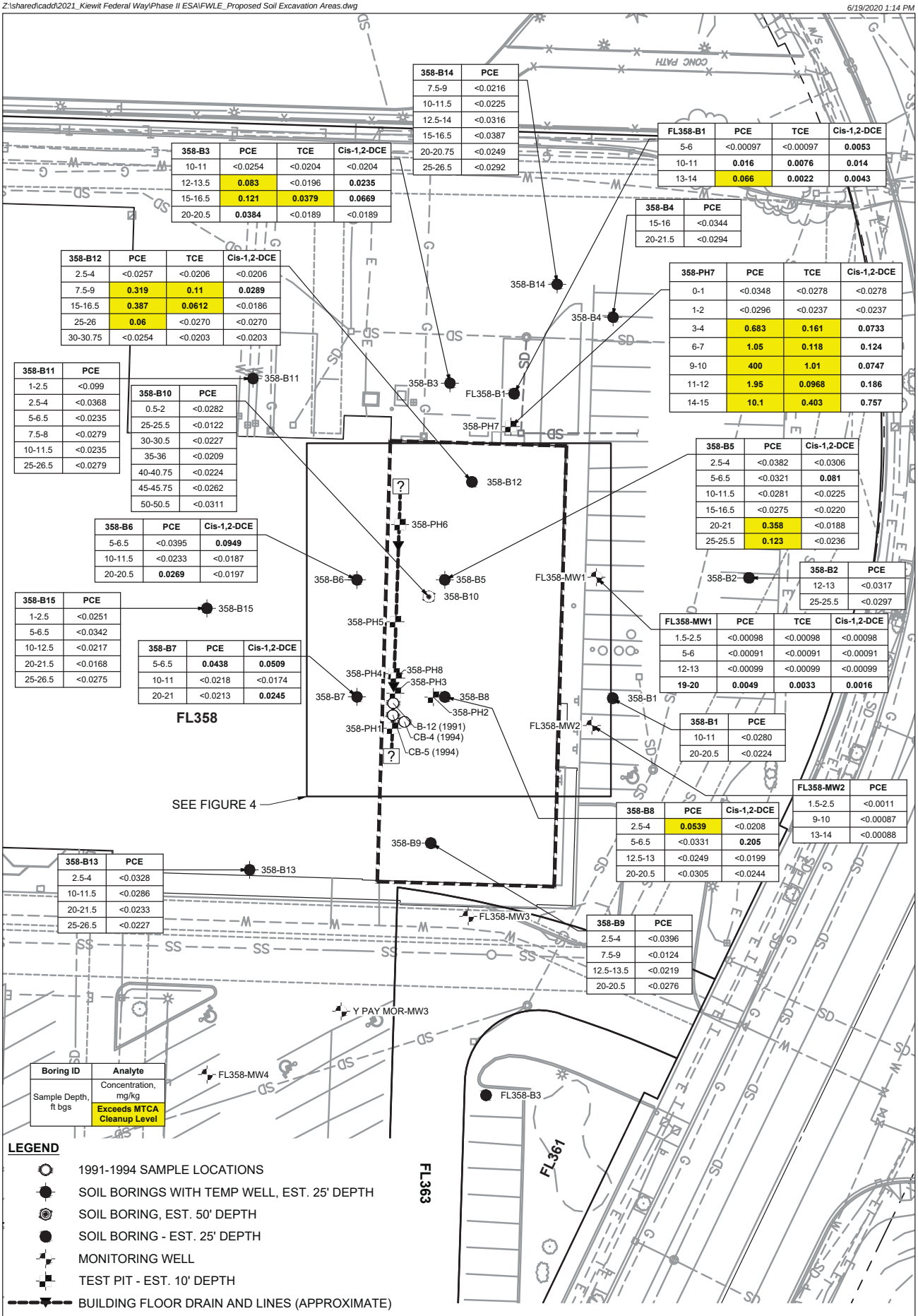
Cross Section A to A'

Y Pay Mor Dry Cleaner
Federal Way Link Extension Project
Federal Way, Washington

GeoEngineers

Figure 3

4082-039-03 Date Exported: 6/18/2020



358-B14	PCE
7.5-9	<0.0216
10-11.5	<0.0225
12.5-14	<0.0316
15-16.5	<0.0387
20-20.75	<0.0249
25-26.5	<0.0292

FL358-B1	PCE	TCE	Cis-1,2-DCE
5-6	<0.00097	<0.00097	**0.0053**
10-11	**0.016**	**0.0076**	**0.014**
13-14	**0.066**	**0.0022**	**0.0043**

358-B3	PCE	TCE	Cis-1,2-DCE
10-11	<0.0254	<0.0204	<0.0204
12-13.5	**0.083**	<0.0196	**0.0235**
15-16.5	**0.121**	**0.0379**	**0.0669**
20-20.5	**0.0384**	<0.0189	<0.0189

358-B4	PCE
15-16	<0.0344
20-21.5	<0.0294

358-B12	PCE	TCE	Cis-1,2-DCE
2.5-4	<0.0257	<0.0206	<0.0206
7.5-9	**0.319**	**0.11**	**0.0289**
15-16.5	**0.387**	**0.0612**	<0.0186
25-26	**0.06**	<0.0270	<0.0270
30-30.75	<0.0254	<0.0203	<0.0203

358-PH7	PCE	TCE	Cis-1,2-DCE
0-1	<0.0348	<0.0278	<0.0278
1-2	<0.0296	<0.0237	<0.0237
3-4	**0.683**	**0.161**	**0.0733**
6-7	**1.05**	**0.118**	**0.124**
9-10	**400**	**1.01**	**0.0747**
11-12	**1.95**	**0.0968**	**0.186**
14-15	**10.1**	**0.403**	**0.757**

358-B11	PCE
1-2.5	<0.099
2.5-4	<0.0368
5-6.5	<0.0235
7.5-8	<0.0279
10-11.5	<0.0235
25-26.5	<0.0279

358-B10	PCE
0.5-2	<0.0282
25-25.5	<0.0122
30-30.5	<0.0227
35-36	<0.0209
40-40.75	<0.0224
45-45.75	<0.0262
50-50.5	<0.0311

358-B5	PCE	Cis-1,2-DCE
2.5-4	<0.0382	<0.0306
5-6.5	<0.0321	**0.081**
10-11.5	<0.0281	<0.0225
15-16.5	<0.0275	<0.0220
20-21	**0.358**	<0.0188
25-25.5	**0.123**	<0.0236

358-B6	PCE	Cis-1,2-DCE
5-6.5	<0.0395	**0.0949**
10-11.5	<0.0233	<0.0187
20-20.5	**0.0269**	<0.0197

358-B2	PCE
12-13	<0.0317
25-25.5	<0.0297

358-B15	PCE
1-2.5	<0.0251
5-6.5	<0.0342
10-12.5	<0.0217
20-21.5	<0.0168
25-26.5	<0.0275

FL358-MW1	PCE	TCE	Cis-1,2-DCE
1.5-2.5	<0.00098	<0.00098	<0.00098
5-6	<0.00091	<0.00091	<0.00091
12-13	<0.00099	<0.00099	<0.00099
19-20	**0.0049**	**0.0033**	**0.0016**

358-B7	PCE	Cis-1,2-DCE
5-6.5	**0.0438**	**0.0509**
10-11	<0.0218	<0.0174
20-21	<0.0213	**0.0245**

358-B1	PCE
10-11	<0.0280
20-20.5	<0.0224

FL358-MW2	PCE
1.5-2.5	<0.0011
9-10	<0.00087
13-14	<0.00088

358-B8	PCE	Cis-1,2-DCE
2.5-4	**0.0539**	<0.0208
5-6.5	<0.0331	**0.205**
12.5-13	<0.0249	<0.0199
20-20.5	<0.0305	<0.0244

358-B13	PCE
2.5-4	<0.0328
10-11.5	<0.0286
20-21.5	<0.0233
25-26.5	<0.0227

358-B9	PCE
2.5-4	<0.0396
7.5-9	<0.0124
12.5-13.5	<0.0219
20-20.5	<0.0276

Boring ID	Analyte
Sample Depth, ft bgs	Concentration, mg/kg
	Exceeds MTCA Cleanup Level

LEGEND

- 1991-1994 SAMPLE LOCATIONS
- SOIL BORINGS WITH TEMP WELL, EST. 25' DEPTH
- SOIL BORING, EST. 50' DEPTH
- SOIL BORING - EST. 25' DEPTH
- MONITORING WELL
- TEST PIT - EST. 10' DEPTH
- BUILDING FLOOR DRAIN AND LINES (APPROXIMATE)

N

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SCALE IN FEET

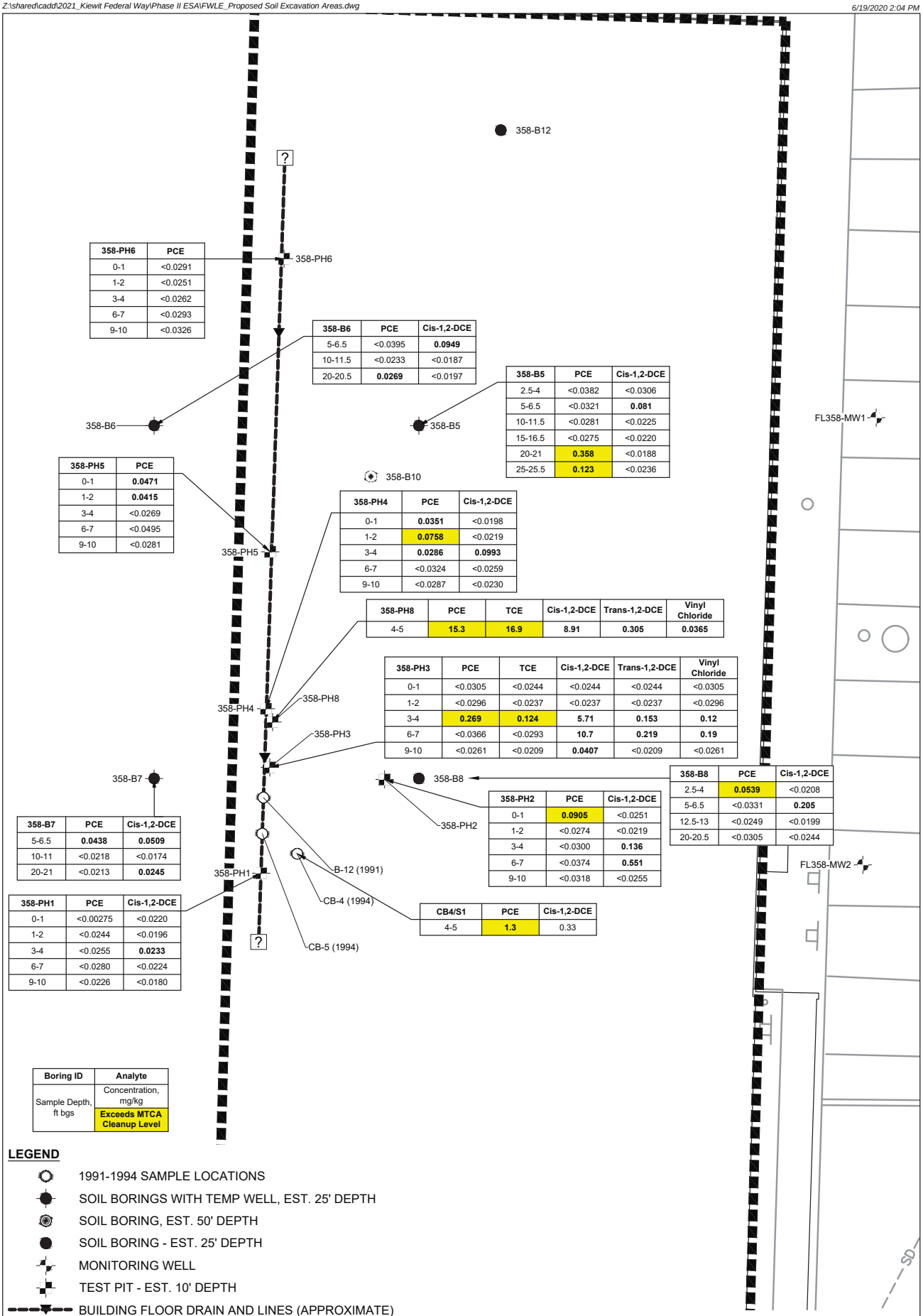
O'Neill Service Group

FEDERAL WAY LINK EXTENSION
PARCEL FL358, FEDERAL WAY
KING COUNTY, WASHINGTON

SITE SPECIFIC SOIL SAMPLE RESULTS

Drawn By:	J. Stewart
Reviewed By:	V. Atkins
Approved By:	S. Darst
Date:	June 2020
Project No.:	2021

FIGURE 4



358-PH6	PCE
0-1	<0.0291
1-2	<0.0251
3-4	<0.0262
6-7	<0.0293
9-10	<0.0326

358-B6	PCE	Cis-1,2-DCE
5-6.5	<0.0395	**0.0949**
10-11.5	<0.0233	<0.0187
20-20.5	**0.0269**	<0.0197

358-B5	PCE	Cis-1,2-DCE
2.5-4	<0.0382	<0.0306
5-6.5	<0.0321	**0.081**
10-11.5	<0.0281	<0.0225
15-16.5	<0.0275	<0.0220
20-21	**0.358**	<0.0188
25-25.5	**0.123**	<0.0236

358-PH5	PCE
0-1	**0.0471**
1-2	**0.0415**
3-4	<0.0269
6-7	<0.0495
9-10	<0.0281

358-PH4	PCE	Cis-1,2-DCE
0-1	**0.0351**	<0.0198
1-2	**0.0758**	<0.0219
3-4	**0.0286**	**0.0993**
6-7	<0.0324	<0.0259
9-10	<0.0287	<0.0230

358-PH8	PCE	TCE	Cis-1,2-DCE	Trans-1,2-DCE	Vinyl Chloride
4-5	**15.3**	**16.9**	**8.91**	**0.305**	**0.0365**

358-PH3	PCE	TCE	Cis-1,2-DCE	Trans-1,2-DCE	Vinyl Chloride
0-1	<0.0305	<0.0244	<0.0244	<0.0244	<0.0305
1-2	<0.0296	<0.0237	<0.0237	<0.0237	<0.0296
3-4	**0.269**	**0.124**	**5.71**	**0.153**	**0.12**
6-7	<0.0366	<0.0293	**10.7**	**0.219**	**0.19**
9-10	<0.0261	<0.0209	**0.0407**	<0.0209	<0.0261

358-B8	PCE	Cis-1,2-DCE
2.5-4	**0.0539**	<0.0208
5-6.5	<0.0331	**0.205**
12.5-13	<0.0249	<0.0199
20-20.5	<0.0305	<0.0244

358-PH2	PCE	Cis-1,2-DCE
0-1	**0.0905**	<0.0251
1-2	<0.0274	<0.0219
3-4	<0.0300	**0.136**
6-7	<0.0374	**0.551**
9-10	<0.0318	<0.0255

358-B7	PCE	Cis-1,2-DCE
5-6.5	**0.0438**	**0.0509**
10-11	<0.0218	<0.0174
20-21	<0.0213	**0.0245**

358-PH1	PCE	Cis-1,2-DCE
0-1	<0.00275	<0.0220
1-2	<0.0244	<0.0196
3-4	<0.0255	**0.0233**
6-7	<0.0280	<0.0224
9-10	<0.0226	<0.0180

CB4/S1	PCE	Cis-1,2-DCE
4-5	**1.3**	0.33

Boring ID	Analyte
Sample Depth, ft bgs	Concentration, mg/kg
	Exceeds MTCA Cleanup Level

LEGEND

- 1991-1994 SAMPLE LOCATIONS
- SOIL BORINGS WITH TEMP WELL, EST. 25' DEPTH
- SOIL BORING, EST. 50' DEPTH
- SOIL BORING - EST. 25' DEPTH
- MONITORING WELL
- TEST PIT - EST. 10' DEPTH
- BUILDING FLOOR DRAIN AND LINES (APPROXIMATE)

N

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SCALE IN FEET

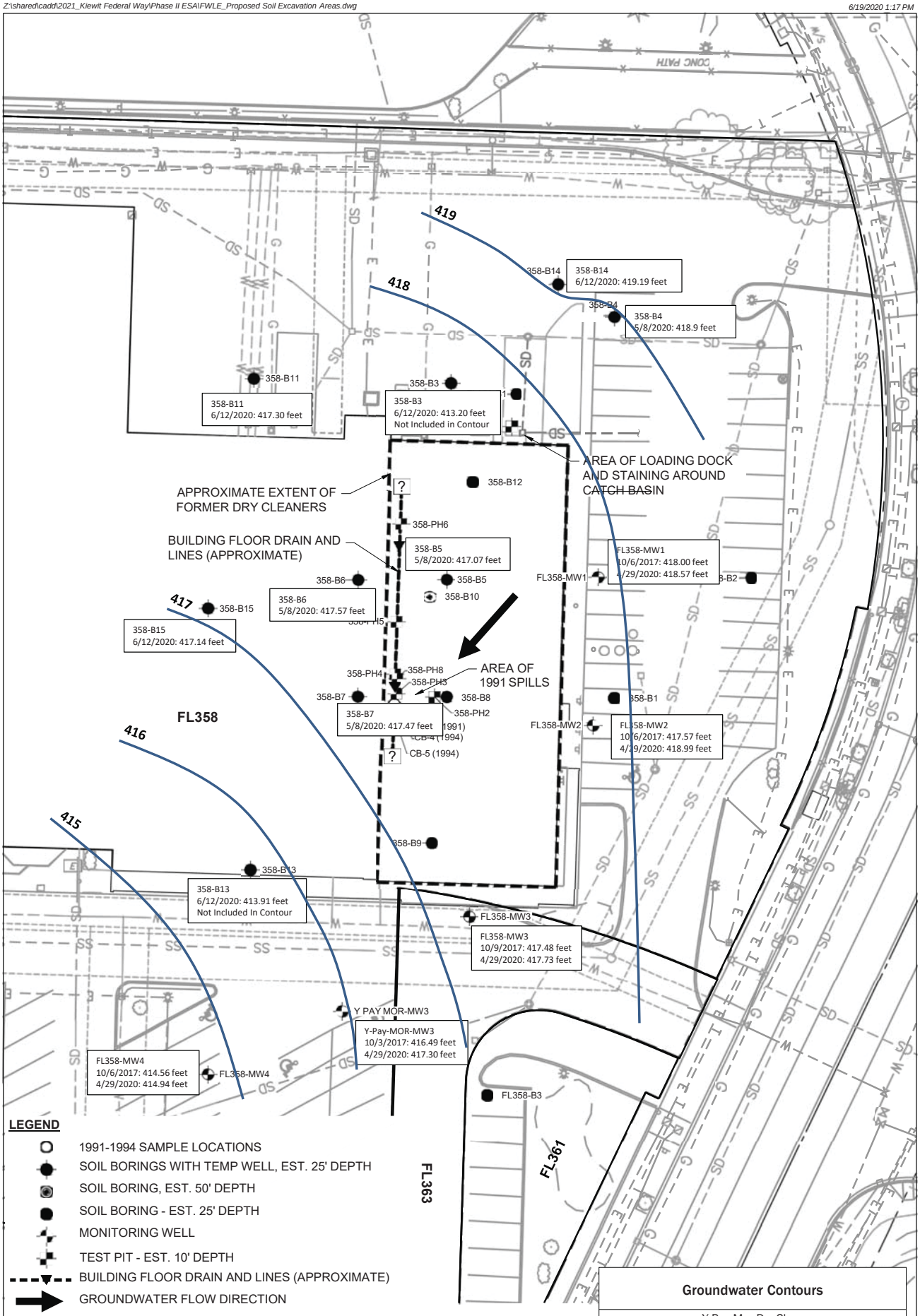
O'Neill Service Group

FEDERAL WAY LINK EXTENSION
PARCEL FL358, FEDERAL WAY
KING COUNTY, WASHINGTON

SOIL SAMPLE RESULTS - 1991 SPILL AREA

Drawn By:	J. Stewart
Reviewed By:	V. Atkins
Approved By:	S. Darst
Date:	June 2020
Project No.:	2021

FIGURE 5



N

15 0 15 30
SCALE IN FEET

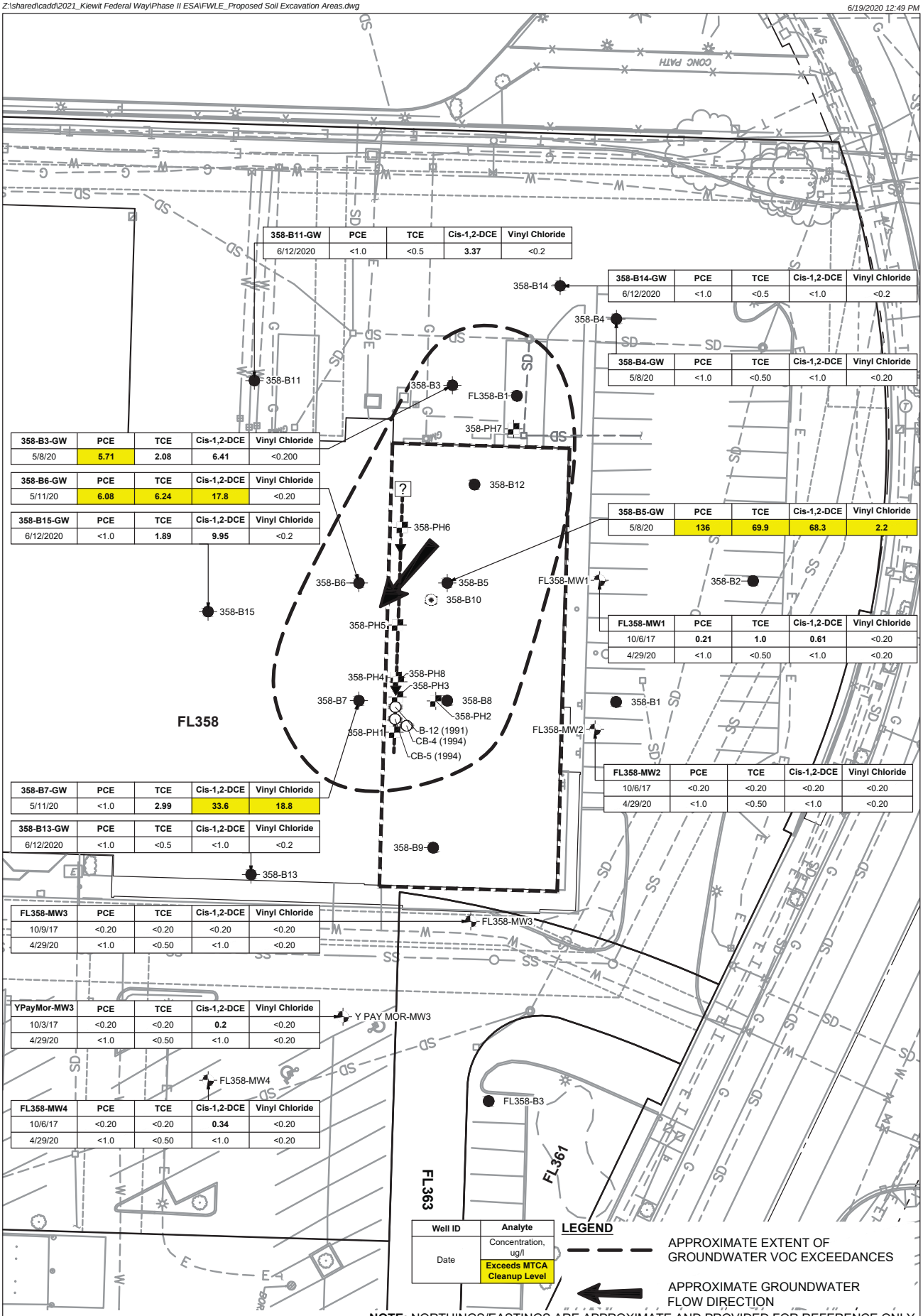
Notes:
1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.
Data Reference: Background obtained from O'neill Service Group Figure 7. Elevations obtained from O'neill Service Group Table 2.
Vertical Datum North American Vertical Datum of 1988).

Groundwater Contours

Y Pay Mor Dry Cleaner
Federal Way Link Extension Project
Federal Way, Washington

GEOENGINEERS

Figure 6



358-B11-GW	PCE	TCE	Cis-1,2-DCE	Vinyl Chloride
6/12/2020	<1.0	<0.5	**3.37**	<0.2

358-B14-GW	PCE	TCE	Cis-1,2-DCE	Vinyl Chloride
6/12/2020	<1.0	<0.5	<1.0	<0.2

358-B4-GW	PCE	TCE	Cis-1,2-DCE	Vinyl Chloride
5/8/20	<1.0	<0.50	<1.0	<0.20

358-B3-GW	PCE	TCE	Cis-1,2-DCE	Vinyl Chloride
5/8/20	**5.71**	**2.08**	**6.41**	<0.200

358-B6-GW	PCE	TCE	Cis-1,2-DCE	Vinyl Chloride
5/11/20	**6.08**	**6.24**	**17.8**	<0.20

358-B15-GW	PCE	TCE	Cis-1,2-DCE	Vinyl Chloride
6/12/2020	<1.0	**1.89**	**9.95**	<0.2

358-B5-GW	PCE	TCE	Cis-1,2-DCE	Vinyl Chloride
5/8/20	**136**	**69.9**	**68.3**	**2.2**

FL358-MW1	PCE	TCE	Cis-1,2-DCE	Vinyl Chloride
10/6/17	**0.21**	**1.0**	**0.61**	<0.20
4/29/20	<1.0	<0.50	<1.0	<0.20

FL358-MW2	PCE	TCE	Cis-1,2-DCE	Vinyl Chloride
10/6/17	<0.20	<0.20	<0.20	<0.20
4/29/20	<1.0	<0.50	<1.0	<0.20

358-B7-GW	PCE	TCE	Cis-1,2-DCE	Vinyl Chloride
5/11/20	<1.0	**2.99**	**33.6**	**18.8**

358-B13-GW	PCE	TCE	Cis-1,2-DCE	Vinyl Chloride
6/12/2020	<1.0	<0.5	<1.0	<0.2

FL358-MW3	PCE	TCE	Cis-1,2-DCE	Vinyl Chloride
10/9/17	<0.20	<0.20	<0.20	<0.20
4/29/20	<1.0	<0.50	<1.0	<0.20

YPayMor-MW3	PCE	TCE	Cis-1,2-DCE	Vinyl Chloride
10/3/17	<0.20	<0.20	**0.2**	<0.20
4/29/20	<1.0	<0.50	<1.0	<0.20

FL358-MW4	PCE	TCE	Cis-1,2-DCE	Vinyl Chloride
10/6/17	<0.20	<0.20	**0.34**	<0.20
4/29/20	<1.0	<0.50	<1.0	<0.20

Well ID	Analyte
Date	Concentration, ug/l **Exceeds MTCA Cleanup Level**

LEGEND

APPROXIMATE EXTENT OF GROUNDWATER VOC EXCEEDANCES

APPROXIMATE GROUNDWATER FLOW DIRECTION

NOTE: NORTHINGS/EASTINGS ARE APPROXIMATE AND PROVIDED FOR REFERENCE ONLY.

N

15 0 15 30
SCALE IN FEET

O'Neill Service Group

FEDERAL WAY LINK EXTENSION
PARCEL FL358, FEDERAL WAY
KING COUNTY, WASHINGTON

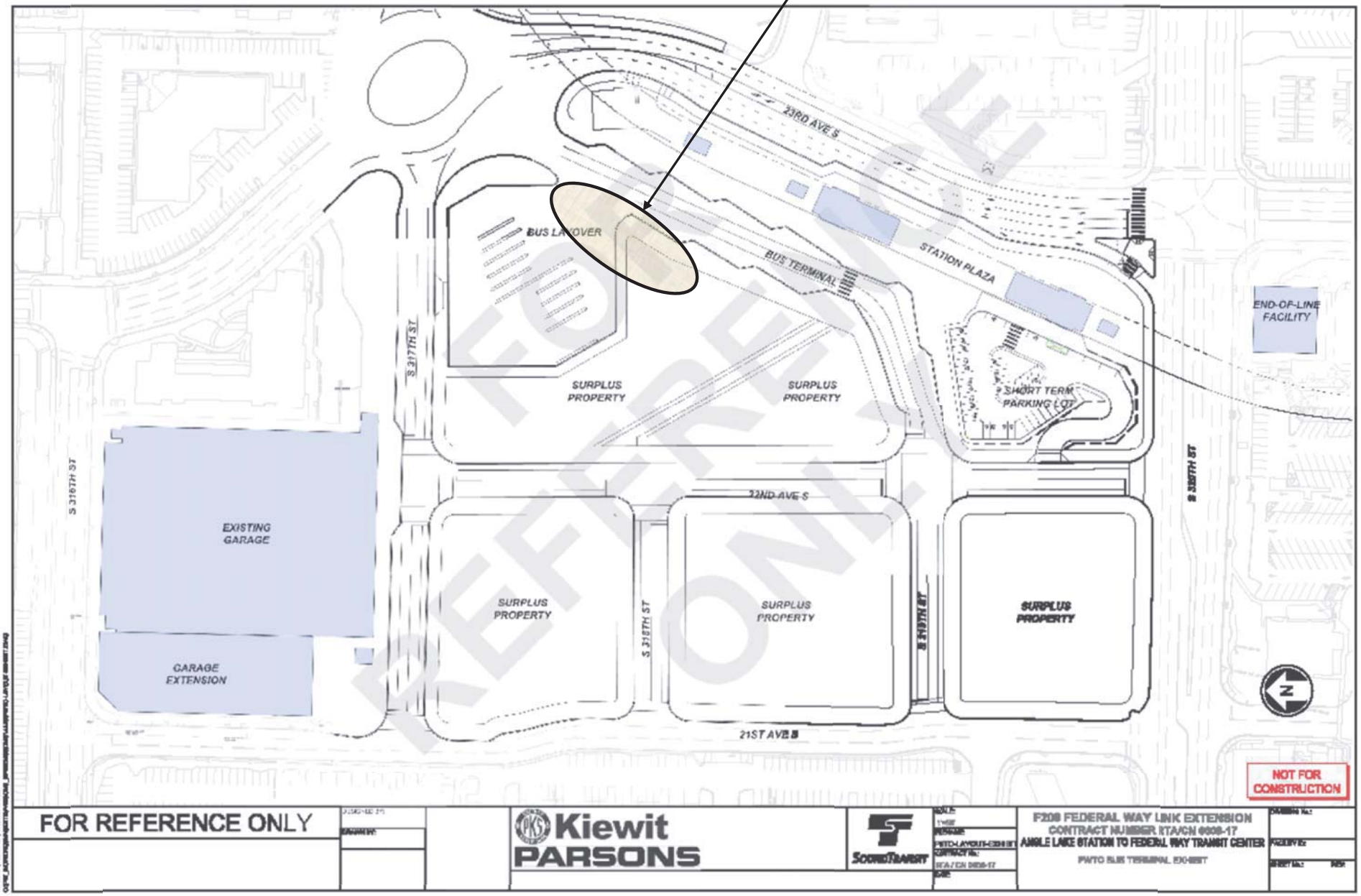
SITE SPECIFIC GROUNDWATER SAMPLE RESULTS

Drawn By:	J. Stewart
Reviewed By:	V. Atkins
Approved By:	S. Darst
Date:	May 2020
Project No.:	2021

FIGURE 7

Attachment 4
Federal Way Transit Center Conceptual Design with Approximate Extent of Groundwater Plume

Approximate Extent of
PCE-Contaminated Groundwater



Attachment 5
Remedial Alternative Screening and Rough Order of Magnitude Cost Estimates

Comparative Summary of Remedial Alternatives

Former Y Pay Mor Dry Cleaner
Federal Way Link Extension Parcel FL-358
Federal Way, Washington

Remedial Alternative	Description	Advantages	Limitations	Restoration Time Frame
Alternative 1 – Hot Spot Excavation Remedial excavation of only the two source areas to 8-10 feet bgs as an Interim Action to remove readily-accessible contaminated soil above the water table and removal of storm drain pipe adjacent to the northern hot spot. Final remedy to include surface capping, monitored natural attenuation (MNA), Engineering and Institutional Controls (environmental covenant). 1,600 Tons of Contaminated Soil Removed.	Remedial excavation of contaminated soil greater than MTCA cleanup levels to maximum depth of 10 feet bgs. The interim Action would include removal of the storm drain pipe adjacent to the northern hot spot. Excavated soil includes F-002 Listed Waste and possibly Characteristic Waste. Quantity and cost estimates assume Land Ban Haz Waste (incineration, disposal Subtitle C facility), Haz Waste (Subtitle C landfill), and CID (Subtitle D landfill) based on available data. Backfill excavation upon completion. Remaining contaminated soil and groundwater addressed through MNA including routine groundwater monitoring, and environmental covenant (EC). Costs include assumption that a chemical vapor barrier will need to be installed beneath the floor slab for future structure that may be completed on the TOD parcel.	Excavation removes areas with the highest concentrations of PCE and related contaminants in shallow accessible soil at the source areas and removal of the storm drain pipe next to source area. No dewatering required. Excavation methods allow compliance sampling at the excavation limits, which enables better certainty regarding contaminants removed and concentrations and locations where contaminants remain. Once source material is removed by hot spot remedial excavation, the plume should continue to shrink given that the groundwater plume appears to have been relatively stable and managed under an EC since 1994.	Compared to other alternatives below, this alternative **leaves the largest footprint/mass of contaminants at depth** (deeper than 10 feet below existing ground surface, 26 feet below filled grade). Material to be excavated contains **hazardous waste**. Contract with Kiewit does not account for hazardous waste handling costs. **Long-term monitoring** could extend into future when the site is redeveloped for new uses (e.g., roadway, parking, TOD parcel). Recording ECs in areas including future road, public-owned parcels (parking), and privately-owned parcels (i.e., TOD) **may be complicated and restrict TOD opportunities**.	Before FWTC Fill Placement: Excavate and backfill (interim action), assume < 2 weeks duration After FWTC Fill Placement: Long-term MNA/GW monitoring (costs assume 25 years of monitoring). EC may be established after fill placement or during long-term monitoring, depending on long term site use and Ecology input.
Alternative 1A – Hot Spot Excavation and Low Temperature Thermal Treatment[1] for Plume Excavation same as Alternative 1, supplement remediation with Low Temperature (LT) thermal technologies within the plume. No long-tail, MNA or EC. 1,600 Tons of Contaminated Soil Removed. 20,000 Tons of Contaminated Soil Treated.	Following remedial excavation of source areas to 10 feet bgs as in Alt 1, subsequently install and operate in-situ low temperature (LT) thermal to treat the plume below the base of excavation and surrounding areas where soil or groundwater > MTCA CULs. LT thermal enhances contaminant biodegradation and does not necessitate need for SVE wells.	Thermal technologies have been used successfully at former dry cleaner sites in the Seattle area. SVE not needed for LT thermal. Significantly more aggressive than excavation alone and treatment throughout plume leads to assumption of no reliance on MNA or EC to mitigate for residual contaminants. LT thermal footprint allows use of site for staging during the 24 months period of operation.	Material to be excavated contains **hazardous waste**. Contract with Kiewit does not account for hazardous waste handling costs. **Soil compliance monitoring needed** post thermal treatment to determine residual concentrations.	Before FWTC Fill Placement: Excavate and backfill, assume < 2 weeks duration After FWTC Fill Placement: Install and operate LT thermal (24 months), followed by groundwater monitoring, assume 2 years.
Alternative 1B - Full Excavation of Soil Greater Than MTCA Method A Remedial Excavation to 26 feet bgs where contaminated soil exceeds CULs. MNA and/or EC if needed. 15,500 Tons of Contaminated Soil Removed.	Removes known contaminated soil exceeding MTCA CULs by completing a much larger and deeper excavation than Alt 1 and 1A, which will necessitate dewatering, excavation sloping and possibly vertical shoring to the north or west. Excavated soil includes F-002 Listed Waste at different levels (land ban, Subtitle C and CID) as noted for Alternative 1. Handle saturated soil in the plume area as F002-listed waste (disposal under a CID). Excavation dewatering via well points or dewatering wells; manage dewatering fluids as F-002 listed waste including on-site water storage, treatment and permitted discharge to sewer. Backfill excavation upon completion. Perform soil compliance sampling at the excavation sidewalls and base; performed groundwater compliance monitoring post excavation.	Excavation methods allow compliance sampling at the excavation limits, which enables better certainty regarding contaminants removed and concentrations and locations where contaminants remain. Compared to Alt 1A, contaminated soil > CULs is removed in a shorter time frame than the thermal treatment.	**Additional mass of contaminants** represented by the larger quantity of contaminated soil is **relatively low** in comparison to Alt 1. **Difficult to implement** with large quantities of waste soil to segregate and handle; large quantities of hazardous waste groundwater to contain, treat and manage. **Excavation and construction safety risks** are increased compared to smaller excavation that does not go below the water table. Costs assume dewatering fluids can be discharged to sanitary sewer after treatment. Currently, Kiewit does not have a permit to discharge wastewater to the sanitary sewer. **All saturated soil** that is removed from the water table to depth of excavation must be assumed to have detectable PCE because in contact with contaminated groundwater and therefore handled as contaminated (**CID**) even though it may be below cleanup levels. Unsaturated soil also assumed to be CID soil. Kiewit has stated that planning an excavation of this size will take approximately 2 months. Length of excavation likely 3 weeks. Tonnage is estimated to be 15,500 which exceeds PR tonnage by 8,000 tons. May require MNA monitoring and/or EC.	Before FWTC Fill Placement: Planning excavate and backfill (interim action), assume 3 month duration. Delays start of fill. After FWTC Fill Placement: MNA monitoring and quarterly groundwater monitoring, assume 10 years. EC may be established after fill placement or during long-term monitoring, depending on long term site use and Ecology input.

[1] TerraTherm Treatment Scenario 1

Remedial Alternative	Description	Advantages	Limitations	Restoration Time Frame
Alternative 2 – High Temp Thermal[2] in Spill Areas with MNA High Temperature (HT) thermal treatment at the source area as an Interim Action to treat contaminated soil and groundwater in the source areas to depth. Final remedy includes surface capping, MNA, and EC. 9,200 Tons of Contaminated Soil Treated.	Treats unsaturated and saturated zone contaminated soil and groundwater at the source areas using high-temperature TCH to approximately 212 degrees F. Soil vapors recovered through SVE wells and treated with GAC before discharge (to atmosphere). Costs include assumption that a chemical vapor barrier will need to be installed beneath the floor slab for future structure that may be completed on the TOD parcel.	Thermal methods eliminate excavation and hazardous waste handling. Thermal technologies overall have a higher preference under MTCA remedy selection (e.g., "relative degree of long-term effectiveness") as compared to landfill disposal. Possible to treat soil within the target treatment zone to non-detect. Deeper soil treatment and heated water from thermal operation will address groundwater contaminants over time.	Area of treatment will have multiple thermal and recovery wells and manifolds, making the **treatment area and equipment support areas unusable during the treatment time-frame (5 months)**. Soil **compliance monitoring needed** post treatment to confirm CULs achieved. **Longer-term monitoring** than the other thermal alternatives, Alt 2, Alt 3 and 4.	After FWTC Fill Placement: Install and operate HT thermal (5 months), followed by MNA and quarterly monitoring, assume 15 years. EC may be established after fill placement or during long-term monitoring depending on long term site use and Ecology input.
Alternative 3 High Temp Thermal in Spill Areas and Low Temp Thermal in Plume Area[3] Alternative 2 supplemented with LT thermal treatment throughout the remainder of the plume area. No long-tail, MNA or EC. 23,000 Tons of Contaminated Soil Treated.	Similar to Alt 2, but extends footprint of thermal treatment to full plume area, and extends duration of thermal treatment compared to Alt 2 and Alt 4. However, the extended treatment duration uses low temperatures to enhance biodegradation and thus does not require SVE wells for vapor recovery, thus allowing site use as a lay down yard once the HT thermal treatment at the source is complete.	Thermal methods eliminate excavation and hazardous waste handling. HT thermal allows relatively short and effective treatment of highest contaminant concentrations at the spill areas and LT thermal footprint allows use of site for staging during the remaining 21 months period of operation. Shorter duration of post treatment groundwater monitoring compared to Alt 2 and Alt 4. No long tail of monitoring and/or EC.	Area of high temperature treatment will have multiple thermal and recovery wells and manifolds, making the **treatment area and equipment support areas unusable during the HT thermal time-frame (5 months)**. **Soil compliance monitoring needed** post treatment to determine residual concentrations.	After FWTC Fill Placement: Install and operate HT and LT thermal (5 months for HT and 21 more months LT only), followed by groundwater monitoring, assume 2 years.
Alternative 4. High Temp Thermal in Spill and Plume Areas[4] HT thermal treatment to treat deep contaminated soil and groundwater exceeding CULs in source and plume areas. No long-tail, MNA or EC. 23,000 Tons of Contaminated Soil Treated.	Significantly larger footprint of thermal treatment to lateral margin where groundwater exceeds CULs. Soil vapors recovered through SVE wells and treated with GAC before discharge (to atmosphere).	Thermal methods eliminate excavation and hazardous waste handling. Significantly shorter duration than Alt 3, treating the largest mass of contaminants in the shortest time period compared to other alternatives. No long tail of monitoring and/or EC.	Area of treatment will have multiple thermal and recovery wells and manifolds, making the **treatment area and equipment support areas unusable during the treatment time-frame (6 months)**. **Soil compliance monitoring needed** post treatment to determine residual concentrations.	After FWTC Fill Placement: Install and operate HT thermal (6 months), followed by 2 years quarterly monitoring.

Notes:
bgs = below existing ground surface
CID = Contained In Determination – soil classification applied by Ecology that allows soil that would otherwise be classified as a Listed Dangerous Waste (because it has detectable concentrations of dry cleaning contaminants) to be managed as "non-hazardous waste" at a significantly lower disposal cost than the disposal cost for Dangerous/Hazardous waste contaminated soil.
CULs = Cleanup Levels
EC = Environmental Covenant
FWTC = Federal Way Transit Center
GAC = Granular Activated Carbon
LT = Low temperature Thermal (TCH)
HT = High Low temperature Thermal (TCH)
MNA = Monitored Natural Attenuation
MTCA = Model Toxics Control Act
NFA = No Further Action

[2] TerraTherm Treatment Scenario 2
[3] TerraTherm Treatment Scenario 3
[4] TerraTherm Treatment Scenario 4

Ballpark Rough Order of Magnitude Remediation Cost Estimates - Summary

Remedial Alternatives
Former Y Pay Mor Dry Cleaner
Federal Way Link Extension Parcel FL-358
Federal Way, Washington
Developed June 19, 2020

Alternative	Rough Order of Magnitude Remediation Cost Subtotal Pre-Contingency	Contingency	Total Including Contingency	Estimated Year of Closure
1 - Hot Spot Excavation, with MNA and EC	$ 921,000	$ 142,700	$ 1,064,000	EC Indefinitely (Costs Assume MNA Monitoring to 2045)
1A - Hot Spot Excavation, Low-Temp Thermal Treatment for Plume	$ 2,767,000	$ 789,600	$ 3,557,000	2024
1B - Full Excavation of Soil Greater than MTCA, with MNA and EC	$ 3,038,000	$ 844,350	$ 3,882,000	EC Indefinitely (Costs Assume MNA Monitoring to 2030)
2 - High-Temp Thermal Treatment in Spill Areas, with MNA and EC	$ 2,167,000	$ 547,900	$ 2,715,000	EC Indefinitely (Costs Assume MNA Monitoring to 2035)
3 - High-Temp Thermal Treatment in Spill Areas and Low-Temp Thermal Treatment in Plume Area	$ 3,235,000	$ 930,000	$ 4,165,000	2024
4 - High-Temp Thermal in Spill and Plume Areas	$ 3,784,000	$ 1,096,900	$ 4,881,000	2023

Alternative 1 Cost Summary (Hot Spot Excavation, with MNA and EC)			
Task Description	Estimated Cost - Rounded to Nearest $1,000)	Contingency	Subtotal With Contingency (Rounded to Nearest $1,000)
Remedial Excavation	$ 317,000	30%	$ 412,000
RI Data Gaps and New Compliance Wells, Post Fill - Capital Cost	$ 85,000	10%	$ 94,000
FS and/or CAP Post Fill - Capital Cost	$ 28,000	10%	$ 31,000
Total Annual Groundwater MNA Monitoring	$ 396,000	5%	$ 416,000
Total Quarterly Groundwater Compliance Monitoring	$ -	5%	$ -
Environmental Covenant - Legal and Consulting	$ 10,000	5%	$ 11,000
Total VCP Documentation and Oversight	$ 22,000	10%	$ 24,000
Future Chemical Vapor Barrier - TOD Parcel	$ 50,000	25%	$ 63,000
Post Closure Well Decommissioning - Capital Cost	$ 13,000	10%	$ 14,000
			$ -
Totals	$ 921,000	$ 142,700	$ 1,064,000

Alternative 1A Cost Summary (Hot Spot Excavation, Low-Temp Thermal Treatment for Plume)			
Task Description	Estimated Cost - Rounded to Nearest $1,000)	Contingency	Subtotal With Contingency (Rounded to Nearest $1,000)
Remedial Excavation	$ 402,000	30%	$ 523,000
RI Data Gaps and New Compliance Wells, Post Fill - Capital Cost	$ 85,000	10%	$ 94,000
FS and/or CAP Post Fill - Capital Cost	$ 17,000	15%	$ 20,000
Thermal Treatment	$ 2,171,000	30%	$ 2,822,000
Total Annual Groundwater MNA Monitoring	$ -	5%	$ -
Total Quarterly Groundwater Compliance Monitoring	$ 51,000	5%	$ 54,000
Environmental Covenant	$ -	10%	$ -
Total VCP Documentation and Oversight	$ 28,000	10%	$ 31,000
Post Closure Well Decommissioning - Capital Cost	$ 13,000	10%	$ 14,000
			$ -
Totals	$ 2,767,000	$ 789,600	$ 3,557,000

Alternative 1B Cost Summary (Full Excavation of Soil Greater than MTCA, with MNA and EC)			
Task Description	Estimated Cost - Rounded to Nearest $1,000)	Contingency	Subtotal With Contingency (Rounded to Nearest $1,000)
Remedial Excavation	$ 2,738,000	30%	$ 3,559,000
RI Data Gaps and New Compliance Wells, Post Fill - Capital Cost	$ 85,000	10%	$ 94,000
IF REQUIRED BY ECY: FS and/or Final Cleanup Action Plan (CAP) Post Fill - Capital Cost	$ 17,000	15%	$ 20,000
Total Annual Groundwater MNA Monitoring	$ 158,000	5%	$ 166,000
Total Quarterly Groundwater Compliance Monitoring	$ -	5%	$ -
Environmental Covenant - Legal and Consulting	$ 10,000	10%	$ 11,000
Total VCP Documentation and Oversight	$ 17,000	10%	$ 19,000
Post Closure Well Decommissioning - Capital Cost	$ 13,000	10%	$ 10,000
Totals	$ 3,038,000	$ 844,350	$ 3,882,000

Alternative 2 Cost Summary (High-Temp Thermal Treatment in Spill Areas with MNA and EC)			
Task Description	Estimated Cost - Rounded to Nearest $1,000)	Contingency	Subtotal With Contingency (Rounded to Nearest $1,000)
RI Data Gaps and New Compliance Wells, Post Fill - Capital Cost	$ 85,000	10%	$ 94,000
FS and/or CAP Post Fill - Capital Cost	$ 28,000	15%	$ 32,000
Thermal Treatment	$ 1,671,000	30%	$ 2,172,000
Total Annual Groundwater MNA Monitoring	$ 238,000	5%	$ 250,000
Total Quarterly Groundwater Compliance Monitoring	$ -	5%	$ -
Environmental Covenant - Legal and Consulting	$ 10,000	10%	$ 11,000
Total VCP Documentation and Oversight	$ 72,000	10%	$ 79,000
Future Chemical Vapor Barrier - TOD Parcel	$ 50,000	25%	$ 63,000
Post Closure Well Decommissioning - Capital Cost	$ 13,000	10%	$ 14,000
			$ -
Totals	$ 2,167,000	$ 547,900	$ 2,715,000

Alternative 3 Cost Summary (High-Temp Thermal Treatment in Spill Areas and Low-Temp Thermal Treatment in Plume Area)			
Task Description	Estimated Cost - Rounded to Nearest $1,000)	Contingency	Subtotal With Contingency (Rounded to Nearest $1,000)
RI Data Gaps and New Compliance Wells, Post Fill - Capital Cost	$ 85,000	10%	$ 94,000
IF REQUIRED BY ECY: FS and/or Final Cleanup Action Plan (CAP) Post Fill - Capital Cost	$ 17,000	15%	$ 20,000
Thermal Treatment	$ 3,041,000	30%	$ 3,953,000
Total Annual Groundwater MNA Monitoring	$ -	5%	$ -
Total Quarterly Groundwater Compliance Monitoring	$ 51,000	5%	$ 54,000
Environmental Covenant - Legal and Consulting	$ -	10%	$ -
Total VCP Documentation and Oversight	$ 28,000	10%	$ 31,000
Post Closure Well Decommissioning - Capital Cost	$ 13,000	10%	$ 14,000
			$ -
Totals	$ 3,235,000	$ 930,000	$ 4,165,000

Alternative 4 Cost Summary (High-Temp Thermal in Spill and Plume Areas)			
Task Description	Estimated Cost - Rounded to Nearest $1,000)	Contingency	Subtotal With Contingency (Rounded to Nearest $1,000)
RI Data Gaps and New Compliance Wells, Post Fill - Capital Cost	$ 85,000	10%	$ 94,000
IF REQUIRED BY ECY: FS and/or Final Cleanup Action Plan (CAP) Post Fill - Capital Cost	$ 17,000	15%	$ 20,000
Thermal Treatment	$ 3,601,000	30%	$ 4,681,000
Total Annual Groundwater MNA Monitoring	$ -	5%	$ -
Total Quarterly Groundwater Compliance Monitoring	$ 51,000	5%	$ 54,000
Environmental Covenant	$ -	10%	$ -
Total VCP Documentation and Oversight	$ 17,000	10%	$ 19,000
Post Closure Well Decommissioning - Capital Cost	$ 13,000	10%	$ 14,000
			$ -
Totals	$ 3,784,000	$ 1,096,900	$ 4,881,000

Notes/Limitations:

Costs are presented in $2020 and do not account for future cost escalation or net present value (NPV) of future costs. Rough Order of Magnitude (ROM) cost estimates as presented are typically +/- 30%. Costs for thermal treatment were based on estimates by TerraTherm "Preliminary Site Evaluation" dated June 12, 2020; TerraTherm indicates a +/-30% price accuracy which is reflected in these cost estimates by using a +30% contingency for the thermal treatment costs. Please refer to TerraTherm's June 12, 2020 document for additional assumptions.

Cleanup sites have uncertainties associated with variabilities in subsurface soil, groundwater, and contaminant distribution conditions. Environmental cleanup cost estimating customarily addresses uncertainties by applying a "contingency" to environmental cost estimates. Contingencies were added as shown to account for subsurface uncertainties, regulatory uncertainties, scope and quantity uncertainties and to account for differences between unit costs identified at the time this estimate is prepared and actual unit costs at the time the work is performed.

Contaminated soil volume estimates are based on explorations and sampling data. We have used our best professional judgment in developing volume estimates. However, volume estimates are subject to the inherent limitations of subsurface data collected from discrete locations. It is possible that soil contamination may exist in areas on or adjacent to the Site not identified at this time. Volumes assumed should not be understood as a guaranteed volume to be treated or excavated.

The costs presented in this document are based on multiple assumptions, many but not all of which, are described herein. The costs identified will be different, and could vary significantly, if conditions change that affect one or more of these assumptions. Unit costs are based on currently available data, our experience with similar projects, recent contractor costs for projects with some similar aspects, and best professional judgment; we did not obtain quotes from contractors except as noted for thermal treatment costs. Actual costs will vary and could be higher or lower than the estimates presented depending on variables (some of which are currently not defined) such as future regulatory changes under MTCA, costs at the time the actual cleanup work is performed, actual duration of the remedial action, degree of institutional controls and future site use. Costs assumed should not be understood as guaranteed.

MINIMUM REQUIREMENTS FOR CLEANUP ACTIONS – WAC 173-340-360

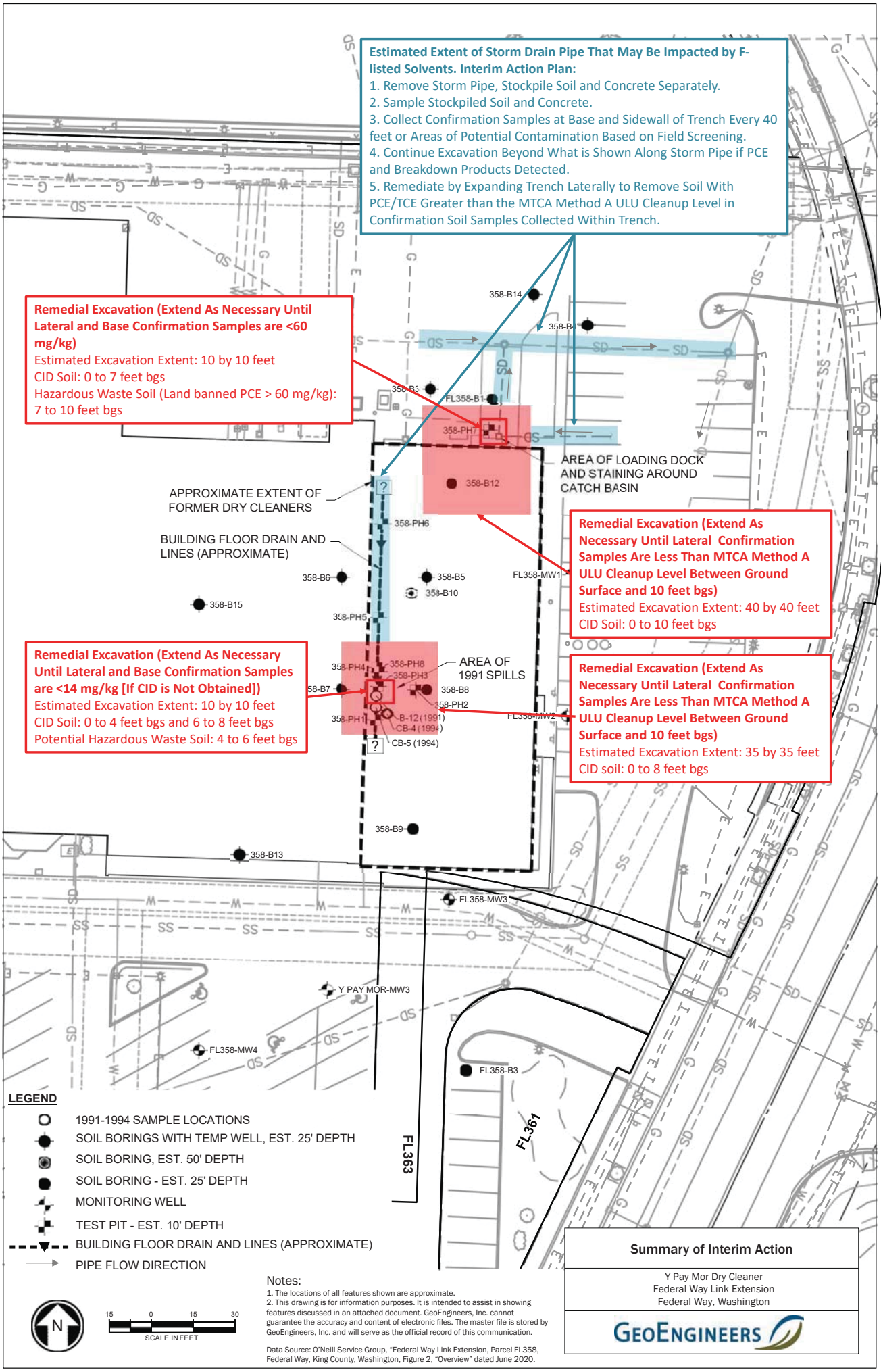
THRESHOLD REQUIREMENTS:

- Protect human health and the environment.
- Comply with cleanup standards.
- Comply with applicable state and federal laws. The term "applicable state and federal laws" includes legally applicable requirements and those requirements that Ecology determines to be relevant and appropriate as described in WAC 173-340-710.
- Provide compliance monitoring. Compliance monitoring for a cleanup action includes the following elements: (1) *protection monitoring* confirms that human health and the environment are adequately protected during the cleanup action; (2) *performance monitoring* confirms that the cleanup levels have been achieved; and (3) *confirmation monitoring* confirms the long-term effectiveness of the cleanup action once cleanup levels and other performance standards have been reached.

OTHER MTCA REQUIREMENTS - UNDER MTCA, WHEN SELECTING FROM THE ALTERNATIVES THAT MEET THE THRESHOLD REQUIREMENTS DESCRIBED ABOVE, THE ALTERNATIVES SHALL BE FURTHER EVALUATED AGAINST THE FOLLOWING ADDITIONAL CRITERIA:

- Use permanent solutions to the maximum extent practicable. MTCA specifies that the permanence of qualifying alternatives be evaluated by balancing the costs and benefits of each of the alternatives using a "disproportionate cost analysis" in accordance with WAC 173-340-360(3)(e).
- Provide a reasonable restoration time frame. MTCA requires that several factors be considered when evaluating whether a remedial alternative provides a reasonable restoration time frame (WAC 173-340-360[4]). Collectively, these factors characterize how an alternative is anticipated to perform over the long term, particularly for alternatives that leave hazardous substances in-place at concentrations greater than cleanup levels. The practicability of achieving a shorter restoration time frame is also considered.
- Consideration of public concerns. Ecology will seek public comments during the RI/FS process prior to making a preliminary selection of a preferred remedial alternative. This preliminary selection is subject to further public review and comment when the proposed remedy is published in the draft CAP.

Attachment 6
Figure Summary of Interim Action



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2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Data Source: O'Neill Service Group, "Federal Way Link Extension, Parcel FL358, Federal Way, King County, Washington, Figure 2, "Overview" dated June 2020.

Summary of Interim Action

Y Pay Mor Dry Cleaner
Federal Way Link Extension
Federal Way, Washington

GEOENGINEERS

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
Northwest Regional Office • 3190 160th Avenue SE • Bellevue, WA 98008-5452 • 425-649-7000
711 for Washington Relay Service • Persons with a speech disability can call 877-833-6341

June 26, 2020

Susan Penoyar
Sound Transit
401 South Jackson Street
Seattle, WA 98104

Re: Opinion pursuant to WAC 173-340-515(5) on Remedial Action for the following Hazardous Waste Site:

- **Site Name:** Y Pay Mor Drycleaner
- **Site Address:** 2210 S 320th Street, Federal Way, Washington 98003
- **Facility/Site No.:** 2518
- **Cleanup Site ID:** 3180
- **VCP Project No.:** NW3265

Dear Susan Penoyar:

The Washington State Department of Ecology (Ecology) received your request for an opinion on *Selection of Preferred Alternative* letter at the Y Pay Mor Drycleaner facility (Site). In that letter you requested that Ecology provide an opinion on Sound Transit's proposed cleanup action. In addition, you requested Ecology provide "approval" of certain activities otherwise prohibited by the 1995 and 1998 restrictive covenants on the Property, and a change in the restricted area identified under the restrictive covenants. Ecology will provide an answer regarding the restrictive covenant request in a separate letter. This letter details Ecology's technical advice and assistance regarding whether your proposed cleanup action will meet the requirements of the Model Toxics Control Act (MTCA). This letter is provided through Ecology's Voluntary Cleanup Program (VCP), under the authority of MTCA, Chapter 70.105D RCW.

Issue Presented and Opinion

Pursuant to completion of the Interim Action work proposed in *Selection of Preferred Alternative* letter, dated June 19, 2020, is additional work necessary?

YES. Ecology has determined that additional Site characterization and cleanup is necessary to resolve data gaps and clean up the Site.

Description of the Site

This opinion applies only to the Site described below. The Site is defined by the nature and extent of contamination associated with the following releases:

- Tetrachloroethene (PCE) and trichloroethene (TCE) into the Soil.
- PCE, TCE, cis-1,2-dichloroethene (cis-1,2-DCE), and vinyl chloride (VC) into the Ground Water.

In this opinion letter, "Property" refers to one 7.52-acre King County parcel 2423200050. The Property is a former shopping center. "Site" refers to the area that is impacted by the releases from a former dry cleaners (Y Pay Mor Cleaners), which was operated between 1979 and 1994 in a historic "Space A-6" on the northeastern portion of the Property. The Site boundary is not completely defined.

The Property layout of the former shopping center is depicted in **Enclosure A**. Ecology understands the buildings in **Enclosure A** are no longer in place, and the Property is awaiting redevelopment as part of Sound Transit's Federal Way Transit Center (FWTC).

Please note a parcel of real property can be affected by multiple sites. At this time, we have no information that the parcel associated with this Site are affected by other sites.

Basis for the Opinion

This opinion is based on the information contained in the following documents:

1. Sound Transit, *Selection of Preferred Alternative, Y Pay Mor Drycleaner, VCP Project No. NW3265, Federal Way Link Extension Parcel FL-358*, June 19, 2020.

2. O'Neill Service Group, *Technical Memorandum, FL358 – Supplemental Investigation Sound Transit Federal Way Link Extension*, May 22, 2020.

3. Ecology, *Re: Response to Additional Information at the Following Cleanup Site, Y Pay Mor Drycleaner, 2210 S 320th Street, Federal Way, Washington, 98003, Facility No. 2518, Cleanup Site ID 3180, VCP Project No NW3265*, April 29, 2020.

4. Sound Transit, *Additional Information, Y Pay Mor Drycleaner, VCP Project No. NW3265*, April 13, 2020.

5. Ecology, *Approval for Supplemental Characterization at the Following Cleanup Site, Y Pay Mor Drycleaner, 2210 S 320th Street, Federal Way, Washington, 98003, Facility No. 2518, Cleanup Site ID 3180, VCP Project No NW3265*, April 8, 2020.

6. O'Neill Service Group, *Cleanup Action Plan, Parcels FL-358, FL-361 Federal Way Link Extension Project, 2200 South 320th Street, Federal Way, Washington*, March 11, 2020.

7. Sound Transit, *Phase II Environmental Site Assessment Addendum, Sound Transit – Federal Way Link Extension, Parcel FL-358, 2200 South 320th Street, Federal Way, Washington*, February 18, 2019.

8. Ecology, *Periodic Review, Y Pay Mor Drycleaner, 2210 South 320th, Federal Way, Washington 98003, Facility Site ID 2518, Cleanup Site ID 3180*, September 2018.

9. Sound Transit, *Phase II Environmental Site Assessment Report, Sound Transit – Federal Way Link Extension, Parcels FL358, FL361 and FL363, Sea-tac Plaza Shopping center, 2200 South 320th Street, Federal Way, Washington*, December 19, 2017.

10. Ecology, *Re: Independent Remedial Action, Sea-Tac Plaza/Former Y-Pay-Mor Drycleaner, Space A-6, 2210 S. 320th Street, Federal Way, Washington*, October 22, 1998.

11. Restrictive Covenant, King County Recording No. 199808101434, *Seatac Plaza Corporation, 2210 S 320th Street, Space A-6, Former Y-Pay-Mor Dry Cleaners, Parcel Number 242320-0050-00*, July 24, 1998.

12. AGRA Earth & Environmental, Inc. (AGRA), *Sea-Tac Plaza, Biannual Sampling of Monitoring Well MW-3, Former Y-Pay-Mor Dry Cleaners, Federal Way, Washington*, August 20, 1997.

13. AGRA, *Sea-Tac Plaza, Biannual Sampling of Monitoring Well MW-3, Former Y-Pay-Mor Dry Cleaners, Federal Way, Washington*, February 28, 1997.

14. Restrictive Covenant, King County Recording No. 199510121424, September 21, 1995.

15. AGRA, *Independent remedial Action Report (IRAP), Former Y-Pay-Mor Drycleaners, 2210 S 320th Street, Federal Way, Washington*, December 22, 1994.

16. AGRA, *Remediation System Installation, Former Y-Pay More Dry Cleaners, Federal Way, Washington*, October 1993.

17. AGRA, *Preliminary Remedial Investigation, Former Y-Pay-Mor Drycleaners, Best Shopping Plaza, 2210 320th Street South, Federal Way, Washington*, November 23, 1992.

A number of these documents are accessible in electronic form from the Site https://apps.ecology.wa.gov/gsp/Sitepage.aspx?csid=3180. The complete records are stored in the Central Files of the Northwest Regional Office of Ecology (NWRO) for review by

appointment only. Visit our Public Records Request page https://www.ecology.wa.gov/About-us/Accountability-transparency/Public-records-requests, to submit a public records request or get more information about the process. If you require assistance with this process, you may contact the Public Records Officer at publicrecordsofficer@ecy.wa.gov or 360-407-6040.

This opinion is void if any of the information contained in those documents is materially false or misleading.

Analysis and Opinion

Two restrictive covenants are in place for this Site: a 1998 restrictive covenant (King County Recording No. 199808101434), and a 1995 restrictive covenant (King County Recording No. 199510121424). The 1998 restrictive covenant is attached to Ecology's opinion letter (determination of No Further Action) dated October 22, 1998.

As the holder of the restrictive covenants, Ecology issued an *Approval for Supplemental Characterization* letter on April 8, 2020. This letter approved activities which would otherwise be prohibited under the terms of the covenants. The April 8, 2020 letter approved activities necessary to supplement Site characterization to delineate the soil and ground water contamination at the Site.

Sound Transit conducted the supplemental Site characterization in May and June 2020, and submitted the *Selection of Preferred Alternative* letter, dated June 19, 2020. The letter includes the following:

- Soil and ground water characterization data collected in May and June 2020.
- A Conceptual Site Model (CSM) based on existing Site characterization data.
- A summary of the proposed interim action and a request for approval on the interim action under the restrictive covenants.
- A preliminary selection of cleanup alternatives and a request for opinion on the cleanup action.
- A request for change of restricted area under the restrictive covenants.

A Site plan showing the soil and ground water sampling locations is included in **Enclosure B**. A ground water contour map is included in **Enclosure C**. A map showing the proposed interim action is included in **Enclosure D.**

Ecology will address the restrictive covenant request in a separate letter. Below is Ecology's comments on your Site characterization and cleanup:

1. While the existing Site characterization and CSM provided important information on the nature and extent of the contamination, additional characterization, including installing permanent monitoring wells, is needed for a complete remedial investigation (RI) to meet the requirements of MTCA.

- Ecology concurs with the two source areas for halogenated volatile organic compounds (HVOC) contamination identified in the CSM.
    - The first source area is beneath the former dry cleaning equipment on the western portion of the former dry cleaner suite, where two spills of PCE product and PCE-containing waste reportedly occurred in 1991 (1991 Spill Area).
    - The second source area is north of the former dry cleaner suite, where the back door, a loading dock, and the former parking lot storm drain were located (North of the Building Area).
- The lateral extent of the soil contamination appears to be delineated. The contaminated soil is defined to the north by soil boring B14, to the south by soil boring B9, to the east by soil borings B1 and B4, and monitoring wells MW1 and MW2, and to the west by soil borings B11, B13, and B15.
- The vertical extent of soil contamination is not completely defined in some locations.
    - The vertical extent of soil contamination in the 1991 Spill Area appears to be delineated. The contaminated soil in this area appears to be limited to a depth of 7 feet below ground surface (bgs).
    - The vertical extent of soil contamination in the North of the Building Area was not confirmed in test pit PH7, where the highest PCE concentration in soil was detected at 9 to 10 feet bgs. But the vertical extent was defined at a nearby boring location B-12, which appears to extend to a depth between 25 and 30 feet bgs.
    - Soil contamination was also confirmed in soil boring B5 at 20 and 25 feet bgs, located between the two source areas. The vertical extent of the contamination in this soil boring was not confirmed. This soil contamination may be isolated based on the soil data from a nearby soil boring B10.
- The ground water flow direction and extent of the HVOC-contaminated ground water plume was evaluated by temporary monitoring wells. Permanent monitoring wells are needed to confirm the ground water condition.
    - Ground water was sampled twice from former monitoring wells FL358-MW1 through FL358-MW4, and YPayMor-MW-3 in October 2017 and April 2020. Ground water was sampled once from temporary monitoring wells installed in soil borings B3 though B7, B11, and B13 through B15 in May or June 2020.

- The ground water samples collected from soil borings B3, B5, B6, and B7 contained concentrations of PCE, TCE, cis-1,2-DCE, and/or VC above the MTCA Method A ground water cleanup levels.

- Based on the depth to water measurement in April through June 2020, ground water appears to flow to the southwest. Permanent monitoring wells are needed to verify the ground water flow direction at the Site.

- Based on the ground water sampling data in 2019 and 2020, the HVOC-contaminated ground water plume appears to be delineated. However, these data points were only sampled once or twice. Permanent monitoring wells are needed to verify the plume extent. Eight consecutive quarters of analytical data below the MTCA Method A ground water cleanup level is needed to demonstrate compliance for a monitoring well.

2. The proposed interim action and clean fill placement across the Site surface will meet the requirements of MTCA. *However*, this is an **interim action** and is only a partial cleanup of the site. Additional work is necessary for the Site cleanup to be complete.

- Based on existing Site characterization, Ecology concurs that the interim action proposed in the *Selection of Preferred Alternative* letter can remove the readily-accessible source of contamination and provide partial cleanup of the Site.

  - The proposed interim action includes hot spot excavation in the 1991 Spill Area and North of the Building Area. Both excavations will remove the HVOC-contaminated soil to 8 to 10 feet bgs. The excavations will extend until lateral confirmation samples are less than the MTCA Method A soil cleanup levels.

  - The interim action is anticipated to remove the HVOC-contaminated soil in the 1991 Spill Area, and the upper 10-foot of the HVOC-contaminated soil in the North of the Building Area.

- The proposal to place approximately 15 additional feet of clean fill across the entire Property after the interim action is also acceptable under MTCA. Ecology recognizes the fill placement is a critical step to keep the FWTC construction on schedule.

3. Ecology requests a complete RI and feasibility study (RI/FS) before it can issue a determination letter on a selected cleanup action.

- Ecology appreciates the preliminary evaluation of cleanup alternatives. However, the existing Site characterization and preliminary evaluation are not sufficient for Ecology to determine if the final cleanup action you proposed meets the MTCA requirement. A complete RI/FS should be submitted after the interim action and fill placement.

- A complete RI requires additional Site characterization, which may be completed after the interim action and fill placement. The additional characterization should include vertical delineation of residual soil contamination, installation of permanent monitoring wells, and ground water monitoring.

- The FS should include a disproportionate cost analysis (DCA). Ecology recognizes the fill placement may increase the cleanup cost due to the additional material above the contamination and depth to ground water. The additional cost caused by the fill placement should not be included in the DCA when evaluating the feasibility of an in-situ cleanup alternative.

- The cleanup action selected for the Site must meet the minimum requirements in WAC 173-340-360(2), through completion of a FS/DCA. For example, it is Ecology's opinion that the 25-year restoration timeframe for Alternative 1 in the *Selection of Preferred Alternative* letter does not meet the minimum requirement. An active in-situ cleanup action is likely needed to meet an acceptable restoration timeframe.

- The active cleanup alternatives described in the preliminary evaluation were all comprised of thermal treatment. Ecology requests assessment of additional feasible technologies in the FS, such as in situ chemical oxidation (ISCO).

Limitations of the Opinion

1. Opinion does not settle liability with the state.

Liable persons are strictly liable, jointly and severally, for all remedial action costs and for all natural resource damages resulting from the release or releases of hazardous substances at the Site. This opinion **does not**:

- Resolve or alter a person's liability to the state.
- Protect liable persons from contribution claims by third parties.

To settle liability with the state and obtain protection from contribution claims, a person must enter into a consent decree with Ecology under RCW 70.105D.040(4).

2. Opinion does not constitute a determination of substantial equivalence.

To recover remedial action costs from other liable persons under MTCA, one must demonstrate that the action is the substantial equivalent of an Ecology-conducted or Ecology-supervised action. This opinion does not determine whether the action you performed is substantially equivalent. Courts make that determination. *See* RCW 70.105D.080 and WAC 173-340-545.

3. State is immune from liability.

The state, Ecology, and its officers and employees are immune from all liability, and no cause of action of any nature may arise from any act or omission in providing this opinion. *See* RCW 70.105D.180.

Contact Information

Thank you for choosing to clean up the Site under the Voluntary Cleanup Program (VCP). After you have addressed our concerns, you may request another review of your cleanup. Please do not hesitate to request additional services as your cleanup progresses. We look forward to working with you.

For more information about the VCP and the cleanup process, please visit our web site: www.ecy.wa.gov/programs/tcp/vcp/vcpmain.htm. If you have any questions about this opinion, please contact me by phone at 425-649-7109 or by email at jing.song@ecy.wa.gov.

Sincerely,

Jing Song
Site Manager
NWRO Toxics Cleanup Program

Enclosures (4): A – Former Property Layout
B – Site Plan
C – Ground Water Contour Map
D – Summary of Interim Action

ecc: Tricia DeOme, GeoEngineers, Inc.
Ivy Anderson, Assistant Attorney General
Louise Bardy, Ecology Toxics Cleanup Program
Ecology Periodic Review Site File

Enclosure A

Former Property Layout

Former Property Layout

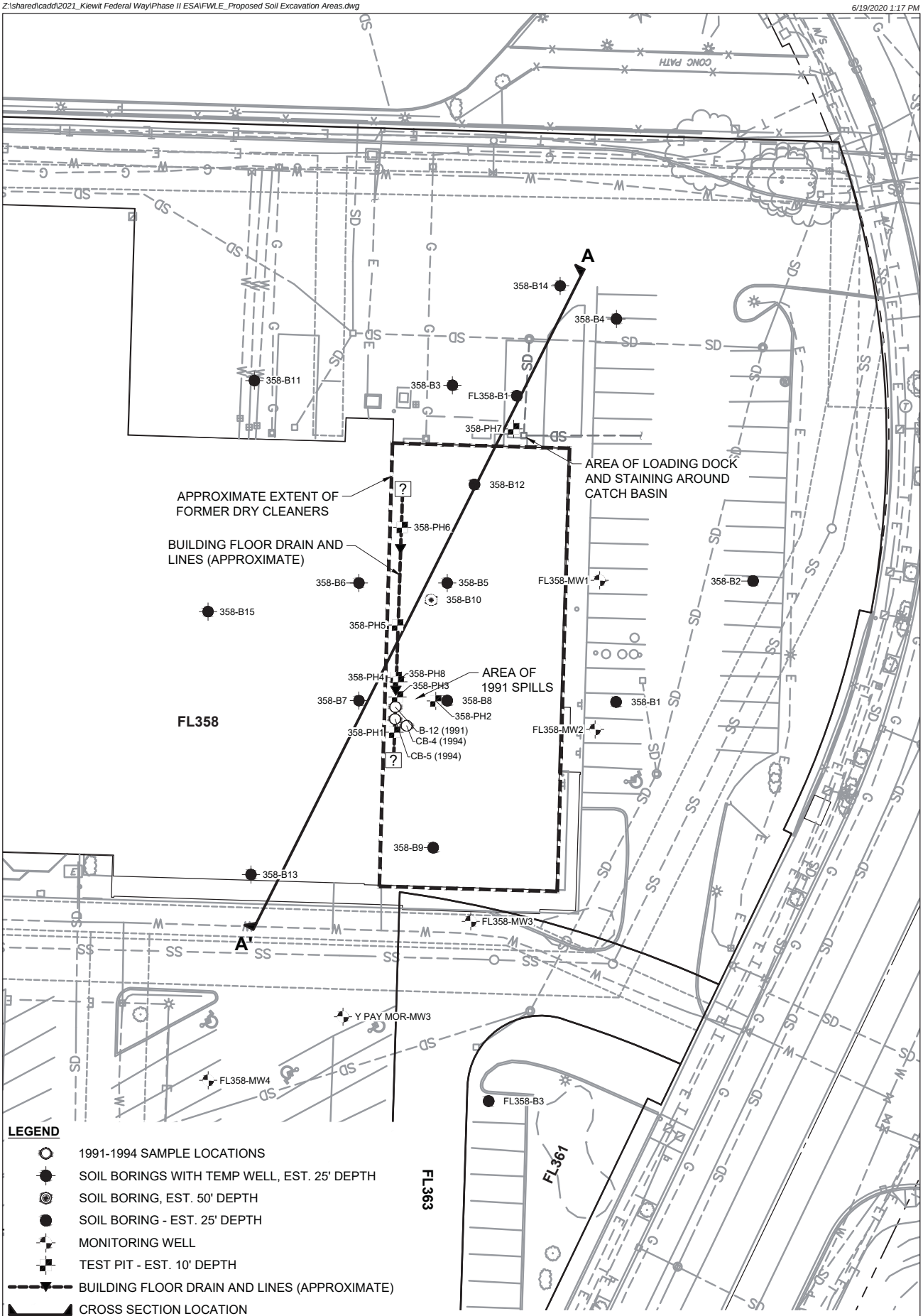
Date: 4/22/2020 Department of Ecology

N

King County

Enclosure B

Site Plan



N

15 0 15 30
SCALE IN FEET

OSG
O'Neill Service Group

FEDERAL WAY LINK EXTENSION
PARCEL FL358, FEDERAL WAY
KING COUNTY, WASHINGTON

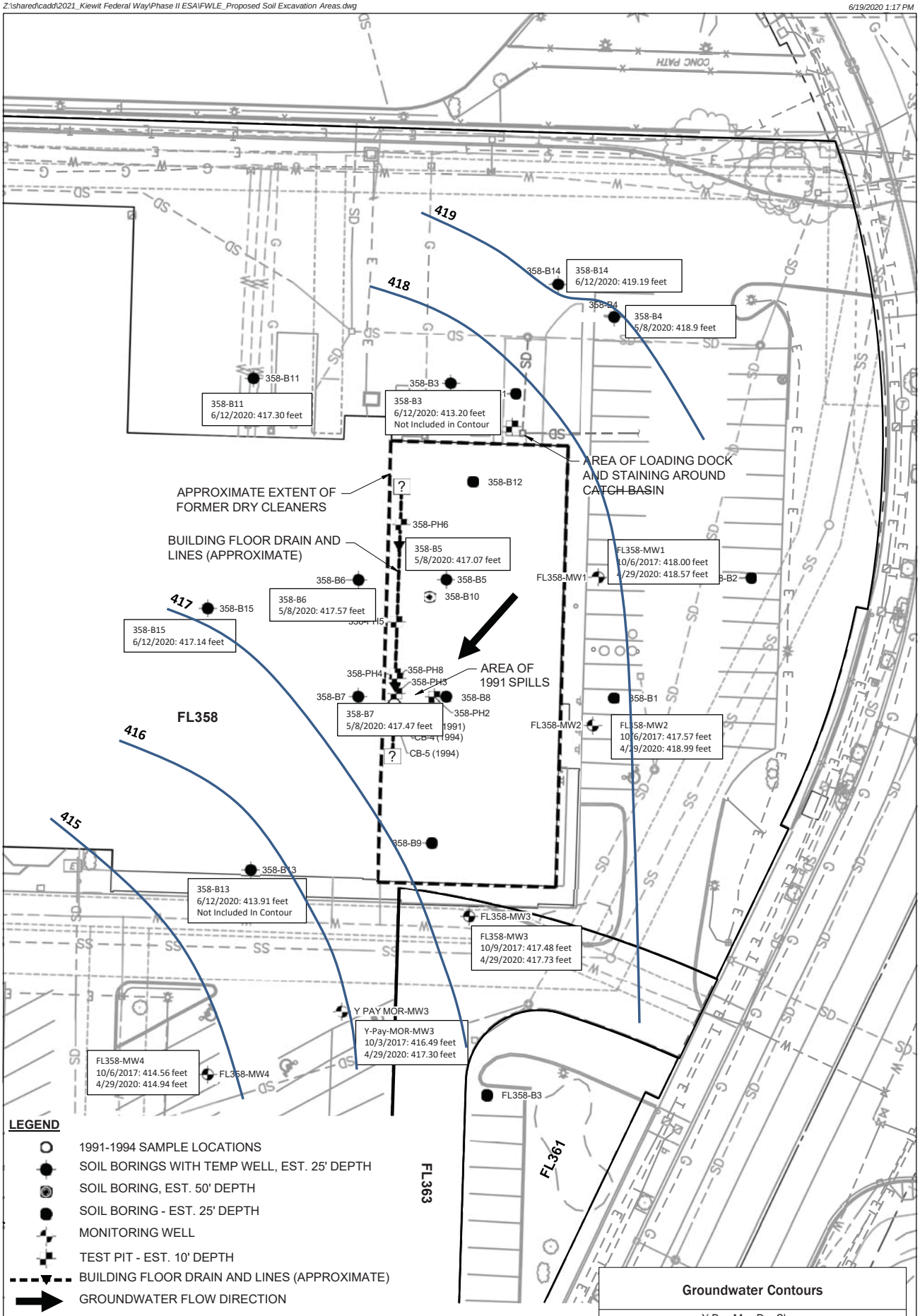
OVERVIEW SITE PLAN

Drawn By:	J. Stewart
Reviewed By:	V. Atkins
Approved By:	S. Darst
Date:	June 2020
Project No.:	2021

FIGURE
2

Enclosure C

Ground Water Contour Map



N

15 0 15 30
SCALE IN FEET

Notes:
1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.
Data Reference: Background obtained from O'neill Service Group Figure 7. Elevations obtained from O'neill Service Group Table 2.
Vertical Datum North American Vertical Datum of 1988).

Groundwater Contours

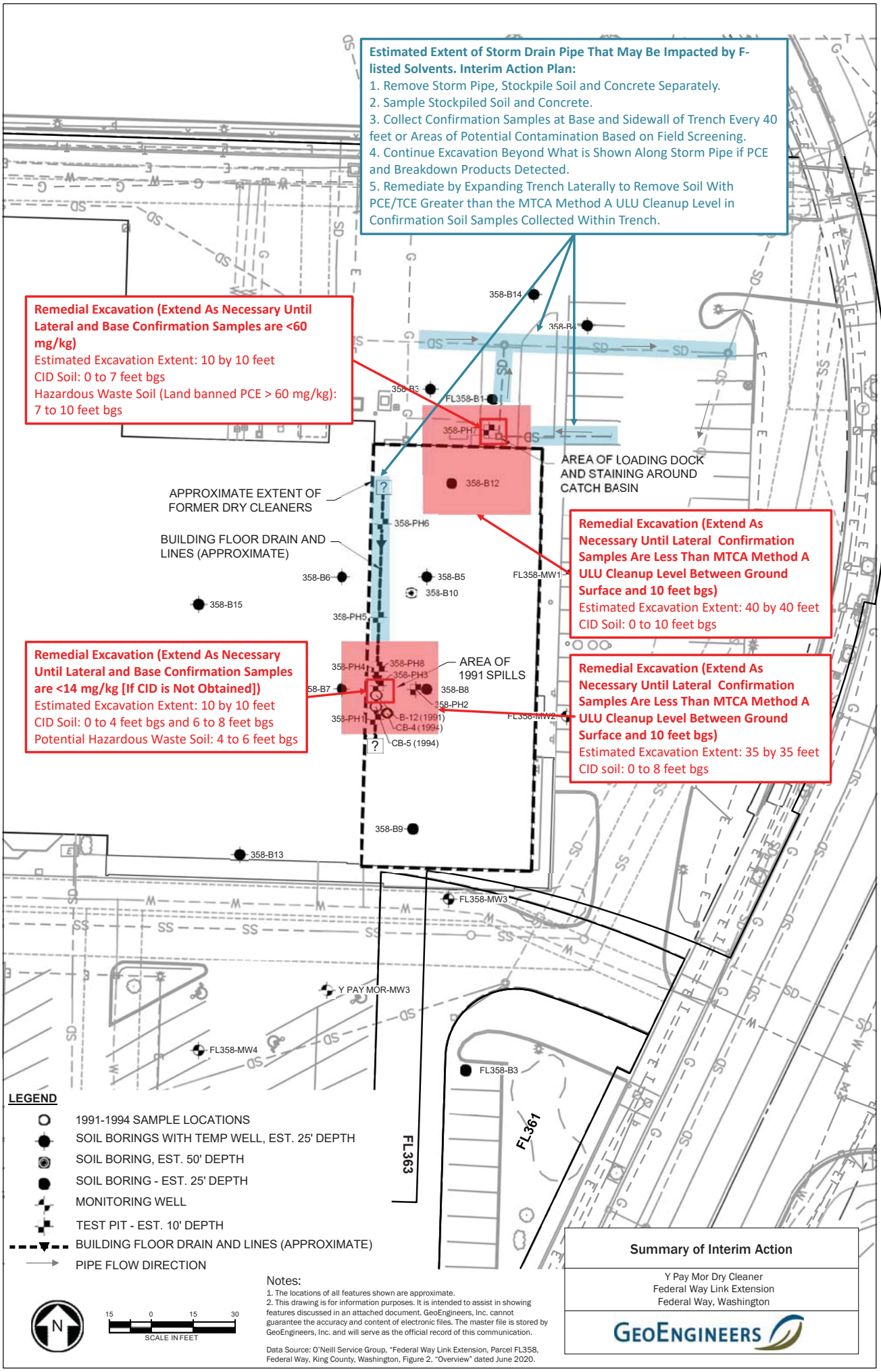
Y Pay Mor Dry Cleaner
Federal Way Link Extension Project
Federal Way, Washington

GEOENGINEERS

Figure 6

Enclosure D

Summary of Interim Action



Notes:
1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Data Source: O'Neill Service Group, "Federal Way Link Extension, Parcel FL358, Federal Way, King County, Washington, Figure 2, "Overview" dated June 2020.

Summary of Interim Action

Y Pay Mor Dry Cleaner
Federal Way Link Extension
Federal Way, Washington

GEOENGINEERS

APPENDIX C

Boring Logs

SOIL CLASSIFICATION CHART

MAJOR DIVISIONS			SYMBOLS GRAPH	SYMBOLS LETTER	TYPICAL DESCRIPTIONS
COARSE GRAINED SOILS MORE THAN 50% RETAINED ON NO. 200 SIEVE	GRAVEL AND GRAVELLY SOILS MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	CLEAN GRAVELS (LITTLE OR NO FINES)		GW	WELL-GRADED GRAVELS,GRAVEL - SAND MIXTURES
				GP	POORLY-GRADED GRAVELS,GRAVEL - SAND MIXTURES
		GRAVELS WITH FINES (APPRECIABLE AMOUNT OF FINES)		GM	SILTY GRAVELS, GRAVEL- SAND - SILT MIXTURES
				GC	CLAYEY GRAVELS, GRAVEL - SAND - CLAY MIXTURES
	SAND AND SANDY SOILS MORE THAN 50% OF COARSE FRACTION PASSING NO. 4 SIEVE	CLEAN SANDS (LITTLE OR NO FINES)		SW	WELL-GRADED SANDS, GRAVELLY SANDS
				SP	POORLY-GRADED SANDS, GRAVELLY SAND
		SANDS WITH FINES (APPRECIABLE AMOUNT OF FINES)		SM	SILTY SANDS, SAND - SILT MIXTURES
				SC	CLAYEY SANDS, SAND - CLAY MIXTURES
FINE GRAINED SOILS MORE THAN 50% PASSING NO. 200 SIEVE	SILTS AND CLAYS	LIQUID LIMIT LESS THAN 50		ML	INORGANIC SILTS, ROCK FLOUR, CLAYEY SILTS WITH SLIGHT PLASTICITY
				CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
				OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY
	SILTS AND CLAYS	LIQUID LIMIT GREATER THAN 50		MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS SILTY SOILS
				CH	INORGANIC CLAYS OF HIGH PLASTICITY
				OH	ORGANIC CLAYS AND SILTS OF MEDIUM TO HIGH PLASTICITY
HIGHLY ORGANIC SOILS				PT	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS

NOTE: Dual symbols are used to indicate borderline or dual soil classifications.

ADDITIONAL MATERIAL SYMBOLS

SYMBOLS GRAPH	SYMBOLS LETTER	TYPICAL DESCRIPTIONS
	AC	ASPHALT CONCRETE
	CC	CEMENT CONCRETE
	CR	CRUSHED ROCK/QUARRY SPALLS
	TS	TOPSOIL/FOREST DUFF/SOD

Sampler Symbol Descriptions

- **Standard Penetration Test (SPT)**
- **Direct-Push**
- **Shelby tube**
- **Bulk or grab**
- **Continuous Coring**

Blowcount is recorded for driven samplers as the number if blows required to advance sampler 12 inches (or distance noted). See exploration log for hammer weight and drop.

Groundwater Contact

- **Measured groundwater level in exploration, well, or piezometer after completion of drilling**
- **Measured free product in well or piezometer**
- **Measured groundwater level in exploration, well, or piezometer at time of drilling**

Abbreviations

PID = Photoionization Detector

O'Neill Service Group

FEDERAL WAY LINK EXTENSION
SEATAC AND FEDERAL WAY
KING COUNTY, WASHINGTON

KEY TO EXPLORATION LOGS

APPENDIX

C-1

O'Neill Service Group
17619 NE 67th Ct #100
Redmond, WA 98052
Telephone: (425) 429-7800

BORING NUMBER 358-B1

CLIENT Kiewit/Sound Transit
PROJECT NAME FL-358
PROJECT NUMBER 2021
PROJECT LOCATION Federal Way, WA
DATE STARTED 5/7/20 **COMPLETED** 5/7/20
GROUND ELEVATION 425.32 ft MSL **HOLE SIZE** 8 5/8"
DRILLING CONTRACTOR Cascade
GROUND WATER LEVELS:
DRILLING METHOD CME75 HSA
AT TIME OF DRILLING 9.00 ft / Elev 416.32 ft
LOGGED BY V. Atkins **CHECKED BY** S. Flowers
AT END OF DRILLING ---
NOTES
AFTER DRILLING ---

DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	ENVIRONMENTAL DATA	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
0					0.5 Asphalt 424.8	
	SPT S1	7-11-10 (21)	PID = 0		(SM) Medium dense, blue gray to brown silty SAND with gravel to cobbles, trace roots, moist, no apparent odor or staining.	
5					5.0 420.3	
	SPT S2	6-8-10 (18)	PID = 0.2		(ML) Medium dense to dense, dark red-brown SILT with organics and peat, trace gravel, moist, no apparent odor or staining.	
	SPT S3	16-17-25 (42)	PID = 0			
10					10.0 415.3	
	SPT S4	30-50	PID = 0		(SM) Very dense, gray silty SAND with gravel, wet, no apparent odor or staining. Limited recovery.	
15						
	SPT S5	50	PID = 0		Rig chatter	
20					19.5 405.8	
	SPT S6	50	PID = 0		(SM) Very dense, gray silty SAND with fine gravel, wet. Heave.	
25					25.0 400.3	
	SPT S7	50	PID = 0		25.5 399.8 (SP-SC) Very dense, gray medium SAND with clay and fine gravel, wet.	

Bottom of borehole at 25.5 feet.

O'Neill Service Group
17619 NE 67th Ct #100
Redmond, WA 98052
Telephone: (425) 429-7800

BORING NUMBER 358-B2

CLIENT Kiewit/Sound Transit
PROJECT NAME FL-358
PROJECT NUMBER 2021
PROJECT LOCATION Federal Way, WA
DATE STARTED 5/7/20 **COMPLETED** 5/7/20
GROUND ELEVATION 426.95 ft MSL **HOLE SIZE** 8 5/8"
DRILLING CONTRACTOR Cascade
GROUND WATER LEVELS:
DRILLING METHOD CME75 HSA
AT TIME OF DRILLING 14.00 ft / Elev 412.95 ft
LOGGED BY V. Atkins **CHECKED BY** S. Flowers
AT END OF DRILLING ---
NOTES
AFTER DRILLING ---

DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	ENVIRONMENTAL DATA	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
0					Asphalt (1.0 / 426.0)	
					(SM) Dense, brown silty SAND with organics, grading to gray silty sand with gravel, moist, no apparent odor or staining.	
5	SPT S1	18-19-13 (32)	PID = 0			
10					(10.0 / 417.0)	
	SPT S2	100/4"	PID = 0		(SM) No recovery. Woody debris (11.0 / 416.0)	
					(SM) Very dense, dark brown silty SAND with gravel, gray layers, moist, no apparent odor or staining.	
	SPT S3	21-50/5"	PID = 0			
15					(15.0 / 412.0)	
	SPT S4	21-20-24 (44)	PID = 0		(ML) Hard, dark brown SILT with peat and organic silt, wet, no apparent odor or staining.	
20					(19.5 / 407.5)	
	SPT S5	19-23-30 (53)	PID = 0		(SP) Very dense, gray-brown medium silty SAND with gravel up to 2", wet, no apparent odor or staining. Heave.	
25						
	SPT S6	50	PID = 0		(25.5 / 401.5)	

Bottom of borehole at 25.5 feet.

O'Neill Service Group
17619 NE 67th Ct #100
Redmond, WA 98052
Telephone: (425) 429-7800

BORING NUMBER 358-B3

CLIENT Kiewit/Sound Transit
PROJECT NAME FL-358
PROJECT NUMBER 2021
PROJECT LOCATION Federal Way, WA
DATE STARTED 5/7/20 **COMPLETED** 5/8/20
GROUND ELEVATION 423 ft MSL **HOLE SIZE** 8 5/8"
DRILLING CONTRACTOR Cascade
GROUND WATER LEVELS:
DRILLING METHOD CME75 HSA
AT TIME OF DRILLING 16.00 ft / Elev 407.00 ft
LOGGED BY V. Atkins **CHECKED BY** S. Flowers
AT END OF DRILLING 9.80 ft / Elev 413.20 ft
NOTES
AFTER DRILLING ---

DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	ENVIRONMENTAL DATA	MATERIAL DESCRIPTION	WELL DIAGRAM
0				0.5 Asphalt — 422.5 (SP) Gravelly sand (FILL).	Temporary well installed 5/7/2020
				4.0 — 419.0 (SM) Medium dense, gray-brown silty SAND with gravel, trace oxidation, moist, no apparent odor or staining.	
5	SPT S1	23	PID = 0		
				7.0 — 416.0 (ML) Very hard, gray-brown mottled SILT with sand, trace gravel, moist, no apparent odor or staining.	
	SPT S2	22-22-30 (52)	PID = 0		
10					
	SPT S3	25-29-29 (58)	PID = 0		
	SPT S4	12-24-21 (45)	PID = 0		
15				15.0 — 408.0 (ML) Very hard, gray SILT with sand and clay, slightly plastic, moist, no apparent odor or staining.	
	SPT S5	21-25-25 (50)	PID = 0		
				18.0 — 405.0 (GM) Very dense, brown silty GRAVEL, wet. Driller reported heave in the auger.	
20	SPT S6	50	PID = 0		
25				25.5 — 397.5	

Bottom of borehole at 25.5 feet.

O'Neill Service Group
17619 NE 67th Ct #100
Redmond, WA 98052
Telephone: (425) 429-7800

BORING NUMBER 358-B4

CLIENT Kiewit/Sound Transit
PROJECT NAME FL-358
PROJECT NUMBER 2021
PROJECT LOCATION Federal Way, WA
DATE STARTED 5/8/20 **COMPLETED** 5/8/20
GROUND ELEVATION 427 ft MSL **HOLE SIZE** 8 5/8"
DRILLING CONTRACTOR Cascade
GROUND WATER LEVELS:
DRILLING METHOD CME75 HSA
AT TIME OF DRILLING 16.00 ft / Elev 411.00 ft
LOGGED BY V. Atkins **CHECKED BY** S. Flowers
AT END OF DRILLING 8.10 ft / Elev 418.90 ft
NOTES
AFTER DRILLING ---

DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	ENVIRONMENTAL DATA	MATERIAL DESCRIPTION	ELEVATION
0				0.5 Asphalt	426.5
				(SM) Very dense, dark gray silty SAND with gravel, moist, no apparent odor or staining.	
5	SPT S1	50	PID = 0		
				7.0 (SM) No recovery.	420.0
	SPT S2	100	PID = 0		
10				10.0 (SM) Very dense, gray silty SAND with fine gravel, brown layers, moist grading to wet, no apparent odor or staining.	417.0
	SPT S3	33-29-30 (59)	PID = 0		
				12.0 (SM) Very dense, gray mottled silty SAND with gravel, slightly plastic, moist, no apparent odor or staining.	415.0
	SPT S4	33-21-29 (50)	PID = 0		
15					
	SPT S5	33-50	PID = 0	Decreasing oxidation. Becomes wet.	
20				20.0 (SM) Very dense, gray-brown silty SAND with silty fine sand layers, wet, no apparent odor or staining.	407.0
	SPT S6	31-30-32 (62)	PID = 0		
25				25.0	402.0
	SPT S7	50	PID = 0	25.5 (SM) Very dense, gray-brown silty SAND with gravel, wet, no apparent odor or staining.	401.5

Bottom of borehole at 25.5 feet.

WELL DIAGRAM: Temporary well installed 5/8/2020

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Redmond, WA 98052
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BORING NUMBER 358-B5

CLIENT Kiewit/Sound Transit
PROJECT NAME FL-358
PROJECT NUMBER 2021
PROJECT LOCATION Federal Way, WA
DATE STARTED 5/8/20 **COMPLETED** 5/8/20
GROUND ELEVATION 426.37 ft MSL **HOLE SIZE** 8 5/8"
DRILLING CONTRACTOR Cascade
GROUND WATER LEVELS:
DRILLING METHOD CME75 HSA
AT TIME OF DRILLING 7.00 ft / Elev 419.37 ft
LOGGED BY V. Atkins **CHECKED BY** S. Flowers
AT END OF DRILLING 9.30 ft / Elev 417.07 ft
NOTES
AFTER DRILLING ---

DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	ENVIRONMENTAL DATA	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
0					0.5 Concrete. 425.9	
					(SP) Brown SAND with silt and gravel (FILL). 2.5 423.9	
	SPT S1	32-15-20 (35)	PID = 0		(SM) Dense, gray-brown silty SAND with gravel, moist, no apparent odor or staining. 5.0 421.4	
5	SPT S2	18-19-18 (37)	PID = 0		(SM) Dense, brownish-yellow silty SAND with gravel, grading to dark red-brown with peat and organic silt, moist. 7.0 419.4	Temporary well installed 5/8/2020
	SPT S3	13-8-14 (22)	PID = 0		(SM) Interbedded SAND with silt and peat, trace gravel, wet, no apparent odor or staining. 9.0 417.4	
10	SPT S4	19-25-27 (52)	PID = 0		(SM) Very dense, gray-brown silty SAND with gravel, wet, no apparent odor or staining.	
	SPT S5	30	PID = 0		15.0 411.4	
15	SPT S6	12-27-32 (59)	PID = 0		(ML) Very hard, gray-brown mottled SILT with sand and gravel, wet, no apparent odor or staining. 20.0 406.4	
20	SPT S7	24-50	PID = 0		(ML) Very hard, gray-brown mottled SILT with sand and gravel with oxidation, wet, no apparent odor or staining. 25.0 401.4	
25	SPT S8	50/4"	PID = 0		25.5 400.9 (ML) Very dense, gray gravelly SILT, wet, no apparent odor or staining.	

Bottom of borehole at 25.5 feet.

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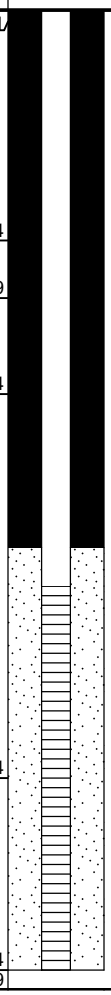
BORING NUMBER 358-B6

CLIENT Kiewit/Sound Transit
PROJECT NAME FL-358
PROJECT NUMBER 2021
PROJECT LOCATION Federal Way, WA
DATE STARTED 5/8/20 **COMPLETED** 5/11/20
GROUND ELEVATION 426.37 ft MSL **HOLE SIZE** 8 5/8"
DRILLING CONTRACTOR Cascade
GROUND WATER LEVELS:
DRILLING METHOD CME75 HSA
AT TIME OF DRILLING 10.00 ft / Elev 416.37 ft
LOGGED BY V. Atkins **CHECKED BY** S. Flowers
AT END OF DRILLING 8.80 ft / Elev 417.57 ft
NOTES
AFTER DRILLING ---

DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	ENVIRONMENTAL DATA	MATERIAL DESCRIPTION	ELEVATION
0				0.3 Concrete.	426.1
				(ML) Gray sandy SILT with gravel, no apparent odor or staining (FILL).	
5	SPT S1	8-10-19 (29)	PID = 0	6.0 (OL) Dark brown sandy SILT with peat and wood fragments, no apparent odor or staining.	420.4
	SPT S2	50	PID = 0.2	7.5 (SM) Very dense, silty SAND with gravel, moist.	418.9
10	SPT S3	11-19-21 (40)	PID = 0	10.0 (SM) Dense to very dense, gray silty SAND with gravel, trace wood, no apparent odor or staining.	416.4
	SPT S4	50	PID = 0		
15	SPT S5	50	PID = 0		
20	SPT S6	50	PID = 0	20.0 (SM) Very dense, brown silty SAND with gravel, wet, no apparent odor or staining.	406.4
25	SPT S7	50	PID = 0	25.0 (SM) Very dense, gray silty SAND with fine gravel, wet.	401.4
				25.5 Bottom of borehole at 25.5 feet.	400.9

WELL DIAGRAM



Temporary well installed 5/11/2020

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BORING NUMBER 358-B7

CLIENT Kiewit/Sound Transit
PROJECT NAME FL-358
PROJECT NUMBER 2021
PROJECT LOCATION Federal Way, WA
DATE STARTED 5/11/20 **COMPLETED** 5/11/20
GROUND ELEVATION 426.37 ft MSL **HOLE SIZE** 8 5/8"
DRILLING CONTRACTOR Cascade
GROUND WATER LEVELS:
DRILLING METHOD CME75 HSA
AT TIME OF DRILLING 13.00 ft / Elev 413.37 ft
LOGGED BY V. Atkins **CHECKED BY** S. Flowers
AT END OF DRILLING 8.90 ft / Elev 417.47 ft
NOTES
AFTER DRILLING ---

DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	ENVIRONMENTAL DATA	MATERIAL DESCRIPTION	WELL DIAGRAM
0				0.5 Concrete. 425.9	Temporary well installed 5/11/2020
				(SP) No recovery.	
	SPT S1	27-50	PID = 0		
5				5.0 421.4	
	SPT S2	36-32-43 (75)	PID = 0	(SP) Very dense, brown SAND with gravel and peat/organics, moist, no apparent odor or staining.	
				7.5 418.9	
	SPT S3	43-50	PID = 0	(SM) Very dense, gray silty SAND with gravel, moist, no apparent odor or staining.	
10				10.0 416.4	
	SPT S4	20-50	PID = 0	(ML) Hard, olive-gray SILT with sand, mottled, moist, no apparent odor or staining.	
				12.5 413.9	
				Grading to wet.	
15					
	SPT S5	22-35-47 (82)	PID = 0		
20				20.0 406.4	
	SPT S6	22-50	PID = 0	(SM) Very dense, gray-brown silty SAND with gravel, wet, no apparent odor or staining.	
25					
	SPT S7	32-50	PID = 0	25.5 400.9	

Bottom of borehole at 25.5 feet.

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BORING NUMBER 358-B8

CLIENT Kiewit/Sound Transit
PROJECT NAME FL-358
PROJECT NUMBER 2021
PROJECT LOCATION Federal Way, WA
DATE STARTED 5/11/20 **COMPLETED** 5/11/20
GROUND ELEVATION 426.02 ft MSL **HOLE SIZE** 8 5/8"
DRILLING CONTRACTOR Cascade
GROUND WATER LEVELS:
DRILLING METHOD CME75 HSA
AT TIME OF DRILLING 12.00 ft / Elev 414.02 ft
LOGGED BY V. Atkins **CHECKED BY** S. Flowers
AT END OF DRILLING ---
NOTES
AFTER DRILLING ---

DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	ENVIRONMENTAL DATA	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
0					0.5 Concrete. 425.5	
	SPT S1	50	PID = 0		(SM) Very dense, brown silty SAND with trace gravel and sandy layers, moist, no apparent odor or staining.	
5					5.0 421.0	
	SPT S2	16-15-24 (39)	PID = 0		(ML) Dense, dark brown SILT with peat and silty sand layers, moist, no apparent odor or staining.	
					7.5 418.5	
	SPT S3	50	PID = 0		(ML) Hard, olive-gray SILT with sand and trace fine gravel and trace clay, mottled, wet, no apparent odor or staining.	
10						
	SPT S4	23-50	PID = 0			
	SPT S5	50	PID = 0		13.0 413.0	
					(ML) Hard, light brown SILT with sand and trace fine gravel and trace clay, mottled, trace organics, wet, no apparent odor or staining.	
15						
	SPT S6	31-50	PID = 0			
20					20.0 406.0	
	SPT S7	31-50	PID = 0		(SM) Very dense, gray-brown silty SAND with gravel, trace oxidation, wet, no apparent odor or staining.	
25						
	SPT S8	50	PID = 0		25.5 400.5	

Bottom of borehole at 25.5 feet.

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BORING NUMBER 358-B9

CLIENT Kiewit/Sound Transit
PROJECT NAME FL-358
PROJECT NUMBER 2021
PROJECT LOCATION Federal Way, WA
DATE STARTED 5/11/20 **COMPLETED** 5/11/20
GROUND ELEVATION 426.15 ft MSL **HOLE SIZE** 8 5/8"
DRILLING CONTRACTOR Cascade
GROUND WATER LEVELS:
DRILLING METHOD CME75 HSA
AT TIME OF DRILLING 12.00 ft / Elev 414.15 ft
LOGGED BY V. Atkins **CHECKED BY** S. Flowers
AT END OF DRILLING ---
NOTES
AFTER DRILLING ---

DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	ENVIRONMENTAL DATA	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
0					0.5 Concrete. 425.7	
					(SP) Brown SAND with gravel (FILL). 2.5 423.7	
	SPT S1	50	PID = 0		(SM) Dense to very dense, gray silty SAND with gravel, moist, no apparent odor or staining.	
5	SPT S2	14-15-12 (27)	PID = 0		6.0 420.2	
					(SM) No recovery. 7.5 418.7	
	SPT S3	6-8-50 (58)	PID = 0		(SM) Very dense, gray silty SAND with trace gravel, moist, no apparent odor or staining.	
10					10.0 416.2	
	SPT S4	46-50	PID = 0		(ML) Hard, gray SILT with sand and gravel, moist grading to wet, no apparent odor or staining.	
					12.5 413.7	
	SPT S5	37-50	PID = 0		(SM) Very dense, gray silty SAND with gravel, wet, no apparent odor or staining.	
15					15.0 411.2	
	SPT S6	33-50	PID = 0		(SM) Very dense, gray-brown silty SAND with gravel, wet, no apparent odor or staining.	
20					20.0 406.2	
	SPT S7	50	PID = 0		(SM) Very dense, gray silty SAND with gravel, wet, no apparent odor or staining. Slight heave.	
25						
	SPT S8	26-50	PID = 0		25.5 400.7	

Bottom of borehole at 25.5 feet.

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BORING NUMBER 358-B10

CLIENT Kiewit/Sound Transit
PROJECT NAME FL-358
PROJECT NUMBER 2021
PROJECT LOCATION Federal Way, WA
DATE STARTED 6/9/20 **COMPLETED** 6/9/20
GROUND ELEVATION 425.62 ft MSL **HOLE SIZE** 8 5/8"
DRILLING CONTRACTOR Holt Drilling
GROUND WATER LEVELS:
DRILLING METHOD Mobile B59-HSA
AT TIME OF DRILLING 11.00 ft / Elev 414.62 ft
LOGGED BY V. Atkins **CHECKED BY** S. Flowers
AT END OF DRILLING ---
NOTES
AFTER DRILLING ---

DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	ENVIRONMENTAL DATA	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
0					(SP) Dense, yellow-brown SAND, moist (FILL).	
	SPT S1	16-17-17 (34)	PID = 0			
2.5					423.1	
					No samples collected. See boring 358-B5 for lithology.	
5						
10						
15						
20						
25					25.0	400.6
	SPT S2	50/4"	PID = 0		(SM) Very dense, gray SAND with silt and gravel. Wet, no apparent odor or staining.	
26.0					399.6	
					(ML) Hard, gray SILT with medium to coarse sand, moist, no apparent odor or staining.	
30						
	SPT S3	50	PID = 0			
35					35.0	390.6

(Continued Next Page)

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BORING NUMBER 358-B10

CLIENT Kiewit/Sound Transit **PROJECT NAME** FL-358

PROJECT NUMBER 2021 **PROJECT LOCATION** Federal Way, WA

DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	ENVIRONMENTAL DATA	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
35	SPT S4	40-50	PID = 0		(ML) Hard, gray-green SILT with sand, trace fine gravel, moist, no apparent odor or staining.	
40	SPT S5	30-50/2"	PID = 0		(SM) Very dense, gray fine silty SAND, trace gravel. Wet, no apparent odor or staining.	
45	SPT S6	12-50/3"	PID = 0		(SM) Very dense, gray fine silty SAND, occasional silt layers, slightly stratified. Moist to wet, no apparent odor or staining.	
50	SPT S7	50/4"	PID = 0		(SP) Very dense, gray SAND with silt and gravel, moist to wet, no apparent odor or staining.	

40.0 385.6
45.0 380.6
50.0 375.6
50.3 375.3

Bottom of borehole at 50.3 feet.

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BORING NUMBER 358-B11

CLIENT Kiewit/Sound Transit
PROJECT NAME FL-358
PROJECT NUMBER 2021
PROJECT LOCATION Federal Way, WA
DATE STARTED 6/12/20 **COMPLETED** 6/12/20
GROUND ELEVATION 425.06 ft MSL **HOLE SIZE** 8 5/8"
DRILLING CONTRACTOR Holt Drilling
GROUND WATER LEVELS:
DRILLING METHOD Mobile B59-HSA
AT TIME OF DRILLING 10.00 ft / Elev 415.06 ft
LOGGED BY V. Atkins **CHECKED BY** S. Flowers
AT END OF DRILLING 7.60 ft / Elev 417.46 ft
NOTES Temporary well installed at borehole location.
AFTER DRILLING ---

DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	ENVIRONMENTAL DATA	MATERIAL DESCRIPTION	WELL DIAGRAM
0	SPT S1	10-10-30/0"	PID = 0	(SP) Very dense, yellowish-brown SAND (FILL), grading to gray silty sand with gravel. Moist, no apparent odor or staining.	Temporary well installed 6/12/2020.
2.5				422.6	
	SPT S2	23-35-45 (80)	PID = 0	(SM) Very dense, gray silty SAND with gravel, trace oxidation, moist, no apparent odor or staining.	
5	SPT S3	16-32-40 (72)	PID = 0	Grading to very dense red-brown silty SAND at 6 ft. Trace organics, trace oxidation. Moist, no apparent odor or staining.	
	SPT S4	50/4"	PID = 0	(SM) Limited recovery. Very dense gray silty SAND with gravel, wet, no apparent odor or staining.	
10.0				415.1	
10	SPT S5	13-20-30 (50)	PID = 0	(ML) Very dense, gray silty SAND with gravel, grading at 11 ft to hard brown SILT with sand. Wet, no apparent odor or staining.	
15	SPT S6	45-50			
20.0				405.1	
	SPT S7	30-50/5"		No recovery. Very dense.	
22.5				402.6	
	SPT S8	14-20-20 (40)	PID = 0	(SM) Very dense, gray silty SAND with gravel, occasional sandy layers. Wet, no apparent odor or staining.	
25.0				400.1	
	SPT S9	14-16-18 (34)	PID = 0	(ML) Hard gray SILT with sand, trace clay. Wet, no apparent odor or staining.	
26.5				398.6	

Bottom of borehole at 26.5 feet.

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BORING NUMBER 358-B12

CLIENT Kiewit/Sound Transit
PROJECT NAME FL-358
PROJECT NUMBER 2021
PROJECT LOCATION Federal Way, WA
DATE STARTED 6/10/20 **COMPLETED** 6/10/20
GROUND ELEVATION 425.74 ft MSL **HOLE SIZE** 8 5/8"
DRILLING CONTRACTOR Holt Drilling
GROUND WATER LEVELS:
DRILLING METHOD Mobile B59-HSA
AT TIME OF DRILLING 19.00 ft / Elev 406.74 ft
LOGGED BY V. Atkins **CHECKED BY** S. Flowers
AT END OF DRILLING 12.00 ft / Elev 413.74 ft
NOTES
AFTER DRILLING ---

DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	ENVIRONMENTAL DATA	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
0					(SP) Dense, yellowish-brown SAND with gravel, trace silt, moist, (FILL). No apparent odor or staining.	
	SPT S1	7-21-23 (44)	PID = 0			
			PID = 0			
5	SPT S2	11-14-13 (27)			5.0 — 420.7	
	SPT S3	5-17-18 (35)	PID = 0.1		(ML) Hard, gray SILT with sand, trace organics, gravelly at 6.5 ft. Moist, no apparent odor or staining.	
	SPT S4	10-17-13 (30)	PID = 2.5			
10					10.0 — 415.7	
	SPT S5	13-14-20 (34)	PID = 2.1		(ML) Hard, gray-green to yellow-brown SILT with sand, trace fine gravel and clay. Moist, no apparent odor or staining.	
15					15.0 — 410.7	
	SPT S6	20-40-29 (69)	PID = 0.4		(ML) Limited recovery. Hard, gray-green SILT with sand, trace fine gravel and clay. Moist, no apparent odor or staining.	
20					20.0 — 405.7	
	SPT S7	25-30-50/5"	PID = 0.8		(ML) Hard, gray SILT with sand and gravel. Grading to wet, no apparent odor or staining.	
25					25.0 — 400.7	
	SPT S8	40-50/4"	PID = 0		(SM) Very dense, brown silty SAND with gravel. Wet, no apparent odor or staining.	
30					30.0 — 395.7	
	SPT S9	30-50/3"	PID = 0		(ML) Hard, gray SILT, trace sand and fine gravel. Moist, no apparent odor or staining.	
35						
	SPT S10	32	PID = 0		35.6 — 390.1	

Bottom of borehole at 35.6 feet.

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BORING NUMBER 358-B13

CLIENT Kiewit/Sound Transit
PROJECT NAME FL-358
PROJECT NUMBER 2021
PROJECT LOCATION Federal Way, WA
DATE STARTED 6/11/20 **COMPLETED** 6/11/20
GROUND ELEVATION 425.51 ft MSL **HOLE SIZE** 8 5/8"
DRILLING CONTRACTOR Holt Drilling
GROUND WATER LEVELS:
DRILLING METHOD Mobile B59-HSA
AT TIME OF DRILLING 11.60 ft / Elev 413.91 ft
LOGGED BY V. Atkins **CHECKED BY** S. Flowers
AT END OF DRILLING 12.00 ft / Elev 413.51 ft
NOTES
AFTER DRILLING ---

DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	ENVIRONMENTAL DATA	MATERIAL DESCRIPTION	WELL DIAGRAM
0	SPT S1	13-12-14 (26)	PID = 0	(SP) Medium dense, brown medium SAND with gravel, moist to wet (FILL). No apparent odor or staining. 2.5 / 423.0	Temporary well installed 6/11/2020.
	SPT S2	23-39-50 (89)	PID = 0	(SM) Very dense, gray silty SAND with gravel, trace oxidation, moist, no apparent odor or staining.	
5	SPT S3	23-42-28 (70)	PID = 0	Moist, no apparent odor or staining. 7.5 / 418.0	
	SPT S4	6-4-3 (7)	PID = 0	(SM) Loose, gray, silty SAND grading at 8 ft to soft red-brown SILT and PEAT. Wet, no apparent odor or staining. 10.0 / 415.5	
10	SPT S5	12-36-28 (64)	PID = 0	(SM) Very dense, gray-green silty SAND with gravel, grading moist to wet. No apparent odor or staining. 15.0 / 410.5	
15	SPT S6	2-17-18 (35)	PID = 0	(ML) Stiff, yellow-brown SILT, trace clay and gravel, trace oxidation, moist to wet, no apparent odor or staining. 20.0 / 405.5	
20	SPT S7	32-63-90 (153)	PID = 0	(SM) Very dense, gray to olive-brown silty SAND with gravel, trace oxidation, wet, no apparent odor or staining. 25.0 / 400.5	
25	SPT S8	19-50-34 (84)	PID = 0	(SM) Very dense, olive-brown silty SAND with gravel, trace oxidation, wet, no apparent odor or staining. 26.5 / 399.0	

Bottom of borehole at 26.5 feet.

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BORING NUMBER 358-B14

CLIENT Kiewit/Sound Transit
PROJECT NAME FL-358
PROJECT NUMBER 2021
PROJECT LOCATION Federal Way, WA
DATE STARTED 6/11/20 **COMPLETED** 6/11/20
GROUND ELEVATION 426.47 ft MSL **HOLE SIZE** 8 5/8"
DRILLING CONTRACTOR Holt Drilling
GROUND WATER LEVELS:
DRILLING METHOD Mobile B59-HSA
AT TIME OF DRILLING 14.00 ft / Elev 412.47 ft
LOGGED BY V. Atkins **CHECKED BY** S. Flowers
AT END OF DRILLING 7.80 ft / Elev 418.67 ft
NOTES
AFTER DRILLING ---

DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	ENVIRONMENTAL DATA	MATERIAL DESCRIPTION	WELL DIAGRAM
0				(GP) Recycled concrete (FILL).	Temporary well installed 6/11/2020.
5.0 / 421.5					
	SPT S1	30-12-14 (26)	PID = 0	(SM) Limited recovery. Medium dense gray silty SAND, Moist, trace oxidation, no apparent odor or staining.	
7.5 / 419.0					
	SPT S2	27-38-28 (66)	PID = 0	(SM) Very dense, gray-brown silty SAND with gravel, trace oxidation, moist, no apparent odor or staining.	
10.0 / 416.5					
	SPT S3	12-12-8 (20)	PID = 0	(ML) Stiff, yellow-brown SILT with sand, trace fine gravel, moist, no apparent odor or staining.	
	SPT S4	10-22-22 (44)	PID = 0		
14.0 / 412.5					
15				(ML) Medium dense to very dense brown SILT with sand, grading to silty SAND with gravel. Wet, trace oxidation, no apparent odor or staining.	
	SPT S5	12-20-25 (45)	PID = 0		
20.0 / 406.5					
	SPT S6	60-50/3"	PID = 0	(SM) Very dense, yellow-brown silty SAND with gravel. Wet, no apparent odor or staining. Slight heave.	
25.0 / 401.5					
	SPT S7	32-33-40 (73)	PID = 0	(ML) Hard, brown grading to gray SILT with sand and fine gravel. Wet grading to moist, no apparent odor or staining. Slight heave.	
30					
30.0 / 396.5					
	SPT S8	38-50	PID = 0	(ML) Hard, gray SILT with fine gravel. Moist, no apparent odor or staining.	
31.0 / 395.5					

Bottom of borehole at 31.0 feet.

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BORING NUMBER 358-B15

CLIENT Kiewit/Sound Transit
PROJECT NAME FL-358
PROJECT NUMBER 2021
PROJECT LOCATION Federal Way, WA
DATE STARTED 6/11/20 **COMPLETED** 6/11/20
GROUND ELEVATION 425.61 ft MSL **HOLE SIZE** 8 5/8"
DRILLING CONTRACTOR Holt Drilling
GROUND WATER LEVELS:
DRILLING METHOD Mobile B59-HSA
AT TIME OF DRILLING 10.00 ft / Elev 415.61 ft
LOGGED BY V. Atkins **CHECKED BY** S. Flowers
AT END OF DRILLING 8.90 ft / Elev 416.71 ft
NOTES
AFTER DRILLING ---

DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	ENVIRONMENTAL DATA	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
0					(SP) Dense, yellow-brown medium SAND with gravel, moist, (FILL). No apparent odor or staining.	
	SPT S1	15-22-19 (41)				
2.5					423.1	
	SPT S2	37-46-32 (78)			(SP) Very dense, yellow-brown medium SAND with gravel grading at 3 ft to dense, gray, silty SAND with wood fragments. Moist, no apparent odor or staining.	
5						
5.0					420.6	
	SPT S3	18-30-35 (65)			(SM) Very dense, gray silty SAND with gravel, moist, no apparent odor or staining.	
7.5					418.1	Temporary well installed 6/11/2020.
	SPT S4	26-28-23 (51)			(SM) Very dense, gray silty SAND with organics. Moist, no apparent odor or staining.	
10						
10.0					415.6	
	SPT S5	10-22-13 (35)			(SM) Dense, gray silty SAND with gravel, grading wet, no apparent odor or staining.	
15						
15.0					410.6	
	SPT S6	12-20-25 (45)			(ML) Stiff, brown SILT with sand grading to SILT, trace clay, occasional fine sand seams. Wet, no apparent odor or staining.	
20						
20.0					405.6	
	SPT S7	10-12-18 (30)			(ML) Stiff, brown SILT with sand and gravel, occasional fine sand seams. Wet, no apparent odor or staining.	
25						
25.0					400.6	
	SPT S8	12-32-25 (57)			(SM) Dense, brown silty SAND with gravel. Wet, no apparent odor or staining.	
26.5					399.1	

Bottom of borehole at 26.5 feet.

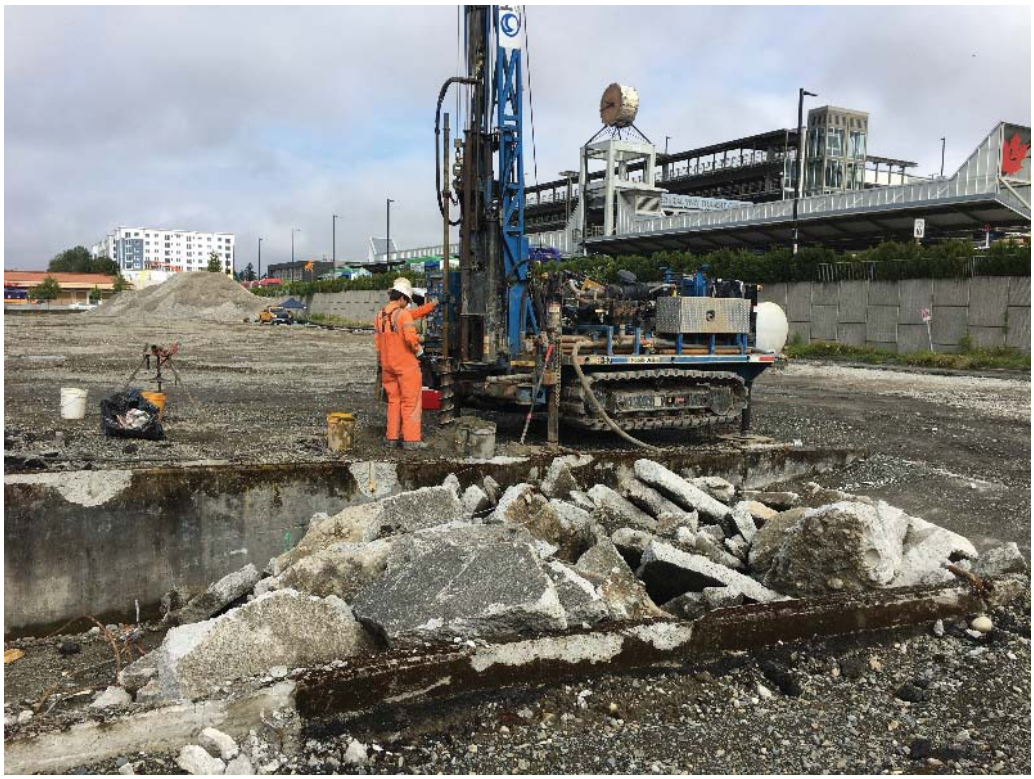
APPENDIX D

Site Photographs

Photograph 1: 358-PH1 soil conditions, 6/9/20.

Photograph 2: 358-PH4 soil conditions, 6/9/20.

Photograph 3: Drilling 358-B10, 6/9/20.



Photograph 4: Drilling 358-B11, 6/10/20.

Photograph 5: 358-PH5 soil conditions, 6/10/20.

Photograph 6: 358-PH7 soil conditions, 6/10/20.

Photograph 7: Hazardous Waste area, south remediation, marked area, FL358-PH3/PH8 prior to removal, 7/15/20.

Photograph 8: FL358 North excavation approximate extent, dug sump to right, end of day 7/16/20.

Photograph 9: Hazardous Waste area, north remediation. Removing 358-PH7 soils, 7/20/20.

Photograph 10: North excavation seeps and pump intercepting water, north side of excavation, 7/21/20.

Photograph 11: North excavation extent, stockpiled soils removed,7/22/20.

Photograph 12: South remediation, over excavating northwest corner, 7/23/20.

Photograph 13: South remediation, extent at end of day showing benched excavation, 7/24/20.

Photograph 14: South remediation, showing additional excavation at northwest corner, 7/27/20.

Photograph 15: North remedial excavation, south sidewall, 7/27/20.

Photograph 16: North remedial excavation, southeast over excavation, 7/28/20.

Photograph 17: North remedial excavation, north sidewall extent, 7/31/20.

Photograph 18: North remedial excavation, southwest sidewall over excavation, 7/31/20.

Photograph 19: North remedial excavation, northeast over excavation. Storm piping visible in sidewall, 8/3/20.

Photograph 20: North remedial excavation final north extent, 8/4/20.

Photograph 21: KLB backfilling north excavation

Photograph 22: Remnant floor drain and building piping removed from between remedial areas, 8/14/20.

Photograph 23: Soil sample SS-3-2.5 (native soils below removed piping), 8/14/20.

Photograph 24: Locating remnant end of storm drain line, sample 358-PH-105-10 collected adjacent north, 8/27/20.

Photograph 25: Trenching to east of north excavation to remove storm line, 8/27/20.

Photograph 26: Removed stormwater piping, typical, 8/27/20.

APPENDIX E

Laboratory Analytical Reports and Chain-of Custody

3600 Fremont Ave. N.
Seattle, WA 98103
T: (206) 352-3790
F: (206) 352-7178
info@fremontanalytical.com

O'Neill Service Group
Vance Atkins
17619 NE 67th Court, Suite 100
Redmond, WA 98052

RE: F200
Work Order Number: 2004413

May 07, 2020

Attention Vance Atkins:

Fremont Analytical, Inc. received 6 sample(s) on 4/29/2020 for the analyses presented in the following report.

Volatile Organic Compounds by EPA Method 8260D

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Brianna Barnes
Project Manager

Date: *05/07/2020*

CLIENT: O'Neill Service Group
Project: F200
Work Order: 2004413

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
2004413-001	FL358-MW4	04/29/2020 10:05 AM	04/29/2020 4:24 PM
2004413-002	YPM4-MW3	04/29/2020 10:40 AM	04/29/2020 4:24 PM
2004413-003	FL358-MW3	04/29/2020 11:25 AM	04/29/2020 4:24 PM
2004413-004	FL358-MW2	04/29/2020 12:05 PM	04/29/2020 4:24 PM
2004413-005	FL358-MW1	04/29/2020 12:40 PM	04/29/2020 4:24 PM
2004413-006	Trip Blank	04/27/2020 3:20 PM	04/29/2020 4:24 PM

Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned

Case Narrative

WO#: **2004413**

Date: **5/7/2020**

CLIENT: O'Neill Service Group

Project: F200

I. SAMPLE RECEIPT:
Samples receipt information is recorded on the attached Sample Receipt Checklist.

II. GENERAL REPORTING COMMENTS:
Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

III. ANALYSES AND EXCEPTIONS:
Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

Qualifiers:

* - Flagged value is not within established control limits
B - Analyte detected in the associated Method Blank
D - Dilution was required
E - Value above quantitation range
H - Holding times for preparation or analysis exceeded
I - Analyte with an internal standard that does not meet established acceptance criteria
J - Analyte detected below Reporting Limit
N - Tentatively Identified Compound (TIC)
Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF)
S - Spike recovery outside accepted recovery limits
ND - Not detected at the Reporting Limit
R - High relative percent difference observed

Acronyms:

%Rec - Percent Recovery
CCB - Continued Calibration Blank
CCV - Continued Calibration Verification
DF - Dilution Factor
HEM - Hexane Extractable Material
ICV - Initial Calibration Verification
LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
MB or MBLANK - Method Blank
MDL - Method Detection Limit
MS/MSD - Matrix Spike / Matrix Spike Duplicate
PDS - Post Digestion Spike
Ref Val - Reference Value
RL - Reporting Limit
RPD - Relative Percent Difference
SD - Serial Dilution
SGT - Silica Gel Treatment
SPK - Spike
Surr - Surrogate

Analytical Report

Work Order: **2004413**
Date Reported: **5/7/2020**

CLIENT: O'Neill Service Group
Project: F200

Lab ID: 2004413-001 **Collection Date:** 4/29/2020 10:05:00 AM
Client Sample ID: **FL358-MW4** **Matrix:** Water

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28248 Analyst: CR

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	1.00	Q	µg/L	1	5/6/2020 7:45:10 PM
Chloromethane	ND	2.00	Q	µg/L	1	5/6/2020 7:45:10 PM
Vinyl chloride	ND	0.200		µg/L	1	5/6/2020 7:45:10 PM
Bromomethane	ND	1.00		µg/L	1	5/6/2020 7:45:10 PM
Trichlorofluoromethane (CFC-11)	ND	1.00		µg/L	1	5/6/2020 7:45:10 PM
Chloroethane	ND	1.00		µg/L	1	5/6/2020 7:45:10 PM
1,1-Dichloroethene	ND	1.00		µg/L	1	5/6/2020 7:45:10 PM
Methylene chloride	ND	1.00		µg/L	1	5/6/2020 7:45:10 PM
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	5/6/2020 7:45:10 PM
1,1-Dichloroethane	ND	1.00		µg/L	1	5/6/2020 7:45:10 PM
cis-1,2-Dichloroethene	ND	1.00		µg/L	1	5/6/2020 7:45:10 PM
Chloroform	ND	1.00		µg/L	1	5/6/2020 7:45:10 PM
1,1,1-Trichloroethane (TCA)	ND	1.00		µg/L	1	5/6/2020 7:45:10 PM
1,1-Dichloropropene	ND	1.00		µg/L	1	5/6/2020 7:45:10 PM
Carbon tetrachloride	ND	1.00		µg/L	1	5/6/2020 7:45:10 PM
1,2-Dichloroethane (EDC)	ND	1.00		µg/L	1	5/6/2020 7:45:10 PM
Trichloroethene (TCE)	ND	0.500		µg/L	1	5/6/2020 7:45:10 PM
1,2-Dichloropropane	ND	1.00		µg/L	1	5/6/2020 7:45:10 PM
Bromodichloromethane	ND	1.00		µg/L	1	5/6/2020 7:45:10 PM
Dibromomethane	ND	1.00		µg/L	1	5/6/2020 7:45:10 PM
cis-1,3-Dichloropropene	ND	1.00		µg/L	1	5/6/2020 7:45:10 PM
trans-1,3-Dichloropropylene	ND	1.00		µg/L	1	5/6/2020 7:45:10 PM
1,1,2-Trichloroethane	ND	1.00		µg/L	1	5/6/2020 7:45:10 PM
1,3-Dichloropropane	ND	1.00		µg/L	1	5/6/2020 7:45:10 PM
Tetrachloroethene (PCE)	ND	1.00		µg/L	1	5/6/2020 7:45:10 PM
Dibromochloromethane	ND	1.00		µg/L	1	5/6/2020 7:45:10 PM
1,2-Dibromoethane (EDB)	ND	0.250		µg/L	1	5/6/2020 7:45:10 PM
Chlorobenzene	ND	1.00		µg/L	1	5/6/2020 7:45:10 PM
1,1,1,2-Tetrachloroethane	ND	1.00		µg/L	1	5/6/2020 7:45:10 PM
Bromoform	ND	2.00		µg/L	1	5/6/2020 7:45:10 PM
1,1,2,2-Tetrachloroethane	ND	1.00		µg/L	1	5/6/2020 7:45:10 PM
Bromobenzene	ND	1.00		µg/L	1	5/6/2020 7:45:10 PM
2-Chlorotoluene	ND	1.00		µg/L	1	5/6/2020 7:45:10 PM
4-Chlorotoluene	ND	1.00		µg/L	1	5/6/2020 7:45:10 PM
1,2,3-Trichloropropane	ND	1.00		µg/L	1	5/6/2020 7:45:10 PM
1,2,4-Trichlorobenzene	ND	2.00		µg/L	1	5/6/2020 7:45:10 PM
1,3-Dichlorobenzene	ND	1.00		µg/L	1	5/6/2020 7:45:10 PM
1,4-Dichlorobenzene	ND	1.00		µg/L	1	5/6/2020 7:45:10 PM

Analytical Report

Work Order: **2004413**
Date Reported: **5/7/2020**

CLIENT: O'Neill Service Group
Project: F200

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28248 Analyst: CR

1,2-Dichlorobenzene	ND	1.00	µg/L	1	5/6/2020 7:45:10 PM
1,2-Dibromo-3-chloropropane	ND	1.00	µg/L	1	5/6/2020 7:45:10 PM
Hexachloro-1,3-butadiene	ND	4.00	µg/L	1	5/6/2020 7:45:10 PM
1,2,3-Trichlorobenzene	ND	4.00	µg/L	1	5/6/2020 7:45:10 PM
Surr: Dibromofluoromethane	94.1	81.1 - 118	%Rec	1	5/6/2020 7:45:10 PM
Surr: Toluene-d8	98.6	85.7 - 113	%Rec	1	5/6/2020 7:45:10 PM
Surr: 1-Bromo-4-fluorobenzene	97.5	84.2 - 111	%Rec	1	5/6/2020 7:45:10 PM

NOTES:
Q - Indicates an analyte with a continuing calibration that does not meet established acceptance criteria

Analytical Report

Work Order: **2004413**
Date Reported: **5/7/2020**

CLIENT: O'Neill Service Group
Project: F200

Lab ID: 2004413-002 **Collection Date:** 4/29/2020 10:40:00 AM
Client Sample ID: **YPM4-MW3** **Matrix:** Water

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28248 Analyst: CR

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	1.00	Q	µg/L	1	5/6/2020 8:15:22 PM
Chloromethane	ND	2.00	Q	µg/L	1	5/6/2020 8:15:22 PM
Vinyl chloride	ND	0.200		µg/L	1	5/6/2020 8:15:22 PM
Bromomethane	ND	1.00		µg/L	1	5/6/2020 8:15:22 PM
Trichlorofluoromethane (CFC-11)	ND	1.00		µg/L	1	5/6/2020 8:15:22 PM
Chloroethane	ND	1.00		µg/L	1	5/6/2020 8:15:22 PM
1,1-Dichloroethene	ND	1.00		µg/L	1	5/6/2020 8:15:22 PM
Methylene chloride	ND	1.00		µg/L	1	5/6/2020 8:15:22 PM
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	5/6/2020 8:15:22 PM
1,1-Dichloroethane	ND	1.00		µg/L	1	5/6/2020 8:15:22 PM
cis-1,2-Dichloroethene	ND	1.00		µg/L	1	5/6/2020 8:15:22 PM
Chloroform	ND	1.00		µg/L	1	5/6/2020 8:15:22 PM
1,1,1-Trichloroethane (TCA)	ND	1.00		µg/L	1	5/6/2020 8:15:22 PM
1,1-Dichloropropene	ND	1.00		µg/L	1	5/6/2020 8:15:22 PM
Carbon tetrachloride	ND	1.00		µg/L	1	5/6/2020 8:15:22 PM
1,2-Dichloroethane (EDC)	ND	1.00		µg/L	1	5/6/2020 8:15:22 PM
Trichloroethene (TCE)	ND	0.500		µg/L	1	5/6/2020 8:15:22 PM
1,2-Dichloropropane	ND	1.00		µg/L	1	5/6/2020 8:15:22 PM
Bromodichloromethane	ND	1.00		µg/L	1	5/6/2020 8:15:22 PM
Dibromomethane	ND	1.00		µg/L	1	5/6/2020 8:15:22 PM
cis-1,3-Dichloropropene	ND	1.00		µg/L	1	5/6/2020 8:15:22 PM
trans-1,3-Dichloropropylene	ND	1.00		µg/L	1	5/6/2020 8:15:22 PM
1,1,2-Trichloroethane	ND	1.00		µg/L	1	5/6/2020 8:15:22 PM
1,3-Dichloropropane	ND	1.00		µg/L	1	5/6/2020 8:15:22 PM
Tetrachloroethene (PCE)	ND	1.00		µg/L	1	5/6/2020 8:15:22 PM
Dibromochloromethane	ND	1.00		µg/L	1	5/6/2020 8:15:22 PM
1,2-Dibromoethane (EDB)	ND	0.250		µg/L	1	5/6/2020 8:15:22 PM
Chlorobenzene	ND	1.00		µg/L	1	5/6/2020 8:15:22 PM
1,1,1,2-Tetrachloroethane	ND	1.00		µg/L	1	5/6/2020 8:15:22 PM
Bromoform	ND	2.00		µg/L	1	5/6/2020 8:15:22 PM
1,1,2,2-Tetrachloroethane	ND	1.00		µg/L	1	5/6/2020 8:15:22 PM
Bromobenzene	ND	1.00		µg/L	1	5/6/2020 8:15:22 PM
2-Chlorotoluene	ND	1.00		µg/L	1	5/6/2020 8:15:22 PM
4-Chlorotoluene	ND	1.00		µg/L	1	5/6/2020 8:15:22 PM
1,2,3-Trichloropropane	ND	1.00		µg/L	1	5/6/2020 8:15:22 PM
1,2,4-Trichlorobenzene	ND	2.00		µg/L	1	5/6/2020 8:15:22 PM
1,3-Dichlorobenzene	ND	1.00		µg/L	1	5/6/2020 8:15:22 PM
1,4-Dichlorobenzene	ND	1.00		µg/L	1	5/6/2020 8:15:22 PM

Analytical Report

Work Order: **2004413**
Date Reported: **5/7/2020**

CLIENT: O'Neill Service Group
Project: F200

Volatile Organic Compounds by EPA Method 8260D

Batch ID: 28248 Analyst: CR

1,2-Dichlorobenzene	ND	1.00	µg/L	1	5/6/2020 8:15:22 PM
1,2-Dibromo-3-chloropropane	ND	1.00	µg/L	1	5/6/2020 8:15:22 PM
Hexachloro-1,3-butadiene	ND	4.00	µg/L	1	5/6/2020 8:15:22 PM
1,2,3-Trichlorobenzene	ND	4.00	µg/L	1	5/6/2020 8:15:22 PM
Surr: Dibromofluoromethane	93.6	81.1 - 118	%Rec	1	5/6/2020 8:15:22 PM
Surr: Toluene-d8	99.0	85.7 - 113	%Rec	1	5/6/2020 8:15:22 PM
Surr: 1-Bromo-4-fluorobenzene	97.9	84.2 - 111	%Rec	1	5/6/2020 8:15:22 PM

NOTES:
Q - Indicates an analyte with a continuing calibration that does not meet established acceptance criteria

Analytical Report

Work Order: **2004413**
Date Reported: **5/7/2020**

CLIENT: O'Neill Service Group
Project: F200

Lab ID: 2004413-003 **Collection Date:** 4/29/2020 11:25:00 AM
Client Sample ID: **FL358-MW3** **Matrix:** Water

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28248 Analyst: CR

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	1.00	Q	µg/L	1	5/6/2020 8:45:34 PM
Chloromethane	ND	2.00	Q	µg/L	1	5/6/2020 8:45:34 PM
Vinyl chloride	ND	0.200		µg/L	1	5/6/2020 8:45:34 PM
Bromomethane	ND	1.00		µg/L	1	5/6/2020 8:45:34 PM
Trichlorofluoromethane (CFC-11)	ND	1.00		µg/L	1	5/6/2020 8:45:34 PM
Chloroethane	ND	1.00		µg/L	1	5/6/2020 8:45:34 PM
1,1-Dichloroethene	ND	1.00		µg/L	1	5/6/2020 8:45:34 PM
Methylene chloride	ND	1.00		µg/L	1	5/6/2020 8:45:34 PM
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	5/6/2020 8:45:34 PM
1,1-Dichloroethane	ND	1.00		µg/L	1	5/6/2020 8:45:34 PM
cis-1,2-Dichloroethene	ND	1.00		µg/L	1	5/6/2020 8:45:34 PM
Chloroform	ND	1.00		µg/L	1	5/6/2020 8:45:34 PM
1,1,1-Trichloroethane (TCA)	ND	1.00		µg/L	1	5/6/2020 8:45:34 PM
1,1-Dichloropropene	ND	1.00		µg/L	1	5/6/2020 8:45:34 PM
Carbon tetrachloride	ND	1.00		µg/L	1	5/6/2020 8:45:34 PM
1,2-Dichloroethane (EDC)	ND	1.00		µg/L	1	5/6/2020 8:45:34 PM
Trichloroethene (TCE)	ND	0.500		µg/L	1	5/6/2020 8:45:34 PM
1,2-Dichloropropane	ND	1.00		µg/L	1	5/6/2020 8:45:34 PM
Bromodichloromethane	ND	1.00		µg/L	1	5/6/2020 8:45:34 PM
Dibromomethane	ND	1.00		µg/L	1	5/6/2020 8:45:34 PM
cis-1,3-Dichloropropene	ND	1.00		µg/L	1	5/6/2020 8:45:34 PM
trans-1,3-Dichloropropylene	ND	1.00		µg/L	1	5/6/2020 8:45:34 PM
1,1,2-Trichloroethane	ND	1.00		µg/L	1	5/6/2020 8:45:34 PM
1,3-Dichloropropane	ND	1.00		µg/L	1	5/6/2020 8:45:34 PM
Tetrachloroethene (PCE)	ND	1.00		µg/L	1	5/6/2020 8:45:34 PM
Dibromochloromethane	ND	1.00		µg/L	1	5/6/2020 8:45:34 PM
1,2-Dibromoethane (EDB)	ND	0.250		µg/L	1	5/6/2020 8:45:34 PM
Chlorobenzene	ND	1.00		µg/L	1	5/6/2020 8:45:34 PM
1,1,1,2-Tetrachloroethane	ND	1.00		µg/L	1	5/6/2020 8:45:34 PM
Bromoform	ND	2.00		µg/L	1	5/6/2020 8:45:34 PM
1,1,2,2-Tetrachloroethane	ND	1.00		µg/L	1	5/6/2020 8:45:34 PM
Bromobenzene	ND	1.00		µg/L	1	5/6/2020 8:45:34 PM
2-Chlorotoluene	ND	1.00		µg/L	1	5/6/2020 8:45:34 PM
4-Chlorotoluene	ND	1.00		µg/L	1	5/6/2020 8:45:34 PM
1,2,3-Trichloropropane	ND	1.00		µg/L	1	5/6/2020 8:45:34 PM
1,2,4-Trichlorobenzene	ND	2.00		µg/L	1	5/6/2020 8:45:34 PM
1,3-Dichlorobenzene	ND	1.00		µg/L	1	5/6/2020 8:45:34 PM
1,4-Dichlorobenzene	ND	1.00		µg/L	1	5/6/2020 8:45:34 PM

Analytical Report

Work Order: **2004413**
Date Reported: **5/7/2020**

CLIENT: O'Neill Service Group
Project: F200

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28248 Analyst: CR

1,2-Dichlorobenzene	ND	1.00	µg/L	1	5/6/2020 8:45:34 PM
1,2-Dibromo-3-chloropropane	ND	1.00	µg/L	1	5/6/2020 8:45:34 PM
Hexachloro-1,3-butadiene	ND	4.00	µg/L	1	5/6/2020 8:45:34 PM
1,2,3-Trichlorobenzene	ND	4.00	µg/L	1	5/6/2020 8:45:34 PM
Surr: Dibromofluoromethane	94.6	81.1 - 118	%Rec	1	5/6/2020 8:45:34 PM
Surr: Toluene-d8	99.7	85.7 - 113	%Rec	1	5/6/2020 8:45:34 PM
Surr: 1-Bromo-4-fluorobenzene	97.4	84.2 - 111	%Rec	1	5/6/2020 8:45:34 PM

NOTES:
Q - Indicates an analyte with a continuing calibration that does not meet established acceptance criteria

Analytical Report

Work Order: **2004413**
Date Reported: **5/7/2020**

CLIENT: O'Neill Service Group
Project: F200

Lab ID: 2004413-004 **Collection Date:** 4/29/2020 12:05:00 PM
Client Sample ID: **FL358-MW2** **Matrix:** Water

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28248 Analyst: CR

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	1.00	Q	µg/L	1	5/6/2020 9:15:51 PM
Chloromethane	ND	2.00	Q	µg/L	1	5/6/2020 9:15:51 PM
Vinyl chloride	ND	0.200		µg/L	1	5/6/2020 9:15:51 PM
Bromomethane	ND	1.00		µg/L	1	5/6/2020 9:15:51 PM
Trichlorofluoromethane (CFC-11)	ND	1.00		µg/L	1	5/6/2020 9:15:51 PM
Chloroethane	ND	1.00		µg/L	1	5/6/2020 9:15:51 PM
1,1-Dichloroethene	ND	1.00		µg/L	1	5/6/2020 9:15:51 PM
Methylene chloride	ND	1.00		µg/L	1	5/6/2020 9:15:51 PM
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	5/6/2020 9:15:51 PM
1,1-Dichloroethane	ND	1.00		µg/L	1	5/6/2020 9:15:51 PM
cis-1,2-Dichloroethene	ND	1.00		µg/L	1	5/6/2020 9:15:51 PM
Chloroform	ND	1.00		µg/L	1	5/6/2020 9:15:51 PM
1,1,1-Trichloroethane (TCA)	ND	1.00		µg/L	1	5/6/2020 9:15:51 PM
1,1-Dichloropropene	ND	1.00		µg/L	1	5/6/2020 9:15:51 PM
Carbon tetrachloride	ND	1.00		µg/L	1	5/6/2020 9:15:51 PM
1,2-Dichloroethane (EDC)	ND	1.00		µg/L	1	5/6/2020 9:15:51 PM
Trichloroethene (TCE)	ND	0.500		µg/L	1	5/6/2020 9:15:51 PM
1,2-Dichloropropane	ND	1.00		µg/L	1	5/6/2020 9:15:51 PM
Bromodichloromethane	ND	1.00		µg/L	1	5/6/2020 9:15:51 PM
Dibromomethane	ND	1.00		µg/L	1	5/6/2020 9:15:51 PM
cis-1,3-Dichloropropene	ND	1.00		µg/L	1	5/6/2020 9:15:51 PM
trans-1,3-Dichloropropylene	ND	1.00		µg/L	1	5/6/2020 9:15:51 PM
1,1,2-Trichloroethane	ND	1.00		µg/L	1	5/6/2020 9:15:51 PM
1,3-Dichloropropane	ND	1.00		µg/L	1	5/6/2020 9:15:51 PM
Tetrachloroethene (PCE)	ND	1.00		µg/L	1	5/6/2020 9:15:51 PM
Dibromochloromethane	ND	1.00		µg/L	1	5/6/2020 9:15:51 PM
1,2-Dibromoethane (EDB)	ND	0.250		µg/L	1	5/6/2020 9:15:51 PM
Chlorobenzene	ND	1.00		µg/L	1	5/6/2020 9:15:51 PM
1,1,1,2-Tetrachloroethane	ND	1.00		µg/L	1	5/6/2020 9:15:51 PM
Bromoform	ND	2.00		µg/L	1	5/6/2020 9:15:51 PM
1,1,2,2-Tetrachloroethane	ND	1.00		µg/L	1	5/6/2020 9:15:51 PM
Bromobenzene	ND	1.00		µg/L	1	5/6/2020 9:15:51 PM
2-Chlorotoluene	ND	1.00		µg/L	1	5/6/2020 9:15:51 PM
4-Chlorotoluene	ND	1.00		µg/L	1	5/6/2020 9:15:51 PM
1,2,3-Trichloropropane	ND	1.00		µg/L	1	5/6/2020 9:15:51 PM
1,2,4-Trichlorobenzene	ND	2.00		µg/L	1	5/6/2020 9:15:51 PM
1,3-Dichlorobenzene	ND	1.00		µg/L	1	5/6/2020 9:15:51 PM
1,4-Dichlorobenzene	ND	1.00		µg/L	1	5/6/2020 9:15:51 PM

Analytical Report

Work Order: **2004413**
Date Reported: **5/7/2020**

CLIENT: O'Neill Service Group
Project: F200

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28248 Analyst: CR

1,2-Dichlorobenzene	ND	1.00	µg/L	1	5/6/2020 9:15:51 PM
1,2-Dibromo-3-chloropropane	ND	1.00	µg/L	1	5/6/2020 9:15:51 PM
Hexachloro-1,3-butadiene	ND	4.00	µg/L	1	5/6/2020 9:15:51 PM
1,2,3-Trichlorobenzene	ND	4.00	µg/L	1	5/6/2020 9:15:51 PM
Surr: Dibromofluoromethane	94.7	81.1 - 118	%Rec	1	5/6/2020 9:15:51 PM
Surr: Toluene-d8	99.0	85.7 - 113	%Rec	1	5/6/2020 9:15:51 PM
Surr: 1-Bromo-4-fluorobenzene	98.3	84.2 - 111	%Rec	1	5/6/2020 9:15:51 PM

NOTES:
Q - Indicates an analyte with a continuing calibration that does not meet established acceptance criteria

Analytical Report

Work Order: **2004413**
Date Reported: **5/7/2020**

CLIENT: O'Neill Service Group
Project: F200

Lab ID: 2004413-005 **Collection Date:** 4/29/2020 12:40:00 PM
Client Sample ID: **FL358-MW1** **Matrix:** Water

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28248 Analyst: CR

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	1.00	Q	µg/L	1	5/6/2020 9:46:08 PM
Chloromethane	ND	2.00	Q	µg/L	1	5/6/2020 9:46:08 PM
Vinyl chloride	ND	0.200		µg/L	1	5/6/2020 9:46:08 PM
Bromomethane	ND	1.00		µg/L	1	5/6/2020 9:46:08 PM
Trichlorofluoromethane (CFC-11)	ND	1.00		µg/L	1	5/6/2020 9:46:08 PM
Chloroethane	ND	1.00		µg/L	1	5/6/2020 9:46:08 PM
1,1-Dichloroethene	ND	1.00		µg/L	1	5/6/2020 9:46:08 PM
Methylene chloride	ND	1.00		µg/L	1	5/6/2020 9:46:08 PM
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	5/6/2020 9:46:08 PM
1,1-Dichloroethane	ND	1.00		µg/L	1	5/6/2020 9:46:08 PM
cis-1,2-Dichloroethene	ND	1.00		µg/L	1	5/6/2020 9:46:08 PM
Chloroform	ND	1.00		µg/L	1	5/6/2020 9:46:08 PM
1,1,1-Trichloroethane (TCA)	ND	1.00		µg/L	1	5/6/2020 9:46:08 PM
1,1-Dichloropropene	ND	1.00		µg/L	1	5/6/2020 9:46:08 PM
Carbon tetrachloride	ND	1.00		µg/L	1	5/6/2020 9:46:08 PM
1,2-Dichloroethane (EDC)	ND	1.00		µg/L	1	5/6/2020 9:46:08 PM
Trichloroethene (TCE)	ND	0.500		µg/L	1	5/6/2020 9:46:08 PM
1,2-Dichloropropane	ND	1.00		µg/L	1	5/6/2020 9:46:08 PM
Bromodichloromethane	ND	1.00		µg/L	1	5/6/2020 9:46:08 PM
Dibromomethane	ND	1.00		µg/L	1	5/6/2020 9:46:08 PM
cis-1,3-Dichloropropene	ND	1.00		µg/L	1	5/6/2020 9:46:08 PM
trans-1,3-Dichloropropylene	ND	1.00		µg/L	1	5/6/2020 9:46:08 PM
1,1,2-Trichloroethane	ND	1.00		µg/L	1	5/6/2020 9:46:08 PM
1,3-Dichloropropane	ND	1.00		µg/L	1	5/6/2020 9:46:08 PM
Tetrachloroethene (PCE)	ND	1.00		µg/L	1	5/6/2020 9:46:08 PM
Dibromochloromethane	ND	1.00		µg/L	1	5/6/2020 9:46:08 PM
1,2-Dibromoethane (EDB)	ND	0.250		µg/L	1	5/6/2020 9:46:08 PM
Chlorobenzene	ND	1.00		µg/L	1	5/6/2020 9:46:08 PM
1,1,1,2-Tetrachloroethane	ND	1.00		µg/L	1	5/6/2020 9:46:08 PM
Bromoform	ND	2.00		µg/L	1	5/6/2020 9:46:08 PM
1,1,2,2-Tetrachloroethane	ND	1.00		µg/L	1	5/6/2020 9:46:08 PM
Bromobenzene	ND	1.00		µg/L	1	5/6/2020 9:46:08 PM
2-Chlorotoluene	ND	1.00		µg/L	1	5/6/2020 9:46:08 PM
4-Chlorotoluene	ND	1.00		µg/L	1	5/6/2020 9:46:08 PM
1,2,3-Trichloropropane	ND	1.00		µg/L	1	5/6/2020 9:46:08 PM
1,2,4-Trichlorobenzene	ND	2.00		µg/L	1	5/6/2020 9:46:08 PM
1,3-Dichlorobenzene	ND	1.00		µg/L	1	5/6/2020 9:46:08 PM
1,4-Dichlorobenzene	ND	1.00		µg/L	1	5/6/2020 9:46:08 PM

Analytical Report

Work Order: **2004413**
Date Reported: **5/7/2020**

CLIENT: O'Neill Service Group
Project: F200

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28248 Analyst: CR

1,2-Dichlorobenzene	ND	1.00	µg/L	1	5/6/2020 9:46:08 PM
1,2-Dibromo-3-chloropropane	ND	1.00	µg/L	1	5/6/2020 9:46:08 PM
Hexachloro-1,3-butadiene	ND	4.00	µg/L	1	5/6/2020 9:46:08 PM
1,2,3-Trichlorobenzene	ND	4.00	µg/L	1	5/6/2020 9:46:08 PM
Surr: Dibromofluoromethane	94.1	81.1 - 118	%Rec	1	5/6/2020 9:46:08 PM
Surr: Toluene-d8	99.8	85.7 - 113	%Rec	1	5/6/2020 9:46:08 PM
Surr: 1-Bromo-4-fluorobenzene	96.9	84.2 - 111	%Rec	1	5/6/2020 9:46:08 PM

NOTES:
Q - Indicates an analyte with a continuing calibration that does not meet established acceptance criteria

Analytical Report

Work Order: **2004413**
Date Reported: **5/7/2020**

CLIENT: O'Neill Service Group
Project: F200

Lab ID: 2004413-006 **Collection Date:** 4/27/2020 3:20:00 PM
Client Sample ID: **Trip Blank** **Matrix:** Water

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28248 Analyst: CR

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	1.00	Q	µg/L	1	5/6/2020 7:14:54 PM
Chloromethane	ND	2.00	Q	µg/L	1	5/6/2020 7:14:54 PM
Vinyl chloride	ND	0.200		µg/L	1	5/6/2020 7:14:54 PM
Bromomethane	ND	1.00		µg/L	1	5/6/2020 7:14:54 PM
Trichlorofluoromethane (CFC-11)	ND	1.00		µg/L	1	5/6/2020 7:14:54 PM
Chloroethane	ND	1.00		µg/L	1	5/6/2020 7:14:54 PM
1,1-Dichloroethene	ND	1.00		µg/L	1	5/6/2020 7:14:54 PM
Methylene chloride	ND	1.00		µg/L	1	5/6/2020 7:14:54 PM
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	5/6/2020 7:14:54 PM
1,1-Dichloroethane	ND	1.00		µg/L	1	5/6/2020 7:14:54 PM
cis-1,2-Dichloroethene	ND	1.00		µg/L	1	5/6/2020 7:14:54 PM
Chloroform	ND	1.00		µg/L	1	5/6/2020 7:14:54 PM
1,1,1-Trichloroethane (TCA)	ND	1.00		µg/L	1	5/6/2020 7:14:54 PM
1,1-Dichloropropene	ND	1.00		µg/L	1	5/6/2020 7:14:54 PM
Carbon tetrachloride	ND	1.00		µg/L	1	5/6/2020 7:14:54 PM
1,2-Dichloroethane (EDC)	ND	1.00		µg/L	1	5/6/2020 7:14:54 PM
Trichloroethene (TCE)	ND	0.500		µg/L	1	5/6/2020 7:14:54 PM
1,2-Dichloropropane	ND	1.00		µg/L	1	5/6/2020 7:14:54 PM
Bromodichloromethane	ND	1.00		µg/L	1	5/6/2020 7:14:54 PM
Dibromomethane	ND	1.00		µg/L	1	5/6/2020 7:14:54 PM
cis-1,3-Dichloropropene	ND	1.00		µg/L	1	5/6/2020 7:14:54 PM
trans-1,3-Dichloropropylene	ND	1.00		µg/L	1	5/6/2020 7:14:54 PM
1,1,2-Trichloroethane	ND	1.00		µg/L	1	5/6/2020 7:14:54 PM
1,3-Dichloropropane	ND	1.00		µg/L	1	5/6/2020 7:14:54 PM
Tetrachloroethene (PCE)	ND	1.00		µg/L	1	5/6/2020 7:14:54 PM
Dibromochloromethane	ND	1.00		µg/L	1	5/6/2020 7:14:54 PM
1,2-Dibromoethane (EDB)	ND	0.250		µg/L	1	5/6/2020 7:14:54 PM
Chlorobenzene	ND	1.00		µg/L	1	5/6/2020 7:14:54 PM
1,1,1,2-Tetrachloroethane	ND	1.00		µg/L	1	5/6/2020 7:14:54 PM
Bromoform	ND	2.00		µg/L	1	5/6/2020 7:14:54 PM
1,1,2,2-Tetrachloroethane	ND	1.00		µg/L	1	5/6/2020 7:14:54 PM
Bromobenzene	ND	1.00		µg/L	1	5/6/2020 7:14:54 PM
2-Chlorotoluene	ND	1.00		µg/L	1	5/6/2020 7:14:54 PM
4-Chlorotoluene	ND	1.00		µg/L	1	5/6/2020 7:14:54 PM
1,2,3-Trichloropropane	ND	1.00		µg/L	1	5/6/2020 7:14:54 PM
1,2,4-Trichlorobenzene	ND	2.00		µg/L	1	5/6/2020 7:14:54 PM
1,3-Dichlorobenzene	ND	1.00		µg/L	1	5/6/2020 7:14:54 PM
1,4-Dichlorobenzene	ND	1.00		µg/L	1	5/6/2020 7:14:54 PM

Analytical Report

Work Order: **2004413**
Date Reported: **5/7/2020**

CLIENT: O'Neill Service Group
Project: F200

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28248 Analyst: CR

1,2-Dichlorobenzene	ND	1.00	µg/L	1	5/6/2020 7:14:54 PM
1,2-Dibromo-3-chloropropane	ND	1.00	µg/L	1	5/6/2020 7:14:54 PM
Hexachloro-1,3-butadiene	ND	4.00	µg/L	1	5/6/2020 7:14:54 PM
1,2,3-Trichlorobenzene	ND	4.00	µg/L	1	5/6/2020 7:14:54 PM
Surr: Dibromofluoromethane	96.4	81.1 - 118	%Rec	1	5/6/2020 7:14:54 PM
Surr: Toluene-d8	98.6	85.7 - 113	%Rec	1	5/6/2020 7:14:54 PM
Surr: 1-Bromo-4-fluorobenzene	98.1	84.2 - 111	%Rec	1	5/6/2020 7:14:54 PM

NOTES:
Q - Indicates an analyte with a continuing calibration that does not meet established acceptance criteria

Date: *5/7/2020*

Work Order: 2004413
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **LCS-28248** SampType: **LCS** Units: **µg/L** Prep Date: **5/6/2020** RunNo: **59035**
Client ID: **LCSW** Batch ID: **28248** Analysis Date: **5/6/2020** SeqNo: **1179490**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	16.4	1.00	20.00	0	81.8	14.5	175				
Chloromethane	17.5	2.00	20.00	0	87.4	44.8	153				
Vinyl chloride	19.0	0.200	20.00	0	95.2	64.1	131				
Bromomethane	19.6	1.00	20.00	0	97.9	34.2	171				
Trichlorofluoromethane (CFC-11)	20.0	1.00	20.00	0	99.8	77.4	121				
Chloroethane	19.6	1.00	20.00	0	98.1	73.3	123				
1,1-Dichloroethene	20.1	1.00	20.00	0	101	81.8	116				
Acetone	49.2	5.00	50.00	0	98.4	47.6	157				
Methylene chloride	19.7	1.00	20.00	0	98.6	80.4	116				
trans-1,2-Dichloroethene	20.0	1.00	20.00	0	100	83.1	115				
1,1-Dichloroethane	19.8	1.00	20.00	0	99.0	79.5	119				
cis-1,2-Dichloroethene	20.1	1.00	20.00	0	101	83.5	115				
Chloroform	20.2	1.00	20.00	0	101	81	117				
1,1,1-Trichloroethane (TCA)	20.2	1.00	20.00	0	101	82.8	116				
1,1-Dichloropropene	20.0	1.00	20.00	0	99.8	81.5	117				
Carbon tetrachloride	20.1	1.00	20.00	0	100	83.3	114				
1,2-Dichloroethane (EDC)	20.0	1.00	20.00	0	100	78.4	118				
Trichloroethene (TCE)	20.3	0.500	20.00	0	101	82.2	116				
1,2-Dichloropropane	19.9	1.00	20.00	0	99.7	78	120				
Bromodichloromethane	19.7	1.00	20.00	0	98.7	80.9	116				
Dibromomethane	20.3	1.00	20.00	0	102	80	117				
cis-1,3-Dichloropropene	20.4	1.00	20.00	0	102	79.8	118				
trans-1,3-Dichloropropylene	20.5	1.00	20.00	0	103	75.8	122				
1,1,2-Trichloroethane	20.6	1.00	20.00	0	103	77.8	120				
1,3-Dichloropropane	20.5	1.00	20.00	0	102	76.5	121				
Tetrachloroethene (PCE)	20.8	1.00	20.00	0	104	86.2	114				
Dibromochloromethane	20.3	1.00	20.00	0	101	78	117				
1,2-Dibromoethane (EDB)	20.6	0.250	20.00	0	103	76.8	120				
Chlorobenzene	20.0	1.00	20.00	0	100	85.2	112				
1,1,1,2-Tetrachloroethane	20.0	1.00	20.00	0	100	85.5	110				
Bromoform	19.8	2.00	20.00	0	99.2	73.4	119				

Date: *5/7/2020*

Work Order: 2004413
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **LCS-28248** SampType: **LCS** Units: **µg/L** Prep Date: **5/6/2020** RunNo: **59035**
Client ID: **LCSW** Batch ID: **28248** Analysis Date: **5/6/2020** SeqNo: **1179490**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,2,2-Tetrachloroethane	20.6	1.00	20.00	0	103	74.8	124				
Bromobenzene	19.8	1.00	20.00	0	99.0	83.2	116				
2-Chlorotoluene	20.0	1.00	20.00	0	100	81.8	119				
4-Chlorotoluene	19.9	1.00	20.00	0	99.4	81.6	118				
1,2,3-Trichloropropane	20.2	1.00	20.00	0	101	73.2	126				
1,2,4-Trichlorobenzene	21.1	2.00	20.00	0	106	68.7	138				
1,3-Dichlorobenzene	20.9	1.00	20.00	0	104	90.7	114				
1,4-Dichlorobenzene	20.8	1.00	20.00	0	104	90.1	114				
1,2-Dichlorobenzene	20.9	1.00	20.00	0	105	90.1	115				
1,2-Dibromo-3-chloropropane	20.7	1.00	20.00	0	104	54.8	147				
Hexachloro-1,3-butadiene	21.7	4.00	20.00	0	108	73.6	134				
1,2,3-Trichlorobenzene	21.5	4.00	20.00	0	107	57.1	150				
Surr: Dibromofluoromethane	25.4		25.00		102	81.1	118				
Surr: Toluene-d8	24.8		25.00		99.4	85.7	113				
Surr: 1-Bromo-4-fluorobenzene	25.4		25.00		102	84.2	111				

Sample ID: **LCSD-28248** SampType: **LCSD** Units: **µg/L** Prep Date: **5/6/2020** RunNo: **59035**
Client ID: **LCSW02** Batch ID: **28248** Analysis Date: **5/6/2020** SeqNo: **1179491**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	15.8	1.00	20.00	0	78.9	14.5	175	16.36	3.58	20	
Chloromethane	17.4	2.00	20.00	0	87.0	44.8	153	17.48	0.390	20	
Vinyl chloride	18.4	0.200	20.00	0	92.0	64.1	131	19.03	3.34	20	
Bromomethane	18.3	1.00	20.00	0	91.6	34.2	171	19.58	6.71	20	
Trichlorofluoromethane (CFC-11)	19.2	1.00	20.00	0	96.2	77.4	121	19.95	3.64	20	
Chloroethane	18.8	1.00	20.00	0	94.0	73.3	123	19.61	4.18	20	
1,1-Dichloroethene	19.3	1.00	20.00	0	96.6	81.8	116	20.14	4.21	20	
Acetone	52.5	5.00	50.00	0	105	47.6	157	49.20	6.57	20	
Methylene chloride	19.5	1.00	20.00	0	97.7	80.4	116	19.72	0.851	20	
trans-1,2-Dichloroethene	19.5	1.00	20.00	0	97.5	83.1	115	20.02	2.62	20	

Fremont Analytical

Date: *5/7/2020*

Work Order: 2004413
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **LCSD-28248** SampType: **LCSD** Units: **µg/L** Prep Date: **5/6/2020** RunNo: **59035**
Client ID: **LCSW02** Batch ID: **28248** Analysis Date: **5/6/2020** SeqNo: **1179491**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethane	19.4	1.00	20.00	0	97.1	79.5	119	19.81	1.96	20	
cis-1,2-Dichloroethene	19.4	1.00	20.00	0	97.2	83.5	115	20.11	3.42	20	
Chloroform	19.5	1.00	20.00	0	97.7	81	117	20.20	3.34	20	
1,1,1-Trichloroethane (TCA)	19.5	1.00	20.00	0	97.5	82.8	116	20.21	3.52	20	
1,1-Dichloropropene	19.4	1.00	20.00	0	97.0	81.5	117	19.95	2.79	20	
Carbon tetrachloride	19.3	1.00	20.00	0	96.5	83.3	114	20.07	3.88	20	
1,2-Dichloroethane (EDC)	19.5	1.00	20.00	0	97.6	78.4	118	20.04	2.67	20	
Trichloroethene (TCE)	19.3	0.500	20.00	0	96.5	82.2	116	20.27	4.93	20	
1,2-Dichloropropane	19.4	1.00	20.00	0	96.9	78	120	19.94	2.84	20	
Bromodichloromethane	19.1	1.00	20.00	0	95.5	80.9	116	19.73	3.26	20	
Dibromomethane	19.6	1.00	20.00	0	98.2	80	117	20.31	3.35	20	
cis-1,3-Dichloropropene	19.9	1.00	20.00	0	99.6	79.8	118	20.37	2.21	20	
trans-1,3-Dichloropropylene	20.0	1.00	20.00	0	100	75.8	122	20.53	2.61	20	
1,1,2-Trichloroethane	20.3	1.00	20.00	0	101	77.8	120	20.57	1.51	20	
1,3-Dichloropropane	20.1	1.00	20.00	0	100	76.5	121	20.50	2.11	20	
Tetrachloroethene (PCE)	19.8	1.00	20.00	0	99.1	86.2	114	20.76	4.61	20	
Dibromochloromethane	19.9	1.00	20.00	0	99.6	78	117	20.28	1.83	20	
1,2-Dibromoethane (EDB)	20.3	0.250	20.00	0	101	76.8	120	20.59	1.45	20	
Chlorobenzene	19.7	1.00	20.00	0	98.3	85.2	112	20.03	1.88	20	
1,1,1,2-Tetrachloroethane	19.4	1.00	20.00	0	97.2	85.5	110	20.02	2.92	20	
Bromoform	19.9	2.00	20.00	0	99.6	73.4	119	19.84	0.432	20	
1,1,2,2-Tetrachloroethane	20.5	1.00	20.00	0	102	74.8	124	20.64	0.717	20	
Bromobenzene	19.6	1.00	20.00	0	98.2	83.2	116	19.80	0.790	20	
2-Chlorotoluene	19.5	1.00	20.00	0	97.7	81.8	119	20.03	2.46	20	
4-Chlorotoluene	19.3	1.00	20.00	0	96.6	81.6	118	19.89	2.86	20	
1,2,3-Trichloropropane	20.0	1.00	20.00	0	100	73.2	126	20.19	0.923	20	
1,2,4-Trichlorobenzene	20.8	2.00	20.00	0	104	68.7	138	21.13	1.34	20	
1,3-Dichlorobenzene	20.4	1.00	20.00	0	102	90.7	114	20.86	2.43	20	
1,4-Dichlorobenzene	20.4	1.00	20.00	0	102	90.1	114	20.78	1.72	20	
1,2-Dichlorobenzene	20.8	1.00	20.00	0	104	90.1	115	20.95	0.834	20	
1,2-Dibromo-3-chloropropane	20.5	1.00	20.00	0	103	54.8	147	20.72	1.07	20	

Date: *5/7/2020*

Work Order: 2004413
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **LCSD-28248** SampType: **LCSD** Units: **µg/L** Prep Date: **5/6/2020** RunNo: **59035**
Client ID: **LCSW02** Batch ID: **28248** Analysis Date: **5/6/2020** SeqNo: **1179491**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexachloro-1,3-butadiene	21.6	4.00	20.00	0	108	73.6	134	21.68	0.556	20	
1,2,3-Trichlorobenzene	21.7	4.00	20.00	0	109	57.1	150	21.46	1.18	20	
Surr: Dibromofluoromethane	25.1		25.00		101	81.1	118		0		
Surr: Toluene-d8	24.6		25.00		98.5	85.7	113		0		
Surr: 1-Bromo-4-fluorobenzene	25.5		25.00		102	84.2	111		0		

Sample ID: **MB-28248** SampType: **MBLK** Units: **µg/L** Prep Date: **5/6/2020** RunNo: **59035**
Client ID: **MBLKW** Batch ID: **28248** Analysis Date: **5/6/2020** SeqNo: **1179492**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	1.00									Q
Chloromethane	ND	2.00									Q
Vinyl chloride	ND	0.200									
Bromomethane	ND	1.00									
Trichlorofluoromethane (CFC-11)	ND	1.00									
Chloroethane	ND	1.00									
1,1-Dichloroethene	ND	1.00									
Acetone	ND	5.00									
Methylene chloride	ND	1.00									
trans-1,2-Dichloroethene	ND	1.00									
1,1-Dichloroethane	ND	1.00									
cis-1,2-Dichloroethene	ND	1.00									
Chloroform	ND	1.00									
1,1,1-Trichloroethane (TCA)	ND	1.00									
1,1-Dichloropropene	ND	1.00									
Carbon tetrachloride	ND	1.00									
1,2-Dichloroethane (EDC)	ND	1.00									
Trichloroethene (TCE)	ND	0.500									
1,2-Dichloropropane	ND	1.00									
Bromodichloromethane	ND	1.00									

Fremont Analytical

Date: *5/7/2020*

Work Order: 2004413
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **MB-28248** SampType: **MBLK** Units: **µg/L** Prep Date: **5/6/2020** RunNo: **59035**
Client ID: **MBLKW** Batch ID: **28248** Analysis Date: **5/6/2020** SeqNo: **1179492**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dibromomethane	ND	1.00									
cis-1,3-Dichloropropene	ND	1.00									
trans-1,3-Dichloropropylene	ND	1.00									
1,1,2-Trichloroethane	ND	1.00									
1,3-Dichloropropane	ND	1.00									
Tetrachloroethene (PCE)	ND	1.00									
Dibromochloromethane	ND	1.00									
1,2-Dibromoethane (EDB)	ND	0.250									
Chlorobenzene	ND	1.00									
1,1,1,2-Tetrachloroethane	ND	1.00									
Bromoform	ND	2.00									
1,1,2,2-Tetrachloroethane	ND	1.00									
Bromobenzene	ND	1.00									
2-Chlorotoluene	ND	1.00									
4-Chlorotoluene	ND	1.00									
1,2,3-Trichloropropane	ND	1.00									
1,2,4-Trichlorobenzene	ND	2.00									
1,3-Dichlorobenzene	ND	1.00									
1,4-Dichlorobenzene	ND	1.00									
1,2-Dichlorobenzene	ND	1.00									
1,2-Dibromo-3-chloropropane	ND	1.00									
Hexachloro-1,3-butadiene	ND	4.00									
1,2,3-Trichlorobenzene	ND	4.00									
Surr: Dibromofluoromethane	24.1		25.00		96.5	81.1	118				
Surr: Toluene-d8	24.9		25.00		99.4	85.7	113				
Surr: 1-Bromo-4-fluorobenzene	24.4		25.00		97.7	84.2	111				

NOTES:
Q - Indicates an analyte with a continuing calibration that does not meet established acceptance criteria

Fremont Analytical

Date: *5/7/2020*

Work Order: 2004413
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2005033-002ADUP** SampType: **DUP** Units: **µg/L** Prep Date: **5/6/2020** RunNo: **59035**
Client ID: **BATCH** Batch ID: **28248** Analysis Date: **5/6/2020** SeqNo: **1179480**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	1.00						0		30	Q
Chloromethane	ND	2.00						0		30	Q
Vinyl chloride	0.776	0.200						0.7550	2.69	30	
Bromomethane	ND	1.00						0		30	
Trichlorofluoromethane (CFC-11)	ND	1.00						0		30	
Chloroethane	ND	1.00						0		30	
1,1-Dichloroethene	ND	1.00						0		30	
Acetone	29.2	5.00						31.06	6.12	30	
Methylene chloride	ND	1.00						0		30	
trans-1,2-Dichloroethene	ND	1.00						0		30	
1,1-Dichloroethane	ND	1.00						0		30	
cis-1,2-Dichloroethene	ND	1.00						0		30	
Chloroform	ND	1.00						0		30	
1,1,1-Trichloroethane (TCA)	ND	1.00						0		30	
1,1-Dichloropropene	ND	1.00						0		30	
Carbon tetrachloride	ND	1.00						0		30	
1,2-Dichloroethane (EDC)	ND	1.00						0		30	
Trichloroethene (TCE)	ND	0.500						0		30	
1,2-Dichloropropane	ND	1.00						0		30	
Bromodichloromethane	ND	1.00						0		30	
Dibromomethane	ND	1.00						0		30	
cis-1,3-Dichloropropene	ND	1.00						0		30	
trans-1,3-Dichloropropylene	ND	1.00						0		30	
1,1,2-Trichloroethane	ND	1.00						0		30	
1,3-Dichloropropane	ND	1.00						0		30	
Tetrachloroethene (PCE)	ND	1.00						0		30	
Dibromochloromethane	ND	1.00						0		30	
1,2-Dibromoethane (EDB)	ND	0.250						0		30	
Chlorobenzene	ND	1.00						0		30	
1,1,1,2-Tetrachloroethane	ND	1.00						0		30	
Bromoform	ND	2.00						0		30	

Date: *5/7/2020*

Work Order: 2004413
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2005033-002ADUP** SampType: **DUP** Units: **µg/L** Prep Date: **5/6/2020** RunNo: **59035**
Client ID: **BATCH** Batch ID: **28248** Analysis Date: **5/6/2020** SeqNo: **1179480**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,2,2-Tetrachloroethane	ND	1.00						0		30	
Bromobenzene	ND	1.00						0		30	
2-Chlorotoluene	ND	1.00						0		30	
4-Chlorotoluene	ND	1.00						0		30	
1,2,3-Trichloropropane	ND	1.00						0		30	
1,2,4-Trichlorobenzene	ND	2.00						0		30	
1,3-Dichlorobenzene	ND	1.00						0		30	
1,4-Dichlorobenzene	ND	1.00						0		30	
1,2-Dichlorobenzene	ND	1.00						0		30	
1,2-Dibromo-3-chloropropane	ND	1.00						0		30	
Hexachloro-1,3-butadiene	ND	4.00						0		30	
1,2,3-Trichlorobenzene	ND	4.00						0		30	
Surr: Dibromofluoromethane	25.3		25.00		101	81.1	118		0		
Surr: Toluene-d8	24.7		25.00		98.8	85.7	113		0		
Surr: 1-Bromo-4-fluorobenzene	24.5		25.00		98.2	84.2	111		0		

NOTES:
Q - Indicates an analyte with a continuing calibration that does not meet established acceptance criteria

Sample ID: **2004412-001ADUP** SampType: **DUP** Units: **µg/L** Prep Date: **5/6/2020** RunNo: **59035**
Client ID: **BATCH** Batch ID: **28248** Analysis Date: **5/7/2020** SeqNo: **1179467**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	1.00						0		30	Q
Chloromethane	ND	2.00						0		30	Q
Vinyl chloride	ND	0.200						0		30	
Bromomethane	ND	1.00						0		30	
Trichlorofluoromethane (CFC-11)	ND	1.00						0		30	
Chloroethane	ND	1.00						0		30	
1,1-Dichloroethene	ND	1.00						0		30	
Acetone	ND	5.00						0		30	
Methylene chloride	ND	1.00						0		30	

Date: *5/7/2020*

Work Order: 2004413
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2004412-001ADUP** SampType: **DUP** Units: **µg/L** Prep Date: **5/6/2020** RunNo: **59035**
Client ID: **BATCH** Batch ID: **28248** Analysis Date: **5/7/2020** SeqNo: **1179467**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
trans-1,2-Dichloroethene	ND	1.00						0		30	
1,1-Dichloroethane	ND	1.00						0		30	
cis-1,2-Dichloroethene	ND	1.00						0		30	
Chloroform	ND	1.00						0		30	
1,1,1-Trichloroethane (TCA)	ND	1.00						0		30	
1,1-Dichloropropene	ND	1.00						0		30	
Carbon tetrachloride	ND	1.00						0		30	
1,2-Dichloroethane (EDC)	ND	1.00						0		30	
Trichloroethene (TCE)	ND	0.500						0		30	
1,2-Dichloropropane	ND	1.00						0		30	
Bromodichloromethane	ND	1.00						0		30	
Dibromomethane	ND	1.00						0		30	
cis-1,3-Dichloropropene	ND	1.00						0		30	
trans-1,3-Dichloropropylene	ND	1.00						0		30	
1,1,2-Trichloroethane	ND	1.00						0		30	
1,3-Dichloropropane	ND	1.00						0		30	
Tetrachloroethene (PCE)	ND	1.00						0		30	
Dibromochloromethane	ND	1.00						0		30	
1,2-Dibromoethane (EDB)	ND	0.250						0		30	
Chlorobenzene	ND	1.00						0		30	
1,1,1,2-Tetrachloroethane	ND	1.00						0		30	
Bromoform	ND	2.00						0		30	
1,1,2,2-Tetrachloroethane	ND	1.00						0		30	
Bromobenzene	ND	1.00						0		30	
2-Chlorotoluene	ND	1.00						0		30	
4-Chlorotoluene	ND	1.00						0		30	
1,2,3-Trichloropropane	ND	1.00						0		30	
1,2,4-Trichlorobenzene	ND	2.00						0		30	
1,3-Dichlorobenzene	ND	1.00						0		30	
1,4-Dichlorobenzene	ND	1.00						0		30	
1,2-Dichlorobenzene	ND	1.00						0		30	

Fremont Analytical

Date: *5/7/2020*

Work Order: 2004413
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2004412-001ADUP** SampType: **DUP** Units: **µg/L** Prep Date: **5/6/2020** RunNo: **59035**
Client ID: **BATCH** Batch ID: **28248** Analysis Date: **5/7/2020** SeqNo: **1179467**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2-Dibromo-3-chloropropane	ND	1.00						0		30	
Hexachloro-1,3-butadiene	ND	4.00						0		30	
1,2,3-Trichlorobenzene	ND	4.00						0		30	
Surr: Dibromofluoromethane	23.3		25.00		93.2	81.1	118		0		
Surr: Toluene-d8	24.5		25.00		98.1	85.7	113		0		
Surr: 1-Bromo-4-fluorobenzene	24.6		25.00		98.3	84.2	111		0		

NOTES:
Q - Indicates an analyte with a continuing calibration that does not meet established acceptance criteria

Sample Log-In Check List

Client Name:	**ONEILL**	Work Order Number:	**2004413**
Logged by:	**Carissa True**	Date Received:	**4/29/2020 4:24:00 PM**

Chain of Custody

1. Is Chain of Custody complete? Yes ☑ No ☐ Not Present ☐
2. How was the sample delivered? Client

Log In

3. Coolers are present? Yes ☑ No ☐ NA ☐
4. Shipping container/cooler in good condition? Yes ☑ No ☐
5. Custody Seals present on shipping container/cooler? (Refer to comments for Custody Seals not intact) Yes ☑ No ☐ Not Required ☐
6. Was an attempt made to cool the samples? Yes ☑ No ☐ NA ☐
7. Were all items received at a temperature of >2°C to 6°C * Yes ☐ No ☑ NA ☐

Samples were collected the same day and chilled.

8. Sample(s) in proper container(s)? Yes ☑ No ☐
9. Sufficient sample volume for indicated test(s)? Yes ☑ No ☐
10. Are samples properly preserved? Yes ☑ No ☐
11. Was preservative added to bottles? Yes ☐ No ☑ NA ☐
12. Is there headspace in the VOA vials? Yes ☐ No ☑ NA ☐
13. Did all samples containers arrive in good condition(unbroken)? Yes ☑ No ☐
14. Does paperwork match bottle labels? Yes ☑ No ☐
15. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐
16. Is it clear what analyses were requested? Yes ☑ No ☐
17. Were all holding times able to be met? Yes ☑ No ☐

Special Handling (if applicable)

18. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified:		Date:	
By Whom:		Via:	☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:			
Client Instructions:			

19. Additional remarks:

Item Information

Item #	Temp ºC
Cooler 1	1.8
Sample 1	13.9
Temp Blank 1	12.1

* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C

Fremont Analytical
3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790
Fax: 206-352-7178

Chain of Custody Record & Laboratory Services Agreement

Date: 4/29/20 Page: 1 of: 1

Laboratory Project No (internal): 2004413

Project Name: F200

Special Remarks:

Client: OSG

Project No: F021

Address:

Collected by: Atkins

City, State, Zip:

Location: FL358

Telephone:

Report To (PM): Atkins

Sample Disposal: ☐ Return to client ☐ Disposal by lab (after 30 days)

Fax:

PM Email:

	Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	HVOCs (EPA 8260 / 624)	GX/BTEX	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DX)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T) | Dissolved (D)	Anions (IC)***	EDB (8011)					Comments
1	FL358-MW4	4/29/20	1005		X																	
2	YPSILANTI-MW3		1040																			
3	FL358-MW3		1125																			
4	FL358-MW2		1205																			
5	FL358-MW1		1240																			
6	TRIP BLANK		—		X																	
7																						
8																						
9																						
10																						

*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

**Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL *Individual:* Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti Tl U V Zn

***Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above and that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished	Date/Time	Received	Date/Time
x [signature]	4/29/20 1510	x [signature]	4/29/20 1624
Relinquished	Date/Time	Received	Date/Time
x		x	

Turn-around Time:
- ☑ Standard
- ☐ 3 Day
- ☐ 2 Day
- ☐ Next Day
- Same Day ____ (specify)

3600 Fremont Ave. N.
Seattle, WA 98103
T: (206) 352-3790
F: (206) 352-7178
info@fremontanalytical.com

O'Neill Service Group
Vance Atkins
17619 NE 67th Court, Suite 100
Redmond, WA 98052

RE: F200
Work Order Number: 2005069

May 20, 2020

Attention Vance Atkins:

Fremont Analytical, Inc. received 19 sample(s) on 5/8/2020 for the analyses presented in the following report.

Sample Moisture (Percent Moisture)
Volatile Organic Compounds by EPA Method 8260D

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Brianna Barnes
Project Manager

Date: *05/20/2020*

CLIENT: O'Neill Service Group
Project: F200
Work Order: 2005069

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
2005069-001	358-B1-2.5	05/07/2020 9:25 AM	05/08/2020 8:15 AM
2005069-002	358-B1-5	05/07/2020 9:30 AM	05/08/2020 8:15 AM
2005069-003	358-B1-7.5	05/07/2020 10:00 AM	05/08/2020 8:15 AM
2005069-004	358-B1-10	05/07/2020 10:10 AM	05/08/2020 8:15 AM
2005069-005	358-B1-15	05/07/2020 10:20 AM	05/08/2020 8:15 AM
2005069-006	358-B1-20	05/07/2020 10:40 AM	05/08/2020 8:15 AM
2005069-007	358-B1-25	05/07/2020 10:50 AM	05/08/2020 8:15 AM
2005069-008	358-B2-5	05/07/2020 12:00 PM	05/08/2020 8:15 AM
2005069-009	358-B2-12.5	05/07/2020 12:10 PM	05/08/2020 8:15 AM
2005069-010	358-B2-15	05/07/2020 12:15 PM	05/08/2020 8:15 AM
2005069-011	358-B2-20	05/07/2020 12:20 PM	05/08/2020 8:15 AM
2005069-012	358-B2-25	05/07/2020 12:30 PM	05/08/2020 8:15 AM
2005069-013	358-B3-5	05/07/2020 2:25 PM	05/08/2020 8:15 AM
2005069-014	358-B3-7.5	05/07/2020 2:30 PM	05/08/2020 8:15 AM
2005069-015	358-B3-10	05/07/2020 2:35 PM	05/08/2020 8:15 AM
2005069-016	358-B3-12.5	05/07/2020 2:40 PM	05/08/2020 8:15 AM
2005069-017	358-B3-15	05/07/2020 2:45 PM	05/08/2020 8:15 AM
2005069-018	358-B3-20	05/07/2020 3:00 PM	05/08/2020 8:15 AM
2005069-019	Trip Blank	05/06/2020 12:40 PM	05/08/2020 8:15 AM

Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned

Case Narrative

WO#: **2005069**

Date: **5/20/2020**

CLIENT: O'Neill Service Group

Project: F200

I. SAMPLE RECEIPT:
Samples receipt information is recorded on the attached Sample Receipt Checklist.

II. GENERAL REPORTING COMMENTS:
Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

III. ANALYSES AND EXCEPTIONS:
Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

5/20/20: Revision 1 includes additional analysis requested by client.

Qualifiers:

* - Flagged value is not within established control limits
B - Analyte detected in the associated Method Blank
D - Dilution was required
E - Value above quantitation range
H - Holding times for preparation or analysis exceeded
I - Analyte with an internal standard that does not meet established acceptance criteria
J - Analyte detected below Reporting Limit
N - Tentatively Identified Compound (TIC)
Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF)
S - Spike recovery outside accepted recovery limits
ND - Not detected at the Reporting Limit
R - High relative percent difference observed

Acronyms:

%Rec - Percent Recovery
CCB - Continued Calibration Blank
CCV - Continued Calibration Verification
DF - Dilution Factor
HEM - Hexane Extractable Material
ICV - Initial Calibration Verification
LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
MB or MBLANK - Method Blank
MDL - Method Detection Limit
MS/MSD - Matrix Spike / Matrix Spike Duplicate
PDS - Post Digestion Spike
Ref Val - Reference Value
RL - Reporting Limit
RPD - Relative Percent Difference
SD - Serial Dilution
SGT - Silica Gel Treatment
SPK - Spike
Surr - Surrogate

Analytical Report

Work Order: **2005069**
Date Reported: **5/20/2020**

Client: O'Neill Service Group
Collection Date: 5/7/2020 10:10:00 AM
Project: F200
Lab ID: 2005069-004
Matrix: Soil
Client Sample ID: 358-B1-10

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28293 Analyst: CR

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0224		mg/Kg-dry	1	5/11/2020 9:55:46 PM
Chloromethane	ND	0.0560		mg/Kg-dry	1	5/11/2020 9:55:46 PM
Vinyl chloride	ND	0.0280		mg/Kg-dry	1	5/11/2020 9:55:46 PM
Bromomethane	ND	0.0560		mg/Kg-dry	1	5/11/2020 9:55:46 PM
Trichlorofluoromethane (CFC-11)	ND	0.0224		mg/Kg-dry	1	5/11/2020 9:55:46 PM
Chloroethane	ND	0.0560		mg/Kg-dry	1	5/11/2020 9:55:46 PM
1,1-Dichloroethene	ND	0.0224		mg/Kg-dry	1	5/11/2020 9:55:46 PM
Methylene chloride	ND	0.0224		mg/Kg-dry	1	5/11/2020 9:55:46 PM
trans-1,2-Dichloroethene	ND	0.0224		mg/Kg-dry	1	5/11/2020 9:55:46 PM
1,1-Dichloroethane	ND	0.0224		mg/Kg-dry	1	5/11/2020 9:55:46 PM
cis-1,2-Dichloroethene	ND	0.0224		mg/Kg-dry	1	5/11/2020 9:55:46 PM
Chloroform	ND	0.0224		mg/Kg-dry	1	5/11/2020 9:55:46 PM
1,1,1-Trichloroethane (TCA)	ND	0.0280		mg/Kg-dry	1	5/11/2020 9:55:46 PM
1,1-Dichloropropene	ND	0.0224		mg/Kg-dry	1	5/11/2020 9:55:46 PM
Carbon tetrachloride	ND	0.0280		mg/Kg-dry	1	5/11/2020 9:55:46 PM
1,2-Dichloroethane (EDC)	ND	0.0224		mg/Kg-dry	1	5/11/2020 9:55:46 PM
Trichloroethene (TCE)	ND	0.0224		mg/Kg-dry	1	5/11/2020 9:55:46 PM
1,2-Dichloropropane	ND	0.0224		mg/Kg-dry	1	5/11/2020 9:55:46 PM
Bromodichloromethane	ND	0.0224		mg/Kg-dry	1	5/11/2020 9:55:46 PM
Dibromomethane	ND	0.0224		mg/Kg-dry	1	5/11/2020 9:55:46 PM
cis-1,3-Dichloropropene	ND	0.0224		mg/Kg-dry	1	5/11/2020 9:55:46 PM
trans-1,3-Dichloropropylene	ND	0.0224		mg/Kg-dry	1	5/11/2020 9:55:46 PM
1,1,2-Trichloroethane	ND	0.0224		mg/Kg-dry	1	5/11/2020 9:55:46 PM
1,3-Dichloropropane	ND	0.0280		mg/Kg-dry	1	5/11/2020 9:55:46 PM
Tetrachloroethene (PCE)	ND	0.0280		mg/Kg-dry	1	5/11/2020 9:55:46 PM
Dibromochloromethane	ND	0.0280		mg/Kg-dry	1	5/11/2020 9:55:46 PM
1,2-Dibromoethane (EDB)	ND	0.00560		mg/Kg-dry	1	5/11/2020 9:55:46 PM
Chlorobenzene	ND	0.0280		mg/Kg-dry	1	5/11/2020 9:55:46 PM
1,1,1,2-Tetrachloroethane	ND	0.0280		mg/Kg-dry	1	5/11/2020 9:55:46 PM
Bromoform	ND	0.0560		mg/Kg-dry	1	5/11/2020 9:55:46 PM
1,1,2,2-Tetrachloroethane	ND	0.0224		mg/Kg-dry	1	5/11/2020 9:55:46 PM
Bromobenzene	ND	0.0224		mg/Kg-dry	1	5/11/2020 9:55:46 PM
2-Chlorotoluene	ND	0.0280		mg/Kg-dry	1	5/11/2020 9:55:46 PM
4-Chlorotoluene	ND	0.0280		mg/Kg-dry	1	5/11/2020 9:55:46 PM
1,2,3-Trichloropropane	ND	0.0280		mg/Kg-dry	1	5/11/2020 9:55:46 PM
1,2,4-Trichlorobenzene	ND	0.0280		mg/Kg-dry	1	5/11/2020 9:55:46 PM
1,3-Dichlorobenzene	ND	0.0224		mg/Kg-dry	1	5/11/2020 9:55:46 PM
1,4-Dichlorobenzene	ND	0.0224		mg/Kg-dry	1	5/11/2020 9:55:46 PM
1,2-Dichlorobenzene	ND	0.0224		mg/Kg-dry	1	5/11/2020 9:55:46 PM

Analytical Report

Work Order: **2005069**
Date Reported: **5/20/2020**

Client: O'Neill Service Group
Collection Date: 5/7/2020 10:10:00 AM
Project: F200
Lab ID: 2005069-004
Matrix: Soil
Client Sample ID: 358-B1-10

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28293		Analyst: CR
1,2-Dibromo-3-chloropropane	ND	0.560		mg/Kg-dry	1	5/11/2020 9:55:46 PM
Hexachloro-1,3-butadiene	ND	0.0560		mg/Kg-dry	1	5/11/2020 9:55:46 PM
1,2,3-Trichlorobenzene	ND	0.0224		mg/Kg-dry	1	5/11/2020 9:55:46 PM
Surr: Dibromofluoromethane	96.1	80 - 116		%Rec	1	5/11/2020 9:55:46 PM
Surr: Toluene-d8	101	84.8 - 113		%Rec	1	5/11/2020 9:55:46 PM
Surr: 1-Bromo-4-fluorobenzene	96.2	82.8 - 113		%Rec	1	5/11/2020 9:55:46 PM
Sample Moisture (Percent Moisture)				Batch ID: R59095		Analyst: EH
Percent Moisture	15.0	0.500		wt%	1	5/11/2020 11:01:24 AM

Analytical Report

Work Order: **2005069**
Date Reported: **5/20/2020**

Client: O'Neill Service Group
Collection Date: 5/7/2020 10:40:00 AM
Project: F200
Lab ID: 2005069-006
Matrix: Soil
Client Sample ID: 358-B1-20

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28293 Analyst: CR

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0179		mg/Kg-dry	1	5/11/2020 10:25:53 PM
Chloromethane	ND	0.0447		mg/Kg-dry	1	5/11/2020 10:25:53 PM
Vinyl chloride	ND	0.0224		mg/Kg-dry	1	5/11/2020 10:25:53 PM
Bromomethane	ND	0.0447		mg/Kg-dry	1	5/11/2020 10:25:53 PM
Trichlorofluoromethane (CFC-11)	ND	0.0179		mg/Kg-dry	1	5/11/2020 10:25:53 PM
Chloroethane	ND	0.0447		mg/Kg-dry	1	5/11/2020 10:25:53 PM
1,1-Dichloroethene	ND	0.0179		mg/Kg-dry	1	5/11/2020 10:25:53 PM
Methylene chloride	ND	0.0179		mg/Kg-dry	1	5/11/2020 10:25:53 PM
trans-1,2-Dichloroethene	ND	0.0179		mg/Kg-dry	1	5/11/2020 10:25:53 PM
1,1-Dichloroethane	ND	0.0179		mg/Kg-dry	1	5/11/2020 10:25:53 PM
cis-1,2-Dichloroethene	ND	0.0179		mg/Kg-dry	1	5/11/2020 10:25:53 PM
Chloroform	ND	0.0179		mg/Kg-dry	1	5/11/2020 10:25:53 PM
1,1,1-Trichloroethane (TCA)	ND	0.0224		mg/Kg-dry	1	5/11/2020 10:25:53 PM
1,1-Dichloropropene	ND	0.0179		mg/Kg-dry	1	5/11/2020 10:25:53 PM
Carbon tetrachloride	ND	0.0224		mg/Kg-dry	1	5/11/2020 10:25:53 PM
1,2-Dichloroethane (EDC)	ND	0.0179		mg/Kg-dry	1	5/11/2020 10:25:53 PM
Trichloroethene (TCE)	ND	0.0179		mg/Kg-dry	1	5/11/2020 10:25:53 PM
1,2-Dichloropropane	ND	0.0179		mg/Kg-dry	1	5/11/2020 10:25:53 PM
Bromodichloromethane	ND	0.0179		mg/Kg-dry	1	5/11/2020 10:25:53 PM
Dibromomethane	ND	0.0179		mg/Kg-dry	1	5/11/2020 10:25:53 PM
cis-1,3-Dichloropropene	ND	0.0179		mg/Kg-dry	1	5/11/2020 10:25:53 PM
trans-1,3-Dichloropropylene	ND	0.0179		mg/Kg-dry	1	5/11/2020 10:25:53 PM
1,1,2-Trichloroethane	ND	0.0179		mg/Kg-dry	1	5/11/2020 10:25:53 PM
1,3-Dichloropropane	ND	0.0224		mg/Kg-dry	1	5/11/2020 10:25:53 PM
Tetrachloroethene (PCE)	ND	0.0224		mg/Kg-dry	1	5/11/2020 10:25:53 PM
Dibromochloromethane	ND	0.0224		mg/Kg-dry	1	5/11/2020 10:25:53 PM
1,2-Dibromoethane (EDB)	ND	0.00447		mg/Kg-dry	1	5/11/2020 10:25:53 PM
Chlorobenzene	ND	0.0224		mg/Kg-dry	1	5/11/2020 10:25:53 PM
1,1,1,2-Tetrachloroethane	ND	0.0224		mg/Kg-dry	1	5/11/2020 10:25:53 PM
Bromoform	ND	0.0447		mg/Kg-dry	1	5/11/2020 10:25:53 PM
1,1,2,2-Tetrachloroethane	ND	0.0179		mg/Kg-dry	1	5/11/2020 10:25:53 PM
Bromobenzene	ND	0.0179		mg/Kg-dry	1	5/11/2020 10:25:53 PM
2-Chlorotoluene	ND	0.0224		mg/Kg-dry	1	5/11/2020 10:25:53 PM
4-Chlorotoluene	ND	0.0224		mg/Kg-dry	1	5/11/2020 10:25:53 PM
1,2,3-Trichloropropane	ND	0.0224		mg/Kg-dry	1	5/11/2020 10:25:53 PM
1,2,4-Trichlorobenzene	ND	0.0224		mg/Kg-dry	1	5/11/2020 10:25:53 PM
1,3-Dichlorobenzene	ND	0.0179		mg/Kg-dry	1	5/11/2020 10:25:53 PM
1,4-Dichlorobenzene	ND	0.0179		mg/Kg-dry	1	5/11/2020 10:25:53 PM
1,2-Dichlorobenzene	ND	0.0179		mg/Kg-dry	1	5/11/2020 10:25:53 PM

Analytical Report

Work Order: **2005069**
Date Reported: **5/20/2020**

Client: O'Neill Service Group
Collection Date: 5/7/2020 10:40:00 AM
Project: F200
Lab ID: 2005069-006
Matrix: Soil
Client Sample ID: 358-B1-20

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28293		Analyst: CR
1,2-Dibromo-3-chloropropane	ND	0.447		mg/Kg-dry	1	5/11/2020 10:25:53 PM
Hexachloro-1,3-butadiene	ND	0.0447		mg/Kg-dry	1	5/11/2020 10:25:53 PM
1,2,3-Trichlorobenzene	ND	0.0179		mg/Kg-dry	1	5/11/2020 10:25:53 PM
Surr: Dibromofluoromethane	96.9	80 - 116		%Rec	1	5/11/2020 10:25:53 PM
Surr: Toluene-d8	102	84.8 - 113		%Rec	1	5/11/2020 10:25:53 PM
Surr: 1-Bromo-4-fluorobenzene	96.1	82.8 - 113		%Rec	1	5/11/2020 10:25:53 PM
Sample Moisture (Percent Moisture)				Batch ID: R59095		Analyst: EH
Percent Moisture	6.75	0.500		wt%	1	5/11/2020 11:01:24 AM

Analytical Report

Work Order: **2005069**
Date Reported: **5/20/2020**

Client: O'Neill Service Group
Collection Date: 5/7/2020 12:10:00 PM
Project: F200
Lab ID: 2005069-009
Matrix: Soil
Client Sample ID: 358-B2-12.5

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28293 Analyst: CR

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0253		mg/Kg-dry	1	5/11/2020 10:56:02 PM
Chloromethane	ND	0.0633		mg/Kg-dry	1	5/11/2020 10:56:02 PM
Vinyl chloride	ND	0.0317		mg/Kg-dry	1	5/11/2020 10:56:02 PM
Bromomethane	ND	0.0633		mg/Kg-dry	1	5/11/2020 10:56:02 PM
Trichlorofluoromethane (CFC-11)	ND	0.0253		mg/Kg-dry	1	5/11/2020 10:56:02 PM
Chloroethane	ND	0.0633		mg/Kg-dry	1	5/11/2020 10:56:02 PM
1,1-Dichloroethene	ND	0.0253		mg/Kg-dry	1	5/11/2020 10:56:02 PM
Methylene chloride	ND	0.0253		mg/Kg-dry	1	5/11/2020 10:56:02 PM
trans-1,2-Dichloroethene	ND	0.0253		mg/Kg-dry	1	5/11/2020 10:56:02 PM
1,1-Dichloroethane	ND	0.0253		mg/Kg-dry	1	5/11/2020 10:56:02 PM
cis-1,2-Dichloroethene	ND	0.0253		mg/Kg-dry	1	5/11/2020 10:56:02 PM
Chloroform	ND	0.0253		mg/Kg-dry	1	5/11/2020 10:56:02 PM
1,1,1-Trichloroethane (TCA)	ND	0.0317		mg/Kg-dry	1	5/11/2020 10:56:02 PM
1,1-Dichloropropene	ND	0.0253		mg/Kg-dry	1	5/11/2020 10:56:02 PM
Carbon tetrachloride	ND	0.0317		mg/Kg-dry	1	5/11/2020 10:56:02 PM
1,2-Dichloroethane (EDC)	ND	0.0253		mg/Kg-dry	1	5/11/2020 10:56:02 PM
Trichloroethene (TCE)	ND	0.0253		mg/Kg-dry	1	5/11/2020 10:56:02 PM
1,2-Dichloropropane	ND	0.0253		mg/Kg-dry	1	5/11/2020 10:56:02 PM
Bromodichloromethane	ND	0.0253		mg/Kg-dry	1	5/11/2020 10:56:02 PM
Dibromomethane	ND	0.0253		mg/Kg-dry	1	5/11/2020 10:56:02 PM
cis-1,3-Dichloropropene	ND	0.0253		mg/Kg-dry	1	5/11/2020 10:56:02 PM
trans-1,3-Dichloropropylene	ND	0.0253		mg/Kg-dry	1	5/11/2020 10:56:02 PM
1,1,2-Trichloroethane	ND	0.0253		mg/Kg-dry	1	5/11/2020 10:56:02 PM
1,3-Dichloropropane	ND	0.0317		mg/Kg-dry	1	5/11/2020 10:56:02 PM
Tetrachloroethene (PCE)	ND	0.0317		mg/Kg-dry	1	5/11/2020 10:56:02 PM
Dibromochloromethane	ND	0.0317		mg/Kg-dry	1	5/11/2020 10:56:02 PM
1,2-Dibromoethane (EDB)	ND	0.00633		mg/Kg-dry	1	5/11/2020 10:56:02 PM
Chlorobenzene	ND	0.0317		mg/Kg-dry	1	5/11/2020 10:56:02 PM
1,1,1,2-Tetrachloroethane	ND	0.0317		mg/Kg-dry	1	5/11/2020 10:56:02 PM
Bromoform	ND	0.0633		mg/Kg-dry	1	5/11/2020 10:56:02 PM
1,1,2,2-Tetrachloroethane	ND	0.0253		mg/Kg-dry	1	5/11/2020 10:56:02 PM
Bromobenzene	ND	0.0253		mg/Kg-dry	1	5/11/2020 10:56:02 PM
2-Chlorotoluene	ND	0.0317		mg/Kg-dry	1	5/11/2020 10:56:02 PM
4-Chlorotoluene	ND	0.0317		mg/Kg-dry	1	5/11/2020 10:56:02 PM
1,2,3-Trichloropropane	ND	0.0317		mg/Kg-dry	1	5/11/2020 10:56:02 PM
1,2,4-Trichlorobenzene	ND	0.0317		mg/Kg-dry	1	5/11/2020 10:56:02 PM
1,3-Dichlorobenzene	ND	0.0253		mg/Kg-dry	1	5/11/2020 10:56:02 PM
1,4-Dichlorobenzene	ND	0.0253		mg/Kg-dry	1	5/11/2020 10:56:02 PM
1,2-Dichlorobenzene	ND	0.0253		mg/Kg-dry	1	5/11/2020 10:56:02 PM

Analytical Report

Work Order: **2005069**
Date Reported: **5/20/2020**

Client: O'Neill Service Group
Collection Date: 5/7/2020 12:10:00 PM
Project: F200
Lab ID: 2005069-009
Matrix: Soil
Client Sample ID: 358-B2-12.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28293		Analyst: CR
1,2-Dibromo-3-chloropropane	ND	0.633		mg/Kg-dry	1	5/11/2020 10:56:02 PM
Hexachloro-1,3-butadiene	ND	0.0633		mg/Kg-dry	1	5/11/2020 10:56:02 PM
1,2,3-Trichlorobenzene	ND	0.0253		mg/Kg-dry	1	5/11/2020 10:56:02 PM
Surr: Dibromofluoromethane	98.7	80 - 116		%Rec	1	5/11/2020 10:56:02 PM
Surr: Toluene-d8	102	84.8 - 113		%Rec	1	5/11/2020 10:56:02 PM
Surr: 1-Bromo-4-fluorobenzene	99.0	82.8 - 113		%Rec	1	5/11/2020 10:56:02 PM
Sample Moisture (Percent Moisture)				Batch ID: R59095		Analyst: EH
Percent Moisture	13.5	0.500		wt%	1	5/11/2020 11:01:24 AM

Analytical Report

Work Order: **2005069**
Date Reported: **5/20/2020**

Client: O'Neill Service Group
Collection Date: 5/7/2020 12:30:00 PM
Project: F200
Lab ID: 2005069-012
Matrix: Soil
Client Sample ID: 358-B2-25

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28293 Analyst: CR

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0238		mg/Kg-dry	1	5/11/2020 11:56:18 PM
Chloromethane	ND	0.0594		mg/Kg-dry	1	5/11/2020 11:56:18 PM
Vinyl chloride	ND	0.0297		mg/Kg-dry	1	5/11/2020 11:56:18 PM
Bromomethane	ND	0.0594		mg/Kg-dry	1	5/11/2020 11:56:18 PM
Trichlorofluoromethane (CFC-11)	ND	0.0238		mg/Kg-dry	1	5/11/2020 11:56:18 PM
Chloroethane	ND	0.0594		mg/Kg-dry	1	5/11/2020 11:56:18 PM
1,1-Dichloroethene	ND	0.0238		mg/Kg-dry	1	5/11/2020 11:56:18 PM
Methylene chloride	ND	0.0238		mg/Kg-dry	1	5/11/2020 11:56:18 PM
trans-1,2-Dichloroethene	ND	0.0238		mg/Kg-dry	1	5/11/2020 11:56:18 PM
1,1-Dichloroethane	ND	0.0238		mg/Kg-dry	1	5/11/2020 11:56:18 PM
cis-1,2-Dichloroethene	ND	0.0238		mg/Kg-dry	1	5/11/2020 11:56:18 PM
Chloroform	ND	0.0238		mg/Kg-dry	1	5/11/2020 11:56:18 PM
1,1,1-Trichloroethane (TCA)	ND	0.0297		mg/Kg-dry	1	5/11/2020 11:56:18 PM
1,1-Dichloropropene	ND	0.0238		mg/Kg-dry	1	5/11/2020 11:56:18 PM
Carbon tetrachloride	ND	0.0297		mg/Kg-dry	1	5/11/2020 11:56:18 PM
1,2-Dichloroethane (EDC)	ND	0.0238		mg/Kg-dry	1	5/11/2020 11:56:18 PM
Trichloroethene (TCE)	ND	0.0238		mg/Kg-dry	1	5/11/2020 11:56:18 PM
1,2-Dichloropropane	ND	0.0238		mg/Kg-dry	1	5/11/2020 11:56:18 PM
Bromodichloromethane	ND	0.0238		mg/Kg-dry	1	5/11/2020 11:56:18 PM
Dibromomethane	ND	0.0238		mg/Kg-dry	1	5/11/2020 11:56:18 PM
cis-1,3-Dichloropropene	ND	0.0238		mg/Kg-dry	1	5/11/2020 11:56:18 PM
trans-1,3-Dichloropropylene	ND	0.0238		mg/Kg-dry	1	5/11/2020 11:56:18 PM
1,1,2-Trichloroethane	ND	0.0238		mg/Kg-dry	1	5/11/2020 11:56:18 PM
1,3-Dichloropropane	ND	0.0297		mg/Kg-dry	1	5/11/2020 11:56:18 PM
Tetrachloroethene (PCE)	ND	0.0297		mg/Kg-dry	1	5/11/2020 11:56:18 PM
Dibromochloromethane	ND	0.0297		mg/Kg-dry	1	5/11/2020 11:56:18 PM
1,2-Dibromoethane (EDB)	ND	0.00594		mg/Kg-dry	1	5/11/2020 11:56:18 PM
Chlorobenzene	ND	0.0297		mg/Kg-dry	1	5/11/2020 11:56:18 PM
1,1,1,2-Tetrachloroethane	ND	0.0297		mg/Kg-dry	1	5/11/2020 11:56:18 PM
Bromoform	ND	0.0594		mg/Kg-dry	1	5/11/2020 11:56:18 PM
1,1,2,2-Tetrachloroethane	ND	0.0238		mg/Kg-dry	1	5/11/2020 11:56:18 PM
Bromobenzene	ND	0.0238		mg/Kg-dry	1	5/11/2020 11:56:18 PM
2-Chlorotoluene	ND	0.0297		mg/Kg-dry	1	5/11/2020 11:56:18 PM
4-Chlorotoluene	ND	0.0297		mg/Kg-dry	1	5/11/2020 11:56:18 PM
1,2,3-Trichloropropane	ND	0.0297		mg/Kg-dry	1	5/11/2020 11:56:18 PM
1,2,4-Trichlorobenzene	ND	0.0297		mg/Kg-dry	1	5/11/2020 11:56:18 PM
1,3-Dichlorobenzene	ND	0.0238		mg/Kg-dry	1	5/11/2020 11:56:18 PM
1,4-Dichlorobenzene	ND	0.0238		mg/Kg-dry	1	5/11/2020 11:56:18 PM
1,2-Dichlorobenzene	ND	0.0238		mg/Kg-dry	1	5/11/2020 11:56:18 PM

Analytical Report

Work Order: **2005069**
Date Reported: **5/20/2020**

Client: O'Neill Service Group
Collection Date: 5/7/2020 12:30:00 PM
Project: F200
Lab ID: 2005069-012
Matrix: Soil
Client Sample ID: 358-B2-25

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28293		Analyst: CR
1,2-Dibromo-3-chloropropane	ND	0.594		mg/Kg-dry	1	5/11/2020 11:56:18 PM
Hexachloro-1,3-butadiene	ND	0.0594		mg/Kg-dry	1	5/11/2020 11:56:18 PM
1,2,3-Trichlorobenzene	ND	0.0238		mg/Kg-dry	1	5/11/2020 11:56:18 PM
Surr: Dibromofluoromethane	95.9	80 - 116		%Rec	1	5/11/2020 11:56:18 PM
Surr: Toluene-d8	100	84.8 - 113		%Rec	1	5/11/2020 11:56:18 PM
Surr: 1-Bromo-4-fluorobenzene	96.9	82.8 - 113		%Rec	1	5/11/2020 11:56:18 PM
Sample Moisture (Percent Moisture)				Batch ID: R59095		Analyst: EH
Percent Moisture	17.0	0.500		wt%	1	5/11/2020 11:01:24 AM

Analytical Report

Work Order: **2005069**
Date Reported: **5/20/2020**

Client: O'Neill Service Group
Collection Date: 5/7/2020 2:35:00 PM
Project: F200
Lab ID: 2005069-015
Matrix: Soil
Client Sample ID: **358-B3-10**

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28369 Analyst: KT

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0204		mg/Kg-dry	1	5/20/2020 7:16:07 AM
Chloromethane	ND	0.0509		mg/Kg-dry	1	5/20/2020 7:16:07 AM
Vinyl chloride	ND	0.0254		mg/Kg-dry	1	5/20/2020 7:16:07 AM
Bromomethane	ND	0.0509		mg/Kg-dry	1	5/20/2020 7:16:07 AM
Trichlorofluoromethane (CFC-11)	ND	0.0204		mg/Kg-dry	1	5/20/2020 7:16:07 AM
Chloroethane	ND	0.0509		mg/Kg-dry	1	5/20/2020 7:16:07 AM
1,1-Dichloroethene	ND	0.0204		mg/Kg-dry	1	5/20/2020 7:16:07 AM
Methylene chloride	ND	0.0204		mg/Kg-dry	1	5/20/2020 7:16:07 AM
trans-1,2-Dichloroethene	ND	0.0204		mg/Kg-dry	1	5/20/2020 7:16:07 AM
1,1-Dichloroethane	ND	0.0204		mg/Kg-dry	1	5/20/2020 7:16:07 AM
cis-1,2-Dichloroethene	ND	0.0204		mg/Kg-dry	1	5/20/2020 7:16:07 AM
Chloroform	ND	0.0204		mg/Kg-dry	1	5/20/2020 7:16:07 AM
1,1,1-Trichloroethane (TCA)	ND	0.0254		mg/Kg-dry	1	5/20/2020 7:16:07 AM
1,1-Dichloropropene	ND	0.0204		mg/Kg-dry	1	5/20/2020 7:16:07 AM
Carbon tetrachloride	ND	0.0254		mg/Kg-dry	1	5/20/2020 7:16:07 AM
1,2-Dichloroethane (EDC)	ND	0.0204		mg/Kg-dry	1	5/20/2020 7:16:07 AM
Trichloroethene (TCE)	ND	0.0204		mg/Kg-dry	1	5/20/2020 7:16:07 AM
1,2-Dichloropropane	ND	0.0204		mg/Kg-dry	1	5/20/2020 7:16:07 AM
Bromodichloromethane	ND	0.0204		mg/Kg-dry	1	5/20/2020 7:16:07 AM
Dibromomethane	ND	0.0204		mg/Kg-dry	1	5/20/2020 7:16:07 AM
cis-1,3-Dichloropropene	ND	0.0204		mg/Kg-dry	1	5/20/2020 7:16:07 AM
trans-1,3-Dichloropropylene	ND	0.0204		mg/Kg-dry	1	5/20/2020 7:16:07 AM
1,1,2-Trichloroethane	ND	0.0204		mg/Kg-dry	1	5/20/2020 7:16:07 AM
1,3-Dichloropropane	ND	0.0254		mg/Kg-dry	1	5/20/2020 7:16:07 AM
Tetrachloroethene (PCE)	ND	0.0254		mg/Kg-dry	1	5/20/2020 7:16:07 AM
Dibromochloromethane	ND	0.0254		mg/Kg-dry	1	5/20/2020 7:16:07 AM
1,2-Dibromoethane (EDB)	ND	0.00509		mg/Kg-dry	1	5/20/2020 7:16:07 AM
Chlorobenzene	ND	0.0254		mg/Kg-dry	1	5/20/2020 7:16:07 AM
1,1,1,2-Tetrachloroethane	ND	0.0254		mg/Kg-dry	1	5/20/2020 7:16:07 AM
Bromoform	ND	0.0509		mg/Kg-dry	1	5/20/2020 7:16:07 AM
1,1,2,2-Tetrachloroethane	ND	0.0204		mg/Kg-dry	1	5/20/2020 7:16:07 AM
Bromobenzene	ND	0.0204		mg/Kg-dry	1	5/20/2020 7:16:07 AM
2-Chlorotoluene	ND	0.0254		mg/Kg-dry	1	5/20/2020 7:16:07 AM
4-Chlorotoluene	ND	0.0254		mg/Kg-dry	1	5/20/2020 7:16:07 AM
1,2,3-Trichloropropane	ND	0.0254		mg/Kg-dry	1	5/20/2020 7:16:07 AM
1,2,4-Trichlorobenzene	ND	0.0254		mg/Kg-dry	1	5/20/2020 7:16:07 AM
1,3-Dichlorobenzene	ND	0.0204	*	mg/Kg-dry	1	5/20/2020 7:16:07 AM
1,4-Dichlorobenzene	ND	0.0204	*	mg/Kg-dry	1	5/20/2020 7:16:07 AM
1,2-Dichlorobenzene	ND	0.0204	*	mg/Kg-dry	1	5/20/2020 7:16:07 AM

Analytical Report

Work Order: **2005069**
Date Reported: **5/20/2020**

Client: O'Neill Service Group
Collection Date: 5/7/2020 2:35:00 PM
Project: F200
Lab ID: 2005069-015
Matrix: Soil
Client Sample ID: 358-B3-10

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28369		Analyst: KT
1,2-Dibromo-3-chloropropane	ND	0.509		mg/Kg-dry	1	5/20/2020 7:16:07 AM
Hexachloro-1,3-butadiene	ND	0.0509		mg/Kg-dry	1	5/20/2020 7:16:07 AM
1,2,3-Trichlorobenzene	ND	0.0204		mg/Kg-dry	1	5/20/2020 7:16:07 AM
Surr: Dibromofluoromethane	98.1	80 - 116		%Rec	1	5/20/2020 7:16:07 AM
Surr: Toluene-d8	102	84.8 - 113		%Rec	1	5/20/2020 7:16:07 AM
Surr: 1-Bromo-4-fluorobenzene	100	82.8 - 113		%Rec	1	5/20/2020 7:16:07 AM

NOTES:
* - Flagged value is not within established control limits.

Sample Moisture (Percent Moisture)				Batch ID: R59252		Analyst: EH
Percent Moisture	14.9	0.500		wt%	1	5/19/2020 12:14:02 PM

Analytical Report

Work Order: **2005069**
Date Reported: **5/20/2020**

Client: O'Neill Service Group
Collection Date: 5/7/2020 2:40:00 PM
Project: F200
Lab ID: 2005069-016
Matrix: Soil
Client Sample ID: 358-B3-12.5

Volatile Organic Compounds by EPA Method 8260D

Batch ID: 28293 Analyst: CR

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0196		mg/Kg-dry	1	5/12/2020 12:26:28 AM
Chloromethane	ND	0.0489		mg/Kg-dry	1	5/12/2020 12:26:28 AM
Vinyl chloride	ND	0.0244		mg/Kg-dry	1	5/12/2020 12:26:28 AM
Bromomethane	ND	0.0489		mg/Kg-dry	1	5/12/2020 12:26:28 AM
Trichlorofluoromethane (CFC-11)	ND	0.0196		mg/Kg-dry	1	5/12/2020 12:26:28 AM
Chloroethane	ND	0.0489		mg/Kg-dry	1	5/12/2020 12:26:28 AM
1,1-Dichloroethene	ND	0.0196		mg/Kg-dry	1	5/12/2020 12:26:28 AM
Methylene chloride	ND	0.0196		mg/Kg-dry	1	5/12/2020 12:26:28 AM
trans-1,2-Dichloroethene	ND	0.0196		mg/Kg-dry	1	5/12/2020 12:26:28 AM
1,1-Dichloroethane	ND	0.0196		mg/Kg-dry	1	5/12/2020 12:26:28 AM
cis-1,2-Dichloroethene	0.0235	0.0196		mg/Kg-dry	1	5/12/2020 12:26:28 AM
Chloroform	ND	0.0196		mg/Kg-dry	1	5/12/2020 12:26:28 AM
1,1,1-Trichloroethane (TCA)	ND	0.0244		mg/Kg-dry	1	5/12/2020 12:26:28 AM
1,1-Dichloropropene	ND	0.0196		mg/Kg-dry	1	5/12/2020 12:26:28 AM
Carbon tetrachloride	ND	0.0244		mg/Kg-dry	1	5/12/2020 12:26:28 AM
1,2-Dichloroethane (EDC)	ND	0.0196		mg/Kg-dry	1	5/12/2020 12:26:28 AM
Trichloroethene (TCE)	ND	0.0196		mg/Kg-dry	1	5/12/2020 12:26:28 AM
1,2-Dichloropropane	ND	0.0196		mg/Kg-dry	1	5/12/2020 12:26:28 AM
Bromodichloromethane	ND	0.0196		mg/Kg-dry	1	5/12/2020 12:26:28 AM
Dibromomethane	ND	0.0196		mg/Kg-dry	1	5/12/2020 12:26:28 AM
cis-1,3-Dichloropropene	ND	0.0196		mg/Kg-dry	1	5/12/2020 12:26:28 AM
trans-1,3-Dichloropropylene	ND	0.0196		mg/Kg-dry	1	5/12/2020 12:26:28 AM
1,1,2-Trichloroethane	ND	0.0196		mg/Kg-dry	1	5/12/2020 12:26:28 AM
1,3-Dichloropropane	ND	0.0244		mg/Kg-dry	1	5/12/2020 12:26:28 AM
Tetrachloroethene (PCE)	0.0830	0.0244		mg/Kg-dry	1	5/12/2020 12:26:28 AM
Dibromochloromethane	ND	0.0244		mg/Kg-dry	1	5/12/2020 12:26:28 AM
1,2-Dibromoethane (EDB)	ND	0.00489		mg/Kg-dry	1	5/12/2020 12:26:28 AM
Chlorobenzene	ND	0.0244		mg/Kg-dry	1	5/12/2020 12:26:28 AM
1,1,1,2-Tetrachloroethane	ND	0.0244		mg/Kg-dry	1	5/12/2020 12:26:28 AM
Bromoform	ND	0.0489		mg/Kg-dry	1	5/12/2020 12:26:28 AM
1,1,2,2-Tetrachloroethane	ND	0.0196		mg/Kg-dry	1	5/12/2020 12:26:28 AM
Bromobenzene	ND	0.0196		mg/Kg-dry	1	5/12/2020 12:26:28 AM
2-Chlorotoluene	ND	0.0244		mg/Kg-dry	1	5/12/2020 12:26:28 AM
4-Chlorotoluene	ND	0.0244		mg/Kg-dry	1	5/12/2020 12:26:28 AM
1,2,3-Trichloropropane	ND	0.0244		mg/Kg-dry	1	5/12/2020 12:26:28 AM
1,2,4-Trichlorobenzene	ND	0.0244		mg/Kg-dry	1	5/12/2020 12:26:28 AM
1,3-Dichlorobenzene	ND	0.0196		mg/Kg-dry	1	5/12/2020 12:26:28 AM
1,4-Dichlorobenzene	ND	0.0196		mg/Kg-dry	1	5/12/2020 12:26:28 AM
1,2-Dichlorobenzene	ND	0.0196		mg/Kg-dry	1	5/12/2020 12:26:28 AM

Analytical Report

Work Order: **2005069**
Date Reported: **5/20/2020**

Client: O'Neill Service Group
Collection Date: 5/7/2020 2:40:00 PM
Project: F200
Lab ID: 2005069-016
Matrix: Soil
Client Sample ID: 358-B3-12.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28293		Analyst: CR
1,2-Dibromo-3-chloropropane	ND	0.489		mg/Kg-dry	1	5/12/2020 12:26:28 AM
Hexachloro-1,3-butadiene	ND	0.0489		mg/Kg-dry	1	5/12/2020 12:26:28 AM
1,2,3-Trichlorobenzene	ND	0.0196		mg/Kg-dry	1	5/12/2020 12:26:28 AM
Surr: Dibromofluoromethane	93.9	80 - 116		%Rec	1	5/12/2020 12:26:28 AM
Surr: Toluene-d8	99.7	84.8 - 113		%Rec	1	5/12/2020 12:26:28 AM
Surr: 1-Bromo-4-fluorobenzene	97.4	82.8 - 113		%Rec	1	5/12/2020 12:26:28 AM
Sample Moisture (Percent Moisture)				Batch ID: R59095		Analyst: EH
Percent Moisture	18.5	0.500		wt%	1	5/11/2020 11:01:24 AM

Analytical Report

Work Order: **2005069**
Date Reported: **5/20/2020**

Client: O'Neill Service Group
Collection Date: 5/7/2020 2:45:00 PM
Project: F200
Lab ID: 2005069-017
Matrix: Soil
Client Sample ID: 358-B3-15

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28369 Analyst: KT

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0171		mg/Kg-dry	1	5/20/2020 7:46:16 AM
Chloromethane	ND	0.0427		mg/Kg-dry	1	5/20/2020 7:46:16 AM
Vinyl chloride	ND	0.0214		mg/Kg-dry	1	5/20/2020 7:46:16 AM
Bromomethane	ND	0.0427		mg/Kg-dry	1	5/20/2020 7:46:16 AM
Trichlorofluoromethane (CFC-11)	ND	0.0171		mg/Kg-dry	1	5/20/2020 7:46:16 AM
Chloroethane	ND	0.0427		mg/Kg-dry	1	5/20/2020 7:46:16 AM
1,1-Dichloroethene	ND	0.0171		mg/Kg-dry	1	5/20/2020 7:46:16 AM
Methylene chloride	ND	0.0171		mg/Kg-dry	1	5/20/2020 7:46:16 AM
trans-1,2-Dichloroethene	ND	0.0171		mg/Kg-dry	1	5/20/2020 7:46:16 AM
1,1-Dichloroethane	ND	0.0171		mg/Kg-dry	1	5/20/2020 7:46:16 AM
cis-1,2-Dichloroethene	0.0669	0.0171		mg/Kg-dry	1	5/20/2020 7:46:16 AM
Chloroform	ND	0.0171		mg/Kg-dry	1	5/20/2020 7:46:16 AM
1,1,1-Trichloroethane (TCA)	ND	0.0214		mg/Kg-dry	1	5/20/2020 7:46:16 AM
1,1-Dichloropropene	ND	0.0171		mg/Kg-dry	1	5/20/2020 7:46:16 AM
Carbon tetrachloride	ND	0.0214		mg/Kg-dry	1	5/20/2020 7:46:16 AM
1,2-Dichloroethane (EDC)	ND	0.0171		mg/Kg-dry	1	5/20/2020 7:46:16 AM
Trichloroethene (TCE)	0.0379	0.0171		mg/Kg-dry	1	5/20/2020 7:46:16 AM
1,2-Dichloropropane	ND	0.0171		mg/Kg-dry	1	5/20/2020 7:46:16 AM
Bromodichloromethane	ND	0.0171		mg/Kg-dry	1	5/20/2020 7:46:16 AM
Dibromomethane	ND	0.0171		mg/Kg-dry	1	5/20/2020 7:46:16 AM
cis-1,3-Dichloropropene	ND	0.0171		mg/Kg-dry	1	5/20/2020 7:46:16 AM
trans-1,3-Dichloropropylene	ND	0.0171		mg/Kg-dry	1	5/20/2020 7:46:16 AM
1,1,2-Trichloroethane	ND	0.0171		mg/Kg-dry	1	5/20/2020 7:46:16 AM
1,3-Dichloropropane	ND	0.0214		mg/Kg-dry	1	5/20/2020 7:46:16 AM
Tetrachloroethene (PCE)	0.121	0.0214		mg/Kg-dry	1	5/20/2020 7:46:16 AM
Dibromochloromethane	ND	0.0214		mg/Kg-dry	1	5/20/2020 7:46:16 AM
1,2-Dibromoethane (EDB)	ND	0.00427		mg/Kg-dry	1	5/20/2020 7:46:16 AM
Chlorobenzene	ND	0.0214		mg/Kg-dry	1	5/20/2020 7:46:16 AM
1,1,1,2-Tetrachloroethane	ND	0.0214		mg/Kg-dry	1	5/20/2020 7:46:16 AM
Bromoform	ND	0.0427		mg/Kg-dry	1	5/20/2020 7:46:16 AM
1,1,2,2-Tetrachloroethane	ND	0.0171		mg/Kg-dry	1	5/20/2020 7:46:16 AM
Bromobenzene	ND	0.0171		mg/Kg-dry	1	5/20/2020 7:46:16 AM
2-Chlorotoluene	ND	0.0214		mg/Kg-dry	1	5/20/2020 7:46:16 AM
4-Chlorotoluene	ND	0.0214		mg/Kg-dry	1	5/20/2020 7:46:16 AM
1,2,3-Trichloropropane	ND	0.0214		mg/Kg-dry	1	5/20/2020 7:46:16 AM
1,2,4-Trichlorobenzene	ND	0.0214		mg/Kg-dry	1	5/20/2020 7:46:16 AM
1,3-Dichlorobenzene	ND	0.0171	*	mg/Kg-dry	1	5/20/2020 7:46:16 AM
1,4-Dichlorobenzene	ND	0.0171	*	mg/Kg-dry	1	5/20/2020 7:46:16 AM
1,2-Dichlorobenzene	ND	0.0171	*	mg/Kg-dry	1	5/20/2020 7:46:16 AM

Analytical Report

Work Order: **2005069**
Date Reported: **5/20/2020**

Client: O'Neill Service Group
Collection Date: 5/7/2020 2:45:00 PM
Project: F200
Lab ID: 2005069-017
Matrix: Soil
Client Sample ID: 358-B3-15

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28369		Analyst: KT
1,2-Dibromo-3-chloropropane	ND	0.427		mg/Kg-dry	1	5/20/2020 7:46:16 AM
Hexachloro-1,3-butadiene	ND	0.0427		mg/Kg-dry	1	5/20/2020 7:46:16 AM
1,2,3-Trichlorobenzene	ND	0.0171		mg/Kg-dry	1	5/20/2020 7:46:16 AM
Surr: Dibromofluoromethane	101	80 - 116		%Rec	1	5/20/2020 7:46:16 AM
Surr: Toluene-d8	101	84.8 - 113		%Rec	1	5/20/2020 7:46:16 AM
Surr: 1-Bromo-4-fluorobenzene	98.0	82.8 - 113		%Rec	1	5/20/2020 7:46:16 AM

NOTES:
* - Flagged value is not within established control limits.

Sample Moisture (Percent Moisture)				Batch ID: R59252		Analyst: EH
Percent Moisture	6.64	0.500		wt%	1	5/19/2020 12:14:02 PM

Analytical Report

Work Order: **2005069**
Date Reported: **5/20/2020**

Client: O'Neill Service Group
Collection Date: 5/7/2020 3:00:00 PM
Project: F200
Lab ID: 2005069-018
Matrix: Soil
Client Sample ID: 358-B3-20

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28293 Analyst: CR

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0189		mg/Kg-dry	1	5/12/2020 12:56:35 AM
Chloromethane	ND	0.0472		mg/Kg-dry	1	5/12/2020 12:56:35 AM
Vinyl chloride	ND	0.0236		mg/Kg-dry	1	5/12/2020 12:56:35 AM
Bromomethane	ND	0.0472		mg/Kg-dry	1	5/12/2020 12:56:35 AM
Trichlorofluoromethane (CFC-11)	ND	0.0189		mg/Kg-dry	1	5/12/2020 12:56:35 AM
Chloroethane	ND	0.0472		mg/Kg-dry	1	5/12/2020 12:56:35 AM
1,1-Dichloroethene	ND	0.0189		mg/Kg-dry	1	5/12/2020 12:56:35 AM
Methylene chloride	ND	0.0189		mg/Kg-dry	1	5/12/2020 12:56:35 AM
trans-1,2-Dichloroethene	ND	0.0189		mg/Kg-dry	1	5/12/2020 12:56:35 AM
1,1-Dichloroethane	ND	0.0189		mg/Kg-dry	1	5/12/2020 12:56:35 AM
cis-1,2-Dichloroethene	ND	0.0189		mg/Kg-dry	1	5/12/2020 12:56:35 AM
Chloroform	ND	0.0189		mg/Kg-dry	1	5/12/2020 12:56:35 AM
1,1,1-Trichloroethane (TCA)	ND	0.0236		mg/Kg-dry	1	5/12/2020 12:56:35 AM
1,1-Dichloropropene	ND	0.0189		mg/Kg-dry	1	5/12/2020 12:56:35 AM
Carbon tetrachloride	ND	0.0236		mg/Kg-dry	1	5/12/2020 12:56:35 AM
1,2-Dichloroethane (EDC)	ND	0.0189		mg/Kg-dry	1	5/12/2020 12:56:35 AM
Trichloroethene (TCE)	ND	0.0189		mg/Kg-dry	1	5/12/2020 12:56:35 AM
1,2-Dichloropropane	ND	0.0189		mg/Kg-dry	1	5/12/2020 12:56:35 AM
Bromodichloromethane	ND	0.0189		mg/Kg-dry	1	5/12/2020 12:56:35 AM
Dibromomethane	ND	0.0189		mg/Kg-dry	1	5/12/2020 12:56:35 AM
cis-1,3-Dichloropropene	ND	0.0189		mg/Kg-dry	1	5/12/2020 12:56:35 AM
trans-1,3-Dichloropropylene	ND	0.0189		mg/Kg-dry	1	5/12/2020 12:56:35 AM
1,1,2-Trichloroethane	ND	0.0189		mg/Kg-dry	1	5/12/2020 12:56:35 AM
1,3-Dichloropropane	ND	0.0236		mg/Kg-dry	1	5/12/2020 12:56:35 AM
Tetrachloroethene (PCE)	0.0384	0.0236		mg/Kg-dry	1	5/12/2020 12:56:35 AM
Dibromochloromethane	ND	0.0236		mg/Kg-dry	1	5/12/2020 12:56:35 AM
1,2-Dibromoethane (EDB)	ND	0.00472		mg/Kg-dry	1	5/12/2020 12:56:35 AM
Chlorobenzene	ND	0.0236		mg/Kg-dry	1	5/12/2020 12:56:35 AM
1,1,1,2-Tetrachloroethane	ND	0.0236		mg/Kg-dry	1	5/12/2020 12:56:35 AM
Bromoform	ND	0.0472		mg/Kg-dry	1	5/12/2020 12:56:35 AM
1,1,2,2-Tetrachloroethane	ND	0.0189		mg/Kg-dry	1	5/12/2020 12:56:35 AM
Bromobenzene	ND	0.0189		mg/Kg-dry	1	5/12/2020 12:56:35 AM
2-Chlorotoluene	ND	0.0236		mg/Kg-dry	1	5/12/2020 12:56:35 AM
4-Chlorotoluene	ND	0.0236		mg/Kg-dry	1	5/12/2020 12:56:35 AM
1,2,3-Trichloropropane	ND	0.0236		mg/Kg-dry	1	5/12/2020 12:56:35 AM
1,2,4-Trichlorobenzene	ND	0.0236		mg/Kg-dry	1	5/12/2020 12:56:35 AM
1,3-Dichlorobenzene	ND	0.0189		mg/Kg-dry	1	5/12/2020 12:56:35 AM
1,4-Dichlorobenzene	ND	0.0189		mg/Kg-dry	1	5/12/2020 12:56:35 AM
1,2-Dichlorobenzene	ND	0.0189		mg/Kg-dry	1	5/12/2020 12:56:35 AM

Analytical Report

Work Order: **2005069**
Date Reported: **5/20/2020**

Client: O'Neill Service Group
Collection Date: 5/7/2020 3:00:00 PM
Project: F200
Lab ID: 2005069-018
Matrix: Soil
Client Sample ID: 358-B3-20

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28293		Analyst: CR
1,2-Dibromo-3-chloropropane	ND	0.472		mg/Kg-dry	1	5/12/2020 12:56:35 AM
Hexachloro-1,3-butadiene	ND	0.0472		mg/Kg-dry	1	5/12/2020 12:56:35 AM
1,2,3-Trichlorobenzene	ND	0.0189		mg/Kg-dry	1	5/12/2020 12:56:35 AM
Surr: Dibromofluoromethane	93.5	80 - 116		%Rec	1	5/12/2020 12:56:35 AM
Surr: Toluene-d8	98.7	84.8 - 113		%Rec	1	5/12/2020 12:56:35 AM
Surr: 1-Bromo-4-fluorobenzene	94.8	82.8 - 113		%Rec	1	5/12/2020 12:56:35 AM
Sample Moisture (Percent Moisture)				Batch ID: R59095		Analyst: EH
Percent Moisture	7.74	0.500		wt%	1	5/11/2020 11:01:24 AM

Analytical Report

Work Order: **2005069**
Date Reported: **5/20/2020**

Client: O'Neill Service Group
Collection Date: 5/6/2020 12:40:00 PM
Project: F200
Lab ID: 2005069-019
Matrix: Soil
Client Sample ID: Trip Blank

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28293 Analyst: CR

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0200		mg/Kg	1	5/11/2020 4:25:47 PM
Chloromethane	ND	0.0500		mg/Kg	1	5/11/2020 4:25:47 PM
Vinyl chloride	ND	0.0250		mg/Kg	1	5/11/2020 4:25:47 PM
Bromomethane	ND	0.0500		mg/Kg	1	5/11/2020 4:25:47 PM
Trichlorofluoromethane (CFC-11)	ND	0.0200		mg/Kg	1	5/11/2020 4:25:47 PM
Chloroethane	ND	0.0500		mg/Kg	1	5/11/2020 4:25:47 PM
1,1-Dichloroethene	ND	0.0200		mg/Kg	1	5/11/2020 4:25:47 PM
Methylene chloride	ND	0.0200		mg/Kg	1	5/11/2020 4:25:47 PM
trans-1,2-Dichloroethene	ND	0.0200		mg/Kg	1	5/11/2020 4:25:47 PM
1,1-Dichloroethane	ND	0.0200		mg/Kg	1	5/11/2020 4:25:47 PM
cis-1,2-Dichloroethene	ND	0.0200		mg/Kg	1	5/11/2020 4:25:47 PM
Chloroform	ND	0.0200		mg/Kg	1	5/11/2020 4:25:47 PM
1,1,1-Trichloroethane (TCA)	ND	0.0250		mg/Kg	1	5/11/2020 4:25:47 PM
1,1-Dichloropropene	ND	0.0200		mg/Kg	1	5/11/2020 4:25:47 PM
Carbon tetrachloride	ND	0.0250		mg/Kg	1	5/11/2020 4:25:47 PM
1,2-Dichloroethane (EDC)	ND	0.0200		mg/Kg	1	5/11/2020 4:25:47 PM
Trichloroethene (TCE)	ND	0.0200		mg/Kg	1	5/11/2020 4:25:47 PM
1,2-Dichloropropane	ND	0.0200		mg/Kg	1	5/11/2020 4:25:47 PM
Bromodichloromethane	ND	0.0200		mg/Kg	1	5/11/2020 4:25:47 PM
Dibromomethane	ND	0.0200		mg/Kg	1	5/11/2020 4:25:47 PM
cis-1,3-Dichloropropene	ND	0.0200		mg/Kg	1	5/11/2020 4:25:47 PM
trans-1,3-Dichloropropylene	ND	0.0200		mg/Kg	1	5/11/2020 4:25:47 PM
1,1,2-Trichloroethane	ND	0.0200		mg/Kg	1	5/11/2020 4:25:47 PM
1,3-Dichloropropane	ND	0.0250		mg/Kg	1	5/11/2020 4:25:47 PM
Tetrachloroethene (PCE)	ND	0.0250		mg/Kg	1	5/11/2020 4:25:47 PM
Dibromochloromethane	ND	0.0250		mg/Kg	1	5/11/2020 4:25:47 PM
1,2-Dibromoethane (EDB)	ND	0.00500		mg/Kg	1	5/11/2020 4:25:47 PM
Chlorobenzene	ND	0.0250		mg/Kg	1	5/11/2020 4:25:47 PM
1,1,1,2-Tetrachloroethane	ND	0.0250		mg/Kg	1	5/11/2020 4:25:47 PM
Bromoform	ND	0.0500		mg/Kg	1	5/11/2020 4:25:47 PM
1,1,2,2-Tetrachloroethane	ND	0.0200		mg/Kg	1	5/11/2020 4:25:47 PM
Bromobenzene	ND	0.0200		mg/Kg	1	5/11/2020 4:25:47 PM
2-Chlorotoluene	ND	0.0250		mg/Kg	1	5/11/2020 4:25:47 PM
4-Chlorotoluene	ND	0.0250		mg/Kg	1	5/11/2020 4:25:47 PM
1,2,3-Trichloropropane	ND	0.0250		mg/Kg	1	5/11/2020 4:25:47 PM
1,2,4-Trichlorobenzene	ND	0.0250		mg/Kg	1	5/11/2020 4:25:47 PM
1,3-Dichlorobenzene	ND	0.0200		mg/Kg	1	5/11/2020 4:25:47 PM
1,4-Dichlorobenzene	ND	0.0200		mg/Kg	1	5/11/2020 4:25:47 PM
1,2-Dichlorobenzene	ND	0.0200		mg/Kg	1	5/11/2020 4:25:47 PM

Analytical Report

Work Order: **2005069**
Date Reported: **5/20/2020**

Client: O'Neill Service Group
Collection Date: 5/6/2020 12:40:00 PM
Project: F200
Lab ID: 2005069-019
Matrix: Soil
Client Sample ID: Trip Blank

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28293		Analyst: CR
1,2-Dibromo-3-chloropropane	ND	0.500		mg/Kg	1	5/11/2020 4:25:47 PM
Hexachloro-1,3-butadiene	ND	0.0500		mg/Kg	1	5/11/2020 4:25:47 PM
1,2,3-Trichlorobenzene	ND	0.0200		mg/Kg	1	5/11/2020 4:25:47 PM
Surr: Dibromofluoromethane	95.0	80 - 116		%Rec	1	5/11/2020 4:25:47 PM
Surr: Toluene-d8	99.4	84.8 - 113		%Rec	1	5/11/2020 4:25:47 PM
Surr: 1-Bromo-4-fluorobenzene	97.5	82.8 - 113		%Rec	1	5/11/2020 4:25:47 PM

Date: *5/20/2020*

Work Order: 2005069
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **LCS-28369** SampType: **LCS** Units: **mg/Kg** Prep Date: **5/19/2020** RunNo: **59275**
Client ID: **LCSS** Batch ID: **28369** Analysis Date: **5/20/2020** SeqNo: **1184677**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	0.945	0.0200	1.000	0	94.5	21.6	169				
Chloromethane	0.944	0.0500	1.000	0	94.4	45.3	153				
Vinyl chloride	0.929	0.0250	1.000	0	92.9	57.5	137				
Bromomethane	0.918	0.0500	1.000	0	91.8	32.8	194				
Trichlorofluoromethane (CFC-11)	0.957	0.0200	1.000	0	95.7	54.3	152				
Chloroethane	0.954	0.0500	1.000	0	95.4	52	146				
1,1-Dichloroethene	0.941	0.0200	1.000	0	94.1	62.8	139				
Methylene chloride	0.952	0.0200	1.000	0	95.2	78.4	118				
trans-1,2-Dichloroethene	0.954	0.0200	1.000	0	95.4	82	117				
1,1-Dichloroethane	0.959	0.0200	1.000	0	95.9	78	119				
cis-1,2-Dichloroethene	0.978	0.0200	1.000	0	97.8	81.9	116				
Chloroform	0.960	0.0200	1.000	0	96.0	80.8	117				
1,1,1-Trichloroethane (TCA)	0.962	0.0250	1.000	0	96.2	81.4	117				
1,1-Dichloropropene	0.952	0.0200	1.000	0	95.2	79.9	117				
Carbon tetrachloride	0.944	0.0500	1.000	0	94.4	80.4	117				
1,2-Dichloroethane (EDC)	0.969	0.0200	1.000	0	96.9	77.5	117				
Trichloroethene (TCE)	0.944	0.0200	1.000	0	94.4	83.4	115				
1,2-Dichloropropane	0.959	0.0200	1.000	0	95.9	77.6	117				
Bromodichloromethane	0.952	0.0200	1.000	0	95.2	78.9	116				
Dibromomethane	0.972	0.0200	1.000	0	97.2	81.2	115				
cis-1,3-Dichloropropene	0.963	0.0200	1.000	0	96.3	78	115				
trans-1,3-Dichloropropylene	0.955	0.0200	1.000	0	95.5	75.7	117				
1,1,2-Trichloroethane	0.948	0.0200	1.000	0	94.8	77.9	118				
1,3-Dichloropropane	0.943	0.0250	1.000	0	94.3	77.1	118				
Tetrachloroethene (PCE)	0.937	0.0250	1.000	0	93.7	84.3	117				
Dibromochloromethane	0.951	0.0250	1.000	0	95.1	77.9	118				
1,2-Dibromoethane (EDB)	0.953	0.00500	1.000	0	95.3	78.6	117				
Chlorobenzene	0.946	0.0250	1.000	0	94.6	86.5	113				
1,1,1,2-Tetrachloroethane	0.920	0.0250	1.000	0	92.0	84.8	113				

Date: *5/20/2020*

Work Order: 2005069
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **LCS-28369** SampType: **LCS** Units: **mg/Kg** Prep Date: **5/19/2020** RunNo: **59275**
Client ID: **LCSS** Batch ID: **28369** Analysis Date: **5/20/2020** SeqNo: **1184677**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromoform	0.922	0.0500	1.000	0	92.2	70.7	125				
1,1,2,2-Tetrachloroethane	0.927	0.0200	1.000	0	92.7	68.3	125				
Bromobenzene	0.963	0.0200	1.000	0	96.3	84	117				
2-Chlorotoluene	0.966	0.0250	1.000	0	96.6	80.4	122				
4-Chlorotoluene	0.969	0.0250	1.000	0	96.9	83.1	118				
1,2,3-Trichloropropane	0.954	0.0250	1.000	0	95.4	71	125				
1,2,4-Trichlorobenzene	0.956	0.0250	1.000	0	95.6	81	126				
1,3-Dichlorobenzene	0.890	0.0200	1.000	0	89.0	90.4	115				S
1,4-Dichlorobenzene	0.875	0.0200	1.000	0	87.5	90.3	115				S
1,2-Dichlorobenzene	0.884	0.0200	1.000	0	88.4	90.3	115				S
1,2-Dibromo-3-chloropropane	0.953	0.500	1.000	0	95.3	62.3	136				
Hexachloro-1,3-butadiene	1.01	0.0500	1.000	0	101	77.8	133				
1,2,3-Trichlorobenzene	0.932	0.0200	1.000	0	93.2	75.9	130				
Surr: Dibromofluoromethane	1.35		1.250		108	80	116				
Surr: Toluene-d8	1.26		1.250		101	84.8	113				
Surr: 1-Bromo-4-fluorobenzene	1.30		1.250		104	82.8	113				

NOTES:
S - Outlying spike recovery observed (low bias). Samples will be qualified with a *.

Sample ID: **MB-28369** SampType: **MBLK** Units: **mg/Kg** Prep Date: **5/19/2020** RunNo: **59275**
Client ID: **MBLKS** Batch ID: **28369** Analysis Date: **5/20/2020** SeqNo: **1184678**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	0.0200									
Chloromethane	ND	0.0500									
Vinyl chloride	ND	0.0250									
Bromomethane	ND	0.0500									
Trichlorofluoromethane (CFC-11)	ND	0.0200									
Chloroethane	ND	0.0500									
1,1-Dichloroethene	ND	0.0200									

Date: *5/20/2020*

Work Order: 2005069
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **MB-28369** SampType: **MBLK** Units: **mg/Kg** Prep Date: **5/19/2020** RunNo: **59275**
Client ID: **MBLKS** Batch ID: **28369** Analysis Date: **5/20/2020** SeqNo: **1184678**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methylene chloride	ND	0.0200									
trans-1,2-Dichloroethene	ND	0.0200									
1,1-Dichloroethane	ND	0.0200									
cis-1,2-Dichloroethene	ND	0.0200									
Chloroform	ND	0.0200									
1,1,1-Trichloroethane (TCA)	ND	0.0250									
1,1-Dichloropropene	ND	0.0200									
Carbon tetrachloride	ND	0.0500									
1,2-Dichloroethane (EDC)	ND	0.0200									
Trichloroethene (TCE)	ND	0.0200									
1,2-Dichloropropane	ND	0.0200									
Bromodichloromethane	ND	0.0200									
Dibromomethane	ND	0.0200									
cis-1,3-Dichloropropene	ND	0.0200									
trans-1,3-Dichloropropylene	ND	0.0200									
1,1,2-Trichloroethane	ND	0.0200									
1,3-Dichloropropane	ND	0.0250									
Tetrachloroethene (PCE)	ND	0.0250									
Dibromochloromethane	ND	0.0250									
1,2-Dibromoethane (EDB)	ND	0.00500									
Chlorobenzene	ND	0.0250									
1,1,1,2-Tetrachloroethane	ND	0.0250									
Bromoform	ND	0.0500									
1,1,2,2-Tetrachloroethane	ND	0.0200									
Bromobenzene	ND	0.0200									
2-Chlorotoluene	ND	0.0250									
4-Chlorotoluene	ND	0.0250									
1,2,3-Trichloropropane	ND	0.0250									
1,2,4-Trichlorobenzene	ND	0.0250									

Work Order: 2005069
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **MB-28369** SampType: **MBLK** Units: **mg/Kg** Prep Date: **5/19/2020** RunNo: **59275**
Client ID: **MBLKS** Batch ID: **28369** Analysis Date: **5/20/2020** SeqNo: **1184678**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,3-Dichlorobenzene	ND	0.0200									*
1,4-Dichlorobenzene	ND	0.0200									*
1,2-Dichlorobenzene	ND	0.0200									*
1,2-Dibromo-3-chloropropane	ND	0.500									
Hexachloro-1,3-butadiene	ND	0.0500									
1,2,3-Trichlorobenzene	ND	0.0200									
Surr: Dibromofluoromethane	1.22		1.250		97.4	80	116				
Surr: Toluene-d8	1.26		1.250		101	84.8	113				
Surr: 1-Bromo-4-fluorobenzene	1.23		1.250		98.4	82.8	113				

NOTES:
* - Flagged value is not within established control limits.

Sample ID: **2005069-017BDUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **5/19/2020** RunNo: **59275**
Client ID: **358-B3-15** Batch ID: **28369** Analysis Date: **5/20/2020** SeqNo: **1184667**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	0.0171						0		30	
Chloromethane	ND	0.0427						0		30	
Vinyl chloride	ND	0.0214						0		30	
Bromomethane	ND	0.0427						0		30	
Trichlorofluoromethane (CFC-11)	ND	0.0171						0		30	
Chloroethane	ND	0.0427						0		30	
1,1-Dichloroethene	ND	0.0171						0		30	
Methylene chloride	ND	0.0171						0		30	
trans-1,2-Dichloroethene	ND	0.0171						0		30	
1,1-Dichloroethane	ND	0.0171						0		30	
cis-1,2-Dichloroethene	0.0653	0.0171						0.06688	2.35	30	
Chloroform	ND	0.0171						0		30	
1,1,1-Trichloroethane (TCA)	ND	0.0214						0		30	
1,1-Dichloropropene	ND	0.0171						0		30	

Fremont Analytical

Date: *5/20/2020*

Work Order: 2005069
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2005069-017BDUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **5/19/2020** RunNo: **59275**
Client ID: **358-B3-15** Batch ID: **28369** Analysis Date: **5/20/2020** SeqNo: **1184667**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Carbon tetrachloride	ND	0.0427						0		30	
1,2-Dichloroethane (EDC)	ND	0.0171						0		30	
Trichloroethene (TCE)	0.0378	0.0171						0.03793	0.371	30	
1,2-Dichloropropane	ND	0.0171						0		30	
Bromodichloromethane	ND	0.0171						0		30	
Dibromomethane	ND	0.0171						0		30	
cis-1,3-Dichloropropene	ND	0.0171						0		30	
trans-1,3-Dichloropropylene	ND	0.0171						0		30	
1,1,2-Trichloroethane	ND	0.0171						0		30	
1,3-Dichloropropane	ND	0.0214						0		30	
Tetrachloroethene (PCE)	0.115	0.0214						0.1215	5.82	30	
Dibromochloromethane	ND	0.0214						0		30	
1,2-Dibromoethane (EDB)	ND	0.00427						0		30	
Chlorobenzene	ND	0.0214						0		30	
1,1,1,2-Tetrachloroethane	ND	0.0214						0		30	
Bromoform	ND	0.0427						0		30	
1,1,2,2-Tetrachloroethane	ND	0.0171						0		30	
Bromobenzene	ND	0.0171						0		30	
2-Chlorotoluene	ND	0.0214						0		30	
4-Chlorotoluene	ND	0.0214						0		30	
1,2,3-Trichloropropane	ND	0.0214						0		30	
1,2,4-Trichlorobenzene	ND	0.0214						0		30	
1,3-Dichlorobenzene	ND	0.0171						0		30	*
1,4-Dichlorobenzene	ND	0.0171						0		30	*
1,2-Dichlorobenzene	ND	0.0171						0		30	*
1,2-Dibromo-3-chloropropane	ND	0.427						0		30	
Hexachloro-1,3-butadiene	ND	0.0427						0		30	
1,2,3-Trichlorobenzene	ND	0.0171						0		30	
Surr: Dibromofluoromethane	1.06		1.068		99.1	80	116		0		

Work Order: 2005069
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2005069-017BDUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **5/19/2020** RunNo: **59275**
Client ID: **358-B3-15** Batch ID: **28369** Analysis Date: **5/20/2020** SeqNo: **1184667**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: Toluene-d8	1.07		1.068		101	84.8	113		0		
Surr: 1-Bromo-4-fluorobenzene	1.04		1.068		97.9	82.8	113		0		

NOTES:
* - Flagged value is not within established control limits.

Sample ID: **2005214-026BDUP** SampType: **DUP** Units: **mg/Kg** Prep Date: **5/19/2020** RunNo: **59275**
Client ID: **BATCH** Batch ID: **28369** Analysis Date: **5/20/2020** SeqNo: **1184671**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	0.0177						0		30	
Chloromethane	ND	0.0441						0		30	
Vinyl chloride	ND	0.0221						0		30	
Bromomethane	ND	0.0441						0		30	
Trichlorofluoromethane (CFC-11)	ND	0.0177						0		30	
Chloroethane	ND	0.0441						0		30	
1,1-Dichloroethene	ND	0.0177						0		30	
Methylene chloride	ND	0.0177						0		30	
trans-1,2-Dichloroethene	ND	0.0177						0		30	
1,1-Dichloroethane	ND	0.0177						0		30	
cis-1,2-Dichloroethene	ND	0.0177						0		30	
Chloroform	ND	0.0177						0		30	
1,1,1-Trichloroethane (TCA)	ND	0.0221						0		30	
1,1-Dichloropropene	ND	0.0177						0		30	
Carbon tetrachloride	ND	0.0441						0		30	
1,2-Dichloroethane (EDC)	ND	0.0177						0		30	
Trichloroethene (TCE)	ND	0.0177						0		30	
1,2-Dichloropropane	ND	0.0177						0		30	
Bromodichloromethane	ND	0.0177						0		30	
Dibromomethane	ND	0.0177						0		30	
cis-1,3-Dichloropropene	ND	0.0177						0		30	

Work Order: 2005069
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2005214-026BDUP** SampType: **DUP** Units: **mg/Kg** Prep Date: **5/19/2020** RunNo: **59275**
Client ID: **BATCH** Batch ID: **28369** Analysis Date: **5/20/2020** SeqNo: **1184671**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
trans-1,3-Dichloropropylene	ND	0.0177						0		30	
1,1,2-Trichloroethane	ND	0.0177						0		30	
1,3-Dichloropropane	ND	0.0221						0		30	
Tetrachloroethene (PCE)	ND	0.0221						0		30	
Dibromochloromethane	ND	0.0221						0		30	
1,2-Dibromoethane (EDB)	ND	0.00441						0		30	
Chlorobenzene	ND	0.0221						0		30	
1,1,1,2-Tetrachloroethane	ND	0.0221						0		30	
Bromoform	ND	0.0441						0		30	
1,1,2,2-Tetrachloroethane	ND	0.0177						0		30	
Bromobenzene	ND	0.0177						0		30	
2-Chlorotoluene	ND	0.0221						0		30	
4-Chlorotoluene	ND	0.0221						0		30	
1,2,3-Trichloropropane	ND	0.0221						0		30	
1,2,4-Trichlorobenzene	ND	0.0221						0		30	
1,3-Dichlorobenzene	ND	0.0177						0		30	*
1,4-Dichlorobenzene	ND	0.0177						0		30	*
1,2-Dichlorobenzene	ND	0.0177						0		30	*
1,2-Dibromo-3-chloropropane	ND	0.441						0		30	
Hexachloro-1,3-butadiene	ND	0.0441						0		30	
1,2,3-Trichlorobenzene	ND	0.0177						0		30	
Surr: Dibromofluoromethane	1.15		1.104		104	80	116		0		
Surr: Toluene-d8	1.12		1.104		101	84.8	113		0		
Surr: 1-Bromo-4-fluorobenzene	1.09		1.104		98.6	82.8	113		0		

NOTES:
* - Flagged value is not within established control limits.

Date: *5/20/2020*

Work Order: 2005069
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2005214-028BMS** SampType: **MS** Units: **mg/Kg** Prep Date: **5/19/2020** RunNo: **59275**
Client ID: **BATCH** Batch ID: **28369** Analysis Date: **5/20/2020** SeqNo: **1184673**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	0.841	0.0186	0.9294	0	90.4	-0.64	180				
Chloromethane	0.882	0.0465	0.9294	0	94.9	33.2	162				
Vinyl chloride	0.884	0.0232	0.9294	0	95.1	47.2	146				
Bromomethane	0.949	0.0465	0.9294	0	102	18.7	226				
Trichlorofluoromethane (CFC-11)	0.847	0.0186	0.9294	0	91.1	48.9	158				
Chloroethane	0.968	0.0465	0.9294	0	104	20.8	195				
1,1-Dichloroethene	0.883	0.0186	0.9294	0	95.0	67.1	135				
Methylene chloride	0.933	0.0186	0.9294	0	100	64.9	137				
trans-1,2-Dichloroethene	0.907	0.0186	0.9294	0	97.5	75.1	126				
1,1-Dichloroethane	0.938	0.0186	0.9294	0	101	68.4	132				
cis-1,2-Dichloroethene	0.989	0.0186	0.9294	0.04170	102	76.2	125				
Chloroform	0.932	0.0186	0.9294	0	100	74.5	127				
1,1,1-Trichloroethane (TCA)	0.898	0.0232	0.9294	0	96.6	74.5	126				
1,1-Dichloropropene	0.885	0.0186	0.9294	0	95.3	70.7	128				
Carbon tetrachloride	0.883	0.0465	0.9294	0	95.0	72.5	126				
1,2-Dichloroethane (EDC)	0.961	0.0186	0.9294	0	103	70.4	128				
Trichloroethene (TCE)	0.910	0.0186	0.9294	0	97.9	64.7	145				
1,2-Dichloropropane	0.940	0.0186	0.9294	0	101	69.3	129				
Bromodichloromethane	0.934	0.0186	0.9294	0	100	75.9	120				
Dibromomethane	0.970	0.0186	0.9294	0	104	78.5	123				
cis-1,3-Dichloropropene	0.878	0.0186	0.9294	0	94.5	67.3	122				
trans-1,3-Dichloropropylene	0.869	0.0186	0.9294	0	93.5	64.4	124				
1,1,2-Trichloroethane	0.927	0.0186	0.9294	0	99.7	72.4	129				
1,3-Dichloropropane	0.945	0.0232	0.9294	0	102	70.5	128				
Tetrachloroethene (PCE)	0.870	0.0232	0.9294	0	93.6	64.9	140				
Dibromochloromethane	0.946	0.0232	0.9294	0	102	71.8	125				
1,2-Dibromoethane (EDB)	0.941	0.00465	0.9294	0	101	73.8	126				
Chlorobenzene	0.902	0.0232	0.9294	0	97.1	85.1	118				
1,1,1,2-Tetrachloroethane	0.885	0.0232	0.9294	0	95.2	82.2	118				

Work Order: 2005069
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2005214-028BMS** SampType: **MS** Units: **mg/Kg** Prep Date: **5/19/2020** RunNo: **59275**
Client ID: **BATCH** Batch ID: **28369** Analysis Date: **5/20/2020** SeqNo: **1184673**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromoform	0.881	0.0465	0.9294	0	94.8	66.1	130				
1,1,2,2-Tetrachloroethane	0.933	0.0186	0.9294	0	100	41.2	150				
Bromobenzene	0.904	0.0186	0.9294	0	97.3	84.6	121				
2-Chlorotoluene	0.886	0.0232	0.9294	0	95.3	78.4	128				
4-Chlorotoluene	0.901	0.0232	0.9294	0	97.0	81.2	123				
1,2,3-Trichloropropane	0.975	0.0232	0.9294	0	105	66.4	132				
1,2,4-Trichlorobenzene	0.886	0.0232	0.9294	0	95.3	68.9	139				
1,3-Dichlorobenzene	0.834	0.0186	0.9294	0	89.8	87.8	120				
1,4-Dichlorobenzene	0.828	0.0186	0.9294	0	89.1	88.1	119				
1,2-Dichlorobenzene	0.851	0.0186	0.9294	0	91.6	88.1	120				
1,2-Dibromo-3-chloropropane	0.877	0.465	0.9294	0	94.3	56.6	144				
Hexachloro-1,3-butadiene	0.885	0.0465	0.9294	0	95.2	64.8	148				
1,2,3-Trichlorobenzene	0.889	0.0186	0.9294	0	95.7	59.3	150				
Surr: Dibromofluoromethane	1.27		1.162		109	80	116				
Surr: Toluene-d8	1.19		1.162		102	84.8	113				
Surr: 1-Bromo-4-fluorobenzene	1.20		1.162		103	82.8	113				

Sample ID: **2005214-028BMSD** SampType: **MSD** Units: **mg/Kg** Prep Date: **5/19/2020** RunNo: **59275**
Client ID: **BATCH** Batch ID: **28369** Analysis Date: **5/20/2020** SeqNo: **1184674**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	0.853	0.0186	0.9294	0	91.8	-0.64	180	0.8406	1.50	30	
Chloromethane	0.920	0.0465	0.9294	0	98.9	33.2	162	0.8824	4.12	30	
Vinyl chloride	0.890	0.0232	0.9294	0	95.8	47.2	146	0.8842	0.660	30	
Bromomethane	0.899	0.0465	0.9294	0	96.8	18.7	226	0.9493	5.39	30	
Trichlorofluoromethane (CFC-11)	0.849	0.0186	0.9294	0	91.3	48.9	158	0.8470	0.203	30	
Chloroethane	1.01	0.0465	0.9294	0	109	20.8	195	0.9683	4.22	30	
1,1-Dichloroethene	0.883	0.0186	0.9294	0	95.0	67.1	135	0.8826	0.0751	30	
Methylene chloride	0.972	0.0186	0.9294	0	105	64.9	137	0.9329	4.13	30	

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Date: *5/20/2020*

Work Order: 2005069
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2005214-028BMSD** SampType: **MSD** Units: **mg/Kg** Prep Date: **5/19/2020** RunNo: **59275**
Client ID: **BATCH** Batch ID: **28369** Analysis Date: **5/20/2020** SeqNo: **1184674**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
trans-1,2-Dichloroethene	0.902	0.0186	0.9294	0	97.0	75.1	126	0.9066	0.534	30	
1,1-Dichloroethane	0.942	0.0186	0.9294	0	101	68.4	132	0.9375	0.507	30	
cis-1,2-Dichloroethene	0.969	0.0186	0.9294	0.04170	99.7	76.2	125	0.9893	2.12	30	
Chloroform	0.939	0.0186	0.9294	0	101	74.5	127	0.9322	0.684	30	
1,1,1-Trichloroethane (TCA)	0.899	0.0232	0.9294	0	96.7	74.5	126	0.8982	0.0881	30	
1,1-Dichloropropene	0.863	0.0186	0.9294	0	92.8	70.7	128	0.8854	2.61	30	
Carbon tetrachloride	0.887	0.0465	0.9294	0	95.4	72.5	126	0.8828	0.484	30	
1,2-Dichloroethane (EDC)	0.950	0.0186	0.9294	0	102	70.4	128	0.9614	1.19	30	
Trichloroethene (TCE)	0.902	0.0186	0.9294	0	97.0	64.7	145	0.9100	0.912	30	
1,2-Dichloropropane	0.925	0.0186	0.9294	0	99.5	69.3	129	0.9402	1.65	30	
Bromodichloromethane	0.950	0.0186	0.9294	0	102	75.9	120	0.9338	1.77	30	
Dibromomethane	0.967	0.0186	0.9294	0	104	78.5	123	0.9705	0.399	30	
cis-1,3-Dichloropropene	0.867	0.0186	0.9294	0	93.2	67.3	122	0.8781	1.31	30	
trans-1,3-Dichloropropylene	0.868	0.0186	0.9294	0	93.4	64.4	124	0.8688	0.0743	30	
1,1,2-Trichloroethane	0.933	0.0186	0.9294	0	100	72.4	129	0.9267	0.676	30	
1,3-Dichloropropane	0.934	0.0232	0.9294	0	101	70.5	128	0.9447	1.10	30	
Tetrachloroethene (PCE)	0.860	0.0232	0.9294	0	92.5	64.9	140	0.8700	1.16	30	
Dibromochloromethane	0.945	0.0232	0.9294	0	102	71.8	125	0.9462	0.142	30	
1,2-Dibromoethane (EDB)	0.940	0.00465	0.9294	0	101	73.8	126	0.9408	0.0314	30	
Chlorobenzene	0.907	0.0232	0.9294	0	97.6	85.1	118	0.9023	0.500	30	
1,1,1,2-Tetrachloroethane	0.906	0.0232	0.9294	0	97.5	82.2	118	0.8848	2.35	30	
Bromoform	0.905	0.0465	0.9294	0	97.4	66.1	130	0.8811	2.73	30	
1,1,2,2-Tetrachloroethane	0.958	0.0186	0.9294	0	103	41.2	150	0.9329	2.61	30	
Bromobenzene	0.938	0.0186	0.9294	0	101	84.6	121	0.9040	3.74	30	
2-Chlorotoluene	0.915	0.0232	0.9294	0	98.4	78.4	128	0.8860	3.22	30	
4-Chlorotoluene	0.925	0.0232	0.9294	0	99.5	81.2	123	0.9012	2.61	30	
1,2,3-Trichloropropane	0.951	0.0232	0.9294	0	102	66.4	132	0.9747	2.50	30	
1,2,4-Trichlorobenzene	0.892	0.0232	0.9294	0	96.0	68.9	139	0.8861	0.653	30	
1,3-Dichlorobenzene	0.843	0.0186	0.9294	0	90.7	87.8	120	0.8343	1.06	30	

Date: *5/20/2020*

Work Order: 2005069
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2005214-028BMSD** SampType: **MSD** Units: **mg/Kg** Prep Date: **5/19/2020** RunNo: **59275**
Client ID: **BATCH** Batch ID: **28369** Analysis Date: **5/20/2020** SeqNo: **1184674**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,4-Dichlorobenzene	0.830	0.0186	0.9294	0	89.3	88.1	119	0.8283	0.177	30	
1,2-Dichlorobenzene	0.862	0.0186	0.9294	0	92.8	88.1	120	0.8511	1.32	30	
1,2-Dibromo-3-chloropropane	0.969	0.465	0.9294	0	104	56.6	144	0.8765	10.0	30	
Hexachloro-1,3-butadiene	0.885	0.0465	0.9294	0	95.2	64.8	148	0.8845	0.0647	30	
1,2,3-Trichlorobenzene	0.902	0.0186	0.9294	0	97.1	59.3	150	0.8893	1.43	30	
Surr: Dibromofluoromethane	1.28		1.162		110	80	116		0		
Surr: Toluene-d8	1.17		1.162		101	84.8	113		0		
Surr: 1-Bromo-4-fluorobenzene	1.22		1.162		105	82.8	113		0		

Fremont Analytical

Date: *5/20/2020*

Work Order: 2005069
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **LCS-28293** SampType: **LCS** Units: **mg/Kg** Prep Date: **5/11/2020** RunNo: **59119**
Client ID: **LCSS** Batch ID: **28293** Analysis Date: **5/11/2020** SeqNo: **1181211**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	1.42	0.0200	1.000	0	142	21.6	169				
Chloromethane	1.18	0.0500	1.000	0	118	45.3	153				
Vinyl chloride	1.10	0.0250	1.000	0	110	57.5	137				
Bromomethane	1.28	0.0500	1.000	0	128	32.8	194				
Trichlorofluoromethane (CFC-11)	1.05	0.0200	1.000	0	105	54.3	152				
Chloroethane	1.03	0.0500	1.000	0	103	52	146				
1,1-Dichloroethene	1.02	0.0200	1.000	0	102	62.8	139				
Methylene chloride	0.947	0.0200	1.000	0	94.7	78.4	118				
trans-1,2-Dichloroethene	0.963	0.0200	1.000	0	96.3	82	117				
1,1-Dichloroethane	0.957	0.0200	1.000	0	95.7	78	119				
cis-1,2-Dichloroethene	0.957	0.0200	1.000	0	95.7	81.9	116				
Chloroform	0.964	0.0200	1.000	0	96.4	80.8	117				
1,1,1-Trichloroethane (TCA)	0.980	0.0250	1.000	0	98.0	81.4	117				
1,1-Dichloropropene	0.977	0.0200	1.000	0	97.7	79.9	117				
Carbon tetrachloride	1.01	0.0500	1.000	0	101	80.4	117				
1,2-Dichloroethane (EDC)	1.00	0.0200	1.000	0	100	77.5	117				
Trichloroethene (TCE)	0.994	0.0200	1.000	0	99.4	83.4	115				
1,2-Dichloropropane	0.969	0.0200	1.000	0	96.9	77.6	117				
Bromodichloromethane	0.980	0.0200	1.000	0	98.0	78.9	116				
Dibromomethane	0.990	0.0200	1.000	0	99.0	81.2	115				
cis-1,3-Dichloropropene	1.00	0.0200	1.000	0	100	78	115				
trans-1,3-Dichloropropylene	1.01	0.0200	1.000	0	101	75.7	117				
1,1,2-Trichloroethane	1.01	0.0200	1.000	0	101	77.9	118				
1,3-Dichloropropane	1.01	0.0250	1.000	0	101	77.1	118				
Tetrachloroethene (PCE)	0.994	0.0250	1.000	0	99.4	84.3	117				
Dibromochloromethane	1.03	0.0250	1.000	0	103	77.9	118				
1,2-Dibromoethane (EDB)	1.03	0.00500	1.000	0	103	78.6	117				
Chlorobenzene	0.980	0.0250	1.000	0	98.0	86.5	113				
1,1,1,2-Tetrachloroethane	1.01	0.0250	1.000	0	101	84.8	113				

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Date: *5/20/2020*

Work Order: 2005069
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **LCS-28293** SampType: **LCS** Units: **mg/Kg** Prep Date: **5/11/2020** RunNo: **59119**
Client ID: **LCSS** Batch ID: **28293** Analysis Date: **5/11/2020** SeqNo: **1181211**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromoform	1.06	0.0500	1.000	0	106	70.7	125				
1,1,2,2-Tetrachloroethane	1.01	0.0200	1.000	0	101	68.3	125				
Bromobenzene	0.992	0.0200	1.000	0	99.2	84	117				
2-Chlorotoluene	0.975	0.0250	1.000	0	97.5	80.4	122				
4-Chlorotoluene	0.970	0.0250	1.000	0	97.0	83.1	118				
1,2,3-Trichloropropane	1.08	0.0250	1.000	0	108	71	125				
1,2,4-Trichlorobenzene	1.05	0.0250	1.000	0	105	81	126				
1,3-Dichlorobenzene	0.997	0.0200	1.000	0	99.7	90.4	115				
1,4-Dichlorobenzene	0.997	0.0200	1.000	0	99.7	90.3	115				
1,2-Dichlorobenzene	1.01	0.0200	1.000	0	101	90.3	115				
1,2-Dibromo-3-chloropropane	1.11	0.500	1.000	0	111	62.3	136				
Hexachloro-1,3-butadiene	0.980	0.0500	1.000	0	98.0	77.8	133				
1,2,3-Trichlorobenzene	1.10	0.0200	1.000	0	110	75.9	130				
Surr: Dibromofluoromethane	1.26		1.250		101	80	116				
Surr: Toluene-d8	1.24		1.250		99.0	84.8	113				
Surr: 1-Bromo-4-fluorobenzene	1.32		1.250		106	82.8	113				

Sample ID: **MB-28293** SampType: **MBLK** Units: **mg/Kg** Prep Date: **5/11/2020** RunNo: **59119**
Client ID: **MBLKS** Batch ID: **28293** Analysis Date: **5/11/2020** SeqNo: **1181212**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	0.0200									
Chloromethane	ND	0.0500									
Vinyl chloride	ND	0.0250									
Bromomethane	ND	0.0500									
Trichlorofluoromethane (CFC-11)	ND	0.0200									
Chloroethane	ND	0.0500									
1,1-Dichloroethene	ND	0.0200									
Methylene chloride	ND	0.0200									

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Work Order: 2005069
CLIENT: O'Neill Service Group
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QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **MB-28293** SampType: **MBLK** Units: **mg/Kg** Prep Date: **5/11/2020** RunNo: **59119**
Client ID: **MBLKS** Batch ID: **28293** Analysis Date: **5/11/2020** SeqNo: **1181212**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
trans-1,2-Dichloroethene	ND	0.0200									
1,1-Dichloroethane	ND	0.0200									
cis-1,2-Dichloroethene	ND	0.0200									
Chloroform	ND	0.0200									
1,1,1-Trichloroethane (TCA)	ND	0.0250									
1,1-Dichloropropene	ND	0.0200									
Carbon tetrachloride	ND	0.0500									
1,2-Dichloroethane (EDC)	ND	0.0200									
Trichloroethene (TCE)	ND	0.0200									
1,2-Dichloropropane	ND	0.0200									
Bromodichloromethane	ND	0.0200									
Dibromomethane	ND	0.0200									
cis-1,3-Dichloropropene	ND	0.0200									
trans-1,3-Dichloropropylene	ND	0.0200									
1,1,2-Trichloroethane	ND	0.0200									
1,3-Dichloropropane	ND	0.0250									
Tetrachloroethene (PCE)	ND	0.0250									
Dibromochloromethane	ND	0.0250									
1,2-Dibromoethane (EDB)	ND	0.00500									
Chlorobenzene	ND	0.0250									
1,1,1,2-Tetrachloroethane	ND	0.0250									
Bromoform	ND	0.0500									
1,1,2,2-Tetrachloroethane	ND	0.0200									
Bromobenzene	ND	0.0200									
2-Chlorotoluene	ND	0.0250									
4-Chlorotoluene	ND	0.0250									
1,2,3-Trichloropropane	ND	0.0250									
1,2,4-Trichlorobenzene	ND	0.0250									
1,3-Dichlorobenzene	ND	0.0200									

Work Order: 2005069
CLIENT: O'Neill Service Group
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QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **MB-28293** SampType: **MBLK** Units: **mg/Kg** Prep Date: **5/11/2020** RunNo: **59119**
Client ID: **MBLKS** Batch ID: **28293** Analysis Date: **5/11/2020** SeqNo: **1181212**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,4-Dichlorobenzene	ND	0.0200									
1,2-Dichlorobenzene	ND	0.0200									
1,2-Dibromo-3-chloropropane	ND	0.500									
Hexachloro-1,3-butadiene	ND	0.0500									
1,2,3-Trichlorobenzene	ND	0.0200									
Surr: Dibromofluoromethane	1.15		1.250		92.4	80	116				
Surr: Toluene-d8	1.23		1.250		98.5	84.8	113				
Surr: 1-Bromo-4-fluorobenzene	1.20		1.250		96.0	82.8	113				

Sample ID: **2005069-009BDUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **5/11/2020** RunNo: **59119**
Client ID: **358-B2-12.5** Batch ID: **28293** Analysis Date: **5/11/2020** SeqNo: **1181199**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	0.0253						0		30	
Chloromethane	ND	0.0633						0		30	
Vinyl chloride	ND	0.0317						0		30	
Bromomethane	ND	0.0633						0		30	
Trichlorofluoromethane (CFC-11)	ND	0.0253						0		30	
Chloroethane	ND	0.0633						0		30	
1,1-Dichloroethene	ND	0.0253						0		30	
Methylene chloride	ND	0.0253						0		30	
trans-1,2-Dichloroethene	ND	0.0253						0		30	
1,1-Dichloroethane	ND	0.0253						0		30	
cis-1,2-Dichloroethene	ND	0.0253						0		30	
Chloroform	ND	0.0253						0		30	
1,1,1-Trichloroethane (TCA)	ND	0.0317						0		30	
1,1-Dichloropropene	ND	0.0253						0		30	
Carbon tetrachloride	ND	0.0633						0		30	
1,2-Dichloroethane (EDC)	ND	0.0253						0		30	

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QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2005069-009BDUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **5/11/2020** RunNo: **59119**
Client ID: **358-B2-12.5** Batch ID: **28293** Analysis Date: **5/11/2020** SeqNo: **1181199**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Trichloroethene (TCE)	ND	0.0253						0		30	
1,2-Dichloropropane	ND	0.0253						0		30	
Bromodichloromethane	ND	0.0253						0		30	
Dibromomethane	ND	0.0253						0		30	
cis-1,3-Dichloropropene	ND	0.0253						0		30	
trans-1,3-Dichloropropylene	ND	0.0253						0		30	
1,1,2-Trichloroethane	ND	0.0253						0		30	
1,3-Dichloropropane	ND	0.0317						0		30	
Tetrachloroethene (PCE)	ND	0.0317						0		30	
Dibromochloromethane	ND	0.0317						0		30	
1,2-Dibromoethane (EDB)	ND	0.00633						0		30	
Chlorobenzene	ND	0.0317						0		30	
1,1,1,2-Tetrachloroethane	ND	0.0317						0		30	
Bromoform	ND	0.0633						0		30	
1,1,2,2-Tetrachloroethane	ND	0.0253						0		30	
Bromobenzene	ND	0.0253						0		30	
2-Chlorotoluene	ND	0.0317						0		30	
4-Chlorotoluene	ND	0.0317						0		30	
1,2,3-Trichloropropane	ND	0.0317						0		30	
1,2,4-Trichlorobenzene	ND	0.0317						0		30	
1,3-Dichlorobenzene	ND	0.0253						0		30	
1,4-Dichlorobenzene	ND	0.0253						0		30	
1,2-Dichlorobenzene	ND	0.0253						0		30	
1,2-Dibromo-3-chloropropane	ND	0.633						0		30	
Hexachloro-1,3-butadiene	ND	0.0633						0		30	
1,2,3-Trichlorobenzene	ND	0.0253						0		30	
Surr: Dibromofluoromethane	1.55		1.583		97.9	80	116		0		
Surr: Toluene-d8	1.58		1.583		99.7	84.8	113		0		
Surr: 1-Bromo-4-fluorobenzene	1.54		1.583		97.1	82.8	113		0		

Work Order: 2005069
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2005069-009BDUP**	SampType: **DUP**	Units: **mg/Kg-dry**	Prep Date: **5/11/2020**	RunNo: **59119**
Client ID: **358-B2-12.5**	Batch ID: **28293**		Analysis Date: **5/11/2020**	SeqNo: **1181199**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sample ID: **2005077-001BDUP**	SampType: **DUP**	Units: **mg/Kg-dry**	Prep Date: **5/11/2020**	RunNo: **59119**
Client ID: **BATCH**	Batch ID: **28293**		Analysis Date: **5/12/2020**	SeqNo: **1181207**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	0.0336						0		30	
Chloromethane	ND	0.0840						0		30	
Vinyl chloride	ND	0.0420						0		30	
Bromomethane	ND	0.0840						0		30	
Trichlorofluoromethane (CFC-11)	ND	0.0336						0		30	
Chloroethane	ND	0.0840						0		30	
1,1-Dichloroethene	ND	0.0336						0		30	
Methylene chloride	ND	0.0336						0		30	
trans-1,2-Dichloroethene	ND	0.0336						0		30	
1,1-Dichloroethane	ND	0.0336						0		30	
cis-1,2-Dichloroethene	ND	0.0336						0		30	
Chloroform	ND	0.0336						0		30	
1,1,1-Trichloroethane (TCA)	ND	0.0420						0		30	
1,1-Dichloropropene	ND	0.0336						0		30	
Carbon tetrachloride	ND	0.0840						0		30	
1,2-Dichloroethane (EDC)	ND	0.0336						0		30	
Trichloroethene (TCE)	ND	0.0336						0		30	
1,2-Dichloropropane	ND	0.0336						0		30	
Bromodichloromethane	ND	0.0336						0		30	
Dibromomethane	ND	0.0336						0		30	
cis-1,3-Dichloropropene	ND	0.0336						0		30	
trans-1,3-Dichloropropylene	ND	0.0336						0		30	
1,1,2-Trichloroethane	ND	0.0336						0		30	
1,3-Dichloropropane	ND	0.0420						0		30	

Work Order: 2005069
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2005077-001BDUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **5/11/2020** RunNo: **59119**
Client ID: **BATCH** Batch ID: **28293** Analysis Date: **5/12/2020** SeqNo: **1181207**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tetrachloroethene (PCE)	ND	0.0420						0		30	
Dibromochloromethane	ND	0.0420						0		30	
1,2-Dibromoethane (EDB)	ND	0.00840						0		30	
Chlorobenzene	ND	0.0420						0		30	
1,1,1,2-Tetrachloroethane	ND	0.0420						0		30	
Bromoform	ND	0.0840						0		30	
1,1,2,2-Tetrachloroethane	ND	0.0336						0		30	
Bromobenzene	ND	0.0336						0		30	
2-Chlorotoluene	ND	0.0420						0		30	
4-Chlorotoluene	ND	0.0420						0		30	
1,2,3-Trichloropropane	ND	0.0420						0		30	
1,2,4-Trichlorobenzene	ND	0.0420						0		30	
1,3-Dichlorobenzene	ND	0.0336						0		30	
1,4-Dichlorobenzene	ND	0.0336						0		30	
1,2-Dichlorobenzene	ND	0.0336						0		30	
1,2-Dibromo-3-chloropropane	ND	0.840						0		30	
Hexachloro-1,3-butadiene	ND	0.0840						0		30	
1,2,3-Trichlorobenzene	ND	0.0336						0		30	
Surr: Dibromofluoromethane	1.97		2.101		93.8	80	116		0		
Surr: Toluene-d8	2.09		2.101		99.5	84.8	113		0		
Surr: 1-Bromo-4-fluorobenzene	2.03		2.101		96.4	82.8	113		0		

Sample ID: **2005069-018BMS** SampType: **MS** Units: **mg/Kg-dry** Prep Date: **5/11/2020** RunNo: **59119**
Client ID: **358-B3-20** Batch ID: **28293** Analysis Date: **5/12/2020** SeqNo: **1181203**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	1.11	0.0189	0.9439	0	117	-0.64	180				
Chloromethane	1.11	0.0472	0.9439	0	117	33.2	162				
Vinyl chloride	1.02	0.0236	0.9439	0	108	47.2	146				

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Work Order: 2005069
CLIENT: O'Neill Service Group
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QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2005069-018BMS** SampType: **MS** Units: **mg/Kg-dry** Prep Date: **5/11/2020** RunNo: **59119**
Client ID: **358-B3-20** Batch ID: **28293** Analysis Date: **5/12/2020** SeqNo: **1181203**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromomethane	1.52	0.0472	0.9439	0	162	18.7	226				
Trichlorofluoromethane (CFC-11)	0.964	0.0189	0.9439	0	102	48.9	158				
Chloroethane	1.10	0.0472	0.9439	0	116	20.8	195				
1,1-Dichloroethene	0.993	0.0189	0.9439	0	105	67.1	135				
Methylene chloride	1.02	0.0189	0.9439	0	108	64.9	137				
trans-1,2-Dichloroethene	1.00	0.0189	0.9439	0	106	75.1	126				
1,1-Dichloroethane	0.992	0.0189	0.9439	0	105	68.4	132				
cis-1,2-Dichloroethene	1.01	0.0189	0.9439	0	107	76.2	125				
Chloroform	1.01	0.0189	0.9439	0	107	74.5	127				
1,1,1-Trichloroethane (TCA)	0.962	0.0236	0.9439	0	102	74.5	126				
1,1-Dichloropropene	0.966	0.0189	0.9439	0	102	70.7	128				
Carbon tetrachloride	0.950	0.0472	0.9439	0	101	72.5	126				
1,2-Dichloroethane (EDC)	1.05	0.0189	0.9439	0	111	70.4	128				
Trichloroethene (TCE)	1.00	0.0189	0.9439	0	106	64.7	145				
1,2-Dichloropropane	0.990	0.0189	0.9439	0	105	69.3	129				
Bromodichloromethane	0.994	0.0189	0.9439	0	105	75.9	120				
Dibromomethane	1.02	0.0189	0.9439	0	108	78.5	123				
cis-1,3-Dichloropropene	0.950	0.0189	0.9439	0	101	67.3	122				
trans-1,3-Dichloropropylene	0.943	0.0189	0.9439	0	99.9	64.4	124				
1,1,2-Trichloroethane	1.02	0.0189	0.9439	0	108	72.4	129				
1,3-Dichloropropane	1.01	0.0236	0.9439	0	107	70.5	128				
Tetrachloroethene (PCE)	0.996	0.0236	0.9439	0.03845	101	64.9	140				
Dibromochloromethane	0.949	0.0236	0.9439	0	101	71.8	125				
1,2-Dibromoethane (EDB)	1.01	0.00472	0.9439	0	107	73.8	126				
Chlorobenzene	0.989	0.0236	0.9439	0	105	85.1	118				
1,1,1,2-Tetrachloroethane	1.00	0.0236	0.9439	0	106	82.2	118				
Bromoform	0.970	0.0472	0.9439	0	103	66.1	130				
1,1,2,2-Tetrachloroethane	0.961	0.0189	0.9439	0	102	41.2	150				
Bromobenzene	0.989	0.0189	0.9439	0	105	84.6	121				

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QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2005069-018BMS** SampType: **MS** Units: **mg/Kg-dry** Prep Date: **5/11/2020** RunNo: **59119**
Client ID: **358-B3-20** Batch ID: **28293** Analysis Date: **5/12/2020** SeqNo: **1181203**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2-Chlorotoluene	0.992	0.0236	0.9439	0	105	78.4	128				
4-Chlorotoluene	0.992	0.0236	0.9439	0	105	81.2	123				
1,2,3-Trichloropropane	0.987	0.0236	0.9439	0	105	66.4	132				
1,2,4-Trichlorobenzene	0.985	0.0236	0.9439	0	104	68.9	139				
1,3-Dichlorobenzene	0.999	0.0189	0.9439	0	106	87.8	120				
1,4-Dichlorobenzene	0.990	0.0189	0.9439	0	105	88.1	119				
1,2-Dichlorobenzene	1.01	0.0189	0.9439	0	107	88.1	120				
1,2-Dibromo-3-chloropropane	1.01	0.472	0.9439	0	107	56.6	144				
Hexachloro-1,3-butadiene	0.887	0.0472	0.9439	0	94.0	64.8	148				
1,2,3-Trichlorobenzene	1.02	0.0189	0.9439	0	108	59.3	150				
Surr: Dibromofluoromethane	1.22		1.180		103	80	116				
Surr: Toluene-d8	1.18		1.180		99.7	84.8	113				
Surr: 1-Bromo-4-fluorobenzene	1.22		1.180		103	82.8	113				

Sample ID: **2005069-018BMSD** SampType: **MSD** Units: **mg/Kg-dry** Prep Date: **5/11/2020** RunNo: **59119**
Client ID: **358-B3-20** Batch ID: **28293** Analysis Date: **5/12/2020** SeqNo: **1181204**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	1.03	0.0189	0.9439	0	109	-0.64	180	1.109	7.85	30	
Chloromethane	1.09	0.0472	0.9439	0	115	33.2	162	1.106	1.88	30	
Vinyl chloride	0.967	0.0236	0.9439	0	102	47.2	146	1.017	5.09	30	
Bromomethane	1.36	0.0472	0.9439	0	145	18.7	226	1.525	11.1	30	
Trichlorofluoromethane (CFC-11)	0.905	0.0189	0.9439	0	95.8	48.9	158	0.9640	6.35	30	
Chloroethane	1.06	0.0472	0.9439	0	112	20.8	195	1.097	3.65	30	
1,1-Dichloroethene	0.924	0.0189	0.9439	0	97.9	67.1	135	0.9929	7.16	30	
Methylene chloride	0.986	0.0189	0.9439	0	104	64.9	137	1.017	3.12	30	
trans-1,2-Dichloroethene	0.953	0.0189	0.9439	0	101	75.1	126	1.002	5.02	30	
1,1-Dichloroethane	0.955	0.0189	0.9439	0	101	68.4	132	0.9920	3.78	30	
cis-1,2-Dichloroethene	0.962	0.0189	0.9439	0	102	76.2	125	1.009	4.75	30	

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Work Order: 2005069
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2005069-018BMSD** SampType: **MSD** Units: **mg/Kg-dry** Prep Date: **5/11/2020** RunNo: **59119**
Client ID: **358-B3-20** Batch ID: **28293** Analysis Date: **5/12/2020** SeqNo: **1181204**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloroform	0.975	0.0189	0.9439	0	103	74.5	127	1.006	3.16	30	
1,1,1-Trichloroethane (TCA)	0.916	0.0236	0.9439	0	97.1	74.5	126	0.9622	4.89	30	
1,1-Dichloropropene	0.912	0.0189	0.9439	0	96.6	70.7	128	0.9661	5.81	30	
Carbon tetrachloride	0.906	0.0472	0.9439	0	96.0	72.5	126	0.9497	4.70	30	
1,2-Dichloroethane (EDC)	0.995	0.0189	0.9439	0	105	70.4	128	1.046	4.99	30	
Trichloroethene (TCE)	0.954	0.0189	0.9439	0	101	64.7	145	1.002	4.90	30	
1,2-Dichloropropane	0.950	0.0189	0.9439	0	101	69.3	129	0.9898	4.12	30	
Bromodichloromethane	0.963	0.0189	0.9439	0	102	75.9	120	0.9942	3.23	30	
Dibromomethane	0.967	0.0189	0.9439	0	102	78.5	123	1.021	5.43	30	
cis-1,3-Dichloropropene	0.914	0.0189	0.9439	0	96.8	67.3	122	0.9499	3.85	30	
trans-1,3-Dichloropropylene	0.914	0.0189	0.9439	0	96.8	64.4	124	0.9431	3.15	30	
1,1,2-Trichloroethane	0.970	0.0189	0.9439	0	103	72.4	129	1.017	4.75	30	
1,3-Dichloropropane	0.965	0.0236	0.9439	0	102	70.5	128	1.010	4.52	30	
Tetrachloroethene (PCE)	0.948	0.0236	0.9439	0.03845	96.4	64.9	140	0.9957	4.88	30	
Dibromochloromethane	0.941	0.0236	0.9439	0	99.7	71.8	125	0.9492	0.895	30	
1,2-Dibromoethane (EDB)	0.964	0.00472	0.9439	0	102	73.8	126	1.008	4.41	30	
Chlorobenzene	0.954	0.0236	0.9439	0	101	85.1	118	0.9887	3.59	30	
1,1,1,2-Tetrachloroethane	0.965	0.0236	0.9439	0	102	82.2	118	1.001	3.69	30	
Bromoform	0.925	0.0472	0.9439	0	98.0	66.1	130	0.9697	4.69	30	
1,1,2,2-Tetrachloroethane	0.948	0.0189	0.9439	0	100	41.2	150	0.9606	1.33	30	
Bromobenzene	0.965	0.0189	0.9439	0	102	84.6	121	0.9887	2.40	30	
2-Chlorotoluene	0.963	0.0236	0.9439	0	102	78.4	128	0.9921	3.02	30	
4-Chlorotoluene	0.963	0.0236	0.9439	0	102	81.2	123	0.9921	2.97	30	
1,2,3-Trichloropropane	0.960	0.0236	0.9439	0	102	66.4	132	0.9866	2.74	30	
1,2,4-Trichlorobenzene	0.965	0.0236	0.9439	0	102	68.9	139	0.9852	2.04	30	
1,3-Dichlorobenzene	0.965	0.0189	0.9439	0	102	87.8	120	0.9991	3.51	30	
1,4-Dichlorobenzene	0.961	0.0189	0.9439	0	102	88.1	119	0.9899	2.96	30	
1,2-Dichlorobenzene	0.972	0.0189	0.9439	0	103	88.1	120	1.010	3.84	30	
1,2-Dibromo-3-chloropropane	1.01	0.472	0.9439	0	107	56.6	144	1.010	0.339	30	

Date: *5/20/2020*

Work Order: 2005069
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2005069-018BMSD** SampType: **MSD** Units: **mg/Kg-dry** Prep Date: **5/11/2020** RunNo: **59119**
Client ID: **358-B3-20** Batch ID: **28293** Analysis Date: **5/12/2020** SeqNo: **1181204**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexachloro-1,3-butadiene	0.877	0.0472	0.9439	0	92.9	64.8	148	0.8868	1.09	30	
1,2,3-Trichlorobenzene	0.994	0.0189	0.9439	0	105	59.3	150	1.023	2.90	30	
Surr: Dibromofluoromethane	1.23		1.180		105	80	116		0		
Surr: Toluene-d8	1.18		1.180		99.7	84.8	113		0		
Surr: 1-Bromo-4-fluorobenzene	1.21		1.180		103	82.8	113		0		

Sample Log-In Check List

Client Name:	**ONEILL**	Work Order Number:	**2005069**
Logged by:	**Clare Griggs**	Date Received:	**5/8/2020 8:15:00 AM**

Chain of Custody

1.	Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
2.	How was the sample delivered?	Client		

Log In

3.	Coolers are present?	Yes ☑	No ☐	NA ☐
4.	Shipping container/cooler in good condition?	Yes ☑	No ☐	
5.	Custody Seals present on shipping container/cooler? (Refer to comments for Custody Seals not intact)	Yes ☑	No ☐	Not Required ☐
6.	Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
7.	Were all items received at a temperature of >2°C to 6°C *	Yes ☑	No ☐	NA ☐
8.	Sample(s) in proper container(s)?	Yes ☑	No ☐	
9.	Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
10.	Are samples properly preserved?	Yes ☑	No ☐	
11.	Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
12.	Is there headspace in the VOA vials?	Yes ☐	No ☐	NA ☑
13.	Did all samples containers arrive in good condition(unbroken)?	Yes ☑	No ☐	
14.	Does paperwork match bottle labels?	Yes ☑	No ☐	
15.	Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
16.	Is it clear what analyses were requested?	Yes ☑	No ☐	
17.	Were all holding times able to be met?	Yes ☑	No ☐	

Special Handling (if applicable)

18.	Was client notified of all discrepancies with this order?	Yes ☐	No ☐	NA ☑

Person Notified: _____ Date: _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

19. Additional remarks:

Item Information

Item #	Temp ºC
Cooler	2.6
Sample	4.8
Temp BLank	4.6

* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C

Chain of Custody Record & Laboratory Services Agreement

Fremont Analytical
3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790
Fax: 206-352-7178

Date: 5/7/20 | Page: 1 of: 2 | Laboratory Project No (internal): 20080769

Project Name: F200

Project No: 2021

Collected by: Atkins

Location: F6358

Report To (PM): Atkins

PM Email:

Client: OSG

Address:

City, State, Zip:

Telephone:

Fax:

Special Remarks:

Sample Disposal: ☐ Return to client ☒ Disposal by lab (after 30 days)

	Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	VOCs (EPA 8260 / 624)	GX/BTEX	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DX)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T) | Dissolved (D)	Anions (IC)***	EDB (8011)					Comments
1	358-B1-2.5	5/7/20	9:25	S																		
2	-5		9:30																			
3	-7.5		1000																			
4	-10		1010		X																	
5	-15		1020																			
6	-20		1040		X																	
7	-25		1050																			
8	358-B2-5		1200																			
9	-12.5		1210		X																	
10	-15		1215																			

*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

**Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL *Individual:* Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti Tl U V Zn

***Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above and that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished	Date/Time	Received	Date/Time
x [signature]	5/7/20 1700	x [signature]	5/8/20 @ 0815
Relinquished	Date/Time	Received	Date/Time
x		x	

Turn-around Time:
- ☒ Standard
- ☐ 3 Day
- ☐ 2 Day
- ☐ Next Day
- Same Day ____ (specify)

Fremont Analytical
3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790
Fax: 206-352-7178

Chain of Custody Record & Laboratory Services Agreement

Date: 5/7/20 Page: 2 of:

Laboratory Project No (internal): 20050069

Project Name: F200

Project No: 2021

Collected by: Atkins

Location: FL358

Report To (PM): Atkins

PM Email:

Client: OSG

Address:

City, State, Zip:

Telephone:

Fax:

Special Remarks:

Sample Disposal: ☐ Return to client ☒ Disposal by lab (after 30 days)

	Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	HVOCs (EPA 8260 / 624)	GX/BTEX	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DX)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T) | Dissolved (D)	Anions (IC)***	EDB (8011)					Comments
1	358-B2-20	5/7/20	1220	S																		
2	-25		1230	S	X																	
3	358-B3-5		1425	S																		
4	-7.5		1430	S																		
5	-10		1435	S																		
6	-12.5		1440	S	X																	
7	-15		1445	S																		
8	-20		1500	S	X																	
9	TRIP Blank	5/6/20	—		X																	
10																						

*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

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x [signature]	5/7/20 1700	x [signature]	5/8/20 @ 0815
Relinquished	Date/Time	Received	Date/Time
x		x	

Turn-around Time:
- ☒ Standard
- ☐ 3 Day
- ☐ 2 Day
- ☐ Next Day
- Same Day ____ (specify)

Fremont Analytical
3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790
Fax: 206-352-7178

Chain of Custody Record & Laboratory Services Agreement

Date: 5/7/20 Page: 2 of:

Laboratory Project No (internal): 2005069

Project Name: F200

Project No: 2021

Collected by: Atkins

Location: FL358

Report To (PM): Atkins

PM Email:

Client: DSG

Address:

City, State, Zip:

Telephone:

Fax:

Special Remarks:

(X) Add per VA 5/19/20 NextDay
cg

Sample Disposal: ☐ Return to client ☒ Disposal by lab (after 30 days)

	Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	HVOCs (EPA 8260 / 624)	GX/BTEX	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DX)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T) / Dissolved (D)	Anions (IC)***	EDB (8011)	Comments
1	358-B2-20	5/7/20	1220	S														
2	-25		1230	S	X													
3	358-B3-5		1425	S														
4	-7.5		1430	S														
5	-10		1435	S	(X)													
6	-12.5		1440	S	X													
7	-15		1445	S	(X)													
8	-20		1500	S	X													
9	TRIP Blank	5/6/20	—		X													
10																		

*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

**Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL *Individual:* Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti Tl U V Zn

***Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above and that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished x [signature] Date/Time 5/7/20 1700

Received x [signature] Date/Time 5/8/20 @ 0815

Relinquished x Date/Time

Received x Date/Time

Turn-around Time:

☒ Standard

☐ 3 Day

☐ 2 Day

☐ Next Day

Same Day ____ (specify)

COC 1.2 - 2.22.17

www.fremontanalytical.com

3600 Fremont Ave. N.
Seattle, WA 98103
T: (206) 352-3790
F: (206) 352-7178
info@fremontanalytical.com

O'Neill Service Group
Vance Atkins
17619 NE 67th Court, Suite 100
Redmond, WA 98052

RE: F200
Work Order Number: 2005085

June 09, 2020

Attention Vance Atkins:

Fremont Analytical, Inc. received 21 sample(s) on 5/8/2020 for the analyses presented in the following report.

Sample Moisture (Percent Moisture)
Volatile Organic Compounds by EPA Method 8260D

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Brianna Barnes
Project Manager

Date: *06/09/2020*

CLIENT: O'Neill Service Group
Project: F200
Work Order: 2005085

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
2005085-001	358-B4-5	05/08/2020 8:20 AM	05/08/2020 4:27 PM
2005085-002	358-B4-10	05/08/2020 8:50 AM	05/08/2020 4:27 PM
2005085-003	358-B4-12.5	05/08/2020 8:55 AM	05/08/2020 4:27 PM
2005085-004	358-B4-15	05/08/2020 9:05 AM	05/08/2020 4:27 PM
2005085-005	358-B4-20	05/08/2020 9:10 AM	05/08/2020 4:27 PM
2005085-006	358-B4-25	05/08/2020 9:15 AM	05/08/2020 4:27 PM
2005085-007	358-B5-2.5	05/08/2020 10:35 AM	05/08/2020 4:27 PM
2005085-008	358-B5-5	05/08/2020 10:40 AM	05/08/2020 4:27 PM
2005085-009	358-B5-7.5	05/08/2020 10:45 AM	05/08/2020 4:27 PM
2005085-010	358-B5-10	05/08/2020 10:50 AM	05/08/2020 4:27 PM
2005085-011	358-B5-12.5	05/08/2020 10:55 AM	05/08/2020 4:27 PM
2005085-012	358-B5-15	05/08/2020 11:00 AM	05/08/2020 4:27 PM
2005085-013	358-B5-20	05/08/2020 11:10 AM	05/08/2020 4:27 PM
2005085-014	358-B5-25	05/08/2020 11:20 AM	05/08/2020 4:27 PM
2005085-015	358-B6-5	05/08/2020 1:05 PM	05/08/2020 4:27 PM
2005085-016	358-B6-7.5	05/08/2020 1:10 PM	05/08/2020 4:27 PM
2005085-017	358-B6-10	05/08/2020 1:20 PM	05/08/2020 4:27 PM
2005085-018	358-B6-12.5	05/08/2020 1:25 PM	05/08/2020 4:27 PM
2005085-019	358-B6-15	05/08/2020 1:35 PM	05/08/2020 4:27 PM
2005085-020	358-B6-20	05/08/2020 1:40 PM	05/08/2020 4:27 PM
2005085-021	358-B6-25	05/08/2020 1:45 PM	05/08/2020 4:27 PM

Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned

Case Narrative

WO#: **2005085**

Date: **6/9/2020**

CLIENT: O'Neill Service Group

Project: F200

I. SAMPLE RECEIPT:
Samples receipt information is recorded on the attached Sample Receipt Checklist.

II. GENERAL REPORTING COMMENTS:
Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

III. ANALYSES AND EXCEPTIONS:
Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

5/20/20: Revision 1 includes additional analysis requested by client.
6/9/2020: Revision 2 includes additional analysis requested by client.

Qualifiers:

* - Flagged value is not within established control limits
B - Analyte detected in the associated Method Blank
D - Dilution was required
E - Value above quantitation range
H - Holding times for preparation or analysis exceeded
I - Analyte with an internal standard that does not meet established acceptance criteria
J - Analyte detected below Reporting Limit
N - Tentatively Identified Compound (TIC)
Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF)
S - Spike recovery outside accepted recovery limits
ND - Not detected at the Reporting Limit
R - High relative percent difference observed

Acronyms:

%Rec - Percent Recovery
CCB - Continued Calibration Blank
CCV - Continued Calibration Verification
DF - Dilution Factor
HEM - Hexane Extractable Material
ICV - Initial Calibration Verification
LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
MB or MBLANK - Method Blank
MDL - Method Detection Limit
MS/MSD - Matrix Spike / Matrix Spike Duplicate
PDS - Post Digestion Spike
Ref Val - Reference Value
RL - Reporting Limit
RPD - Relative Percent Difference
SD - Serial Dilution
SGT - Silica Gel Treatment
SPK - Spike
Surr - Surrogate

Analytical Report

Work Order: **2005085**
Date Reported: **6/9/2020**

Client: O'Neill Service Group
Collection Date: 5/8/2020 9:05:00 AM
Project: F200
Lab ID: 2005085-004
Matrix: Soil
Client Sample ID: 358-B4-15

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28305 Analyst: KT

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0275		mg/Kg-dry	1	5/12/2020 12:02:41 PM
Chloromethane	ND	0.0688		mg/Kg-dry	1	5/12/2020 12:02:41 PM
Vinyl chloride	ND	0.0344		mg/Kg-dry	1	5/12/2020 12:02:41 PM
Bromomethane	ND	0.0688		mg/Kg-dry	1	5/12/2020 12:02:41 PM
Trichlorofluoromethane (CFC-11)	ND	0.0275		mg/Kg-dry	1	5/12/2020 12:02:41 PM
Chloroethane	ND	0.0688		mg/Kg-dry	1	5/12/2020 12:02:41 PM
1,1-Dichloroethene	ND	0.0275		mg/Kg-dry	1	5/12/2020 12:02:41 PM
Methylene chloride	ND	0.0275		mg/Kg-dry	1	5/12/2020 12:02:41 PM
trans-1,2-Dichloroethene	ND	0.0275		mg/Kg-dry	1	5/12/2020 12:02:41 PM
1,1-Dichloroethane	ND	0.0275		mg/Kg-dry	1	5/12/2020 12:02:41 PM
cis-1,2-Dichloroethene	ND	0.0275		mg/Kg-dry	1	5/12/2020 12:02:41 PM
Chloroform	ND	0.0275		mg/Kg-dry	1	5/12/2020 12:02:41 PM
1,1,1-Trichloroethane (TCA)	ND	0.0344		mg/Kg-dry	1	5/12/2020 12:02:41 PM
1,1-Dichloropropene	ND	0.0275		mg/Kg-dry	1	5/12/2020 12:02:41 PM
Carbon tetrachloride	ND	0.0344		mg/Kg-dry	1	5/12/2020 12:02:41 PM
1,2-Dichloroethane (EDC)	ND	0.0275		mg/Kg-dry	1	5/12/2020 12:02:41 PM
Trichloroethene (TCE)	ND	0.0275		mg/Kg-dry	1	5/12/2020 12:02:41 PM
1,2-Dichloropropane	ND	0.0275		mg/Kg-dry	1	5/12/2020 12:02:41 PM
Bromodichloromethane	ND	0.0275		mg/Kg-dry	1	5/12/2020 12:02:41 PM
Dibromomethane	ND	0.0275		mg/Kg-dry	1	5/12/2020 12:02:41 PM
cis-1,3-Dichloropropene	ND	0.0275		mg/Kg-dry	1	5/12/2020 12:02:41 PM
trans-1,3-Dichloropropylene	ND	0.0275		mg/Kg-dry	1	5/12/2020 12:02:41 PM
1,1,2-Trichloroethane	ND	0.0275		mg/Kg-dry	1	5/12/2020 12:02:41 PM
1,3-Dichloropropane	ND	0.0344		mg/Kg-dry	1	5/12/2020 12:02:41 PM
Tetrachloroethene (PCE)	ND	0.0344		mg/Kg-dry	1	5/12/2020 12:02:41 PM
Dibromochloromethane	ND	0.0344		mg/Kg-dry	1	5/12/2020 12:02:41 PM
1,2-Dibromoethane (EDB)	ND	0.00688		mg/Kg-dry	1	5/12/2020 12:02:41 PM
Chlorobenzene	ND	0.0344		mg/Kg-dry	1	5/12/2020 12:02:41 PM
1,1,1,2-Tetrachloroethane	ND	0.0344		mg/Kg-dry	1	5/12/2020 12:02:41 PM
Bromoform	ND	0.0688		mg/Kg-dry	1	5/12/2020 12:02:41 PM
1,1,2,2-Tetrachloroethane	ND	0.0275		mg/Kg-dry	1	5/12/2020 12:02:41 PM
Bromobenzene	ND	0.0275		mg/Kg-dry	1	5/12/2020 12:02:41 PM
2-Chlorotoluene	ND	0.0344		mg/Kg-dry	1	5/12/2020 12:02:41 PM
4-Chlorotoluene	ND	0.0344		mg/Kg-dry	1	5/12/2020 12:02:41 PM
1,2,3-Trichloropropane	ND	0.0344		mg/Kg-dry	1	5/12/2020 12:02:41 PM
1,2,4-Trichlorobenzene	ND	0.0344		mg/Kg-dry	1	5/12/2020 12:02:41 PM
1,3-Dichlorobenzene	ND	0.0275		mg/Kg-dry	1	5/12/2020 12:02:41 PM
1,4-Dichlorobenzene	ND	0.0275		mg/Kg-dry	1	5/12/2020 12:02:41 PM
1,2-Dichlorobenzene	ND	0.0275		mg/Kg-dry	1	5/12/2020 12:02:41 PM

Analytical Report

Work Order: **2005085**
Date Reported: **6/9/2020**

Client: O'Neill Service Group
Collection Date: 5/8/2020 9:05:00 AM
Project: F200
Lab ID: 2005085-004
Matrix: Soil
Client Sample ID: 358-B4-15

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28305		Analyst: KT
1,2-Dibromo-3-chloropropane	ND	0.688		mg/Kg-dry	1	5/12/2020 12:02:41 PM
Hexachloro-1,3-butadiene	ND	0.0688		mg/Kg-dry	1	5/12/2020 12:02:41 PM
1,2,3-Trichlorobenzene	ND	0.0275		mg/Kg-dry	1	5/12/2020 12:02:41 PM
Surr: Dibromofluoromethane	98.0	80 - 116		%Rec	1	5/12/2020 12:02:41 PM
Surr: Toluene-d8	101	84.8 - 113		%Rec	1	5/12/2020 12:02:41 PM
Surr: 1-Bromo-4-fluorobenzene	96.8	82.8 - 113		%Rec	1	5/12/2020 12:02:41 PM
Sample Moisture (Percent Moisture)				Batch ID: R59116		Analyst: MM
Percent Moisture	12.9	0.500		wt%	1	5/12/2020 9:40:39 AM

Analytical Report

Work Order: **2005085**
Date Reported: **6/9/2020**

Client: O'Neill Service Group
Collection Date: 5/8/2020 9:10:00 AM
Project: F200
Lab ID: 2005085-005
Matrix: Soil
Client Sample ID: 358-B4-20

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28305 Analyst: KT

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0235		mg/Kg-dry	1	5/12/2020 1:02:54 PM
Chloromethane	ND	0.0588		mg/Kg-dry	1	5/12/2020 1:02:54 PM
Vinyl chloride	ND	0.0294		mg/Kg-dry	1	5/12/2020 1:02:54 PM
Bromomethane	ND	0.0588		mg/Kg-dry	1	5/12/2020 1:02:54 PM
Trichlorofluoromethane (CFC-11)	ND	0.0235		mg/Kg-dry	1	5/12/2020 1:02:54 PM
Chloroethane	ND	0.0588		mg/Kg-dry	1	5/12/2020 1:02:54 PM
1,1-Dichloroethene	ND	0.0235		mg/Kg-dry	1	5/12/2020 1:02:54 PM
Methylene chloride	ND	0.0235		mg/Kg-dry	1	5/12/2020 1:02:54 PM
trans-1,2-Dichloroethene	ND	0.0235		mg/Kg-dry	1	5/12/2020 1:02:54 PM
1,1-Dichloroethane	ND	0.0235		mg/Kg-dry	1	5/12/2020 1:02:54 PM
cis-1,2-Dichloroethene	ND	0.0235		mg/Kg-dry	1	5/12/2020 1:02:54 PM
Chloroform	ND	0.0235		mg/Kg-dry	1	5/12/2020 1:02:54 PM
1,1,1-Trichloroethane (TCA)	ND	0.0294		mg/Kg-dry	1	5/12/2020 1:02:54 PM
1,1-Dichloropropene	ND	0.0235		mg/Kg-dry	1	5/12/2020 1:02:54 PM
Carbon tetrachloride	ND	0.0294		mg/Kg-dry	1	5/12/2020 1:02:54 PM
1,2-Dichloroethane (EDC)	ND	0.0235		mg/Kg-dry	1	5/12/2020 1:02:54 PM
Trichloroethene (TCE)	ND	0.0235		mg/Kg-dry	1	5/12/2020 1:02:54 PM
1,2-Dichloropropane	ND	0.0235		mg/Kg-dry	1	5/12/2020 1:02:54 PM
Bromodichloromethane	ND	0.0235		mg/Kg-dry	1	5/12/2020 1:02:54 PM
Dibromomethane	ND	0.0235		mg/Kg-dry	1	5/12/2020 1:02:54 PM
cis-1,3-Dichloropropene	ND	0.0235		mg/Kg-dry	1	5/12/2020 1:02:54 PM
trans-1,3-Dichloropropylene	ND	0.0235		mg/Kg-dry	1	5/12/2020 1:02:54 PM
1,1,2-Trichloroethane	ND	0.0235		mg/Kg-dry	1	5/12/2020 1:02:54 PM
1,3-Dichloropropane	ND	0.0294		mg/Kg-dry	1	5/12/2020 1:02:54 PM
Tetrachloroethene (PCE)	ND	0.0294		mg/Kg-dry	1	5/12/2020 1:02:54 PM
Dibromochloromethane	ND	0.0294		mg/Kg-dry	1	5/12/2020 1:02:54 PM
1,2-Dibromoethane (EDB)	ND	0.00588		mg/Kg-dry	1	5/12/2020 1:02:54 PM
Chlorobenzene	ND	0.0294		mg/Kg-dry	1	5/12/2020 1:02:54 PM
1,1,1,2-Tetrachloroethane	ND	0.0294		mg/Kg-dry	1	5/12/2020 1:02:54 PM
Bromoform	ND	0.0588		mg/Kg-dry	1	5/12/2020 1:02:54 PM
1,1,2,2-Tetrachloroethane	ND	0.0235		mg/Kg-dry	1	5/12/2020 1:02:54 PM
Bromobenzene	ND	0.0235		mg/Kg-dry	1	5/12/2020 1:02:54 PM
2-Chlorotoluene	ND	0.0294		mg/Kg-dry	1	5/12/2020 1:02:54 PM
4-Chlorotoluene	ND	0.0294		mg/Kg-dry	1	5/12/2020 1:02:54 PM
1,2,3-Trichloropropane	ND	0.0294		mg/Kg-dry	1	5/12/2020 1:02:54 PM
1,2,4-Trichlorobenzene	ND	0.0294		mg/Kg-dry	1	5/12/2020 1:02:54 PM
1,3-Dichlorobenzene	ND	0.0235		mg/Kg-dry	1	5/12/2020 1:02:54 PM
1,4-Dichlorobenzene	ND	0.0235		mg/Kg-dry	1	5/12/2020 1:02:54 PM
1,2-Dichlorobenzene	ND	0.0235		mg/Kg-dry	1	5/12/2020 1:02:54 PM

Analytical Report

Work Order: **2005085**
Date Reported: **6/9/2020**

Client: O'Neill Service Group
Collection Date: 5/8/2020 9:10:00 AM
Project: F200
Lab ID: 2005085-005
Matrix: Soil
Client Sample ID: 358-B4-20

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28305		Analyst: KT
1,2-Dibromo-3-chloropropane	ND	0.588		mg/Kg-dry	1	5/12/2020 1:02:54 PM
Hexachloro-1,3-butadiene	ND	0.0588		mg/Kg-dry	1	5/12/2020 1:02:54 PM
1,2,3-Trichlorobenzene	ND	0.0235		mg/Kg-dry	1	5/12/2020 1:02:54 PM
Surr: Dibromofluoromethane	101	80 - 116		%Rec	1	5/12/2020 1:02:54 PM
Surr: Toluene-d8	101	84.8 - 113		%Rec	1	5/12/2020 1:02:54 PM
Surr: 1-Bromo-4-fluorobenzene	97.8	82.8 - 113		%Rec	1	5/12/2020 1:02:54 PM
Sample Moisture (Percent Moisture)				Batch ID: R59116		Analyst: MM
Percent Moisture	16.3	0.500		wt%	1	5/12/2020 9:40:39 AM

Analytical Report

Work Order: **2005085**
Date Reported: **6/9/2020**

Client: O'Neill Service Group
Collection Date: 5/8/2020 10:35:00 AM
Project: F200
Lab ID: 2005085-007
Matrix: Soil
Client Sample ID: 358-B5-2.5

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28544 Analyst: KT

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0306	H	mg/Kg-dry	1	6/5/2020 8:58:09 PM
Chloromethane	ND	0.0765	QH	mg/Kg-dry	1	6/5/2020 8:58:09 PM
Vinyl chloride	ND	0.0382	H	mg/Kg-dry	1	6/5/2020 8:58:09 PM
Bromomethane	ND	0.0765	QH	mg/Kg-dry	1	6/5/2020 8:58:09 PM
Trichlorofluoromethane (CFC-11)	ND	0.0306	H	mg/Kg-dry	1	6/5/2020 8:58:09 PM
Chloroethane	ND	0.0765	QH	mg/Kg-dry	1	6/5/2020 8:58:09 PM
1,1-Dichloroethene	ND	0.0306	H	mg/Kg-dry	1	6/5/2020 8:58:09 PM
Methylene chloride	ND	0.0306	H	mg/Kg-dry	1	6/5/2020 8:58:09 PM
trans-1,2-Dichloroethene	ND	0.0306	H	mg/Kg-dry	1	6/5/2020 8:58:09 PM
1,1-Dichloroethane	ND	0.0306	H	mg/Kg-dry	1	6/5/2020 8:58:09 PM
cis-1,2-Dichloroethene	ND	0.0306	H	mg/Kg-dry	1	6/5/2020 8:58:09 PM
Chloroform	ND	0.0306	H	mg/Kg-dry	1	6/5/2020 8:58:09 PM
1,1,1-Trichloroethane (TCA)	ND	0.0382	H	mg/Kg-dry	1	6/5/2020 8:58:09 PM
1,1-Dichloropropene	ND	0.0306	H	mg/Kg-dry	1	6/5/2020 8:58:09 PM
Carbon tetrachloride	ND	0.0382	H	mg/Kg-dry	1	6/5/2020 8:58:09 PM
1,2-Dichloroethane (EDC)	ND	0.0306	H	mg/Kg-dry	1	6/5/2020 8:58:09 PM
Trichloroethene (TCE)	ND	0.0306	H	mg/Kg-dry	1	6/5/2020 8:58:09 PM
1,2-Dichloropropane	ND	0.0306	H	mg/Kg-dry	1	6/5/2020 8:58:09 PM
Bromodichloromethane	ND	0.0306	H	mg/Kg-dry	1	6/5/2020 8:58:09 PM
Dibromomethane	ND	0.0306	H	mg/Kg-dry	1	6/5/2020 8:58:09 PM
cis-1,3-Dichloropropene	ND	0.0306	H	mg/Kg-dry	1	6/5/2020 8:58:09 PM
trans-1,3-Dichloropropylene	ND	0.0306	H	mg/Kg-dry	1	6/5/2020 8:58:09 PM
1,1,2-Trichloroethane	ND	0.0306	H	mg/Kg-dry	1	6/5/2020 8:58:09 PM
1,3-Dichloropropane	ND	0.0382	H	mg/Kg-dry	1	6/5/2020 8:58:09 PM
Tetrachloroethene (PCE)	ND	0.0382	H	mg/Kg-dry	1	6/5/2020 8:58:09 PM
Dibromochloromethane	ND	0.0382	H	mg/Kg-dry	1	6/5/2020 8:58:09 PM
1,2-Dibromoethane (EDB)	ND	0.00765	H	mg/Kg-dry	1	6/5/2020 8:58:09 PM
Chlorobenzene	ND	0.0382	H	mg/Kg-dry	1	6/5/2020 8:58:09 PM
1,1,1,2-Tetrachloroethane	ND	0.0382	H	mg/Kg-dry	1	6/5/2020 8:58:09 PM
Bromoform	ND	0.0765	H	mg/Kg-dry	1	6/5/2020 8:58:09 PM
1,1,2,2-Tetrachloroethane	ND	0.0306	H	mg/Kg-dry	1	6/5/2020 8:58:09 PM
Bromobenzene	ND	0.0306	H	mg/Kg-dry	1	6/5/2020 8:58:09 PM
2-Chlorotoluene	ND	0.0382	H	mg/Kg-dry	1	6/5/2020 8:58:09 PM
4-Chlorotoluene	ND	0.0382	H	mg/Kg-dry	1	6/5/2020 8:58:09 PM
1,2,3-Trichloropropane	ND	0.0382	H	mg/Kg-dry	1	6/5/2020 8:58:09 PM
1,2,4-Trichlorobenzene	ND	0.0382	H	mg/Kg-dry	1	6/5/2020 8:58:09 PM
1,3-Dichlorobenzene	ND	0.0306	H	mg/Kg-dry	1	6/5/2020 8:58:09 PM
1,4-Dichlorobenzene	ND	0.0306	H	mg/Kg-dry	1	6/5/2020 8:58:09 PM
1,2-Dichlorobenzene	0.0873	0.0306	H	mg/Kg-dry	1	6/5/2020 8:58:09 PM

Analytical Report

Work Order: **2005085**
Date Reported: **6/9/2020**

Client: O'Neill Service Group
Collection Date: 5/8/2020 10:35:00 AM
Project: F200
Lab ID: 2005085-007
Matrix: Soil
Client Sample ID: 358-B5-2.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28544		Analyst: KT
1,2-Dibromo-3-chloropropane	ND	0.765	QH	mg/Kg-dry	1	6/5/2020 8:58:09 PM
Hexachloro-1,3-butadiene	ND	0.0765	H	mg/Kg-dry	1	6/5/2020 8:58:09 PM
1,2,3-Trichlorobenzene	ND	0.0306	H	mg/Kg-dry	1	6/5/2020 8:58:09 PM
Surr: Dibromofluoromethane	90.0	83.3 - 111	H	%Rec	1	6/5/2020 8:58:09 PM
Surr: Toluene-d8	92.8	87.9 - 111	H	%Rec	1	6/5/2020 8:58:09 PM
Surr: 1-Bromo-4-fluorobenzene	96.7	85.1 - 111	H	%Rec	1	6/5/2020 8:58:09 PM

NOTES:
Q - Indicates an analyte with a continuing calibration that does not meet established acceptance criteria

Sample Moisture (Percent Moisture)				Batch ID: R59658		Analyst: SBM
Percent Moisture	13.0	0.500		wt%	1	6/8/2020 11:50:51 AM

Analytical Report

Work Order: **2005085**
Date Reported: **6/9/2020**

Client: O'Neill Service Group
Collection Date: 5/8/2020 10:40:00 AM
Project: F200
Lab ID: 2005085-008
Matrix: Soil
Client Sample ID: 358-B5-5

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28305 Analyst: KT

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0257		mg/Kg-dry	1	5/12/2020 1:33:00 PM
Chloromethane	ND	0.0643		mg/Kg-dry	1	5/12/2020 1:33:00 PM
Vinyl chloride	ND	0.0321		mg/Kg-dry	1	5/12/2020 1:33:00 PM
Bromomethane	ND	0.0643		mg/Kg-dry	1	5/12/2020 1:33:00 PM
Trichlorofluoromethane (CFC-11)	ND	0.0257		mg/Kg-dry	1	5/12/2020 1:33:00 PM
Chloroethane	ND	0.0643		mg/Kg-dry	1	5/12/2020 1:33:00 PM
1,1-Dichloroethene	ND	0.0257		mg/Kg-dry	1	5/12/2020 1:33:00 PM
Methylene chloride	ND	0.0257		mg/Kg-dry	1	5/12/2020 1:33:00 PM
trans-1,2-Dichloroethene	ND	0.0257		mg/Kg-dry	1	5/12/2020 1:33:00 PM
1,1-Dichloroethane	ND	0.0257		mg/Kg-dry	1	5/12/2020 1:33:00 PM
cis-1,2-Dichloroethene	0.0810	0.0257		mg/Kg-dry	1	5/12/2020 1:33:00 PM
Chloroform	ND	0.0257		mg/Kg-dry	1	5/12/2020 1:33:00 PM
1,1,1-Trichloroethane (TCA)	ND	0.0321		mg/Kg-dry	1	5/12/2020 1:33:00 PM
1,1-Dichloropropene	ND	0.0257		mg/Kg-dry	1	5/12/2020 1:33:00 PM
Carbon tetrachloride	ND	0.0321		mg/Kg-dry	1	5/12/2020 1:33:00 PM
1,2-Dichloroethane (EDC)	ND	0.0257		mg/Kg-dry	1	5/12/2020 1:33:00 PM
Trichloroethene (TCE)	ND	0.0257		mg/Kg-dry	1	5/12/2020 1:33:00 PM
1,2-Dichloropropane	ND	0.0257		mg/Kg-dry	1	5/12/2020 1:33:00 PM
Bromodichloromethane	ND	0.0257		mg/Kg-dry	1	5/12/2020 1:33:00 PM
Dibromomethane	ND	0.0257		mg/Kg-dry	1	5/12/2020 1:33:00 PM
cis-1,3-Dichloropropene	ND	0.0257		mg/Kg-dry	1	5/12/2020 1:33:00 PM
trans-1,3-Dichloropropylene	ND	0.0257		mg/Kg-dry	1	5/12/2020 1:33:00 PM
1,1,2-Trichloroethane	ND	0.0257		mg/Kg-dry	1	5/12/2020 1:33:00 PM
1,3-Dichloropropane	ND	0.0321		mg/Kg-dry	1	5/12/2020 1:33:00 PM
Tetrachloroethene (PCE)	ND	0.0321		mg/Kg-dry	1	5/12/2020 1:33:00 PM
Dibromochloromethane	ND	0.0321		mg/Kg-dry	1	5/12/2020 1:33:00 PM
1,2-Dibromoethane (EDB)	ND	0.00643		mg/Kg-dry	1	5/12/2020 1:33:00 PM
Chlorobenzene	ND	0.0321		mg/Kg-dry	1	5/12/2020 1:33:00 PM
1,1,1,2-Tetrachloroethane	ND	0.0321		mg/Kg-dry	1	5/12/2020 1:33:00 PM
Bromoform	ND	0.0643		mg/Kg-dry	1	5/12/2020 1:33:00 PM
1,1,2,2-Tetrachloroethane	ND	0.0257		mg/Kg-dry	1	5/12/2020 1:33:00 PM
Bromobenzene	ND	0.0257		mg/Kg-dry	1	5/12/2020 1:33:00 PM
2-Chlorotoluene	ND	0.0321		mg/Kg-dry	1	5/12/2020 1:33:00 PM
4-Chlorotoluene	ND	0.0321		mg/Kg-dry	1	5/12/2020 1:33:00 PM
1,2,3-Trichloropropane	ND	0.0321		mg/Kg-dry	1	5/12/2020 1:33:00 PM
1,2,4-Trichlorobenzene	ND	0.0321		mg/Kg-dry	1	5/12/2020 1:33:00 PM
1,3-Dichlorobenzene	ND	0.0257		mg/Kg-dry	1	5/12/2020 1:33:00 PM
1,4-Dichlorobenzene	ND	0.0257		mg/Kg-dry	1	5/12/2020 1:33:00 PM
1,2-Dichlorobenzene	ND	0.0257		mg/Kg-dry	1	5/12/2020 1:33:00 PM

Analytical Report

Work Order: **2005085**
Date Reported: **6/9/2020**

Client: O'Neill Service Group
Collection Date: 5/8/2020 10:40:00 AM
Project: F200
Lab ID: 2005085-008
Matrix: Soil
Client Sample ID: 358-B5-5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28305		Analyst: KT
1,2-Dibromo-3-chloropropane	ND	0.643		mg/Kg-dry	1	5/12/2020 1:33:00 PM
Hexachloro-1,3-butadiene	ND	0.0643		mg/Kg-dry	1	5/12/2020 1:33:00 PM
1,2,3-Trichlorobenzene	ND	0.0257		mg/Kg-dry	1	5/12/2020 1:33:00 PM
Surr: Dibromofluoromethane	101	80 - 116		%Rec	1	5/12/2020 1:33:00 PM
Surr: Toluene-d8	99.7	84.8 - 113		%Rec	1	5/12/2020 1:33:00 PM
Surr: 1-Bromo-4-fluorobenzene	98.1	82.8 - 113		%Rec	1	5/12/2020 1:33:00 PM
Sample Moisture (Percent Moisture)				Batch ID: R59116		Analyst: MM
Percent Moisture	16.6	0.500		wt%	1	5/12/2020 9:40:39 AM

Analytical Report

Work Order: **2005085**
Date Reported: **6/9/2020**

Client: O'Neill Service Group
Collection Date: 5/8/2020 10:50:00 AM
Project: F200
Lab ID: 2005085-010
Matrix: Soil
Client Sample ID: 358-B5-10

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28305 Analyst: KT

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0225		mg/Kg-dry	1	5/12/2020 2:03:08 PM
Chloromethane	ND	0.0562		mg/Kg-dry	1	5/12/2020 2:03:08 PM
Vinyl chloride	ND	0.0281		mg/Kg-dry	1	5/12/2020 2:03:08 PM
Bromomethane	ND	0.0562		mg/Kg-dry	1	5/12/2020 2:03:08 PM
Trichlorofluoromethane (CFC-11)	ND	0.0225		mg/Kg-dry	1	5/12/2020 2:03:08 PM
Chloroethane	ND	0.0562		mg/Kg-dry	1	5/12/2020 2:03:08 PM
1,1-Dichloroethene	ND	0.0225		mg/Kg-dry	1	5/12/2020 2:03:08 PM
Methylene chloride	ND	0.0225		mg/Kg-dry	1	5/12/2020 2:03:08 PM
trans-1,2-Dichloroethene	ND	0.0225		mg/Kg-dry	1	5/12/2020 2:03:08 PM
1,1-Dichloroethane	ND	0.0225		mg/Kg-dry	1	5/12/2020 2:03:08 PM
cis-1,2-Dichloroethene	ND	0.0225		mg/Kg-dry	1	5/12/2020 2:03:08 PM
Chloroform	ND	0.0225		mg/Kg-dry	1	5/12/2020 2:03:08 PM
1,1,1-Trichloroethane (TCA)	ND	0.0281		mg/Kg-dry	1	5/12/2020 2:03:08 PM
1,1-Dichloropropene	ND	0.0225		mg/Kg-dry	1	5/12/2020 2:03:08 PM
Carbon tetrachloride	ND	0.0281		mg/Kg-dry	1	5/12/2020 2:03:08 PM
1,2-Dichloroethane (EDC)	ND	0.0225		mg/Kg-dry	1	5/12/2020 2:03:08 PM
Trichloroethene (TCE)	ND	0.0225		mg/Kg-dry	1	5/12/2020 2:03:08 PM
1,2-Dichloropropane	ND	0.0225		mg/Kg-dry	1	5/12/2020 2:03:08 PM
Bromodichloromethane	ND	0.0225		mg/Kg-dry	1	5/12/2020 2:03:08 PM
Dibromomethane	ND	0.0225		mg/Kg-dry	1	5/12/2020 2:03:08 PM
cis-1,3-Dichloropropene	ND	0.0225		mg/Kg-dry	1	5/12/2020 2:03:08 PM
trans-1,3-Dichloropropylene	ND	0.0225		mg/Kg-dry	1	5/12/2020 2:03:08 PM
1,1,2-Trichloroethane	ND	0.0225		mg/Kg-dry	1	5/12/2020 2:03:08 PM
1,3-Dichloropropane	ND	0.0281		mg/Kg-dry	1	5/12/2020 2:03:08 PM
Tetrachloroethene (PCE)	ND	0.0281		mg/Kg-dry	1	5/12/2020 2:03:08 PM
Dibromochloromethane	ND	0.0281		mg/Kg-dry	1	5/12/2020 2:03:08 PM
1,2-Dibromoethane (EDB)	ND	0.00562		mg/Kg-dry	1	5/12/2020 2:03:08 PM
Chlorobenzene	ND	0.0281		mg/Kg-dry	1	5/12/2020 2:03:08 PM
1,1,1,2-Tetrachloroethane	ND	0.0281		mg/Kg-dry	1	5/12/2020 2:03:08 PM
Bromoform	ND	0.0562		mg/Kg-dry	1	5/12/2020 2:03:08 PM
1,1,2,2-Tetrachloroethane	ND	0.0225		mg/Kg-dry	1	5/12/2020 2:03:08 PM
Bromobenzene	ND	0.0225		mg/Kg-dry	1	5/12/2020 2:03:08 PM
2-Chlorotoluene	ND	0.0281		mg/Kg-dry	1	5/12/2020 2:03:08 PM
4-Chlorotoluene	ND	0.0281		mg/Kg-dry	1	5/12/2020 2:03:08 PM
1,2,3-Trichloropropane	ND	0.0281		mg/Kg-dry	1	5/12/2020 2:03:08 PM
1,2,4-Trichlorobenzene	ND	0.0281		mg/Kg-dry	1	5/12/2020 2:03:08 PM
1,3-Dichlorobenzene	ND	0.0225		mg/Kg-dry	1	5/12/2020 2:03:08 PM
1,4-Dichlorobenzene	ND	0.0225		mg/Kg-dry	1	5/12/2020 2:03:08 PM
1,2-Dichlorobenzene	ND	0.0225		mg/Kg-dry	1	5/12/2020 2:03:08 PM

Analytical Report

Work Order: **2005085**
Date Reported: **6/9/2020**

Client: O'Neill Service Group
Collection Date: 5/8/2020 10:50:00 AM
Project: F200
Lab ID: 2005085-010
Matrix: Soil
Client Sample ID: 358-B5-10

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28305		Analyst: KT
1,2-Dibromo-3-chloropropane	ND	0.562		mg/Kg-dry	1	5/12/2020 2:03:08 PM
Hexachloro-1,3-butadiene	ND	0.0562		mg/Kg-dry	1	5/12/2020 2:03:08 PM
1,2,3-Trichlorobenzene	ND	0.0225		mg/Kg-dry	1	5/12/2020 2:03:08 PM
Surr: Dibromofluoromethane	95.1	80 - 116		%Rec	1	5/12/2020 2:03:08 PM
Surr: Toluene-d8	99.0	84.8 - 113		%Rec	1	5/12/2020 2:03:08 PM
Surr: 1-Bromo-4-fluorobenzene	96.4	82.8 - 113		%Rec	1	5/12/2020 2:03:08 PM
Sample Moisture (Percent Moisture)				Batch ID: R59116		Analyst: MM
Percent Moisture	12.7	0.500		wt%	1	5/12/2020 9:40:39 AM

Analytical Report

Work Order: **2005085**
Date Reported: **6/9/2020**

Client: O'Neill Service Group
Collection Date: 5/8/2020 11:00:00 AM
Project: F200
Lab ID: 2005085-012
Matrix: Soil
Client Sample ID: 358-B5-15

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28369 Analyst: KT

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0220		mg/Kg-dry	1	5/20/2020 8:46:33 AM
Chloromethane	ND	0.0550		mg/Kg-dry	1	5/20/2020 8:46:33 AM
Vinyl chloride	ND	0.0275		mg/Kg-dry	1	5/20/2020 8:46:33 AM
Bromomethane	ND	0.0550		mg/Kg-dry	1	5/20/2020 8:46:33 AM
Trichlorofluoromethane (CFC-11)	ND	0.0220		mg/Kg-dry	1	5/20/2020 8:46:33 AM
Chloroethane	ND	0.0550		mg/Kg-dry	1	5/20/2020 8:46:33 AM
1,1-Dichloroethene	ND	0.0220		mg/Kg-dry	1	5/20/2020 8:46:33 AM
Methylene chloride	ND	0.0220		mg/Kg-dry	1	5/20/2020 8:46:33 AM
trans-1,2-Dichloroethene	ND	0.0220		mg/Kg-dry	1	5/20/2020 8:46:33 AM
1,1-Dichloroethane	ND	0.0220		mg/Kg-dry	1	5/20/2020 8:46:33 AM
cis-1,2-Dichloroethene	ND	0.0220		mg/Kg-dry	1	5/20/2020 8:46:33 AM
Chloroform	ND	0.0220		mg/Kg-dry	1	5/20/2020 8:46:33 AM
1,1,1-Trichloroethane (TCA)	ND	0.0275		mg/Kg-dry	1	5/20/2020 8:46:33 AM
1,1-Dichloropropene	ND	0.0220		mg/Kg-dry	1	5/20/2020 8:46:33 AM
Carbon tetrachloride	ND	0.0275		mg/Kg-dry	1	5/20/2020 8:46:33 AM
1,2-Dichloroethane (EDC)	ND	0.0220		mg/Kg-dry	1	5/20/2020 8:46:33 AM
Trichloroethene (TCE)	ND	0.0220		mg/Kg-dry	1	5/20/2020 8:46:33 AM
1,2-Dichloropropane	ND	0.0220		mg/Kg-dry	1	5/20/2020 8:46:33 AM
Bromodichloromethane	ND	0.0220		mg/Kg-dry	1	5/20/2020 8:46:33 AM
Dibromomethane	ND	0.0220		mg/Kg-dry	1	5/20/2020 8:46:33 AM
cis-1,3-Dichloropropene	ND	0.0220		mg/Kg-dry	1	5/20/2020 8:46:33 AM
trans-1,3-Dichloropropylene	ND	0.0220		mg/Kg-dry	1	5/20/2020 8:46:33 AM
1,1,2-Trichloroethane	ND	0.0220		mg/Kg-dry	1	5/20/2020 8:46:33 AM
1,3-Dichloropropane	ND	0.0275		mg/Kg-dry	1	5/20/2020 8:46:33 AM
Tetrachloroethene (PCE)	ND	0.0275		mg/Kg-dry	1	5/20/2020 8:46:33 AM
Dibromochloromethane	ND	0.0275		mg/Kg-dry	1	5/20/2020 8:46:33 AM
1,2-Dibromoethane (EDB)	ND	0.00550		mg/Kg-dry	1	5/20/2020 8:46:33 AM
Chlorobenzene	ND	0.0275		mg/Kg-dry	1	5/20/2020 8:46:33 AM
1,1,1,2-Tetrachloroethane	ND	0.0275		mg/Kg-dry	1	5/20/2020 8:46:33 AM
Bromoform	ND	0.0550		mg/Kg-dry	1	5/20/2020 8:46:33 AM
1,1,2,2-Tetrachloroethane	ND	0.0220		mg/Kg-dry	1	5/20/2020 8:46:33 AM
Bromobenzene	ND	0.0220		mg/Kg-dry	1	5/20/2020 8:46:33 AM
2-Chlorotoluene	ND	0.0275		mg/Kg-dry	1	5/20/2020 8:46:33 AM
4-Chlorotoluene	ND	0.0275		mg/Kg-dry	1	5/20/2020 8:46:33 AM
1,2,3-Trichloropropane	ND	0.0275		mg/Kg-dry	1	5/20/2020 8:46:33 AM
1,2,4-Trichlorobenzene	ND	0.0275		mg/Kg-dry	1	5/20/2020 8:46:33 AM
1,3-Dichlorobenzene	ND	0.0220	*	mg/Kg-dry	1	5/20/2020 8:46:33 AM
1,4-Dichlorobenzene	ND	0.0220	*	mg/Kg-dry	1	5/20/2020 8:46:33 AM
1,2-Dichlorobenzene	ND	0.0220	*	mg/Kg-dry	1	5/20/2020 8:46:33 AM

Analytical Report

Work Order: **2005085**
Date Reported: **6/9/2020**

Client: O'Neill Service Group
Collection Date: 5/8/2020 11:00:00 AM
Project: F200
Lab ID: 2005085-012
Matrix: Soil
Client Sample ID: 358-B5-15

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28369		Analyst: KT
1,2-Dibromo-3-chloropropane	ND	0.550		mg/Kg-dry	1	5/20/2020 8:46:33 AM
Hexachloro-1,3-butadiene	ND	0.0550		mg/Kg-dry	1	5/20/2020 8:46:33 AM
1,2,3-Trichlorobenzene	ND	0.0220		mg/Kg-dry	1	5/20/2020 8:46:33 AM
Surr: Dibromofluoromethane	99.7	80 - 116		%Rec	1	5/20/2020 8:46:33 AM
Surr: Toluene-d8	101	84.8 - 113		%Rec	1	5/20/2020 8:46:33 AM
Surr: 1-Bromo-4-fluorobenzene	98.7	82.8 - 113		%Rec	1	5/20/2020 8:46:33 AM

NOTES:
* - Flagged value is not within established control limits.

Sample Moisture (Percent Moisture)				Batch ID: R59252		Analyst: EH
Percent Moisture	14.4	0.500		wt%	1	5/19/2020 12:14:02 PM

Analytical Report

Work Order: **2005085**
Date Reported: **6/9/2020**

Client: O'Neill Service Group
Collection Date: 5/8/2020 11:10:00 AM
Project: F200
Lab ID: 2005085-013
Matrix: Soil
Client Sample ID: 358-B5-20

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28305 Analyst: KT

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0188		mg/Kg-dry	1	5/12/2020 2:33:14 PM
Chloromethane	ND	0.0469		mg/Kg-dry	1	5/12/2020 2:33:14 PM
Vinyl chloride	ND	0.0234		mg/Kg-dry	1	5/12/2020 2:33:14 PM
Bromomethane	ND	0.0469		mg/Kg-dry	1	5/12/2020 2:33:14 PM
Trichlorofluoromethane (CFC-11)	ND	0.0188		mg/Kg-dry	1	5/12/2020 2:33:14 PM
Chloroethane	ND	0.0469		mg/Kg-dry	1	5/12/2020 2:33:14 PM
1,1-Dichloroethene	ND	0.0188		mg/Kg-dry	1	5/12/2020 2:33:14 PM
Methylene chloride	ND	0.0188		mg/Kg-dry	1	5/12/2020 2:33:14 PM
trans-1,2-Dichloroethene	ND	0.0188		mg/Kg-dry	1	5/12/2020 2:33:14 PM
1,1-Dichloroethane	ND	0.0188		mg/Kg-dry	1	5/12/2020 2:33:14 PM
cis-1,2-Dichloroethene	ND	0.0188		mg/Kg-dry	1	5/12/2020 2:33:14 PM
Chloroform	ND	0.0188		mg/Kg-dry	1	5/12/2020 2:33:14 PM
1,1,1-Trichloroethane (TCA)	ND	0.0234		mg/Kg-dry	1	5/12/2020 2:33:14 PM
1,1-Dichloropropene	ND	0.0188		mg/Kg-dry	1	5/12/2020 2:33:14 PM
Carbon tetrachloride	ND	0.0234		mg/Kg-dry	1	5/12/2020 2:33:14 PM
1,2-Dichloroethane (EDC)	ND	0.0188		mg/Kg-dry	1	5/12/2020 2:33:14 PM
Trichloroethene (TCE)	ND	0.0188		mg/Kg-dry	1	5/12/2020 2:33:14 PM
1,2-Dichloropropane	ND	0.0188		mg/Kg-dry	1	5/12/2020 2:33:14 PM
Bromodichloromethane	ND	0.0188		mg/Kg-dry	1	5/12/2020 2:33:14 PM
Dibromomethane	ND	0.0188		mg/Kg-dry	1	5/12/2020 2:33:14 PM
cis-1,3-Dichloropropene	ND	0.0188		mg/Kg-dry	1	5/12/2020 2:33:14 PM
trans-1,3-Dichloropropylene	ND	0.0188		mg/Kg-dry	1	5/12/2020 2:33:14 PM
1,1,2-Trichloroethane	ND	0.0188		mg/Kg-dry	1	5/12/2020 2:33:14 PM
1,3-Dichloropropane	ND	0.0234		mg/Kg-dry	1	5/12/2020 2:33:14 PM
Tetrachloroethene (PCE)	0.358	0.0234		mg/Kg-dry	1	5/12/2020 2:33:14 PM
Dibromochloromethane	ND	0.0234		mg/Kg-dry	1	5/12/2020 2:33:14 PM
1,2-Dibromoethane (EDB)	ND	0.00469		mg/Kg-dry	1	5/12/2020 2:33:14 PM
Chlorobenzene	ND	0.0234		mg/Kg-dry	1	5/12/2020 2:33:14 PM
1,1,1,2-Tetrachloroethane	ND	0.0234		mg/Kg-dry	1	5/12/2020 2:33:14 PM
Bromoform	ND	0.0469		mg/Kg-dry	1	5/12/2020 2:33:14 PM
1,1,2,2-Tetrachloroethane	ND	0.0188		mg/Kg-dry	1	5/12/2020 2:33:14 PM
Bromobenzene	ND	0.0188		mg/Kg-dry	1	5/12/2020 2:33:14 PM
2-Chlorotoluene	ND	0.0234		mg/Kg-dry	1	5/12/2020 2:33:14 PM
4-Chlorotoluene	ND	0.0234		mg/Kg-dry	1	5/12/2020 2:33:14 PM
1,2,3-Trichloropropane	ND	0.0234		mg/Kg-dry	1	5/12/2020 2:33:14 PM
1,2,4-Trichlorobenzene	ND	0.0234		mg/Kg-dry	1	5/12/2020 2:33:14 PM
1,3-Dichlorobenzene	ND	0.0188		mg/Kg-dry	1	5/12/2020 2:33:14 PM
1,4-Dichlorobenzene	ND	0.0188		mg/Kg-dry	1	5/12/2020 2:33:14 PM
1,2-Dichlorobenzene	ND	0.0188		mg/Kg-dry	1	5/12/2020 2:33:14 PM

Analytical Report

Work Order: **2005085**
Date Reported: **6/9/2020**

Client: O'Neill Service Group
Collection Date: 5/8/2020 11:10:00 AM
Project: F200
Lab ID: 2005085-013
Matrix: Soil
Client Sample ID: 358-B5-20

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28305		Analyst: KT
1,2-Dibromo-3-chloropropane	ND	0.469		mg/Kg-dry	1	5/12/2020 2:33:14 PM
Hexachloro-1,3-butadiene	ND	0.0469		mg/Kg-dry	1	5/12/2020 2:33:14 PM
1,2,3-Trichlorobenzene	ND	0.0188		mg/Kg-dry	1	5/12/2020 2:33:14 PM
Surr: Dibromofluoromethane	97.3	80 - 116		%Rec	1	5/12/2020 2:33:14 PM
Surr: Toluene-d8	99.7	84.8 - 113		%Rec	1	5/12/2020 2:33:14 PM
Surr: 1-Bromo-4-fluorobenzene	95.8	82.8 - 113		%Rec	1	5/12/2020 2:33:14 PM
Sample Moisture (Percent Moisture)				Batch ID: R59116		Analyst: MM
Percent Moisture	11.6	0.500		wt%	1	5/12/2020 9:40:39 AM

Analytical Report

Work Order: **2005085**
Date Reported: **6/9/2020**

Client: O'Neill Service Group
Collection Date: 5/8/2020 11:20:00 AM
Project: F200
Lab ID: 2005085-014
Matrix: Soil
Client Sample ID: 358-B5-25

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28369 Analyst: KT

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0236		mg/Kg-dry	1	5/20/2020 9:16:43 AM
Chloromethane	ND	0.0590		mg/Kg-dry	1	5/20/2020 9:16:43 AM
Vinyl chloride	ND	0.0295		mg/Kg-dry	1	5/20/2020 9:16:43 AM
Bromomethane	ND	0.0590		mg/Kg-dry	1	5/20/2020 9:16:43 AM
Trichlorofluoromethane (CFC-11)	ND	0.0236		mg/Kg-dry	1	5/20/2020 9:16:43 AM
Chloroethane	ND	0.0590		mg/Kg-dry	1	5/20/2020 9:16:43 AM
1,1-Dichloroethene	ND	0.0236		mg/Kg-dry	1	5/20/2020 9:16:43 AM
Methylene chloride	ND	0.0236		mg/Kg-dry	1	5/20/2020 9:16:43 AM
trans-1,2-Dichloroethene	ND	0.0236		mg/Kg-dry	1	5/20/2020 9:16:43 AM
1,1-Dichloroethane	ND	0.0236		mg/Kg-dry	1	5/20/2020 9:16:43 AM
cis-1,2-Dichloroethene	ND	0.0236		mg/Kg-dry	1	5/20/2020 9:16:43 AM
Chloroform	ND	0.0236		mg/Kg-dry	1	5/20/2020 9:16:43 AM
1,1,1-Trichloroethane (TCA)	ND	0.0295		mg/Kg-dry	1	5/20/2020 9:16:43 AM
1,1-Dichloropropene	ND	0.0236		mg/Kg-dry	1	5/20/2020 9:16:43 AM
Carbon tetrachloride	ND	0.0295		mg/Kg-dry	1	5/20/2020 9:16:43 AM
1,2-Dichloroethane (EDC)	ND	0.0236		mg/Kg-dry	1	5/20/2020 9:16:43 AM
Trichloroethene (TCE)	ND	0.0236		mg/Kg-dry	1	5/20/2020 9:16:43 AM
1,2-Dichloropropane	ND	0.0236		mg/Kg-dry	1	5/20/2020 9:16:43 AM
Bromodichloromethane	ND	0.0236		mg/Kg-dry	1	5/20/2020 9:16:43 AM
Dibromomethane	ND	0.0236		mg/Kg-dry	1	5/20/2020 9:16:43 AM
cis-1,3-Dichloropropene	ND	0.0236		mg/Kg-dry	1	5/20/2020 9:16:43 AM
trans-1,3-Dichloropropylene	ND	0.0236		mg/Kg-dry	1	5/20/2020 9:16:43 AM
1,1,2-Trichloroethane	ND	0.0236		mg/Kg-dry	1	5/20/2020 9:16:43 AM
1,3-Dichloropropane	ND	0.0295		mg/Kg-dry	1	5/20/2020 9:16:43 AM
Tetrachloroethene (PCE)	0.123	0.0295		mg/Kg-dry	1	5/20/2020 9:16:43 AM
Dibromochloromethane	ND	0.0295		mg/Kg-dry	1	5/20/2020 9:16:43 AM
1,2-Dibromoethane (EDB)	ND	0.00590		mg/Kg-dry	1	5/20/2020 9:16:43 AM
Chlorobenzene	ND	0.0295		mg/Kg-dry	1	5/20/2020 9:16:43 AM
1,1,1,2-Tetrachloroethane	ND	0.0295		mg/Kg-dry	1	5/20/2020 9:16:43 AM
Bromoform	ND	0.0590		mg/Kg-dry	1	5/20/2020 9:16:43 AM
1,1,2,2-Tetrachloroethane	ND	0.0236		mg/Kg-dry	1	5/20/2020 9:16:43 AM
Bromobenzene	ND	0.0236		mg/Kg-dry	1	5/20/2020 9:16:43 AM
2-Chlorotoluene	ND	0.0295		mg/Kg-dry	1	5/20/2020 9:16:43 AM
4-Chlorotoluene	ND	0.0295		mg/Kg-dry	1	5/20/2020 9:16:43 AM
1,2,3-Trichloropropane	ND	0.0295		mg/Kg-dry	1	5/20/2020 9:16:43 AM
1,2,4-Trichlorobenzene	ND	0.0295		mg/Kg-dry	1	5/20/2020 9:16:43 AM
1,3-Dichlorobenzene	ND	0.0236	*	mg/Kg-dry	1	5/20/2020 9:16:43 AM
1,4-Dichlorobenzene	ND	0.0236	*	mg/Kg-dry	1	5/20/2020 9:16:43 AM
1,2-Dichlorobenzene	ND	0.0236	*	mg/Kg-dry	1	5/20/2020 9:16:43 AM

Analytical Report

Work Order: **2005085**
Date Reported: **6/9/2020**

Client: O'Neill Service Group
Collection Date: 5/8/2020 11:20:00 AM
Project: F200
Lab ID: 2005085-014
Matrix: Soil
Client Sample ID: 358-B5-25

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28369		Analyst: KT
1,2-Dibromo-3-chloropropane	ND	0.590		mg/Kg-dry	1	5/20/2020 9:16:43 AM
Hexachloro-1,3-butadiene	ND	0.0590		mg/Kg-dry	1	5/20/2020 9:16:43 AM
1,2,3-Trichlorobenzene	ND	0.0236		mg/Kg-dry	1	5/20/2020 9:16:43 AM
Surr: Dibromofluoromethane	107	80 - 116		%Rec	1	5/20/2020 9:16:43 AM
Surr: Toluene-d8	101	84.8 - 113		%Rec	1	5/20/2020 9:16:43 AM
Surr: 1-Bromo-4-fluorobenzene	100	82.8 - 113		%Rec	1	5/20/2020 9:16:43 AM

NOTES:
* - Flagged value is not within established control limits.

Sample Moisture (Percent Moisture)				Batch ID: R59252		Analyst: EH
Percent Moisture	15.0	0.500		wt%	1	5/19/2020 12:14:02 PM

Analytical Report

Work Order: **2005085**
Date Reported: **6/9/2020**

Client: O'Neill Service Group
Collection Date: 5/8/2020 1:05:00 PM
Project: F200
Lab ID: 2005085-015
Matrix: Soil
Client Sample ID: 358-B6-5

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28305 Analyst: KT

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0316		mg/Kg-dry	1	5/12/2020 3:03:21 PM
Chloromethane	ND	0.0790		mg/Kg-dry	1	5/12/2020 3:03:21 PM
Vinyl chloride	ND	0.0395		mg/Kg-dry	1	5/12/2020 3:03:21 PM
Bromomethane	ND	0.0790		mg/Kg-dry	1	5/12/2020 3:03:21 PM
Trichlorofluoromethane (CFC-11)	ND	0.0316		mg/Kg-dry	1	5/12/2020 3:03:21 PM
Chloroethane	ND	0.0790		mg/Kg-dry	1	5/12/2020 3:03:21 PM
1,1-Dichloroethene	ND	0.0316		mg/Kg-dry	1	5/12/2020 3:03:21 PM
Methylene chloride	ND	0.0316		mg/Kg-dry	1	5/12/2020 3:03:21 PM
trans-1,2-Dichloroethene	ND	0.0316		mg/Kg-dry	1	5/12/2020 3:03:21 PM
1,1-Dichloroethane	ND	0.0316		mg/Kg-dry	1	5/12/2020 3:03:21 PM
cis-1,2-Dichloroethene	0.0949	0.0316		mg/Kg-dry	1	5/12/2020 3:03:21 PM
Chloroform	ND	0.0316		mg/Kg-dry	1	5/12/2020 3:03:21 PM
1,1,1-Trichloroethane (TCA)	ND	0.0395		mg/Kg-dry	1	5/12/2020 3:03:21 PM
1,1-Dichloropropene	ND	0.0316		mg/Kg-dry	1	5/12/2020 3:03:21 PM
Carbon tetrachloride	ND	0.0395		mg/Kg-dry	1	5/12/2020 3:03:21 PM
1,2-Dichloroethane (EDC)	ND	0.0316		mg/Kg-dry	1	5/12/2020 3:03:21 PM
Trichloroethene (TCE)	ND	0.0316		mg/Kg-dry	1	5/12/2020 3:03:21 PM
1,2-Dichloropropane	ND	0.0316		mg/Kg-dry	1	5/12/2020 3:03:21 PM
Bromodichloromethane	ND	0.0316		mg/Kg-dry	1	5/12/2020 3:03:21 PM
Dibromomethane	ND	0.0316		mg/Kg-dry	1	5/12/2020 3:03:21 PM
cis-1,3-Dichloropropene	ND	0.0316		mg/Kg-dry	1	5/12/2020 3:03:21 PM
trans-1,3-Dichloropropylene	ND	0.0316		mg/Kg-dry	1	5/12/2020 3:03:21 PM
1,1,2-Trichloroethane	ND	0.0316		mg/Kg-dry	1	5/12/2020 3:03:21 PM
1,3-Dichloropropane	ND	0.0395		mg/Kg-dry	1	5/12/2020 3:03:21 PM
Tetrachloroethene (PCE)	ND	0.0395		mg/Kg-dry	1	5/12/2020 3:03:21 PM
Dibromochloromethane	ND	0.0395		mg/Kg-dry	1	5/12/2020 3:03:21 PM
1,2-Dibromoethane (EDB)	ND	0.00790		mg/Kg-dry	1	5/12/2020 3:03:21 PM
Chlorobenzene	ND	0.0395		mg/Kg-dry	1	5/12/2020 3:03:21 PM
1,1,1,2-Tetrachloroethane	ND	0.0395		mg/Kg-dry	1	5/12/2020 3:03:21 PM
Bromoform	ND	0.0790		mg/Kg-dry	1	5/12/2020 3:03:21 PM
1,1,2,2-Tetrachloroethane	ND	0.0316		mg/Kg-dry	1	5/12/2020 3:03:21 PM
Bromobenzene	ND	0.0316		mg/Kg-dry	1	5/12/2020 3:03:21 PM
2-Chlorotoluene	ND	0.0395		mg/Kg-dry	1	5/12/2020 3:03:21 PM
4-Chlorotoluene	ND	0.0395		mg/Kg-dry	1	5/12/2020 3:03:21 PM
1,2,3-Trichloropropane	ND	0.0395		mg/Kg-dry	1	5/12/2020 3:03:21 PM
1,2,4-Trichlorobenzene	ND	0.0395		mg/Kg-dry	1	5/12/2020 3:03:21 PM
1,3-Dichlorobenzene	ND	0.0316		mg/Kg-dry	1	5/12/2020 3:03:21 PM
1,4-Dichlorobenzene	ND	0.0316		mg/Kg-dry	1	5/12/2020 3:03:21 PM
1,2-Dichlorobenzene	ND	0.0316		mg/Kg-dry	1	5/12/2020 3:03:21 PM

Analytical Report

Work Order: **2005085**
Date Reported: **6/9/2020**

Client: O'Neill Service Group
Collection Date: 5/8/2020 1:05:00 PM
Project: F200
Lab ID: 2005085-015
Matrix: Soil
Client Sample ID: 358-B6-5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28305		Analyst: KT
1,2-Dibromo-3-chloropropane	ND	0.790		mg/Kg-dry	1	5/12/2020 3:03:21 PM
Hexachloro-1,3-butadiene	ND	0.0790		mg/Kg-dry	1	5/12/2020 3:03:21 PM
1,2,3-Trichlorobenzene	ND	0.0316		mg/Kg-dry	1	5/12/2020 3:03:21 PM
Surr: Dibromofluoromethane	99.1	80 - 116		%Rec	1	5/12/2020 3:03:21 PM
Surr: Toluene-d8	100	84.8 - 113		%Rec	1	5/12/2020 3:03:21 PM
Surr: 1-Bromo-4-fluorobenzene	98.1	82.8 - 113		%Rec	1	5/12/2020 3:03:21 PM
Sample Moisture (Percent Moisture)				Batch ID: R59116		Analyst: MM
Percent Moisture	32.5	0.500		wt%	1	5/12/2020 9:40:39 AM

Analytical Report

Work Order: **2005085**
Date Reported: **6/9/2020**

Client: O'Neill Service Group
Collection Date: 5/8/2020 1:20:00 PM
Project: F200
Lab ID: 2005085-017
Matrix: Soil
Client Sample ID: 358-B6-10

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28305 Analyst: KT

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0187		mg/Kg-dry	1	5/12/2020 3:33:29 PM
Chloromethane	ND	0.0467		mg/Kg-dry	1	5/12/2020 3:33:29 PM
Vinyl chloride	ND	0.0233		mg/Kg-dry	1	5/12/2020 3:33:29 PM
Bromomethane	ND	0.0467		mg/Kg-dry	1	5/12/2020 3:33:29 PM
Trichlorofluoromethane (CFC-11)	ND	0.0187		mg/Kg-dry	1	5/12/2020 3:33:29 PM
Chloroethane	ND	0.0467		mg/Kg-dry	1	5/12/2020 3:33:29 PM
1,1-Dichloroethene	ND	0.0187		mg/Kg-dry	1	5/12/2020 3:33:29 PM
Methylene chloride	ND	0.0187		mg/Kg-dry	1	5/12/2020 3:33:29 PM
trans-1,2-Dichloroethene	ND	0.0187		mg/Kg-dry	1	5/12/2020 3:33:29 PM
1,1-Dichloroethane	ND	0.0187		mg/Kg-dry	1	5/12/2020 3:33:29 PM
cis-1,2-Dichloroethene	ND	0.0187		mg/Kg-dry	1	5/12/2020 3:33:29 PM
Chloroform	ND	0.0187		mg/Kg-dry	1	5/12/2020 3:33:29 PM
1,1,1-Trichloroethane (TCA)	ND	0.0233		mg/Kg-dry	1	5/12/2020 3:33:29 PM
1,1-Dichloropropene	ND	0.0187		mg/Kg-dry	1	5/12/2020 3:33:29 PM
Carbon tetrachloride	ND	0.0233		mg/Kg-dry	1	5/12/2020 3:33:29 PM
1,2-Dichloroethane (EDC)	ND	0.0187		mg/Kg-dry	1	5/12/2020 3:33:29 PM
Trichloroethene (TCE)	ND	0.0187		mg/Kg-dry	1	5/12/2020 3:33:29 PM
1,2-Dichloropropane	ND	0.0187		mg/Kg-dry	1	5/12/2020 3:33:29 PM
Bromodichloromethane	ND	0.0187		mg/Kg-dry	1	5/12/2020 3:33:29 PM
Dibromomethane	ND	0.0187		mg/Kg-dry	1	5/12/2020 3:33:29 PM
cis-1,3-Dichloropropene	ND	0.0187		mg/Kg-dry	1	5/12/2020 3:33:29 PM
trans-1,3-Dichloropropylene	ND	0.0187		mg/Kg-dry	1	5/12/2020 3:33:29 PM
1,1,2-Trichloroethane	ND	0.0187		mg/Kg-dry	1	5/12/2020 3:33:29 PM
1,3-Dichloropropane	ND	0.0233		mg/Kg-dry	1	5/12/2020 3:33:29 PM
Tetrachloroethene (PCE)	ND	0.0233		mg/Kg-dry	1	5/12/2020 3:33:29 PM
Dibromochloromethane	ND	0.0233		mg/Kg-dry	1	5/12/2020 3:33:29 PM
1,2-Dibromoethane (EDB)	ND	0.00467		mg/Kg-dry	1	5/12/2020 3:33:29 PM
Chlorobenzene	ND	0.0233		mg/Kg-dry	1	5/12/2020 3:33:29 PM
1,1,1,2-Tetrachloroethane	ND	0.0233		mg/Kg-dry	1	5/12/2020 3:33:29 PM
Bromoform	ND	0.0467		mg/Kg-dry	1	5/12/2020 3:33:29 PM
1,1,2,2-Tetrachloroethane	ND	0.0187		mg/Kg-dry	1	5/12/2020 3:33:29 PM
Bromobenzene	ND	0.0187		mg/Kg-dry	1	5/12/2020 3:33:29 PM
2-Chlorotoluene	ND	0.0233		mg/Kg-dry	1	5/12/2020 3:33:29 PM
4-Chlorotoluene	ND	0.0233		mg/Kg-dry	1	5/12/2020 3:33:29 PM
1,2,3-Trichloropropane	ND	0.0233		mg/Kg-dry	1	5/12/2020 3:33:29 PM
1,2,4-Trichlorobenzene	ND	0.0233		mg/Kg-dry	1	5/12/2020 3:33:29 PM
1,3-Dichlorobenzene	ND	0.0187		mg/Kg-dry	1	5/12/2020 3:33:29 PM
1,4-Dichlorobenzene	ND	0.0187		mg/Kg-dry	1	5/12/2020 3:33:29 PM
1,2-Dichlorobenzene	ND	0.0187		mg/Kg-dry	1	5/12/2020 3:33:29 PM

Analytical Report

Work Order: **2005085**
Date Reported: **6/9/2020**

Client: O'Neill Service Group
Collection Date: 5/8/2020 1:20:00 PM
Project: F200
Lab ID: 2005085-017
Matrix: Soil
Client Sample ID: 358-B6-10

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28305		Analyst: KT
1,2-Dibromo-3-chloropropane	ND	0.467		mg/Kg-dry	1	5/12/2020 3:33:29 PM
Hexachloro-1,3-butadiene	ND	0.0467		mg/Kg-dry	1	5/12/2020 3:33:29 PM
1,2,3-Trichlorobenzene	ND	0.0187		mg/Kg-dry	1	5/12/2020 3:33:29 PM
Surr: Dibromofluoromethane	98.2	80 - 116		%Rec	1	5/12/2020 3:33:29 PM
Surr: Toluene-d8	100	84.8 - 113		%Rec	1	5/12/2020 3:33:29 PM
Surr: 1-Bromo-4-fluorobenzene	96.4	82.8 - 113		%Rec	1	5/12/2020 3:33:29 PM
Sample Moisture (Percent Moisture)				Batch ID: R59116		Analyst: MM
Percent Moisture	12.9	0.500		wt%	1	5/12/2020 9:40:39 AM

Analytical Report

Work Order: **2005085**
Date Reported: **6/9/2020**

Client: O'Neill Service Group
Collection Date: 5/8/2020 1:40:00 PM
Project: F200
Lab ID: 2005085-020
Matrix: Soil
Client Sample ID: 358-B6-20

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28305 Analyst: KT

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0197		mg/Kg-dry	1	5/12/2020 4:03:39 PM
Chloromethane	ND	0.0491		mg/Kg-dry	1	5/12/2020 4:03:39 PM
Vinyl chloride	ND	0.0246		mg/Kg-dry	1	5/12/2020 4:03:39 PM
Bromomethane	ND	0.0491		mg/Kg-dry	1	5/12/2020 4:03:39 PM
Trichlorofluoromethane (CFC-11)	ND	0.0197		mg/Kg-dry	1	5/12/2020 4:03:39 PM
Chloroethane	ND	0.0491		mg/Kg-dry	1	5/12/2020 4:03:39 PM
1,1-Dichloroethene	ND	0.0197		mg/Kg-dry	1	5/12/2020 4:03:39 PM
Methylene chloride	ND	0.0197		mg/Kg-dry	1	5/12/2020 4:03:39 PM
trans-1,2-Dichloroethene	ND	0.0197		mg/Kg-dry	1	5/12/2020 4:03:39 PM
1,1-Dichloroethane	ND	0.0197		mg/Kg-dry	1	5/12/2020 4:03:39 PM
cis-1,2-Dichloroethene	ND	0.0197		mg/Kg-dry	1	5/12/2020 4:03:39 PM
Chloroform	ND	0.0197		mg/Kg-dry	1	5/12/2020 4:03:39 PM
1,1,1-Trichloroethane (TCA)	ND	0.0246		mg/Kg-dry	1	5/12/2020 4:03:39 PM
1,1-Dichloropropene	ND	0.0197		mg/Kg-dry	1	5/12/2020 4:03:39 PM
Carbon tetrachloride	ND	0.0246		mg/Kg-dry	1	5/12/2020 4:03:39 PM
1,2-Dichloroethane (EDC)	ND	0.0197		mg/Kg-dry	1	5/12/2020 4:03:39 PM
Trichloroethene (TCE)	ND	0.0197		mg/Kg-dry	1	5/12/2020 4:03:39 PM
1,2-Dichloropropane	ND	0.0197		mg/Kg-dry	1	5/12/2020 4:03:39 PM
Bromodichloromethane	ND	0.0197		mg/Kg-dry	1	5/12/2020 4:03:39 PM
Dibromomethane	ND	0.0197		mg/Kg-dry	1	5/12/2020 4:03:39 PM
cis-1,3-Dichloropropene	ND	0.0197		mg/Kg-dry	1	5/12/2020 4:03:39 PM
trans-1,3-Dichloropropylene	ND	0.0197		mg/Kg-dry	1	5/12/2020 4:03:39 PM
1,1,2-Trichloroethane	ND	0.0197		mg/Kg-dry	1	5/12/2020 4:03:39 PM
1,3-Dichloropropane	ND	0.0246		mg/Kg-dry	1	5/12/2020 4:03:39 PM
Tetrachloroethene (PCE)	0.0269	0.0246		mg/Kg-dry	1	5/12/2020 4:03:39 PM
Dibromochloromethane	ND	0.0246		mg/Kg-dry	1	5/12/2020 4:03:39 PM
1,2-Dibromoethane (EDB)	ND	0.00491		mg/Kg-dry	1	5/12/2020 4:03:39 PM
Chlorobenzene	ND	0.0246		mg/Kg-dry	1	5/12/2020 4:03:39 PM
1,1,1,2-Tetrachloroethane	ND	0.0246		mg/Kg-dry	1	5/12/2020 4:03:39 PM
Bromoform	ND	0.0491		mg/Kg-dry	1	5/12/2020 4:03:39 PM
1,1,2,2-Tetrachloroethane	ND	0.0197		mg/Kg-dry	1	5/12/2020 4:03:39 PM
Bromobenzene	ND	0.0197		mg/Kg-dry	1	5/12/2020 4:03:39 PM
2-Chlorotoluene	ND	0.0246		mg/Kg-dry	1	5/12/2020 4:03:39 PM
4-Chlorotoluene	ND	0.0246		mg/Kg-dry	1	5/12/2020 4:03:39 PM
1,2,3-Trichloropropane	ND	0.0246		mg/Kg-dry	1	5/12/2020 4:03:39 PM
1,2,4-Trichlorobenzene	ND	0.0246		mg/Kg-dry	1	5/12/2020 4:03:39 PM
1,3-Dichlorobenzene	ND	0.0197		mg/Kg-dry	1	5/12/2020 4:03:39 PM
1,4-Dichlorobenzene	ND	0.0197		mg/Kg-dry	1	5/12/2020 4:03:39 PM
1,2-Dichlorobenzene	ND	0.0197		mg/Kg-dry	1	5/12/2020 4:03:39 PM

Analytical Report

Work Order: **2005085**
Date Reported: **6/9/2020**

Client: O'Neill Service Group
Collection Date: 5/8/2020 1:40:00 PM
Project: F200
Lab ID: 2005085-020
Matrix: Soil
Client Sample ID: 358-B6-20

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28305		Analyst: KT
1,2-Dibromo-3-chloropropane	ND	0.491		mg/Kg-dry	1	5/12/2020 4:03:39 PM
Hexachloro-1,3-butadiene	ND	0.0491		mg/Kg-dry	1	5/12/2020 4:03:39 PM
1,2,3-Trichlorobenzene	ND	0.0197		mg/Kg-dry	1	5/12/2020 4:03:39 PM
Surr: Dibromofluoromethane	97.9	80 - 116		%Rec	1	5/12/2020 4:03:39 PM
Surr: Toluene-d8	99.2	84.8 - 113		%Rec	1	5/12/2020 4:03:39 PM
Surr: 1-Bromo-4-fluorobenzene	97.2	82.8 - 113		%Rec	1	5/12/2020 4:03:39 PM
Sample Moisture (Percent Moisture)				Batch ID: R59116		Analyst: MM
Percent Moisture	10.1	0.500		wt%	1	5/12/2020 9:40:39 AM

Date: *6/9/2020*

Work Order: 2005085
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **LCS-28544** SampType: **LCS** Units: **mg/Kg** Prep Date: **6/4/2020** RunNo: **59665**
Client ID: **LCSS** Batch ID: **28544** Analysis Date: **6/5/2020** SeqNo: **1193512**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	1.93	0.0200	1.000	0	193	13.4	185				S
Chloromethane	1.03	0.0500	1.000	0	103	38.5	158				
Vinyl chloride	1.14	0.0250	1.000	0	114	53.6	138				
Bromomethane	0.696	0.0500	1.000	0	69.6	56.6	151				
Trichlorofluoromethane (CFC-11)	1.18	0.0200	1.000	0	118	64.2	137				
Chloroethane	0.582	0.0500	1.000	0	58.2	54.1	134				
1,1-Dichloroethene	1.12	0.0200	1.000	0	112	66	133				
Methylene chloride	1.02	0.0200	1.000	0	102	74.3	117				
trans-1,2-Dichloroethene	1.06	0.0200	1.000	0	106	79.6	115				
1,1-Dichloroethane	0.991	0.0200	1.000	0	99.1	75.8	117				
cis-1,2-Dichloroethene	1.03	0.0200	1.000	0	103	77.8	115				
Chloroform	0.982	0.0200	1.000	0	98.2	78.2	115				
1,1,1-Trichloroethane (TCA)	1.02	0.0250	1.000	0	102	76	121				
1,1-Dichloropropene	1.01	0.0200	1.000	0	101	77.2	120				
Carbon tetrachloride	1.02	0.0500	1.000	0	102	74	122				
1,2-Dichloroethane (EDC)	0.942	0.0200	1.000	0	94.2	74.7	115				
Trichloroethene (TCE)	1.01	0.0200	1.000	0	101	79.6	118				
1,2-Dichloropropane	0.907	0.0200	1.000	0	90.7	78.2	115				
Bromodichloromethane	0.909	0.0200	1.000	0	90.9	76.6	116				
Dibromomethane	0.928	0.0200	1.000	0	92.8	77.9	115				
cis-1,3-Dichloropropene	0.986	0.0200	1.000	0	98.6	74.6	119				
trans-1,3-Dichloropropylene	0.951	0.0200	1.000	0	95.1	70.6	124				
1,1,2-Trichloroethane	0.904	0.0200	1.000	0	90.4	75.6	116				
1,3-Dichloropropane	0.882	0.0250	1.000	0	88.2	75.3	116				
Tetrachloroethene (PCE)	1.09	0.0250	1.000	0	109	78.8	119				
Dibromochloromethane	0.890	0.0250	1.000	0	89.0	72.5	123				
1,2-Dibromoethane (EDB)	0.901	0.00500	1.000	0	90.1	75	116				
Chlorobenzene	0.990	0.0250	1.000	0	99.0	83.4	113				
1,1,1,2-Tetrachloroethane	0.966	0.0250	1.000	0	96.6	80.8	117				
Bromoform	0.890	0.0500	1.000	0	89.0	71	129				
1,1,2,2-Tetrachloroethane	0.840	0.0200	1.000	0	84.0	71.3	119				

Date: *6/9/2020*

Work Order: 2005085
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **LCS-28544** SampType: **LCS** Units: **mg/Kg** Prep Date: **6/4/2020** RunNo: **59665**
Client ID: **LCSS** Batch ID: **28544** Analysis Date: **6/5/2020** SeqNo: **1193512**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromobenzene	1.02	0.0200	1.000	0	102	78.6	115				
2-Chlorotoluene	0.981	0.0250	1.000	0	98.1	78.6	116				
4-Chlorotoluene	0.994	0.0250	1.000	0	99.4	78.8	117				
1,2,3-Trichloropropane	0.894	0.0250	1.000	0	89.4	67.5	129				
1,2,4-Trichlorobenzene	1.03	0.0250	1.000	0	103	79.6	124				
1,3-Dichlorobenzene	1.07	0.0200	1.000	0	107	87.1	117				
1,4-Dichlorobenzene	1.02	0.0200	1.000	0	102	87.6	115				
1,2-Dichlorobenzene	0.979	0.0200	1.000	0	97.9	87.9	115				
1,2-Dibromo-3-chloropropane	0.777	0.500	1.000	0	77.7	65.6	132				
Hexachloro-1,3-butadiene	1.18	0.0500	1.000	0	118	75	130				
1,2,3-Trichlorobenzene	0.987	0.0200	1.000	0	98.7	74.3	128				
Surr: Dibromofluoromethane	1.29		1.250		103	83.3	111				
Surr: Toluene-d8	1.27		1.250		102	87.9	111				
Surr: 1-Bromo-4-fluorobenzene	1.27		1.250		102	85.1	111				

NOTES:
S - Outlying spike recovery observed (high bias). Samples are non-detect for this analyte; no further action required.

Sample ID: **MB-28544** SampType: **MBLK** Units: **mg/Kg** Prep Date: **6/4/2020** RunNo: **59665**
Client ID: **MBLKS** Batch ID: **28544** Analysis Date: **6/5/2020** SeqNo: **1193513**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	0.0200									
Chloromethane	ND	0.0500									Q
Vinyl chloride	ND	0.0250									
Bromomethane	ND	0.0500									Q
Trichlorofluoromethane (CFC-11)	ND	0.0200									
Chloroethane	ND	0.0500									Q
1,1-Dichloroethene	ND	0.0200									
Methylene chloride	ND	0.0200									
trans-1,2-Dichloroethene	ND	0.0200									
1,1-Dichloroethane	ND	0.0200									

Date: *6/9/2020*

Work Order: 2005085
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **MB-28544** SampType: **MBLK** Units: **mg/Kg** Prep Date: **6/4/2020** RunNo: **59665**
Client ID: **MBLKS** Batch ID: **28544** Analysis Date: **6/5/2020** SeqNo: **1193513**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
cis-1,2-Dichloroethene	ND	0.0200									
Chloroform	ND	0.0200									
1,1,1-Trichloroethane (TCA)	ND	0.0250									
1,1-Dichloropropene	ND	0.0200									
Carbon tetrachloride	ND	0.0500									
1,2-Dichloroethane (EDC)	ND	0.0200									
Trichloroethene (TCE)	ND	0.0200									
1,2-Dichloropropane	ND	0.0200									
Bromodichloromethane	ND	0.0200									
Dibromomethane	ND	0.0200									
cis-1,3-Dichloropropene	ND	0.0200									
trans-1,3-Dichloropropylene	ND	0.0200									
1,1,2-Trichloroethane	ND	0.0200									
1,3-Dichloropropane	ND	0.0250									
Tetrachloroethene (PCE)	ND	0.0250									
Dibromochloromethane	ND	0.0250									
1,2-Dibromoethane (EDB)	ND	0.00500									
Chlorobenzene	ND	0.0250									
1,1,1,2-Tetrachloroethane	ND	0.0250									
Bromoform	ND	0.0500									
1,1,2,2-Tetrachloroethane	ND	0.0200									
Bromobenzene	ND	0.0200									
2-Chlorotoluene	ND	0.0250									
4-Chlorotoluene	ND	0.0250									
1,2,3-Trichloropropane	ND	0.0250									
1,2,4-Trichlorobenzene	ND	0.0250									
1,3-Dichlorobenzene	ND	0.0200									
1,4-Dichlorobenzene	ND	0.0200									
1,2-Dichlorobenzene	ND	0.0200									
1,2-Dibromo-3-chloropropane	ND	0.500									Q
Hexachloro-1,3-butadiene	ND	0.0500									

Date: *6/9/2020*

Work Order: 2005085
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **MB-28544** SampType: **MBLK** Units: **mg/Kg** Prep Date: **6/4/2020** RunNo: **59665**
Client ID: **MBLKS** Batch ID: **28544** Analysis Date: **6/5/2020** SeqNo: **1193513**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,3-Trichlorobenzene	ND	0.0200									
Surr: Dibromofluoromethane	1.13		1.250		90.5	83.3	111				
Surr: Toluene-d8	1.15		1.250		92.2	87.9	111				
Surr: 1-Bromo-4-fluorobenzene	1.23		1.250		98.3	85.1	111				

NOTES:
Q - Indicates an analyte with a continuing calibration that does not meet established acceptance criteria

Sample ID: **2005085-007BDUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **6/4/2020** RunNo: **59665**
Client ID: **358-B5-2.5** Batch ID: **28544** Analysis Date: **6/5/2020** SeqNo: **1193500**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	0.0306						0		30	H
Chloromethane	ND	0.0765						0		30	QH
Vinyl chloride	ND	0.0382						0		30	H
Bromomethane	ND	0.0765						0		30	QH
Trichlorofluoromethane (CFC-11)	ND	0.0306						0		30	H
Chloroethane	ND	0.0765						0		30	QH
1,1-Dichloroethene	ND	0.0306						0		30	H
Methylene chloride	ND	0.0306						0		30	H
trans-1,2-Dichloroethene	ND	0.0306						0		30	H
1,1-Dichloroethane	ND	0.0306						0		30	H
cis-1,2-Dichloroethene	ND	0.0306						0		30	H
Chloroform	ND	0.0306						0		30	H
1,1,1-Trichloroethane (TCA)	ND	0.0382						0		30	H
1,1-Dichloropropene	ND	0.0306						0		30	H
Carbon tetrachloride	ND	0.0765						0		30	H
1,2-Dichloroethane (EDC)	ND	0.0306						0		30	H
Trichloroethene (TCE)	ND	0.0306						0		30	H
1,2-Dichloropropane	ND	0.0306						0		30	H
Bromodichloromethane	ND	0.0306						0		30	H
Dibromomethane	ND	0.0306						0		30	H

Date: *6/9/2020*

Work Order: 2005085
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2005085-007BDUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **6/4/2020** RunNo: **59665**
Client ID: **358-B5-2.5** Batch ID: **28544** Analysis Date: **6/5/2020** SeqNo: **1193500**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
cis-1,3-Dichloropropene	ND	0.0306						0		30	H
trans-1,3-Dichloropropylene	ND	0.0306						0		30	H
1,1,2-Trichloroethane	ND	0.0306						0		30	H
1,3-Dichloropropane	ND	0.0382						0		30	H
Tetrachloroethene (PCE)	ND	0.0382						0		30	H
Dibromochloromethane	ND	0.0382						0		30	H
1,2-Dibromoethane (EDB)	ND	0.00765						0		30	H
Chlorobenzene	ND	0.0382						0		30	H
1,1,1,2-Tetrachloroethane	ND	0.0382						0		30	H
Bromoform	ND	0.0765						0		30	H
1,1,2,2-Tetrachloroethane	ND	0.0306						0		30	H
Bromobenzene	ND	0.0306						0		30	H
2-Chlorotoluene	ND	0.0382						0		30	H
4-Chlorotoluene	ND	0.0382						0		30	H
1,2,3-Trichloropropane	ND	0.0382						0		30	H
1,2,4-Trichlorobenzene	ND	0.0382						0		30	H
1,3-Dichlorobenzene	ND	0.0306						0		30	H
1,4-Dichlorobenzene	ND	0.0306						0		30	H
1,2-Dichlorobenzene	0.0882	0.0306						0.08726	1.02	30	H
1,2-Dibromo-3-chloropropane	ND	0.765						0		30	QH
Hexachloro-1,3-butadiene	ND	0.0765						0		30	H
1,2,3-Trichlorobenzene	ND	0.0306						0		30	H
Surr: Dibromofluoromethane	1.75		1.912		91.3	83.3	111		0		H
Surr: Toluene-d8	1.78		1.912		93.1	87.9	111		0		H
Surr: 1-Bromo-4-fluorobenzene	1.87		1.912		97.8	85.1	111		0		H

NOTES:
Q - Indicates an analyte with a continuing calibration that does not meet established acceptance criteria

Date: *6/9/2020*

Work Order: 2005085
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2005354-013BDUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **6/4/2020** RunNo: **59665**
Client ID: **BATCH** Batch ID: **28544** Analysis Date: **6/6/2020** SeqNo: **1193507**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	0.0264						0		30	
Chloromethane	ND	0.0660						0		30	Q
Vinyl chloride	ND	0.0330						0		30	
Bromomethane	ND	0.0660						0		30	Q
Trichlorofluoromethane (CFC-11)	ND	0.0264						0		30	
Chloroethane	ND	0.0660						0		30	Q
1,1-Dichloroethene	ND	0.0264						0		30	
Methylene chloride	ND	0.0264						0		30	
trans-1,2-Dichloroethene	ND	0.0264						0		30	
1,1-Dichloroethane	ND	0.0264						0		30	
cis-1,2-Dichloroethene	ND	0.0264						0		30	
Chloroform	ND	0.0264						0		30	
1,1,1-Trichloroethane (TCA)	ND	0.0330						0		30	
1,1-Dichloropropene	ND	0.0264						0		30	
Carbon tetrachloride	ND	0.0660						0		30	
1,2-Dichloroethane (EDC)	ND	0.0264						0		30	
Trichloroethene (TCE)	ND	0.0264						0		30	
1,2-Dichloropropane	ND	0.0264						0		30	
Bromodichloromethane	ND	0.0264						0		30	
Dibromomethane	ND	0.0264						0		30	
cis-1,3-Dichloropropene	ND	0.0264						0		30	
trans-1,3-Dichloropropylene	ND	0.0264						0		30	
1,1,2-Trichloroethane	ND	0.0264						0		30	
1,3-Dichloropropane	ND	0.0330						0		30	
Tetrachloroethene (PCE)	ND	0.0330						0		30	
Dibromochloromethane	ND	0.0330						0		30	
1,2-Dibromoethane (EDB)	ND	0.00660						0		30	
Chlorobenzene	ND	0.0330						0		30	
1,1,1,2-Tetrachloroethane	ND	0.0330						0		30	
Bromoform	ND	0.0660						0		30	
1,1,2,2-Tetrachloroethane	ND	0.0264						0		30	

Date: *6/9/2020*

Work Order: 2005085
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2005354-013BDUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **6/4/2020** RunNo: **59665**
Client ID: **BATCH** Batch ID: **28544** Analysis Date: **6/6/2020** SeqNo: **1193507**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromobenzene	ND	0.0264						0		30	
2-Chlorotoluene	ND	0.0330						0		30	
4-Chlorotoluene	ND	0.0330						0		30	
1,2,3-Trichloropropane	ND	0.0330						0		30	
1,2,4-Trichlorobenzene	ND	0.0330						0		30	
1,3-Dichlorobenzene	ND	0.0264						0		30	
1,4-Dichlorobenzene	ND	0.0264						0		30	
1,2-Dichlorobenzene	ND	0.0264						0		30	
1,2-Dibromo-3-chloropropane	ND	0.660						0		30	Q
Hexachloro-1,3-butadiene	ND	0.0660						0		30	
1,2,3-Trichlorobenzene	ND	0.0264						0		30	
Surr: Dibromofluoromethane	1.50		1.649		90.7	83.3	111		0		
Surr: Toluene-d8	1.51		1.649		91.8	87.9	111		0		
Surr: 1-Bromo-4-fluorobenzene	1.60		1.649		97.2	85.1	111		0		

NOTES:
Q - Indicates an analyte with a continuing calibration that does not meet established acceptance criteria

Sample ID: **2006001-002CMS** SampType: **MS** Units: **mg/Kg-dry** Prep Date: **6/4/2020** RunNo: **59665**
Client ID: **BATCH** Batch ID: **28544** Analysis Date: **6/6/2020** SeqNo: **1193509**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	1.40	0.0217	1.083	0	129	5.73	173				
Chloromethane	0.674	0.0542	1.083	0	62.2	41.3	150				
Vinyl chloride	0.962	0.0271	1.083	0	88.9	49.5	138				
Bromomethane	0.594	0.0542	1.083	0	54.8	48.5	158				
Trichlorofluoromethane (CFC-11)	1.05	0.0217	1.083	0	96.6	40.6	159				
Chloroethane	0.545	0.0542	1.083	0	50.3	30.4	166				
1,1-Dichloroethene	0.993	0.0217	1.083	0	91.7	55	138				
Methylene chloride	0.964	0.0217	1.083	0	89.0	70.3	123				
trans-1,2-Dichloroethene	0.990	0.0217	1.083	0	91.4	73.1	121				
1,1-Dichloroethane	0.933	0.0217	1.083	0	86.1	70.8	122				

Date: *6/9/2020*

Work Order: 2005085
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2006001-002CMS** SampType: **MS** Units: **mg/Kg-dry** Prep Date: **6/4/2020** RunNo: **59665**
Client ID: **BATCH** Batch ID: **28544** Analysis Date: **6/6/2020** SeqNo: **1193509**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
cis-1,2-Dichloroethene	0.952	0.0217	1.083	0	87.9	71.8	122				
Chloroform	0.930	0.0217	1.083	0	85.9	72.9	122				
1,1,1-Trichloroethane (TCA)	0.934	0.0271	1.083	0	86.3	69.6	125				
1,1-Dichloropropene	0.902	0.0217	1.083	0	83.2	69.3	126				
Carbon tetrachloride	0.921	0.0542	1.083	0	85.0	65	127				
1,2-Dichloroethane (EDC)	0.926	0.0217	1.083	0	85.5	70.1	121				
Trichloroethene (TCE)	0.948	0.0217	1.083	0	87.5	70.1	129				
1,2-Dichloropropane	0.871	0.0217	1.083	0	80.4	74.6	120				
Bromodichloromethane	0.861	0.0217	1.083	0	79.5	70.9	122				
Dibromomethane	0.913	0.0217	1.083	0	84.3	75.6	120				
cis-1,3-Dichloropropene	0.912	0.0217	1.083	0	84.2	68.3	120				
trans-1,3-Dichloropropylene	0.900	0.0217	1.083	0	83.1	62.2	127				
1,1,2-Trichloroethane	0.923	0.0217	1.083	0	85.2	72.9	120				
1,3-Dichloropropane	0.891	0.0271	1.083	0	82.3	71.9	119				
Tetrachloroethene (PCE)	0.995	0.0271	1.083	0	91.9	71.1	122				
Dibromochloromethane	0.873	0.0271	1.083	0	80.6	65.9	126				
1,2-Dibromoethane (EDB)	0.914	0.00542	1.083	0	84.4	72	119				
Chlorobenzene	1.03	0.0271	1.083	0	94.8	81.4	116				
1,1,1,2-Tetrachloroethane	1.01	0.0271	1.083	0	93.0	72.9	125				
Bromoform	0.969	0.0542	1.083	0	89.4	63.4	133				
1,1,2,2-Tetrachloroethane	0.932	0.0217	1.083	0	86.0	61	128				
Bromobenzene	1.06	0.0217	1.083	0	98.2	77	120				
2-Chlorotoluene	1.07	0.0271	1.083	0	99.1	71.4	126				
4-Chlorotoluene	1.06	0.0271	1.083	0	97.9	73.6	124				
1,2,3-Trichloropropane	0.967	0.0271	1.083	0	89.3	65.7	132				
1,2,4-Trichlorobenzene	1.05	0.0271	1.083	0	96.8	70.5	130				
1,3-Dichlorobenzene	1.07	0.0217	1.083	0	98.9	83.8	121				
1,4-Dichlorobenzene	1.05	0.0217	1.083	0	97.1	85.7	117				
1,2-Dichlorobenzene	1.03	0.0217	1.083	0	95.4	81.8	120				
1,2-Dibromo-3-chloropropane	0.922	0.542	1.083	0	85.1	56.9	139				
Hexachloro-1,3-butadiene	1.17	0.0542	1.083	0	108	61.1	140				

Date: *6/9/2020*

Work Order: 2005085
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2006001-002CMS** SampType: **MS** Units: **mg/Kg-dry** Prep Date: **6/4/2020** RunNo: **59665**
Client ID: **BATCH** Batch ID: **28544** Analysis Date: **6/6/2020** SeqNo: **1193509**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,3-Trichlorobenzene	1.05	0.0217	1.083	0	96.6	67.8	132				
Surr: Dibromofluoromethane	1.27		1.354		93.8	83.3	111				
Surr: Toluene-d8	1.27		1.354		94.0	87.9	111				
Surr: 1-Bromo-4-fluorobenzene	1.38		1.354		102	85.1	111				

Sample ID: **2006001-002CMSD** SampType: **MSD** Units: **mg/Kg-dry** Prep Date: **6/4/2020** RunNo: **59665**
Client ID: **BATCH** Batch ID: **28544** Analysis Date: **6/6/2020** SeqNo: **1193510**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	1.28	0.0217	1.083	0	119	5.73	173	1.400	8.64	30	
Chloromethane	0.747	0.0542	1.083	0	69.0	41.3	150	0.6736	10.4	30	
Vinyl chloride	0.910	0.0271	1.083	0	84.1	49.5	138	0.9624	5.55	30	
Bromomethane	0.549	0.0542	1.083	0	50.7	48.5	158	0.5938	7.86	30	
Trichlorofluoromethane (CFC-11)	0.962	0.0217	1.083	0	88.8	40.6	159	1.047	8.48	30	
Chloroethane	0.506	0.0542	1.083	0	46.7	30.4	166	0.5446	7.43	30	
1,1-Dichloroethene	0.878	0.0217	1.083	0	81.0	55	138	0.9931	12.3	30	
Methylene chloride	0.935	0.0217	1.083	0	86.3	70.3	123	0.9638	3.07	30	
trans-1,2-Dichloroethene	0.970	0.0217	1.083	0	89.5	73.1	121	0.9897	2.03	30	
1,1-Dichloroethane	0.885	0.0217	1.083	0	81.7	70.8	122	0.9331	5.24	30	
cis-1,2-Dichloroethene	0.933	0.0217	1.083	0	86.1	71.8	122	0.9518	2.01	30	
Chloroform	0.898	0.0217	1.083	0	83.0	72.9	122	0.9301	3.46	30	
1,1,1-Trichloroethane (TCA)	0.901	0.0271	1.083	0	83.2	69.6	125	0.9343	3.64	30	
1,1-Dichloropropene	0.860	0.0217	1.083	0	79.4	69.3	126	0.9016	4.77	30	
Carbon tetrachloride	0.879	0.0542	1.083	0	81.2	65	127	0.9210	4.66	30	
1,2-Dichloroethane (EDC)	0.922	0.0217	1.083	0	85.2	70.1	121	0.9255	0.345	30	
Trichloroethene (TCE)	0.912	0.0217	1.083	0	84.2	70.1	129	0.9477	3.82	30	
1,2-Dichloropropane	0.857	0.0217	1.083	0	79.1	74.6	120	0.8711	1.63	30	
Bromodichloromethane	0.856	0.0217	1.083	0	79.0	70.9	122	0.8614	0.648	30	
Dibromomethane	0.898	0.0217	1.083	0	82.9	75.6	120	0.9132	1.69	30	
cis-1,3-Dichloropropene	0.896	0.0217	1.083	0	82.7	68.3	120	0.9122	1.82	30	

Date: *6/9/2020*

Work Order: 2005085
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2006001-002CMSD** SampType: **MSD** Units: **mg/Kg-dry** Prep Date: **6/4/2020** RunNo: **59665**
Client ID: **BATCH** Batch ID: **28544** Analysis Date: **6/6/2020** SeqNo: **1193510**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
trans-1,3-Dichloropropylene	0.897	0.0217	1.083	0	82.8	62.2	127	0.9002	0.373	30	
1,1,2-Trichloroethane	0.918	0.0217	1.083	0	84.8	72.9	120	0.9230	0.544	30	
1,3-Dichloropropane	0.872	0.0271	1.083	0	80.5	71.9	119	0.8911	2.21	30	
Tetrachloroethene (PCE)	0.946	0.0271	1.083	0	87.4	71.1	122	0.9951	5.02	30	
Dibromochloromethane	0.868	0.0271	1.083	0	80.1	65.9	126	0.8726	0.527	30	
1,2-Dibromoethane (EDB)	0.896	0.00542	1.083	0	82.7	72	119	0.9137	1.95	30	
Chlorobenzene	1.01	0.0271	1.083	0	92.9	81.4	116	1.027	2.00	30	
1,1,1,2-Tetrachloroethane	0.993	0.0271	1.083	0	91.6	72.9	125	1.007	1.42	30	
Bromoform	0.959	0.0542	1.083	0	88.6	63.4	133	0.9687	0.974	30	
1,1,2,2-Tetrachloroethane	0.918	0.0217	1.083	0	84.7	61	128	0.9318	1.54	30	
Bromobenzene	1.04	0.0217	1.083	0	96.2	77	120	1.064	2.13	30	
2-Chlorotoluene	1.04	0.0271	1.083	0	96.3	71.4	126	1.073	2.85	30	
4-Chlorotoluene	1.04	0.0271	1.083	0	96.4	73.6	124	1.061	1.56	30	
1,2,3-Trichloropropane	0.955	0.0271	1.083	0	88.2	65.7	132	0.9670	1.20	30	
1,2,4-Trichlorobenzene	1.07	0.0271	1.083	0	99.2	70.5	130	1.049	2.44	30	
1,3-Dichlorobenzene	1.08	0.0217	1.083	0	99.8	83.8	121	1.071	0.936	30	
1,4-Dichlorobenzene	1.05	0.0217	1.083	0	97.2	85.7	117	1.051	0.141	30	
1,2-Dichlorobenzene	1.02	0.0217	1.083	0	94.6	81.8	120	1.033	0.767	30	
1,2-Dibromo-3-chloropropane	0.914	0.542	1.083	0	84.4	56.9	139	0.9220	0.816	30	
Hexachloro-1,3-butadiene	1.17	0.0542	1.083	0	108	61.1	140	1.174	0.705	30	
1,2,3-Trichlorobenzene	1.08	0.0217	1.083	0	100	67.8	132	1.046	3.56	30	
Surr: Dibromofluoromethane	1.27		1.354		94.1	83.3	111		0		
Surr: Toluene-d8	1.26		1.354		93.0	87.9	111		0		
Surr: 1-Bromo-4-fluorobenzene	1.37		1.354		101	85.1	111		0		

Sample ID: **2006006-001BDUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **6/4/2020** RunNo: **59665**
Client ID: **BATCH** Batch ID: **28544** Analysis Date: **6/8/2020** SeqNo: **1193886**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	0.0250						0		30	

Date: *6/9/2020*

Work Order: 2005085
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2006006-001BDUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **6/4/2020** RunNo: **59665**
Client ID: **BATCH** Batch ID: **28544** Analysis Date: **6/8/2020** SeqNo: **1193886**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloromethane	ND	0.0626						0		30	Q
Vinyl chloride	ND	0.0313						0		30	
Bromomethane	ND	0.0626						0		30	
Trichlorofluoromethane (CFC-11)	ND	0.0250						0		30	
Chloroethane	ND	0.0626						0		30	
1,1-Dichloroethene	ND	0.0250						0		30	
Methylene chloride	ND	0.0250						0		30	
trans-1,2-Dichloroethene	ND	0.0250						0		30	
1,1-Dichloroethane	ND	0.0250						0		30	
cis-1,2-Dichloroethene	ND	0.0250						0		30	
Chloroform	ND	0.0250						0		30	
1,1,1-Trichloroethane (TCA)	ND	0.0313						0		30	
1,1-Dichloropropene	ND	0.0250						0		30	
Carbon tetrachloride	ND	0.0626						0		30	
1,2-Dichloroethane (EDC)	ND	0.0250						0		30	
Trichloroethene (TCE)	ND	0.0250						0		30	
1,2-Dichloropropane	ND	0.0250						0		30	
Bromodichloromethane	ND	0.0250						0		30	
Dibromomethane	ND	0.0250						0		30	
cis-1,3-Dichloropropene	ND	0.0250						0		30	
trans-1,3-Dichloropropylene	ND	0.0250						0		30	
1,1,2-Trichloroethane	ND	0.0250						0		30	
1,3-Dichloropropane	ND	0.0313						0		30	
Tetrachloroethene (PCE)	ND	0.0313						0		30	
Dibromochloromethane	ND	0.0313						0		30	
1,2-Dibromoethane (EDB)	ND	0.00626						0		30	
Chlorobenzene	ND	0.0313						0		30	
1,1,1,2-Tetrachloroethane	ND	0.0313						0		30	
Bromoform	ND	0.0626						0		30	
1,1,2,2-Tetrachloroethane	ND	0.0250						0		30	
Bromobenzene	ND	0.0250						0		30	

Date: *6/9/2020*

Work Order: 2005085
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2006006-001BDUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **6/4/2020** RunNo: **59665**
Client ID: **BATCH** Batch ID: **28544** Analysis Date: **6/8/2020** SeqNo: **1193886**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2-Chlorotoluene	ND	0.0313						0		30	
4-Chlorotoluene	ND	0.0313						0		30	
1,2,3-Trichloropropane	ND	0.0313						0		30	
1,2,4-Trichlorobenzene	ND	0.0313						0		30	
1,3-Dichlorobenzene	ND	0.0250						0		30	
1,4-Dichlorobenzene	ND	0.0250						0		30	
1,2-Dichlorobenzene	ND	0.0250						0		30	
1,2-Dibromo-3-chloropropane	ND	0.626						0		30	
Hexachloro-1,3-butadiene	ND	0.0626						0		30	
1,2,3-Trichlorobenzene	ND	0.0250						0		30	
Surr: Dibromofluoromethane	1.47		1.565		94.1	83.3	111		0		
Surr: Toluene-d8	1.48		1.565		94.6	87.9	111		0		
Surr: 1-Bromo-4-fluorobenzene	1.55		1.565		99.0	85.1	111		0		

NOTES:
Q - Indicates an analyte with a continuing calibration that does not meet established acceptance criteria

Date: *6/9/2020*

Work Order: 2005085
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **LCS-28369** SampType: **LCS** Units: **mg/Kg** Prep Date: **5/19/2020** RunNo: **59275**
Client ID: **LCSS** Batch ID: **28369** Analysis Date: **5/20/2020** SeqNo: **1184677**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	0.945	0.0200	1.000	0	94.5	21.6	169				
Chloromethane	0.944	0.0500	1.000	0	94.4	45.3	153				
Vinyl chloride	0.929	0.0250	1.000	0	92.9	57.5	137				
Bromomethane	0.918	0.0500	1.000	0	91.8	32.8	194				
Trichlorofluoromethane (CFC-11)	0.957	0.0200	1.000	0	95.7	54.3	152				
Chloroethane	0.954	0.0500	1.000	0	95.4	52	146				
1,1-Dichloroethene	0.941	0.0200	1.000	0	94.1	62.8	139				
Methylene chloride	0.952	0.0200	1.000	0	95.2	78.4	118				
trans-1,2-Dichloroethene	0.954	0.0200	1.000	0	95.4	82	117				
1,1-Dichloroethane	0.959	0.0200	1.000	0	95.9	78	119				
cis-1,2-Dichloroethene	0.978	0.0200	1.000	0	97.8	81.9	116				
Chloroform	0.960	0.0200	1.000	0	96.0	80.8	117				
1,1,1-Trichloroethane (TCA)	0.962	0.0250	1.000	0	96.2	81.4	117				
1,1-Dichloropropene	0.952	0.0200	1.000	0	95.2	79.9	117				
Carbon tetrachloride	0.944	0.0500	1.000	0	94.4	80.4	117				
1,2-Dichloroethane (EDC)	0.969	0.0200	1.000	0	96.9	77.5	117				
Trichloroethene (TCE)	0.944	0.0200	1.000	0	94.4	83.4	115				
1,2-Dichloropropane	0.959	0.0200	1.000	0	95.9	77.6	117				
Bromodichloromethane	0.952	0.0200	1.000	0	95.2	78.9	116				
Dibromomethane	0.972	0.0200	1.000	0	97.2	81.2	115				
cis-1,3-Dichloropropene	0.963	0.0200	1.000	0	96.3	78	115				
trans-1,3-Dichloropropylene	0.955	0.0200	1.000	0	95.5	75.7	117				
1,1,2-Trichloroethane	0.948	0.0200	1.000	0	94.8	77.9	118				
1,3-Dichloropropane	0.943	0.0250	1.000	0	94.3	77.1	118				
Tetrachloroethene (PCE)	0.937	0.0250	1.000	0	93.7	84.3	117				
Dibromochloromethane	0.951	0.0250	1.000	0	95.1	77.9	118				
1,2-Dibromoethane (EDB)	0.953	0.00500	1.000	0	95.3	78.6	117				
Chlorobenzene	0.946	0.0250	1.000	0	94.6	86.5	113				
1,1,1,2-Tetrachloroethane	0.920	0.0250	1.000	0	92.0	84.8	113				
Bromoform	0.922	0.0500	1.000	0	92.2	70.7	125				
1,1,2,2-Tetrachloroethane	0.927	0.0200	1.000	0	92.7	68.3	125				

Date: *6/9/2020*

Work Order: 2005085
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **LCS-28369** SampType: **LCS** Units: **mg/Kg** Prep Date: **5/19/2020** RunNo: **59275**
Client ID: **LCSS** Batch ID: **28369** Analysis Date: **5/20/2020** SeqNo: **1184677**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromobenzene	0.963	0.0200	1.000	0	96.3	84	117				
2-Chlorotoluene	0.966	0.0250	1.000	0	96.6	80.4	122				
4-Chlorotoluene	0.969	0.0250	1.000	0	96.9	83.1	118				
1,2,3-Trichloropropane	0.954	0.0250	1.000	0	95.4	71	125				
1,2,4-Trichlorobenzene	0.956	0.0250	1.000	0	95.6	81	126				
1,3-Dichlorobenzene	0.890	0.0200	1.000	0	89.0	90.4	115				S
1,4-Dichlorobenzene	0.875	0.0200	1.000	0	87.5	90.3	115				S
1,2-Dichlorobenzene	0.884	0.0200	1.000	0	88.4	90.3	115				S
1,2-Dibromo-3-chloropropane	0.953	0.500	1.000	0	95.3	62.3	136				
Hexachloro-1,3-butadiene	1.01	0.0500	1.000	0	101	77.8	133				
1,2,3-Trichlorobenzene	0.932	0.0200	1.000	0	93.2	75.9	130				
Surr: Dibromofluoromethane	1.35		1.250		108	80	116				
Surr: Toluene-d8	1.26		1.250		101	84.8	113				
Surr: 1-Bromo-4-fluorobenzene	1.30		1.250		104	82.8	113				

NOTES:
S - Outlying spike recovery observed (low bias). Samples will be qualified with a *.

Sample ID: **MB-28369** SampType: **MBLK** Units: **mg/Kg** Prep Date: **5/19/2020** RunNo: **59275**
Client ID: **MBLKS** Batch ID: **28369** Analysis Date: **5/20/2020** SeqNo: **1184678**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	0.0200									
Chloromethane	ND	0.0500									
Vinyl chloride	ND	0.0250									
Bromomethane	ND	0.0500									
Trichlorofluoromethane (CFC-11)	ND	0.0200									
Chloroethane	ND	0.0500									
1,1-Dichloroethene	ND	0.0200									
Methylene chloride	ND	0.0200									
trans-1,2-Dichloroethene	ND	0.0200									
1,1-Dichloroethane	ND	0.0200									

Date: *6/9/2020*

Work Order: 2005085
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **MB-28369** SampType: **MBLK** Units: **mg/Kg** Prep Date: **5/19/2020** RunNo: **59275**
Client ID: **MBLKS** Batch ID: **28369** Analysis Date: **5/20/2020** SeqNo: **1184678**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
cis-1,2-Dichloroethene	ND	0.0200									
Chloroform	ND	0.0200									
1,1,1-Trichloroethane (TCA)	ND	0.0250									
1,1-Dichloropropene	ND	0.0200									
Carbon tetrachloride	ND	0.0500									
1,2-Dichloroethane (EDC)	ND	0.0200									
Trichloroethene (TCE)	ND	0.0200									
1,2-Dichloropropane	ND	0.0200									
Bromodichloromethane	ND	0.0200									
Dibromomethane	ND	0.0200									
cis-1,3-Dichloropropene	ND	0.0200									
trans-1,3-Dichloropropylene	ND	0.0200									
1,1,2-Trichloroethane	ND	0.0200									
1,3-Dichloropropane	ND	0.0250									
Tetrachloroethene (PCE)	ND	0.0250									
Dibromochloromethane	ND	0.0250									
1,2-Dibromoethane (EDB)	ND	0.00500									
Chlorobenzene	ND	0.0250									
1,1,1,2-Tetrachloroethane	ND	0.0250									
Bromoform	ND	0.0500									
1,1,2,2-Tetrachloroethane	ND	0.0200									
Bromobenzene	ND	0.0200									
2-Chlorotoluene	ND	0.0250									
4-Chlorotoluene	ND	0.0250									
1,2,3-Trichloropropane	ND	0.0250									
1,2,4-Trichlorobenzene	ND	0.0250									
1,3-Dichlorobenzene	ND	0.0200									*
1,4-Dichlorobenzene	ND	0.0200									*
1,2-Dichlorobenzene	ND	0.0200									*
1,2-Dibromo-3-chloropropane	ND	0.500									
Hexachloro-1,3-butadiene	ND	0.0500									

Date: *6/9/2020*

Work Order: 2005085
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **MB-28369** SampType: **MBLK** Units: **mg/Kg** Prep Date: **5/19/2020** RunNo: **59275**
Client ID: **MBLKS** Batch ID: **28369** Analysis Date: **5/20/2020** SeqNo: **1184678**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,3-Trichlorobenzene	ND	0.0200									
Surr: Dibromofluoromethane	1.22		1.250		97.4	80	116				
Surr: Toluene-d8	1.26		1.250		101	84.8	113				
Surr: 1-Bromo-4-fluorobenzene	1.23		1.250		98.4	82.8	113				

NOTES:
* - Flagged value is not within established control limits.

Sample ID: **2005069-017BDUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **5/19/2020** RunNo: **59275**
Client ID: **BATCH** Batch ID: **28369** Analysis Date: **5/20/2020** SeqNo: **1184667**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	0.0171						0		30	
Chloromethane	ND	0.0427						0		30	
Vinyl chloride	ND	0.0214						0		30	
Bromomethane	ND	0.0427						0		30	
Trichlorofluoromethane (CFC-11)	ND	0.0171						0		30	
Chloroethane	ND	0.0427						0		30	
1,1-Dichloroethene	ND	0.0171						0		30	
Methylene chloride	ND	0.0171						0		30	
trans-1,2-Dichloroethene	ND	0.0171						0		30	
1,1-Dichloroethane	ND	0.0171						0		30	
cis-1,2-Dichloroethene	0.0653	0.0171						0.06688	2.35	30	
Chloroform	ND	0.0171						0		30	
1,1,1-Trichloroethane (TCA)	ND	0.0214						0		30	
1,1-Dichloropropene	ND	0.0171						0		30	
Carbon tetrachloride	ND	0.0427						0		30	
1,2-Dichloroethane (EDC)	ND	0.0171						0		30	
Trichloroethene (TCE)	0.0378	0.0171						0.03793	0.371	30	
1,2-Dichloropropane	ND	0.0171						0		30	
Bromodichloromethane	ND	0.0171						0		30	
Dibromomethane	ND	0.0171						0		30	

Date: *6/9/2020*

Work Order: 2005085
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2005069-017BDUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **5/19/2020** RunNo: **59275**
Client ID: **BATCH** Batch ID: **28369** Analysis Date: **5/20/2020** SeqNo: **1184667**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
cis-1,3-Dichloropropene	ND	0.0171						0		30	
trans-1,3-Dichloropropylene	ND	0.0171						0		30	
1,1,2-Trichloroethane	ND	0.0171						0		30	
1,3-Dichloropropane	ND	0.0214						0		30	
Tetrachloroethene (PCE)	0.115	0.0214						0.1215	5.82	30	
Dibromochloromethane	ND	0.0214						0		30	
1,2-Dibromoethane (EDB)	ND	0.00427						0		30	
Chlorobenzene	ND	0.0214						0		30	
1,1,1,2-Tetrachloroethane	ND	0.0214						0		30	
Bromoform	ND	0.0427						0		30	
1,1,2,2-Tetrachloroethane	ND	0.0171						0		30	
Bromobenzene	ND	0.0171						0		30	
2-Chlorotoluene	ND	0.0214						0		30	
4-Chlorotoluene	ND	0.0214						0		30	
1,2,3-Trichloropropane	ND	0.0214						0		30	
1,2,4-Trichlorobenzene	ND	0.0214						0		30	
1,3-Dichlorobenzene	ND	0.0171						0		30	*
1,4-Dichlorobenzene	ND	0.0171						0		30	*
1,2-Dichlorobenzene	ND	0.0171						0		30	*
1,2-Dibromo-3-chloropropane	ND	0.427						0		30	
Hexachloro-1,3-butadiene	ND	0.0427						0		30	
1,2,3-Trichlorobenzene	ND	0.0171						0		30	
Surr: Dibromofluoromethane	1.06		1.068		99.1	80	116		0		
Surr: Toluene-d8	1.07		1.068		101	84.8	113		0		
Surr: 1-Bromo-4-fluorobenzene	1.04		1.068		97.9	82.8	113		0		

NOTES:
* - Flagged value is not within established control limits.

Date: *6/9/2020*

Work Order: 2005085
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2005214-026BDUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **5/19/2020** RunNo: **59275**
Client ID: **BATCH** Batch ID: **28369** Analysis Date: **5/20/2020** SeqNo: **1184671**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	0.0212						0		30	
Chloromethane	ND	0.0530						0		30	
Vinyl chloride	ND	0.0265						0		30	
Bromomethane	ND	0.0530						0		30	
Trichlorofluoromethane (CFC-11)	ND	0.0212						0		30	
Chloroethane	ND	0.0530						0		30	
1,1-Dichloroethene	ND	0.0212						0		30	
Methylene chloride	ND	0.0212						0		30	
trans-1,2-Dichloroethene	ND	0.0212						0		30	
1,1-Dichloroethane	ND	0.0212						0		30	
cis-1,2-Dichloroethene	ND	0.0212						0		30	
Chloroform	ND	0.0212						0		30	
1,1,1-Trichloroethane (TCA)	ND	0.0265						0		30	
1,1-Dichloropropene	ND	0.0212						0		30	
Carbon tetrachloride	ND	0.0530						0		30	
1,2-Dichloroethane (EDC)	ND	0.0212						0		30	
Trichloroethene (TCE)	ND	0.0212						0		30	
1,2-Dichloropropane	ND	0.0212						0		30	
Bromodichloromethane	ND	0.0212						0		30	
Dibromomethane	ND	0.0212						0		30	
cis-1,3-Dichloropropene	ND	0.0212						0		30	
trans-1,3-Dichloropropylene	ND	0.0212						0		30	
1,1,2-Trichloroethane	ND	0.0212						0		30	
1,3-Dichloropropane	ND	0.0265						0		30	
Tetrachloroethene (PCE)	ND	0.0265						0		30	
Dibromochloromethane	ND	0.0265						0		30	
1,2-Dibromoethane (EDB)	ND	0.00530						0		30	
Chlorobenzene	ND	0.0265						0		30	
1,1,1,2-Tetrachloroethane	ND	0.0265						0		30	
Bromoform	ND	0.0530						0		30	
1,1,2,2-Tetrachloroethane	ND	0.0212						0		30	

Date: *6/9/2020*

Work Order: 2005085
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2005214-026BDUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **5/19/2020** RunNo: **59275**
Client ID: **BATCH** Batch ID: **28369** Analysis Date: **5/20/2020** SeqNo: **1184671**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromobenzene	ND	0.0212						0		30	
2-Chlorotoluene	ND	0.0265						0		30	
4-Chlorotoluene	ND	0.0265						0		30	
1,2,3-Trichloropropane	ND	0.0265						0		30	
1,2,4-Trichlorobenzene	ND	0.0265						0		30	
1,3-Dichlorobenzene	ND	0.0212						0		30	*
1,4-Dichlorobenzene	ND	0.0212						0		30	*
1,2-Dichlorobenzene	ND	0.0212						0		30	*
1,2-Dibromo-3-chloropropane	ND	0.530						0		30	
Hexachloro-1,3-butadiene	ND	0.0530						0		30	
1,2,3-Trichlorobenzene	ND	0.0212						0		30	
Surr: Dibromofluoromethane	1.38		1.326		104	80	116		0		
Surr: Toluene-d8	1.34		1.326		101	84.8	113		0		
Surr: 1-Bromo-4-fluorobenzene	1.31		1.326		98.6	82.8	113		0		

NOTES:
* - Flagged value is not within established control limits.

Sample ID: **2005214-028BMS** SampType: **MS** Units: **mg/Kg-dry** Prep Date: **5/19/2020** RunNo: **59275**
Client ID: **BATCH** Batch ID: **28369** Analysis Date: **5/20/2020** SeqNo: **1184673**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	1.01	0.0224	1.121	0	90.4	-0.64	180				
Chloromethane	1.06	0.0561	1.121	0	94.9	33.2	162				
Vinyl chloride	1.07	0.0280	1.121	0	95.1	47.2	146				
Bromomethane	1.15	0.0561	1.121	0	102	18.7	226				
Trichlorofluoromethane (CFC-11)	1.02	0.0224	1.121	0	91.1	48.9	158				
Chloroethane	1.17	0.0561	1.121	0	104	20.8	195				
1,1-Dichloroethene	1.06	0.0224	1.121	0	95.0	67.1	135				
Methylene chloride	1.13	0.0224	1.121	0	100	64.9	137				
trans-1,2-Dichloroethene	1.09	0.0224	1.121	0	97.5	75.1	126				
1,1-Dichloroethane	1.13	0.0224	1.121	0	101	68.4	132				

Date: *6/9/2020*

Work Order: 2005085
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2005214-028BMS** SampType: **MS** Units: **mg/Kg-dry** Prep Date: **5/19/2020** RunNo: **59275**
Client ID: **BATCH** Batch ID: **28369** Analysis Date: **5/20/2020** SeqNo: **1184673**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
cis-1,2-Dichloroethene	1.19	0.0224	1.121	0.05031	102	76.2	125				
Chloroform	1.12	0.0224	1.121	0	100	74.5	127				
1,1,1-Trichloroethane (TCA)	1.08	0.0280	1.121	0	96.6	74.5	126				
1,1-Dichloropropene	1.07	0.0224	1.121	0	95.3	70.7	128				
Carbon tetrachloride	1.06	0.0561	1.121	0	95.0	72.5	126				
1,2-Dichloroethane (EDC)	1.16	0.0224	1.121	0	103	70.4	128				
Trichloroethene (TCE)	1.10	0.0224	1.121	0	97.9	64.7	145				
1,2-Dichloropropane	1.13	0.0224	1.121	0	101	69.3	129				
Bromodichloromethane	1.13	0.0224	1.121	0	100	75.9	120				
Dibromomethane	1.17	0.0224	1.121	0	104	78.5	123				
cis-1,3-Dichloropropene	1.06	0.0224	1.121	0	94.5	67.3	122				
trans-1,3-Dichloropropylene	1.05	0.0224	1.121	0	93.5	64.4	124				
1,1,2-Trichloroethane	1.12	0.0224	1.121	0	99.7	72.4	129				
1,3-Dichloropropane	1.14	0.0280	1.121	0	102	70.5	128				
Tetrachloroethene (PCE)	1.05	0.0280	1.121	0	93.6	64.9	140				
Dibromochloromethane	1.14	0.0280	1.121	0	102	71.8	125				
1,2-Dibromoethane (EDB)	1.13	0.00561	1.121	0	101	73.8	126				
Chlorobenzene	1.09	0.0280	1.121	0	97.1	85.1	118				
1,1,1,2-Tetrachloroethane	1.07	0.0280	1.121	0	95.2	82.2	118				
Bromoform	1.06	0.0561	1.121	0	94.8	66.1	130				
1,1,2,2-Tetrachloroethane	1.13	0.0224	1.121	0	100	41.2	150				
Bromobenzene	1.09	0.0224	1.121	0	97.3	84.6	121				
2-Chlorotoluene	1.07	0.0280	1.121	0	95.3	78.4	128				
4-Chlorotoluene	1.09	0.0280	1.121	0	97.0	81.2	123				
1,2,3-Trichloropropane	1.18	0.0280	1.121	0	105	66.4	132				
1,2,4-Trichlorobenzene	1.07	0.0280	1.121	0	95.3	68.9	139				
1,3-Dichlorobenzene	1.01	0.0224	1.121	0	89.8	87.8	120				
1,4-Dichlorobenzene	0.999	0.0224	1.121	0	89.1	88.1	119				
1,2-Dichlorobenzene	1.03	0.0224	1.121	0	91.6	88.1	120				
1,2-Dibromo-3-chloropropane	1.06	0.561	1.121	0	94.3	56.6	144				
Hexachloro-1,3-butadiene	1.07	0.0561	1.121	0	95.2	64.8	148				

Date: *6/9/2020*

Work Order: 2005085
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2005214-028BMS** SampType: **MS** Units: **mg/Kg-dry** Prep Date: **5/19/2020** RunNo: **59275**
Client ID: **BATCH** Batch ID: **28369** Analysis Date: **5/20/2020** SeqNo: **1184673**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,3-Trichlorobenzene	1.07	0.0224	1.121	0	95.7	59.3	150				
Surr: Dibromofluoromethane	1.53		1.401		109	80	116				
Surr: Toluene-d8	1.43		1.401		102	84.8	113				
Surr: 1-Bromo-4-fluorobenzene	1.44		1.401		103	82.8	113				

Sample ID: **2005214-028BMSD** SampType: **MSD** Units: **mg/Kg-dry** Prep Date: **5/19/2020** RunNo: **59275**
Client ID: **BATCH** Batch ID: **28369** Analysis Date: **5/20/2020** SeqNo: **1184674**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	1.03	0.0224	1.121	0	91.8	-0.64	180	1.014	1.50	30	
Chloromethane	1.11	0.0561	1.121	0	98.9	33.2	162	1.064	4.12	30	
Vinyl chloride	1.07	0.0280	1.121	0	95.8	47.2	146	1.067	0.660	30	
Bromomethane	1.08	0.0561	1.121	0	96.8	18.7	226	1.145	5.39	30	
Trichlorofluoromethane (CFC-11)	1.02	0.0224	1.121	0	91.3	48.9	158	1.022	0.203	30	
Chloroethane	1.22	0.0561	1.121	0	109	20.8	195	1.168	4.22	30	
1,1-Dichloroethene	1.07	0.0224	1.121	0	95.0	67.1	135	1.065	0.0751	30	
Methylene chloride	1.17	0.0224	1.121	0	105	64.9	137	1.125	4.13	30	
trans-1,2-Dichloroethene	1.09	0.0224	1.121	0	97.0	75.1	126	1.094	0.534	30	
1,1-Dichloroethane	1.14	0.0224	1.121	0	101	68.4	132	1.131	0.507	30	
cis-1,2-Dichloroethene	1.17	0.0224	1.121	0.05031	99.7	76.2	125	1.193	2.12	30	
Chloroform	1.13	0.0224	1.121	0	101	74.5	127	1.124	0.684	30	
1,1,1-Trichloroethane (TCA)	1.08	0.0280	1.121	0	96.7	74.5	126	1.083	0.0881	30	
1,1-Dichloropropene	1.04	0.0224	1.121	0	92.8	70.7	128	1.068	2.61	30	
Carbon tetrachloride	1.07	0.0561	1.121	0	95.4	72.5	126	1.065	0.484	30	
1,2-Dichloroethane (EDC)	1.15	0.0224	1.121	0	102	70.4	128	1.160	1.19	30	
Trichloroethene (TCE)	1.09	0.0224	1.121	0	97.0	64.7	145	1.098	0.912	30	
1,2-Dichloropropane	1.12	0.0224	1.121	0	99.5	69.3	129	1.134	1.65	30	
Bromodichloromethane	1.15	0.0224	1.121	0	102	75.9	120	1.126	1.77	30	
Dibromomethane	1.17	0.0224	1.121	0	104	78.5	123	1.171	0.399	30	
cis-1,3-Dichloropropene	1.05	0.0224	1.121	0	93.2	67.3	122	1.059	1.31	30	

Date: *6/9/2020*

Work Order: 2005085
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2005214-028BMSD** SampType: **MSD** Units: **mg/Kg-dry** Prep Date: **5/19/2020** RunNo: **59275**
Client ID: **BATCH** Batch ID: **28369** Analysis Date: **5/20/2020** SeqNo: **1184674**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
trans-1,3-Dichloropropylene	1.05	0.0224	1.121	0	93.4	64.4	124	1.048	0.0743	30	
1,1,2-Trichloroethane	1.13	0.0224	1.121	0	100	72.4	129	1.118	0.676	30	
1,3-Dichloropropane	1.13	0.0280	1.121	0	101	70.5	128	1.140	1.10	30	
Tetrachloroethene (PCE)	1.04	0.0280	1.121	0	92.5	64.9	140	1.049	1.16	30	
Dibromochloromethane	1.14	0.0280	1.121	0	102	71.8	125	1.141	0.142	30	
1,2-Dibromoethane (EDB)	1.13	0.00561	1.121	0	101	73.8	126	1.135	0.0314	30	
Chlorobenzene	1.09	0.0280	1.121	0	97.6	85.1	118	1.088	0.500	30	
1,1,1,2-Tetrachloroethane	1.09	0.0280	1.121	0	97.5	82.2	118	1.067	2.35	30	
Bromoform	1.09	0.0561	1.121	0	97.4	66.1	130	1.063	2.73	30	
1,1,2,2-Tetrachloroethane	1.16	0.0224	1.121	0	103	41.2	150	1.125	2.61	30	
Bromobenzene	1.13	0.0224	1.121	0	101	84.6	121	1.090	3.74	30	
2-Chlorotoluene	1.10	0.0280	1.121	0	98.4	78.4	128	1.069	3.22	30	
4-Chlorotoluene	1.12	0.0280	1.121	0	99.5	81.2	123	1.087	2.61	30	
1,2,3-Trichloropropane	1.15	0.0280	1.121	0	102	66.4	132	1.176	2.50	30	
1,2,4-Trichlorobenzene	1.08	0.0280	1.121	0	96.0	68.9	139	1.069	0.653	30	
1,3-Dichlorobenzene	1.02	0.0224	1.121	0	90.7	87.8	120	1.006	1.06	30	
1,4-Dichlorobenzene	1.00	0.0224	1.121	0	89.3	88.1	119	0.9991	0.177	30	
1,2-Dichlorobenzene	1.04	0.0224	1.121	0	92.8	88.1	120	1.027	1.32	30	
1,2-Dibromo-3-chloropropane	1.17	0.561	1.121	0	104	56.6	144	1.057	10.0	30	
Hexachloro-1,3-butadiene	1.07	0.0561	1.121	0	95.2	64.8	148	1.067	0.0647	30	
1,2,3-Trichlorobenzene	1.09	0.0224	1.121	0	97.1	59.3	150	1.073	1.43	30	
Surr: Dibromofluoromethane	1.54		1.401		110	80	116		0		
Surr: Toluene-d8	1.41		1.401		101	84.8	113		0		
Surr: 1-Bromo-4-fluorobenzene	1.47		1.401		105	82.8	113		0		

Date: *6/9/2020*

Work Order: 2005085
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **LCS-28305** SampType: **LCS** Units: **mg/Kg** Prep Date: **5/12/2020** RunNo: **59171**
Client ID: **LCSS** Batch ID: **28305** Analysis Date: **5/12/2020** SeqNo: **1182320**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	1.10	0.0200	1.000	0	110	21.6	169				
Chloromethane	0.985	0.0500	1.000	0	98.5	45.3	153				
Vinyl chloride	0.970	0.0250	1.000	0	97.0	57.5	137				
Bromomethane	1.28	0.0500	1.000	0	128	32.8	194				
Trichlorofluoromethane (CFC-11)	1.06	0.0200	1.000	0	106	54.3	152				
Chloroethane	0.925	0.0500	1.000	0	92.5	52	146				
1,1-Dichloroethene	1.04	0.0200	1.000	0	104	62.8	139				
Methylene chloride	1.00	0.0200	1.000	0	100	78.4	118				
trans-1,2-Dichloroethene	1.02	0.0200	1.000	0	102	82	117				
1,1-Dichloroethane	0.973	0.0200	1.000	0	97.3	78	119				
cis-1,2-Dichloroethene	0.993	0.0200	1.000	0	99.3	81.9	116				
Chloroform	1.00	0.0200	1.000	0	100	80.8	117				
1,1,1-Trichloroethane (TCA)	1.00	0.0250	1.000	0	100	81.4	117				
1,1-Dichloropropene	0.997	0.0200	1.000	0	99.7	79.9	117				
Carbon tetrachloride	1.02	0.0500	1.000	0	102	80.4	117				
1,2-Dichloroethane (EDC)	0.988	0.0200	1.000	0	98.8	77.5	117				
Trichloroethene (TCE)	1.00	0.0200	1.000	0	100	83.4	115				
1,2-Dichloropropane	0.937	0.0200	1.000	0	93.7	77.6	117				
Bromodichloromethane	0.967	0.0200	1.000	0	96.7	78.9	116				
Dibromomethane	0.951	0.0200	1.000	0	95.1	81.2	115				
cis-1,3-Dichloropropene	0.939	0.0200	1.000	0	93.9	78	115				
trans-1,3-Dichloropropylene	0.916	0.0200	1.000	0	91.6	75.7	117				
1,1,2-Trichloroethane	0.935	0.0200	1.000	0	93.5	77.9	118				
1,3-Dichloropropane	0.933	0.0250	1.000	0	93.3	77.1	118				
Tetrachloroethene (PCE)	0.982	0.0250	1.000	0	98.2	84.3	117				
Dibromochloromethane	0.921	0.0250	1.000	0	92.1	77.9	118				
1,2-Dibromoethane (EDB)	0.933	0.00500	1.000	0	93.3	78.6	117				
Chlorobenzene	0.997	0.0250	1.000	0	99.7	86.5	113				
1,1,1,2-Tetrachloroethane	0.991	0.0250	1.000	0	99.1	84.8	113				
Bromoform	0.914	0.0500	1.000	0	91.4	70.7	125				
1,1,2,2-Tetrachloroethane	0.883	0.0200	1.000	0	88.3	68.3	125				

Date: *6/9/2020*

Work Order: 2005085
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **LCS-28305** SampType: **LCS** Units: **mg/Kg** Prep Date: **5/12/2020** RunNo: **59171**
Client ID: **LCSS** Batch ID: **28305** Analysis Date: **5/12/2020** SeqNo: **1182320**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromobenzene	0.977	0.0200	1.000	0	97.7	84	117				
2-Chlorotoluene	1.01	0.0250	1.000	0	101	80.4	122				
4-Chlorotoluene	1.00	0.0250	1.000	0	100	83.1	118				
1,2,3-Trichloropropane	0.907	0.0250	1.000	0	90.7	71	125				
1,2,4-Trichlorobenzene	1.00	0.0250	1.000	0	100	81	126				
1,3-Dichlorobenzene	1.03	0.0200	1.000	0	103	90.4	115				
1,4-Dichlorobenzene	1.02	0.0200	1.000	0	102	90.3	115				
1,2-Dichlorobenzene	1.02	0.0200	1.000	0	102	90.3	115				
1,2-Dibromo-3-chloropropane	0.955	0.500	1.000	0	95.5	62.3	136				
Hexachloro-1,3-butadiene	1.01	0.0500	1.000	0	101	77.8	133				
1,2,3-Trichlorobenzene	0.971	0.0200	1.000	0	97.1	75.9	130				
Surr: Dibromofluoromethane	1.32		1.250		105	80	116				
Surr: Toluene-d8	1.22		1.250		97.5	84.8	113				
Surr: 1-Bromo-4-fluorobenzene	1.27		1.250		102	82.8	113				

Sample ID: **MB-28305** SampType: **MBLK** Units: **mg/Kg** Prep Date: **5/12/2020** RunNo: **59171**
Client ID: **MBLKS** Batch ID: **28305** Analysis Date: **5/12/2020** SeqNo: **1182321**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	0.0200									
Chloromethane	ND	0.0500									
Vinyl chloride	ND	0.0250									
Bromomethane	ND	0.0500									
Trichlorofluoromethane (CFC-11)	ND	0.0200									
Chloroethane	ND	0.0500									
1,1-Dichloroethene	ND	0.0200									
Methylene chloride	ND	0.0200									
trans-1,2-Dichloroethene	ND	0.0200									
1,1-Dichloroethane	ND	0.0200									
cis-1,2-Dichloroethene	ND	0.0200									

Date: *6/9/2020*

Work Order: 2005085
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **MB-28305** SampType: **MBLK** Units: **mg/Kg** Prep Date: **5/12/2020** RunNo: **59171**
Client ID: **MBLKS** Batch ID: **28305** Analysis Date: **5/12/2020** SeqNo: **1182321**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloroform	ND	0.0200									
1,1,1-Trichloroethane (TCA)	ND	0.0250									
1,1-Dichloropropene	ND	0.0200									
Carbon tetrachloride	ND	0.0500									
1,2-Dichloroethane (EDC)	ND	0.0200									
Trichloroethene (TCE)	ND	0.0200									
1,2-Dichloropropane	ND	0.0200									
Bromodichloromethane	ND	0.0200									
Dibromomethane	ND	0.0200									
cis-1,3-Dichloropropene	ND	0.0200									
trans-1,3-Dichloropropylene	ND	0.0200									
1,1,2-Trichloroethane	ND	0.0200									
1,3-Dichloropropane	ND	0.0250									
Tetrachloroethene (PCE)	ND	0.0250									
Dibromochloromethane	ND	0.0250									
1,2-Dibromoethane (EDB)	ND	0.00500									
Chlorobenzene	ND	0.0250									
1,1,1,2-Tetrachloroethane	ND	0.0250									
Bromoform	ND	0.0500									
1,1,2,2-Tetrachloroethane	ND	0.0200									
Bromobenzene	ND	0.0200									
2-Chlorotoluene	ND	0.0250									
4-Chlorotoluene	ND	0.0250									
1,2,3-Trichloropropane	ND	0.0250									
1,2,4-Trichlorobenzene	ND	0.0250									
1,3-Dichlorobenzene	ND	0.0200									
1,4-Dichlorobenzene	ND	0.0200									
1,2-Dichlorobenzene	ND	0.0200									
1,2-Dibromo-3-chloropropane	ND	0.500									
Hexachloro-1,3-butadiene	ND	0.0500									
1,2,3-Trichlorobenzene	ND	0.0200									

Date: *6/9/2020*

Work Order: 2005085
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **MB-28305** SampType: **MBLK** Units: **mg/Kg** Prep Date: **5/12/2020** RunNo: **59171**
Client ID: **MBLKS** Batch ID: **28305** Analysis Date: **5/12/2020** SeqNo: **1182321**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	1.16		1.250		92.5	80	116				
Surr: Toluene-d8	1.22		1.250		97.8	84.8	113				
Surr: 1-Bromo-4-fluorobenzene	1.20		1.250		95.8	82.8	113				

Sample ID: **2005085-004BDUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **5/12/2020** RunNo: **59171**
Client ID: **358-B4-15** Batch ID: **28305** Analysis Date: **5/12/2020** SeqNo: **1182297**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	0.0275						0		30	
Chloromethane	ND	0.0688						0		30	
Vinyl chloride	ND	0.0344						0		30	
Bromomethane	ND	0.0688						0		30	
Trichlorofluoromethane (CFC-11)	ND	0.0275						0		30	
Chloroethane	ND	0.0688						0		30	
1,1-Dichloroethene	ND	0.0275						0		30	
Methylene chloride	ND	0.0275						0		30	
trans-1,2-Dichloroethene	ND	0.0275						0		30	
1,1-Dichloroethane	ND	0.0275						0		30	
cis-1,2-Dichloroethene	ND	0.0275						0		30	
Chloroform	ND	0.0275						0		30	
1,1,1-Trichloroethane (TCA)	ND	0.0344						0		30	
1,1-Dichloropropene	ND	0.0275						0		30	
Carbon tetrachloride	ND	0.0688						0		30	
1,2-Dichloroethane (EDC)	ND	0.0275						0		30	
Trichloroethene (TCE)	ND	0.0275						0		30	
1,2-Dichloropropane	ND	0.0275						0		30	
Bromodichloromethane	ND	0.0275						0		30	
Dibromomethane	ND	0.0275						0		30	
cis-1,3-Dichloropropene	ND	0.0275						0		30	
trans-1,3-Dichloropropylene	ND	0.0275						0		30	

Date: *6/9/2020*

Work Order: 2005085
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2005085-004BDUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **5/12/2020** RunNo: **59171**
Client ID: **358-B4-15** Batch ID: **28305** Analysis Date: **5/12/2020** SeqNo: **1182297**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,2-Trichloroethane	ND	0.0275						0		30	
1,3-Dichloropropane	ND	0.0344						0		30	
Tetrachloroethene (PCE)	ND	0.0344						0		30	
Dibromochloromethane	ND	0.0344						0		30	
1,2-Dibromoethane (EDB)	ND	0.00688						0		30	
Chlorobenzene	ND	0.0344						0		30	
1,1,1,2-Tetrachloroethane	ND	0.0344						0		30	
Bromoform	ND	0.0688						0		30	
1,1,2,2-Tetrachloroethane	ND	0.0275						0		30	
Bromobenzene	ND	0.0275						0		30	
2-Chlorotoluene	ND	0.0344						0		30	
4-Chlorotoluene	ND	0.0344						0		30	
1,2,3-Trichloropropane	ND	0.0344						0		30	
1,2,4-Trichlorobenzene	ND	0.0344						0		30	
1,3-Dichlorobenzene	ND	0.0275						0		30	
1,4-Dichlorobenzene	ND	0.0275						0		30	
1,2-Dichlorobenzene	ND	0.0275						0		30	
1,2-Dibromo-3-chloropropane	ND	0.688						0		30	
Hexachloro-1,3-butadiene	ND	0.0688						0		30	
1,2,3-Trichlorobenzene	ND	0.0275						0		30	
Surr: Dibromofluoromethane	1.70		1.720		99.1	80	116		0		
Surr: Toluene-d8	1.73		1.720		101	84.8	113		0		
Surr: 1-Bromo-4-fluorobenzene	1.68		1.720		97.7	82.8	113		0		

Sample ID: **2005085-005BMS** SampType: **MS** Units: **mg/Kg-dry** Prep Date: **5/12/2020** RunNo: **59171**
Client ID: **358-B4-20** Batch ID: **28305** Analysis Date: **5/12/2020** SeqNo: **1182299**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	1.21	0.0235	1.177	0	103	-0.64	180				
Chloromethane	1.25	0.0588	1.177	0	107	33.2	162				

Date: *6/9/2020*

Work Order: 2005085
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2005085-005BMS** SampType: **MS** Units: **mg/Kg-dry** Prep Date: **5/12/2020** RunNo: **59171**
Client ID: **358-B4-20** Batch ID: **28305** Analysis Date: **5/12/2020** SeqNo: **1182299**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	1.28	0.0294	1.177	0	109	47.2	146				
Bromomethane	1.99	0.0588	1.177	0	169	18.7	226				
Trichlorofluoromethane (CFC-11)	1.35	0.0235	1.177	0	114	48.9	158				
Chloroethane	1.44	0.0588	1.177	0	123	20.8	195				
1,1-Dichloroethene	1.33	0.0235	1.177	0	113	67.1	135				
Methylene chloride	1.26	0.0235	1.177	0	107	64.9	137				
trans-1,2-Dichloroethene	1.32	0.0235	1.177	0	113	75.1	126				
1,1-Dichloroethane	1.29	0.0235	1.177	0	110	68.4	132				
cis-1,2-Dichloroethene	1.28	0.0235	1.177	0	109	76.2	125				
Chloroform	1.29	0.0235	1.177	0	110	74.5	127				
1,1,1-Trichloroethane (TCA)	1.33	0.0294	1.177	0	113	74.5	126				
1,1-Dichloropropene	1.33	0.0235	1.177	0	113	70.7	128				
Carbon tetrachloride	1.33	0.0588	1.177	0	113	72.5	126				
1,2-Dichloroethane (EDC)	1.30	0.0235	1.177	0	110	70.4	128				
Trichloroethene (TCE)	1.29	0.0235	1.177	0	109	64.7	145				
1,2-Dichloropropane	1.26	0.0235	1.177	0	107	69.3	129				
Bromodichloromethane	1.26	0.0235	1.177	0	107	75.9	120				
Dibromomethane	1.25	0.0235	1.177	0	106	78.5	123				
cis-1,3-Dichloropropene	1.23	0.0235	1.177	0	104	67.3	122				
trans-1,3-Dichloropropylene	1.18	0.0235	1.177	0	100	64.4	124				
1,1,2-Trichloroethane	1.24	0.0235	1.177	0	106	72.4	129				
1,3-Dichloropropane	1.26	0.0294	1.177	0	107	70.5	128				
Tetrachloroethene (PCE)	1.28	0.0294	1.177	0	109	64.9	140				
Dibromochloromethane	1.20	0.0294	1.177	0	102	71.8	125				
1,2-Dibromoethane (EDB)	1.25	0.00588	1.177	0	106	73.8	126				
Chlorobenzene	1.26	0.0294	1.177	0	107	85.1	118				
1,1,1,2-Tetrachloroethane	1.26	0.0294	1.177	0	107	82.2	118				
Bromoform	1.18	0.0588	1.177	0	100	66.1	130				
1,1,2,2-Tetrachloroethane	1.25	0.0235	1.177	0	106	41.2	150				
Bromobenzene	1.23	0.0235	1.177	0	105	84.6	121				
2-Chlorotoluene	1.24	0.0294	1.177	0	105	78.4	128				

Date: *6/9/2020*

Work Order: 2005085
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2005085-005BMS** SampType: **MS** Units: **mg/Kg-dry** Prep Date: **5/12/2020** RunNo: **59171**
Client ID: **358-B4-20** Batch ID: **28305** Analysis Date: **5/12/2020** SeqNo: **1182299**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4-Chlorotoluene	1.24	0.0294	1.177	0	106	81.2	123				
1,2,3-Trichloropropane	1.42	0.0294	1.177	0	121	66.4	132				
1,2,4-Trichlorobenzene	1.26	0.0294	1.177	0	107	68.9	139				
1,3-Dichlorobenzene	1.27	0.0235	1.177	0	108	87.8	120				
1,4-Dichlorobenzene	1.26	0.0235	1.177	0	107	88.1	119				
1,2-Dichlorobenzene	1.27	0.0235	1.177	0	108	88.1	120				
1,2-Dibromo-3-chloropropane	1.21	0.588	1.177	0	103	56.6	144				
Hexachloro-1,3-butadiene	1.38	0.0588	1.177	0	117	64.8	148				
1,2,3-Trichlorobenzene	1.29	0.0235	1.177	0	110	59.3	150				
Surr: Dibromofluoromethane	1.58		1.471		107	80	116				
Surr: Toluene-d8	1.49		1.471		101	84.8	113				
Surr: 1-Bromo-4-fluorobenzene	1.47		1.471		100	82.8	113				

Sample ID: **2005085-005BMSD** SampType: **MSD** Units: **mg/Kg-dry** Prep Date: **5/12/2020** RunNo: **59171**
Client ID: **358-B4-20** Batch ID: **28305** Analysis Date: **5/12/2020** SeqNo: **1182300**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	1.20	0.0235	1.177	0	102	-0.64	180	1.211	0.979	30	
Chloromethane	1.29	0.0588	1.177	0	109	33.2	162	1.254	2.57	30	
Vinyl chloride	1.27	0.0294	1.177	0	108	47.2	146	1.278	0.929	30	
Bromomethane	1.83	0.0588	1.177	0	155	18.7	226	1.994	8.76	30	
Trichlorofluoromethane (CFC-11)	1.34	0.0235	1.177	0	114	48.9	158	1.346	0.454	30	
Chloroethane	1.41	0.0588	1.177	0	120	20.8	195	1.442	2.39	30	
1,1-Dichloroethene	1.28	0.0235	1.177	0	109	67.1	135	1.326	3.46	30	
Methylene chloride	1.21	0.0235	1.177	0	103	64.9	137	1.256	3.38	30	
trans-1,2-Dichloroethene	1.28	0.0235	1.177	0	109	75.1	126	1.325	3.29	30	
1,1-Dichloroethane	1.25	0.0235	1.177	0	106	68.4	132	1.290	2.94	30	
cis-1,2-Dichloroethene	1.25	0.0235	1.177	0	106	76.2	125	1.278	2.27	30	
Chloroform	1.26	0.0235	1.177	0	107	74.5	127	1.291	2.15	30	
1,1,1-Trichloroethane (TCA)	1.30	0.0294	1.177	0	110	74.5	126	1.334	2.60	30	

Date: *6/9/2020*

Work Order: 2005085
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2005085-005BMSD** SampType: **MSD** Units: **mg/Kg-dry** Prep Date: **5/12/2020** RunNo: **59171**
Client ID: **358-B4-20** Batch ID: **28305** Analysis Date: **5/12/2020** SeqNo: **1182300**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloropropene	1.33	0.0235	1.177	0	113	70.7	128	1.327	0.250	30	
Carbon tetrachloride	1.31	0.0588	1.177	0	111	72.5	126	1.329	1.25	30	
1,2-Dichloroethane (EDC)	1.25	0.0235	1.177	0	106	70.4	128	1.297	3.83	30	
Trichloroethene (TCE)	1.26	0.0235	1.177	0	107	64.7	145	1.287	2.16	30	
1,2-Dichloropropane	1.23	0.0235	1.177	0	105	69.3	129	1.262	2.41	30	
Bromodichloromethane	1.22	0.0235	1.177	0	104	75.9	120	1.263	3.15	30	
Dibromomethane	1.21	0.0235	1.177	0	103	78.5	123	1.252	3.05	30	
cis-1,3-Dichloropropene	1.19	0.0235	1.177	0	101	67.3	122	1.226	3.16	30	
trans-1,3-Dichloropropylene	1.16	0.0235	1.177	0	98.9	64.4	124	1.182	1.54	30	
1,1,2-Trichloroethane	1.22	0.0235	1.177	0	103	72.4	129	1.242	2.07	30	
1,3-Dichloropropane	1.22	0.0294	1.177	0	103	70.5	128	1.257	3.41	30	
Tetrachloroethene (PCE)	1.26	0.0294	1.177	0	107	64.9	140	1.280	1.69	30	
Dibromochloromethane	1.18	0.0294	1.177	0	100	71.8	125	1.197	1.28	30	
1,2-Dibromoethane (EDB)	1.20	0.00588	1.177	0	102	73.8	126	1.253	4.34	30	
Chlorobenzene	1.25	0.0294	1.177	0	107	85.1	118	1.262	0.589	30	
1,1,1,2-Tetrachloroethane	1.23	0.0294	1.177	0	105	82.2	118	1.263	2.40	30	
Bromoform	1.14	0.0588	1.177	0	96.9	66.1	130	1.178	3.23	30	
1,1,2,2-Tetrachloroethane	1.26	0.0235	1.177	0	107	41.2	150	1.253	0.312	30	
Bromobenzene	1.23	0.0235	1.177	0	104	84.6	121	1.231	0.137	30	
2-Chlorotoluene	1.23	0.0294	1.177	0	104	78.4	128	1.241	0.969	30	
4-Chlorotoluene	1.24	0.0294	1.177	0	105	81.2	123	1.243	0.382	30	
1,2,3-Trichloropropane	1.42	0.0294	1.177	0	121	66.4	132	1.419	0.0349	30	
1,2,4-Trichlorobenzene	1.27	0.0294	1.177	0	108	68.9	139	1.261	0.295	30	
1,3-Dichlorobenzene	1.27	0.0235	1.177	0	108	87.8	120	1.270	0.290	30	
1,4-Dichlorobenzene	1.26	0.0235	1.177	0	107	88.1	119	1.258	0.561	30	
1,2-Dichlorobenzene	1.27	0.0235	1.177	0	108	88.1	120	1.270	0.128	30	
1,2-Dibromo-3-chloropropane	1.25	0.588	1.177	0	106	56.6	144	1.208	3.58	30	
Hexachloro-1,3-butadiene	1.38	0.0588	1.177	0	117	64.8	148	1.377	0.298	30	
1,2,3-Trichlorobenzene	1.29	0.0235	1.177	0	110	59.3	150	1.293	0.0884	30	
Surr: Dibromofluoromethane	1.56		1.471		106	80	116		0		
Surr: Toluene-d8	1.46		1.471		99.3	84.8	113		0		

Date: *6/9/2020*

Work Order: 2005085
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2005085-005BMSD** SampType: **MSD** Units: **mg/Kg-dry** Prep Date: **5/12/2020** RunNo: **59171**
Client ID: **358-B4-20** Batch ID: **28305** Analysis Date: **5/12/2020** SeqNo: **1182300**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: 1-Bromo-4-fluorobenzene	1.47		1.471		100	82.8	113		0		

Sample ID: **2005098-001BDUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **5/12/2020** RunNo: **59171**
Client ID: **BATCH** Batch ID: **28305** Analysis Date: **5/12/2020** SeqNo: **1182308**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	0.0185						0		30	
Chloromethane	ND	0.0463						0		30	
Vinyl chloride	ND	0.0231						0		30	
Bromomethane	ND	0.0463						0		30	
Trichlorofluoromethane (CFC-11)	ND	0.0185						0		30	
Chloroethane	ND	0.0463						0		30	
1,1-Dichloroethene	ND	0.0185						0		30	
Methylene chloride	ND	0.0185						0		30	
trans-1,2-Dichloroethene	ND	0.0185						0		30	
1,1-Dichloroethane	ND	0.0185						0		30	
cis-1,2-Dichloroethene	0.0529	0.0185						0.05089	3.80	30	
Chloroform	ND	0.0185						0		30	
1,1,1-Trichloroethane (TCA)	ND	0.0231						0		30	
1,1-Dichloropropene	ND	0.0185						0		30	
Carbon tetrachloride	ND	0.0463						0		30	
1,2-Dichloroethane (EDC)	ND	0.0185						0		30	
Trichloroethene (TCE)	ND	0.0185						0		30	
1,2-Dichloropropane	ND	0.0185						0		30	
Bromodichloromethane	ND	0.0185						0		30	
Dibromomethane	ND	0.0185						0		30	
cis-1,3-Dichloropropene	ND	0.0185						0		30	
trans-1,3-Dichloropropylene	ND	0.0185						0		30	
1,1,2-Trichloroethane	ND	0.0185						0		30	
1,3-Dichloropropane	ND	0.0231						0		30	

Date: *6/9/2020*

Work Order: 2005085
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2005098-001BDUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **5/12/2020** RunNo: **59171**
Client ID: **BATCH** Batch ID: **28305** Analysis Date: **5/12/2020** SeqNo: **1182308**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tetrachloroethene (PCE)	0.0437	0.0231						0.04384	0.310	30	
Dibromochloromethane	ND	0.0231						0		30	
1,2-Dibromoethane (EDB)	ND	0.00463						0		30	
Chlorobenzene	ND	0.0231						0		30	
1,1,1,2-Tetrachloroethane	ND	0.0231						0		30	
Bromoform	ND	0.0463						0		30	
1,1,2,2-Tetrachloroethane	ND	0.0185						0		30	
Bromobenzene	ND	0.0185						0		30	
2-Chlorotoluene	ND	0.0231						0		30	
4-Chlorotoluene	ND	0.0231						0		30	
1,2,3-Trichloropropane	ND	0.0231						0		30	
1,2,4-Trichlorobenzene	ND	0.0231						0		30	
1,3-Dichlorobenzene	ND	0.0185						0		30	
1,4-Dichlorobenzene	ND	0.0185						0		30	
1,2-Dichlorobenzene	ND	0.0185						0		30	
1,2-Dibromo-3-chloropropane	ND	0.463						0		30	
Hexachloro-1,3-butadiene	ND	0.0463						0		30	
1,2,3-Trichlorobenzene	ND	0.0185						0		30	
Surr: Dibromofluoromethane	1.11		1.157		95.7	80	116		0		
Surr: Toluene-d8	1.14		1.157		98.4	84.8	113		0		
Surr: 1-Bromo-4-fluorobenzene	1.12		1.157		96.5	82.8	113		0		

Sample Log-In Check List

Client Name:	**ONEILL**	Work Order Number:	**2005085**
Logged by:	**Carissa True**	Date Received:	**5/8/2020 4:27:00 PM**

Chain of Custody

1.	Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
2.	How was the sample delivered?	Client		

Log In

3.	Coolers are present?	Yes ☑	No ☐	NA ☐
4.	Shipping container/cooler in good condition?	Yes ☑	No ☐	
5.	Custody Seals present on shipping container/cooler? (Refer to comments for Custody Seals not intact)	Yes ☐	No ☐	Not Present ☑
6.	Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
7.	Were all items received at a temperature of >2°C to 6°C *	Yes ☑	No ☐	NA ☐
8.	Sample(s) in proper container(s)?	Yes ☑	No ☐	
9.	Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
10.	Are samples properly preserved?	Yes ☑	No ☐	
11.	Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
12.	Is there headspace in the VOA vials?	Yes ☐	No ☐	NA ☑
13.	Did all samples containers arrive in good condition(unbroken)?	Yes ☑	No ☐	
14.	Does paperwork match bottle labels?	Yes ☑	No ☐	
15.	Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
16.	Is it clear what analyses were requested?	Yes ☑	No ☐	
17.	Were all holding times able to be met?	Yes ☑	No ☐	

Special Handling (if applicable)

18.	Was client notified of all discrepancies with this order?	Yes ☐	No ☐	NA ☑

Person Notified: _____ Date: _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

19. Additional remarks:

em Blan out of tem

Item Information

Item #	Temp ºC
Cooler 1	0.9
Sample 1	1.0
Temp Blank 1	11.9

* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C

Fremont Analytical
3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790
Fax: 206-352-7178

Chain of Custody Record & Laboratory Services Agreement

Date: 5/8/20 Page: 1 of: 3

Laboratory Project No (internal): 2005085

Project Name: 2021

Project No: F200

Collected by: Atkins

Location: Fussy

Report To (PM): Atkins

Special Remarks:

Sample Disposal: ☐ Return to client ☐ Disposal by lab (after 30 days)

Client: O39

Address:

City, State, Zip:

Telephone:

Fax:

PM Email:

	Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	WVOCs (EPA 8260 / 624)	GX/BTEX	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DX)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T) | Dissolved (D)	Anions (IC)***	EDB (8011)	Comments
1	~~358-B3-GW~~	~~5/8/20~~	~~820~~	GW	X													
2	358-B4-4-5		820	S														
3	-4-10		850															
4	-4-12.5		855															
5	-15		905		X													
6	-20		910		X													
7	-25		915															
8	358-B5-2.5		1035															
9	-15		1040		X													
10	-7.5		1045															

*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

**Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL *Individual:* Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti Tl U V Zn

***Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above and that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished	Date/Time	Received	Date/Time
x [signature]	5/8/20 1612	x [signature]	5/8/20 @ 1627
x		x	

Turn-around Time:
☑ Standard
☐ 3 Day
☐ 2 Day
☐ Next Day
Same Day ____ (specify)

Fremont Analytical
3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790
Fax: 206-352-7178

Chain of Custody Record & Laboratory Services Agreement

Date: 5/8/20 | Page: 2 of: 3 | Laboratory Project No (internal): 2005085

Project Name: F200

Special Remarks:

Client: OSY

Project No: A2021

Address:

Collected by: Atkins

City, State, Zip:

Location: F200

Telephone:

Report To (PM): Atkins

Sample Disposal: ☐ Return to client ☐ Disposal by lab (after 30 days)

Fax:

PM Email:

	Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	PVOCs (EPA 8260 / 624)	GX/BTEX	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DX)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T) | Dissolved (D)	Anions (IC)***	EDB (8011)					Comments
1	358-B5-~~12.5~~ 10		1050	S	X																	
2	-12.5		1055																			
3	-15		1100																			
4	-20		1110		X																	
5	-25		1120																			
6	~~358-B4-Gw~~		~~1235~~																			
7	358-B6-~~8.5~~ 5		1305		X																	
8	-7.5		1310																			
9	-10		1320		X																	
10	-12.5		1325																			

*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

**Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL *Individual:* Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti Tl U V Zn

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Relinquished	Date/Time	Received	Date/Time
x [signature]	5/8/20 1612	x [signature]	5/8/20 @ 1627
Relinquished	Date/Time	Received	Date/Time
x		x	

Turn-around Time:
- ☑ Standard
- ☐ 3 Day
- ☐ 2 Day
- ☐ Next Day
- Same Day ____ (specify)

Fremont Analytical
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Seattle, WA 98103
Tel: 206-352-3790
Fax: 206-352-7178

Chain of Custody Record & Laboratory Services Agreement

Date: 5/8/20 Page: 3 of: 3

Laboratory Project No (internal): 2005085

Project Name: P200

Special Remarks:

Client: O39

Project No: ~~ER~~2021

Address:

Collected by: ATKINS

City, State, Zip:

Location: FL358

Telephone:

Report To (PM): ATKINS

Sample Disposal: ☐ Return to client ☐ Disposal by lab (after 30 days)

Fax:

PM Email:

	Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	VOCs (EPA 8260 / 624)	GX/BTEX	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DX)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T) | Dissolved (D)	Anions (IC)***	EDB (8011)					Comments
1	358-B6-~~20~~15	5/8/20	1335	S																		
2	-20		1340		X																	
3	-25		1345																			
4	~~358-B5-9~~		~~1430~~	~~GW~~	~~X~~																	
5																						
6																						
7																						
8																						
9																						
10																						

*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

**Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL *Individual:* Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti Tl U V Zn

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Relinquished	Date/Time	Received	Date/Time
x [signature]	5/8/20 1612	x [signature]	5/8/20 @ 1627
Relinquished	Date/Time	Received	Date/Time
x		x	

Turn-around Time:
- ☒ Standard
- ☐ 3 Day
- ☐ 2 Day
- ☐ Next Day
- Same Day ____ (specify)

Fremont Analytical
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Seattle, WA 98103
Tel: 206-352-3790
Fax: 206-352-7178

Chain of Custody Record & Laboratory Services Agreement

Date: 5/8/20 | Page: 2 of: 3 | Laboratory Project No (internal): 2005095

Project Name: F200

Project No: A2021

Collected by: Atkins

Location: F200

Report To (PM): Atkins

PM Email:

Client: OSS

Address:

City, State, Zip:

Telephone:

Fax:

Special Remarks: ⊗ Add per V.A. 7/19/20 Next Day cg

Sample Disposal: ☐ Return to client ☐ Disposal by lab (after 30 days)

	Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	RVOCs (EPA 8260 / 624)	GX/BTEX	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DX)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T) / Dissolved (D)	Anions (IC)***	EDB (8011)	Comments
1	358-B5-~~12.5~~ 10		1050	S	X													
2	-12.5		1055															
3	-15		1100		⊗													
4	-20		1110		X													
5	-25		1120		⊗													
6	~~358-B4-G~~		~~1235~~															
7	358-B6-~~8.5~~ 5		1305		X													
8	-7.5		1310															
9	-10		1320		X													
10	-12.5		1325															

*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

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- ☐ 3 Day
- ☐ 2 Day
- ☐ Next Day
- Same Day ____ (specify)

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x [signature]	5/8/20 1612	x [signature]	5/8/20 @ 1627
Relinquished x	Date/Time	Received x	Date/Time

Fremont Analytical
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Seattle, WA 98103
Tel: 206-352-3790
Fax: 206-352-7178

Chain of Custody Record & Laboratory Services Agreement

Date: 5/8/20 Page: 1 of: 3

Laboratory Project No (internal): 2005085

Project Name: 2021

Project No: F200

Collected by: [illegible]

Location: Fu358

Report To (PM): [illegible]

PM Email:

Client: [illegible]

Address:

City, State, Zip:

Telephone:

Fax:

Special Remarks:

* 2 DAY TAT *
Add ons by CRT 5/8 per VA.

Sample Disposal: ☐ Return to client ☐ Disposal by lab (after 30 days)

	Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	VOCs (EPA 8260 / 624)	GX/BTEX	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DX)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T) / Dissolved (D)	Anions (IC)***	EDB (8011)	Comments
1	~~358-B3-9w~~	~~5/8/20~~	~~[illegible]~~	GW	X													
2	358-B4-4-5		820	S														
3	-4-10		850															
4	-4-12.5		855															
5	-15		905		X													
6	-20		910		X													
7	-25		915															
8	358-B5-2.5		1035		X													
9	-5		1040		X													
10	-7.5		1045															

*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

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- ☐ 3 Day
- ☐ 2 Day
- ☐ Next Day
- Same Day ____ (specify)

Relinquished	Date/Time	Received	Date/Time
x [illegible]	5/8/20 1612	x [illegible]	5/8/20 @ 1627
Relinquished	Date/Time	Received	Date/Time
x		x	

3600 Fremont Ave. N.
Seattle, WA 98103
T: (206) 352-3790
F: (206) 352-7178
info@fremontanalytical.com

O'Neill Service Group
Vance Atkins
17619 NE 67th Court, Suite 100
Redmond, WA 98052

RE: F200
Work Order Number: 2005086

May 15, 2020

Attention Vance Atkins:

Fremont Analytical, Inc. received 4 sample(s) on 5/8/2020 for the analyses presented in the following report.

Volatile Organic Compounds by EPA Method 8260D

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Brianna Barnes
Project Manager

Date: *05/15/2020*

CLIENT: O'Neill Service Group
Project: F200
Work Order: 2005086

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
2005086-001	358-B3-GW	05/08/2020 8:15 AM	05/08/2020 4:27 PM
2005086-002	358-B4-GW	05/08/2020 12:35 PM	05/08/2020 4:27 PM
2005086-003	358-B5-GW	05/08/2020 2:30 PM	05/08/2020 4:27 PM
2005086-004	Trip Blank	05/01/2020 11:24 AM	05/08/2020 4:27 PM

Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned

Case Narrative

WO#: **2005086**

Date: **5/15/2020**

CLIENT: O'Neill Service Group

Project: F200

I. SAMPLE RECEIPT:
Samples receipt information is recorded on the attached Sample Receipt Checklist.

II. GENERAL REPORTING COMMENTS:
Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

III. ANALYSES AND EXCEPTIONS:
Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

Qualifiers:

* - Flagged value is not within established control limits
B - Analyte detected in the associated Method Blank
D - Dilution was required
E - Value above quantitation range
H - Holding times for preparation or analysis exceeded
I - Analyte with an internal standard that does not meet established acceptance criteria
J - Analyte detected below Reporting Limit
N - Tentatively Identified Compound (TIC)
Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF)
S - Spike recovery outside accepted recovery limits
ND - Not detected at the Reporting Limit
R - High relative percent difference observed

Acronyms:

%Rec - Percent Recovery
CCB - Continued Calibration Blank
CCV - Continued Calibration Verification
DF - Dilution Factor
HEM - Hexane Extractable Material
ICV - Initial Calibration Verification
LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
MB or MBLANK - Method Blank
MDL - Method Detection Limit
MS/MSD - Matrix Spike / Matrix Spike Duplicate
PDS - Post Digestion Spike
Ref Val - Reference Value
RL - Reporting Limit
RPD - Relative Percent Difference
SD - Serial Dilution
SGT - Silica Gel Treatment
SPK - Spike
Surr - Surrogate

Analytical Report

Work Order: **2005086**
Date Reported: **5/15/2020**

Client: O'Neill Service Group
Collection Date: 5/8/2020 8:15:00 AM
Project: F200
Lab ID: 2005086-001
Matrix: Groundwater
Client Sample ID: 358-B3-GW

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28304 Analyst: CR

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	1.00		µg/L	1	5/12/2020 2:39:25 PM
Chloromethane	ND	2.00		µg/L	1	5/12/2020 2:39:25 PM
Vinyl chloride	ND	0.200		µg/L	1	5/12/2020 2:39:25 PM
Bromomethane	ND	1.00		µg/L	1	5/12/2020 2:39:25 PM
Trichlorofluoromethane (CFC-11)	ND	1.00		µg/L	1	5/12/2020 2:39:25 PM
Chloroethane	ND	1.00		µg/L	1	5/12/2020 2:39:25 PM
1,1-Dichloroethene	ND	1.00		µg/L	1	5/12/2020 2:39:25 PM
Methylene chloride	ND	1.00		µg/L	1	5/12/2020 2:39:25 PM
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	5/12/2020 2:39:25 PM
1,1-Dichloroethane	ND	1.00		µg/L	1	5/12/2020 2:39:25 PM
cis-1,2-Dichloroethene	6.41	1.00		µg/L	1	5/12/2020 2:39:25 PM
Chloroform	ND	1.00		µg/L	1	5/12/2020 2:39:25 PM
1,1,1-Trichloroethane (TCA)	ND	1.00		µg/L	1	5/12/2020 2:39:25 PM
1,1-Dichloropropene	ND	1.00		µg/L	1	5/12/2020 2:39:25 PM
Carbon tetrachloride	ND	1.00		µg/L	1	5/12/2020 2:39:25 PM
1,2-Dichloroethane (EDC)	ND	1.00		µg/L	1	5/12/2020 2:39:25 PM
Trichloroethene (TCE)	2.08	0.500		µg/L	1	5/12/2020 2:39:25 PM
1,2-Dichloropropane	ND	1.00		µg/L	1	5/12/2020 2:39:25 PM
Bromodichloromethane	ND	1.00		µg/L	1	5/12/2020 2:39:25 PM
Dibromomethane	ND	1.00		µg/L	1	5/12/2020 2:39:25 PM
cis-1,3-Dichloropropene	ND	1.00		µg/L	1	5/12/2020 2:39:25 PM
trans-1,3-Dichloropropylene	ND	1.00		µg/L	1	5/12/2020 2:39:25 PM
1,1,2-Trichloroethane	ND	1.00		µg/L	1	5/12/2020 2:39:25 PM
1,3-Dichloropropane	ND	1.00		µg/L	1	5/12/2020 2:39:25 PM
Tetrachloroethene (PCE)	5.71	1.00		µg/L	1	5/12/2020 2:39:25 PM
Dibromochloromethane	ND	1.00		µg/L	1	5/12/2020 2:39:25 PM
1,2-Dibromoethane (EDB)	ND	0.250		µg/L	1	5/12/2020 2:39:25 PM
Chlorobenzene	ND	1.00		µg/L	1	5/12/2020 2:39:25 PM
1,1,1,2-Tetrachloroethane	ND	1.00		µg/L	1	5/12/2020 2:39:25 PM
Bromoform	ND	2.00		µg/L	1	5/12/2020 2:39:25 PM
1,1,2,2-Tetrachloroethane	ND	1.00		µg/L	1	5/12/2020 2:39:25 PM
Bromobenzene	ND	1.00		µg/L	1	5/12/2020 2:39:25 PM
2-Chlorotoluene	ND	1.00		µg/L	1	5/12/2020 2:39:25 PM
4-Chlorotoluene	ND	1.00		µg/L	1	5/12/2020 2:39:25 PM
1,2,3-Trichloropropane	ND	1.00		µg/L	1	5/12/2020 2:39:25 PM
1,2,4-Trichlorobenzene	ND	2.00		µg/L	1	5/12/2020 2:39:25 PM
1,3-Dichlorobenzene	ND	1.00		µg/L	1	5/12/2020 2:39:25 PM
1,4-Dichlorobenzene	ND	1.00		µg/L	1	5/12/2020 2:39:25 PM
1,2-Dichlorobenzene	ND	1.00		µg/L	1	5/12/2020 2:39:25 PM

Analytical Report

Work Order: **2005086**
Date Reported: **5/15/2020**

Client: O'Neill Service Group
Collection Date: 5/8/2020 8:15:00 AM
Project: F200
Lab ID: 2005086-001
Matrix: Groundwater
Client Sample ID: 358-B3-GW

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28304		Analyst: CR
1,2-Dibromo-3-chloropropane	ND	1.00		µg/L	1	5/12/2020 2:39:25 PM
Hexachloro-1,3-butadiene	ND	4.00		µg/L	1	5/12/2020 2:39:25 PM
1,2,3-Trichlorobenzene	ND	4.00		µg/L	1	5/12/2020 2:39:25 PM
Surr: Dibromofluoromethane	95.7	81.1 - 118		%Rec	1	5/12/2020 2:39:25 PM
Surr: Toluene-d8	99.0	85.7 - 113		%Rec	1	5/12/2020 2:39:25 PM
Surr: 1-Bromo-4-fluorobenzene	99.2	84.2 - 111		%Rec	1	5/12/2020 2:39:25 PM

Analytical Report

Work Order: **2005086**
Date Reported: **5/15/2020**

Client: O'Neill Service Group
Collection Date: 5/8/2020 12:35:00 PM
Project: F200
Lab ID: 2005086-002
Matrix: Groundwater
Client Sample ID: 358-B4-GW

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28304 Analyst: CR

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	1.00		µg/L	1	5/12/2020 3:09:27 PM
Chloromethane	ND	2.00		µg/L	1	5/12/2020 3:09:27 PM
Vinyl chloride	ND	0.200		µg/L	1	5/12/2020 3:09:27 PM
Bromomethane	ND	1.00		µg/L	1	5/12/2020 3:09:27 PM
Trichlorofluoromethane (CFC-11)	ND	1.00		µg/L	1	5/12/2020 3:09:27 PM
Chloroethane	ND	1.00		µg/L	1	5/12/2020 3:09:27 PM
1,1-Dichloroethene	ND	1.00		µg/L	1	5/12/2020 3:09:27 PM
Methylene chloride	ND	1.00		µg/L	1	5/12/2020 3:09:27 PM
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	5/12/2020 3:09:27 PM
1,1-Dichloroethane	ND	1.00		µg/L	1	5/12/2020 3:09:27 PM
cis-1,2-Dichloroethene	ND	1.00		µg/L	1	5/12/2020 3:09:27 PM
Chloroform	ND	1.00		µg/L	1	5/12/2020 3:09:27 PM
1,1,1-Trichloroethane (TCA)	ND	1.00		µg/L	1	5/12/2020 3:09:27 PM
1,1-Dichloropropene	ND	1.00		µg/L	1	5/12/2020 3:09:27 PM
Carbon tetrachloride	ND	1.00		µg/L	1	5/12/2020 3:09:27 PM
1,2-Dichloroethane (EDC)	ND	1.00		µg/L	1	5/12/2020 3:09:27 PM
Trichloroethene (TCE)	ND	0.500		µg/L	1	5/12/2020 3:09:27 PM
1,2-Dichloropropane	ND	1.00		µg/L	1	5/12/2020 3:09:27 PM
Bromodichloromethane	ND	1.00		µg/L	1	5/12/2020 3:09:27 PM
Dibromomethane	ND	1.00		µg/L	1	5/12/2020 3:09:27 PM
cis-1,3-Dichloropropene	ND	1.00		µg/L	1	5/12/2020 3:09:27 PM
trans-1,3-Dichloropropylene	ND	1.00		µg/L	1	5/12/2020 3:09:27 PM
1,1,2-Trichloroethane	ND	1.00		µg/L	1	5/12/2020 3:09:27 PM
1,3-Dichloropropane	ND	1.00		µg/L	1	5/12/2020 3:09:27 PM
Tetrachloroethene (PCE)	ND	1.00		µg/L	1	5/12/2020 3:09:27 PM
Dibromochloromethane	ND	1.00		µg/L	1	5/12/2020 3:09:27 PM
1,2-Dibromoethane (EDB)	ND	0.250		µg/L	1	5/12/2020 3:09:27 PM
Chlorobenzene	ND	1.00		µg/L	1	5/12/2020 3:09:27 PM
1,1,1,2-Tetrachloroethane	ND	1.00		µg/L	1	5/12/2020 3:09:27 PM
Bromoform	ND	2.00		µg/L	1	5/12/2020 3:09:27 PM
1,1,2,2-Tetrachloroethane	ND	1.00		µg/L	1	5/12/2020 3:09:27 PM
Bromobenzene	ND	1.00		µg/L	1	5/12/2020 3:09:27 PM
2-Chlorotoluene	ND	1.00		µg/L	1	5/12/2020 3:09:27 PM
4-Chlorotoluene	ND	1.00		µg/L	1	5/12/2020 3:09:27 PM
1,2,3-Trichloropropane	ND	1.00		µg/L	1	5/12/2020 3:09:27 PM
1,2,4-Trichlorobenzene	ND	2.00		µg/L	1	5/12/2020 3:09:27 PM
1,3-Dichlorobenzene	ND	1.00		µg/L	1	5/12/2020 3:09:27 PM
1,4-Dichlorobenzene	ND	1.00		µg/L	1	5/12/2020 3:09:27 PM
1,2-Dichlorobenzene	ND	1.00		µg/L	1	5/12/2020 3:09:27 PM

Analytical Report

Work Order: **2005086**
Date Reported: **5/15/2020**

Client: O'Neill Service Group
Collection Date: 5/8/2020 12:35:00 PM
Project: F200
Lab ID: 2005086-002
Matrix: Groundwater
Client Sample ID: 358-B4-GW

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28304		Analyst: CR
1,2-Dibromo-3-chloropropane	ND	1.00		µg/L	1	5/12/2020 3:09:27 PM
Hexachloro-1,3-butadiene	ND	4.00		µg/L	1	5/12/2020 3:09:27 PM
1,2,3-Trichlorobenzene	ND	4.00		µg/L	1	5/12/2020 3:09:27 PM
Surr: Dibromofluoromethane	96.3	81.1 - 118		%Rec	1	5/12/2020 3:09:27 PM
Surr: Toluene-d8	99.1	85.7 - 113		%Rec	1	5/12/2020 3:09:27 PM
Surr: 1-Bromo-4-fluorobenzene	100	84.2 - 111		%Rec	1	5/12/2020 3:09:27 PM

Analytical Report

Work Order: **2005086**
Date Reported: **5/15/2020**

Client: O'Neill Service Group
Collection Date: 5/8/2020 2:30:00 PM
Project: F200
Lab ID: 2005086-003
Matrix: Groundwater
Client Sample ID: 358-B5-GW

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28304 Analyst: CR

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	1.00		µg/L	1	5/12/2020 3:39:40 PM
Chloromethane	ND	2.00		µg/L	1	5/12/2020 3:39:40 PM
Vinyl chloride	2.20	0.200		µg/L	1	5/12/2020 3:39:40 PM
Bromomethane	ND	1.00		µg/L	1	5/12/2020 3:39:40 PM
Trichlorofluoromethane (CFC-11)	ND	1.00		µg/L	1	5/12/2020 3:39:40 PM
Chloroethane	ND	1.00		µg/L	1	5/12/2020 3:39:40 PM
1,1-Dichloroethene	ND	1.00		µg/L	1	5/12/2020 3:39:40 PM
Methylene chloride	ND	1.00		µg/L	1	5/12/2020 3:39:40 PM
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	5/12/2020 3:39:40 PM
1,1-Dichloroethane	ND	1.00		µg/L	1	5/12/2020 3:39:40 PM
cis-1,2-Dichloroethene	68.3	10.0	D	µg/L	10	5/13/2020 10:39:00 AM
Chloroform	ND	1.00		µg/L	1	5/12/2020 3:39:40 PM
1,1,1-Trichloroethane (TCA)	ND	1.00		µg/L	1	5/12/2020 3:39:40 PM
1,1-Dichloropropene	ND	1.00		µg/L	1	5/12/2020 3:39:40 PM
Carbon tetrachloride	ND	1.00		µg/L	1	5/12/2020 3:39:40 PM
1,2-Dichloroethane (EDC)	ND	1.00		µg/L	1	5/12/2020 3:39:40 PM
Trichloroethene (TCE)	69.9	5.00	D	µg/L	10	5/13/2020 10:39:00 AM
1,2-Dichloropropane	ND	1.00		µg/L	1	5/12/2020 3:39:40 PM
Bromodichloromethane	ND	1.00		µg/L	1	5/12/2020 3:39:40 PM
Dibromomethane	ND	1.00		µg/L	1	5/12/2020 3:39:40 PM
cis-1,3-Dichloropropene	ND	1.00		µg/L	1	5/12/2020 3:39:40 PM
trans-1,3-Dichloropropylene	ND	1.00		µg/L	1	5/12/2020 3:39:40 PM
1,1,2-Trichloroethane	ND	1.00		µg/L	1	5/12/2020 3:39:40 PM
1,3-Dichloropropane	ND	1.00		µg/L	1	5/12/2020 3:39:40 PM
Tetrachloroethene (PCE)	136	10.0	D	µg/L	10	5/13/2020 10:39:00 AM
Dibromochloromethane	ND	1.00		µg/L	1	5/12/2020 3:39:40 PM
1,2-Dibromoethane (EDB)	ND	0.250		µg/L	1	5/12/2020 3:39:40 PM
Chlorobenzene	ND	1.00		µg/L	1	5/12/2020 3:39:40 PM
1,1,1,2-Tetrachloroethane	ND	1.00		µg/L	1	5/12/2020 3:39:40 PM
Bromoform	ND	2.00		µg/L	1	5/12/2020 3:39:40 PM
1,1,2,2-Tetrachloroethane	ND	1.00		µg/L	1	5/12/2020 3:39:40 PM
Bromobenzene	ND	1.00		µg/L	1	5/12/2020 3:39:40 PM
2-Chlorotoluene	ND	1.00		µg/L	1	5/12/2020 3:39:40 PM
4-Chlorotoluene	ND	1.00		µg/L	1	5/12/2020 3:39:40 PM
1,2,3-Trichloropropane	ND	1.00		µg/L	1	5/12/2020 3:39:40 PM
1,2,4-Trichlorobenzene	ND	2.00		µg/L	1	5/12/2020 3:39:40 PM
1,3-Dichlorobenzene	ND	1.00		µg/L	1	5/12/2020 3:39:40 PM
1,4-Dichlorobenzene	ND	1.00		µg/L	1	5/12/2020 3:39:40 PM
1,2-Dichlorobenzene	ND	1.00		µg/L	1	5/12/2020 3:39:40 PM

Analytical Report

Work Order: **2005086**
Date Reported: **5/15/2020**

Client: O'Neill Service Group
Collection Date: 5/8/2020 2:30:00 PM
Project: F200
Lab ID: 2005086-003
Matrix: Groundwater
Client Sample ID: 358-B5-GW

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28304		Analyst: CR
1,2-Dibromo-3-chloropropane	ND	1.00		µg/L	1	5/12/2020 3:39:40 PM
Hexachloro-1,3-butadiene	ND	4.00		µg/L	1	5/12/2020 3:39:40 PM
1,2,3-Trichlorobenzene	ND	4.00		µg/L	1	5/12/2020 3:39:40 PM
Surr: Dibromofluoromethane	96.1	81.1 - 118		%Rec	1	5/12/2020 3:39:40 PM
Surr: Toluene-d8	99.9	85.7 - 113		%Rec	1	5/12/2020 3:39:40 PM
Surr: 1-Bromo-4-fluorobenzene	99.4	84.2 - 111		%Rec	1	5/12/2020 3:39:40 PM

Analytical Report

Work Order: **2005086**
Date Reported: **5/15/2020**

Client: O'Neill Service Group
Collection Date: 5/1/2020 11:24:00 AM
Project: F200
Lab ID: 2005086-004
Matrix: Water
Client Sample ID: Trip Blank

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28304 Analyst: CR

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	1.00		µg/L	1	5/12/2020 11:38:17 AM
Chloromethane	ND	2.00		µg/L	1	5/12/2020 11:38:17 AM
Vinyl chloride	ND	0.200		µg/L	1	5/12/2020 11:38:17 AM
Bromomethane	ND	1.00		µg/L	1	5/12/2020 11:38:17 AM
Trichlorofluoromethane (CFC-11)	ND	1.00		µg/L	1	5/12/2020 11:38:17 AM
Chloroethane	ND	1.00		µg/L	1	5/12/2020 11:38:17 AM
1,1-Dichloroethene	ND	1.00		µg/L	1	5/12/2020 11:38:17 AM
Methylene chloride	ND	1.00		µg/L	1	5/12/2020 11:38:17 AM
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	5/12/2020 11:38:17 AM
1,1-Dichloroethane	ND	1.00		µg/L	1	5/12/2020 11:38:17 AM
cis-1,2-Dichloroethene	ND	1.00		µg/L	1	5/12/2020 11:38:17 AM
Chloroform	ND	1.00		µg/L	1	5/12/2020 11:38:17 AM
1,1,1-Trichloroethane (TCA)	ND	1.00		µg/L	1	5/12/2020 11:38:17 AM
1,1-Dichloropropene	ND	1.00		µg/L	1	5/12/2020 11:38:17 AM
Carbon tetrachloride	ND	1.00		µg/L	1	5/12/2020 11:38:17 AM
1,2-Dichloroethane (EDC)	ND	1.00		µg/L	1	5/12/2020 11:38:17 AM
Trichloroethene (TCE)	ND	0.500		µg/L	1	5/12/2020 11:38:17 AM
1,2-Dichloropropane	ND	1.00		µg/L	1	5/12/2020 11:38:17 AM
Bromodichloromethane	ND	1.00		µg/L	1	5/12/2020 11:38:17 AM
Dibromomethane	ND	1.00		µg/L	1	5/12/2020 11:38:17 AM
cis-1,3-Dichloropropene	ND	1.00		µg/L	1	5/12/2020 11:38:17 AM
trans-1,3-Dichloropropylene	ND	1.00		µg/L	1	5/12/2020 11:38:17 AM
1,1,2-Trichloroethane	ND	1.00		µg/L	1	5/12/2020 11:38:17 AM
1,3-Dichloropropane	ND	1.00		µg/L	1	5/12/2020 11:38:17 AM
Tetrachloroethene (PCE)	ND	1.00		µg/L	1	5/12/2020 11:38:17 AM
Dibromochloromethane	ND	1.00		µg/L	1	5/12/2020 11:38:17 AM
1,2-Dibromoethane (EDB)	ND	0.250		µg/L	1	5/12/2020 11:38:17 AM
Chlorobenzene	ND	1.00		µg/L	1	5/12/2020 11:38:17 AM
1,1,1,2-Tetrachloroethane	ND	1.00		µg/L	1	5/12/2020 11:38:17 AM
Bromoform	ND	2.00		µg/L	1	5/12/2020 11:38:17 AM
1,1,2,2-Tetrachloroethane	ND	1.00		µg/L	1	5/12/2020 11:38:17 AM
Bromobenzene	ND	1.00		µg/L	1	5/12/2020 11:38:17 AM
2-Chlorotoluene	ND	1.00		µg/L	1	5/12/2020 11:38:17 AM
4-Chlorotoluene	ND	1.00		µg/L	1	5/12/2020 11:38:17 AM
1,2,3-Trichloropropane	ND	1.00		µg/L	1	5/12/2020 11:38:17 AM
1,2,4-Trichlorobenzene	ND	2.00		µg/L	1	5/12/2020 11:38:17 AM
1,3-Dichlorobenzene	ND	1.00		µg/L	1	5/12/2020 11:38:17 AM
1,4-Dichlorobenzene	ND	1.00		µg/L	1	5/12/2020 11:38:17 AM
1,2-Dichlorobenzene	ND	1.00		µg/L	1	5/12/2020 11:38:17 AM

Analytical Report

Work Order: **2005086**
Date Reported: **5/15/2020**

Client: O'Neill Service Group
Collection Date: 5/1/2020 11:24:00 AM
Project: F200
Lab ID: 2005086-004
Matrix: Water
Client Sample ID: Trip Blank

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28304		Analyst: CR
1,2-Dibromo-3-chloropropane	ND	1.00		µg/L	1	5/12/2020 11:38:17 AM
Hexachloro-1,3-butadiene	ND	4.00		µg/L	1	5/12/2020 11:38:17 AM
1,2,3-Trichlorobenzene	ND	4.00		µg/L	1	5/12/2020 11:38:17 AM
Surr: Dibromofluoromethane	97.6	81.1 - 118		%Rec	1	5/12/2020 11:38:17 AM
Surr: Toluene-d8	99.9	85.7 - 113		%Rec	1	5/12/2020 11:38:17 AM
Surr: 1-Bromo-4-fluorobenzene	99.7	84.2 - 111		%Rec	1	5/12/2020 11:38:17 AM

Date: *5/15/2020*

Work Order: 2005086
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **LCS-28304** SampType: **LCS** Units: **µg/L** Prep Date: **5/12/2020** RunNo: **59146**
Client ID: **LCSW** Batch ID: **28304** Analysis Date: **5/12/2020** SeqNo: **1181677**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	16.6	1.00	20.00	0	82.9	14.5	175				
Chloromethane	17.0	2.00	20.00	0	85.2	44.8	153				
Vinyl chloride	19.1	0.200	20.00	0	95.3	64.1	131				
Bromomethane	19.5	1.00	20.00	0	97.7	34.2	171				
Trichlorofluoromethane (CFC-11)	19.6	1.00	20.00	0	98.2	77.4	121				
Chloroethane	19.4	1.00	20.00	0	97.1	73.3	123				
1,1-Dichloroethene	20.2	1.00	20.00	0	101	81.8	116				
Methylene chloride	20.5	1.00	20.00	0	102	80.4	116				
trans-1,2-Dichloroethene	20.1	1.00	20.00	0	101	83.1	115				
1,1-Dichloroethane	19.8	1.00	20.00	0	98.8	79.5	119				
cis-1,2-Dichloroethene	20.0	1.00	20.00	0	100	83.5	115				
Chloroform	19.9	1.00	20.00	0	99.4	81	117				
1,1,1-Trichloroethane (TCA)	19.6	1.00	20.00	0	98.0	82.8	116				
1,1-Dichloropropene	20.0	1.00	20.00	0	100	81.5	117				
Carbon tetrachloride	19.9	1.00	20.00	0	99.3	83.3	114				
1,2-Dichloroethane (EDC)	19.7	1.00	20.00	0	98.4	78.4	118				
Trichloroethene (TCE)	20.3	0.500	20.00	0	101	82.2	116				
1,2-Dichloropropane	20.4	1.00	20.00	0	102	78	120				
Bromodichloromethane	19.6	1.00	20.00	0	98.1	80.9	116				
Dibromomethane	20.7	1.00	20.00	0	103	80	117				
cis-1,3-Dichloropropene	20.8	1.00	20.00	0	104	79.8	118				
trans-1,3-Dichloropropylene	20.7	1.00	20.00	0	103	75.8	122				
1,1,2-Trichloroethane	21.2	1.00	20.00	0	106	77.8	120				
1,3-Dichloropropane	21.4	1.00	20.00	0	107	76.5	121				
Tetrachloroethene (PCE)	20.8	1.00	20.00	0	104	86.2	114				
Dibromochloromethane	21.7	1.00	20.00	0	109	78	117				
1,2-Dibromoethane (EDB)	21.2	0.250	20.00	0	106	76.8	120				
Chlorobenzene	20.1	1.00	20.00	0	101	85.2	112				
1,1,1,2-Tetrachloroethane	20.0	1.00	20.00	0	99.9	85.5	110				
Bromoform	21.8	2.00	20.00	0	109	73.4	119				
1,1,2,2-Tetrachloroethane	20.8	1.00	20.00	0	104	74.8	124				

Date: *5/15/2020*

Work Order: 2005086
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **LCS-28304** SampType: **LCS** Units: **µg/L** Prep Date: **5/12/2020** RunNo: **59146**
Client ID: **LCSW** Batch ID: **28304** Analysis Date: **5/12/2020** SeqNo: **1181677**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromobenzene	20.5	1.00	20.00	0	102	83.2	116				
2-Chlorotoluene	20.3	1.00	20.00	0	101	81.8	119				
4-Chlorotoluene	20.2	1.00	20.00	0	101	81.6	118				
1,2,3-Trichloropropane	20.7	1.00	20.00	0	103	73.2	126				
1,2,4-Trichlorobenzene	19.1	2.00	20.00	0	95.7	68.7	138				
1,3-Dichlorobenzene	20.5	1.00	20.00	0	102	90.7	114				
1,4-Dichlorobenzene	20.7	1.00	20.00	0	104	90.1	114				
1,2-Dichlorobenzene	20.7	1.00	20.00	0	103	90.1	115				
1,2-Dibromo-3-chloropropane	20.8	1.00	20.00	0	104	54.8	147				
Hexachloro-1,3-butadiene	19.5	4.00	20.00	0	97.3	73.6	134				
1,2,3-Trichlorobenzene	19.0	4.00	20.00	0	94.8	57.1	150				
Surr: Dibromofluoromethane	25.3		25.00		101	81.1	118				
Surr: Toluene-d8	24.9		25.00		99.5	85.7	113				
Surr: 1-Bromo-4-fluorobenzene	25.9		25.00		103	84.2	111				

Sample ID: **LCSD-28304** SampType: **LCSD** Units: **µg/L** Prep Date: **5/12/2020** RunNo: **59146**
Client ID: **LCSW02** Batch ID: **28304** Analysis Date: **5/12/2020** SeqNo: **1181678**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	15.5	1.00	20.00	0	77.5	14.5	175	16.58	6.76	20	
Chloromethane	17.6	2.00	20.00	0	88.0	44.8	153	17.03	3.24	20	
Vinyl chloride	19.0	0.200	20.00	0	95.2	64.1	131	19.06	0.0665	20	
Bromomethane	18.5	1.00	20.00	0	92.4	34.2	171	19.53	5.52	20	
Trichlorofluoromethane (CFC-11)	19.7	1.00	20.00	0	98.5	77.4	121	19.64	0.253	20	
Chloroethane	19.4	1.00	20.00	0	97.1	73.3	123	19.42	0.0689	20	
1,1-Dichloroethene	20.4	1.00	20.00	0	102	81.8	116	20.16	1.04	20	
Methylene chloride	20.4	1.00	20.00	0	102	80.4	116	20.46	0.544	20	
trans-1,2-Dichloroethene	20.5	1.00	20.00	0	103	83.1	115	20.15	1.91	20	
1,1-Dichloroethane	19.8	1.00	20.00	0	98.8	79.5	119	19.76	0.0431	20	
cis-1,2-Dichloroethene	19.9	1.00	20.00	0	99.7	83.5	115	20.00	0.263	20	

Fremont Analytical

Date: *5/15/2020*

Work Order: 2005086
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **LCSD-28304** SampType: **LCSD** Units: **µg/L** Prep Date: **5/12/2020** RunNo: **59146**
Client ID: **LCSW02** Batch ID: **28304** Analysis Date: **5/12/2020** SeqNo: **1181678**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloroform	19.8	1.00	20.00	0	99.2	81	117	19.87	0.180	20	
1,1,1-Trichloroethane (TCA)	19.6	1.00	20.00	0	98.2	82.8	116	19.59	0.184	20	
1,1-Dichloropropene	20.1	1.00	20.00	0	100	81.5	117	20.03	0.322	20	
Carbon tetrachloride	20.0	1.00	20.00	0	100	83.3	114	19.85	0.707	20	
1,2-Dichloroethane (EDC)	19.4	1.00	20.00	0	97.1	78.4	118	19.68	1.37	20	
Trichloroethene (TCE)	20.4	0.500	20.00	0	102	82.2	116	20.27	0.556	20	
1,2-Dichloropropane	20.4	1.00	20.00	0	102	78	120	20.44	0.384	20	
Bromodichloromethane	19.7	1.00	20.00	0	98.3	80.9	116	19.61	0.223	20	
Dibromomethane	20.3	1.00	20.00	0	102	80	117	20.68	1.60	20	
cis-1,3-Dichloropropene	20.6	1.00	20.00	0	103	79.8	118	20.76	0.593	20	
trans-1,3-Dichloropropylene	20.7	1.00	20.00	0	103	75.8	122	20.68	0.0615	20	
1,1,2-Trichloroethane	21.1	1.00	20.00	0	106	77.8	120	21.20	0.309	20	
1,3-Dichloropropane	20.7	1.00	20.00	0	104	76.5	121	21.36	3.09	20	
Tetrachloroethene (PCE)	20.9	1.00	20.00	0	104	86.2	114	20.83	0.130	20	
Dibromochloromethane	20.9	1.00	20.00	0	105	78	117	21.74	3.80	20	
1,2-Dibromoethane (EDB)	20.8	0.250	20.00	0	104	76.8	120	21.22	2.08	20	
Chlorobenzene	20.1	1.00	20.00	0	101	85.2	112	20.14	0.160	20	
1,1,1,2-Tetrachloroethane	20.1	1.00	20.00	0	101	85.5	110	19.98	0.633	20	
Bromoform	21.9	2.00	20.00	0	110	73.4	119	21.81	0.533	20	
1,1,2,2-Tetrachloroethane	21.7	1.00	20.00	0	108	74.8	124	20.78	4.16	20	
Bromobenzene	20.9	1.00	20.00	0	105	83.2	116	20.49	2.02	20	
2-Chlorotoluene	21.1	1.00	20.00	0	106	81.8	119	20.26	4.13	20	
4-Chlorotoluene	20.0	1.00	20.00	0	99.9	81.6	118	20.21	1.11	20	
1,2,3-Trichloropropane	21.9	1.00	20.00	0	110	73.2	126	20.67	5.80	20	
1,2,4-Trichlorobenzene	20.6	2.00	20.00	0	103	68.7	138	19.15	7.25	20	
1,3-Dichlorobenzene	20.7	1.00	20.00	0	103	90.7	114	20.50	0.752	20	
1,4-Dichlorobenzene	20.8	1.00	20.00	0	104	90.1	114	20.75	0.00988	20	
1,2-Dichlorobenzene	20.8	1.00	20.00	0	104	90.1	115	20.69	0.462	20	
1,2-Dibromo-3-chloropropane	21.1	1.00	20.00	0	106	54.8	147	20.84	1.26	20	
Hexachloro-1,3-butadiene	21.0	4.00	20.00	0	105	73.6	134	19.47	7.64	20	
1,2,3-Trichlorobenzene	20.4	4.00	20.00	0	102	57.1	150	18.95	7.13	20	

Date: *5/15/2020*

Work Order: 2005086
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **LCSD-28304** SampType: **LCSD** Units: **µg/L** Prep Date: **5/12/2020** RunNo: **59146**
Client ID: **LCSW02** Batch ID: **28304** Analysis Date: **5/12/2020** SeqNo: **1181678**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	25.3		25.00		101	81.1	118		0		
Surr: Toluene-d8	24.8		25.00		99.2	85.7	113		0		
Surr: 1-Bromo-4-fluorobenzene	27.0		25.00		108	84.2	111		0		

Sample ID: **MB-28304** SampType: **MBLK** Units: **µg/L** Prep Date: **5/12/2020** RunNo: **59146**
Client ID: **MBLKW** Batch ID: **28304** Analysis Date: **5/12/2020** SeqNo: **1181679**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	1.00									
Chloromethane	ND	2.00									
Vinyl chloride	ND	0.200									
Bromomethane	ND	1.00									
Trichlorofluoromethane (CFC-11)	ND	1.00									
Chloroethane	ND	1.00									
1,1-Dichloroethene	ND	1.00									
Methylene chloride	ND	1.00									
trans-1,2-Dichloroethene	ND	1.00									
1,1-Dichloroethane	ND	1.00									
cis-1,2-Dichloroethene	ND	1.00									
Chloroform	ND	1.00									
1,1,1-Trichloroethane (TCA)	ND	1.00									
1,1-Dichloropropene	ND	1.00									
Carbon tetrachloride	ND	1.00									
1,2-Dichloroethane (EDC)	ND	1.00									
Trichloroethene (TCE)	ND	0.500									
1,2-Dichloropropane	ND	1.00									
Bromodichloromethane	ND	1.00									
Dibromomethane	ND	1.00									
cis-1,3-Dichloropropene	ND	1.00									
trans-1,3-Dichloropropylene	ND	1.00									

Date: *5/15/2020*

Work Order: 2005086
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **MB-28304** SampType: **MBLK** Units: **µg/L** Prep Date: **5/12/2020** RunNo: **59146**
Client ID: **MBLKW** Batch ID: **28304** Analysis Date: **5/12/2020** SeqNo: **1181679**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,2-Trichloroethane	ND	1.00									
1,3-Dichloropropane	ND	1.00									
Tetrachloroethene (PCE)	ND	1.00									
Dibromochloromethane	ND	1.00									
1,2-Dibromoethane (EDB)	ND	0.250									
Chlorobenzene	ND	1.00									
1,1,1,2-Tetrachloroethane	ND	1.00									
Bromoform	ND	2.00									
1,1,2,2-Tetrachloroethane	ND	1.00									
Bromobenzene	ND	1.00									
2-Chlorotoluene	ND	1.00									
4-Chlorotoluene	ND	1.00									
1,2,3-Trichloropropane	ND	1.00									
1,2,4-Trichlorobenzene	ND	2.00									
1,3-Dichlorobenzene	ND	1.00									
1,4-Dichlorobenzene	ND	1.00									
1,2-Dichlorobenzene	ND	1.00									
1,2-Dibromo-3-chloropropane	ND	1.00									
Hexachloro-1,3-butadiene	ND	4.00									
1,2,3-Trichlorobenzene	ND	4.00									
Surr: Dibromofluoromethane	24.0		25.00		95.9	81.1	118				
Surr: Toluene-d8	24.6		25.00		98.4	85.7	113				
Surr: 1-Bromo-4-fluorobenzene	25.0		25.00		99.8	84.2	111				

Sample ID: **2005046-001ADUP** SampType: **DUP** Units: **µg/L** Prep Date: **5/12/2020** RunNo: **59146**
Client ID: **BATCH** Batch ID: **28304** Analysis Date: **5/12/2020** SeqNo: **1181636**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	1.00						0		30	
Chloromethane	ND	2.00						0		30	

Date: *5/15/2020*

Work Order: 2005086
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2005046-001ADUP** SampType: **DUP** Units: **µg/L** Prep Date: **5/12/2020** RunNo: **59146**
Client ID: **BATCH** Batch ID: **28304** Analysis Date: **5/12/2020** SeqNo: **1181636**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	ND	0.200						0		30	
Bromomethane	ND	1.00						0		30	
Trichlorofluoromethane (CFC-11)	ND	1.00						0		30	
Chloroethane	ND	1.00						0		30	
1,1-Dichloroethene	ND	1.00						0		30	
Methylene chloride	ND	1.00						0		30	
trans-1,2-Dichloroethene	ND	1.00						0		30	
1,1-Dichloroethane	ND	1.00						0		30	
cis-1,2-Dichloroethene	ND	1.00						0		30	
Chloroform	ND	1.00						0		30	
1,1,1-Trichloroethane (TCA)	ND	1.00						0		30	
1,1-Dichloropropene	ND	1.00						0		30	
Carbon tetrachloride	ND	1.00						0		30	
1,2-Dichloroethane (EDC)	ND	1.00						0		30	
Trichloroethene (TCE)	ND	0.500						0		30	
1,2-Dichloropropane	ND	1.00						0		30	
Bromodichloromethane	ND	1.00						0		30	
Dibromomethane	ND	1.00						0		30	
cis-1,3-Dichloropropene	ND	1.00						0		30	
trans-1,3-Dichloropropylene	ND	1.00						0		30	
1,1,2-Trichloroethane	ND	1.00						0		30	
1,3-Dichloropropane	ND	1.00						0		30	
Tetrachloroethene (PCE)	ND	1.00						0		30	
Dibromochloromethane	ND	1.00						0		30	
1,2-Dibromoethane (EDB)	ND	0.250						0		30	
Chlorobenzene	ND	1.00						0		30	
1,1,1,2-Tetrachloroethane	ND	1.00						0		30	
Bromoform	ND	2.00						0		30	
1,1,2,2-Tetrachloroethane	ND	1.00						0		30	
Bromobenzene	ND	1.00						0		30	
2-Chlorotoluene	ND	1.00						0		30	

Date: *5/15/2020*

Work Order: 2005086
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2005046-001ADUP** SampType: **DUP** Units: **µg/L** Prep Date: **5/12/2020** RunNo: **59146**
Client ID: **BATCH** Batch ID: **28304** Analysis Date: **5/12/2020** SeqNo: **1181636**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4-Chlorotoluene	ND	1.00						0		30	
1,2,3-Trichloropropane	ND	1.00						0		30	
1,2,4-Trichlorobenzene	ND	2.00						0		30	
1,3-Dichlorobenzene	ND	1.00						0		30	
1,4-Dichlorobenzene	ND	1.00						0		30	
1,2-Dichlorobenzene	ND	1.00						0		30	
1,2-Dibromo-3-chloropropane	ND	1.00						0		30	
Hexachloro-1,3-butadiene	ND	4.00						0		30	
1,2,3-Trichlorobenzene	ND	4.00						0		30	
Surr: Dibromofluoromethane	24.3		25.00		97.2	81.1	118		0		
Surr: Toluene-d8	24.7		25.00		98.8	85.7	113		0		
Surr: 1-Bromo-4-fluorobenzene	24.7		25.00		98.9	84.2	111		0		

Sample ID: **2005047-001ADUP** SampType: **DUP** Units: **µg/L** Prep Date: **5/12/2020** RunNo: **59146**
Client ID: **BATCH** Batch ID: **28304** Analysis Date: **5/12/2020** SeqNo: **1181638**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	1.00						0		30	
Chloromethane	ND	2.00						0		30	
Vinyl chloride	ND	0.200						0		30	
Bromomethane	ND	1.00						0		30	
Trichlorofluoromethane (CFC-11)	ND	1.00						0		30	
Chloroethane	ND	1.00						0		30	
1,1-Dichloroethene	ND	1.00						0		30	
Methylene chloride	ND	1.00						0		30	
trans-1,2-Dichloroethene	ND	1.00						0		30	
1,1-Dichloroethane	ND	1.00						0		30	
cis-1,2-Dichloroethene	ND	1.00						0		30	
Chloroform	ND	1.00						0		30	
1,1,1-Trichloroethane (TCA)	ND	1.00						0		30	

Date: *5/15/2020*

Work Order: 2005086
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2005047-001ADUP** SampType: **DUP** Units: **µg/L** Prep Date: **5/12/2020** RunNo: **59146**
Client ID: **BATCH** Batch ID: **28304** Analysis Date: **5/12/2020** SeqNo: **1181638**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloropropene	ND	1.00						0		30	
Carbon tetrachloride	ND	1.00						0		30	
1,2-Dichloroethane (EDC)	ND	1.00						0		30	
Trichloroethene (TCE)	ND	0.500						0		30	
1,2-Dichloropropane	ND	1.00						0		30	
Bromodichloromethane	ND	1.00						0		30	
Dibromomethane	ND	1.00						0		30	
cis-1,3-Dichloropropene	ND	1.00						0		30	
trans-1,3-Dichloropropylene	ND	1.00						0		30	
1,1,2-Trichloroethane	ND	1.00						0		30	
1,3-Dichloropropane	ND	1.00						0		30	
Tetrachloroethene (PCE)	ND	1.00						0		30	
Dibromochloromethane	ND	1.00						0		30	
1,2-Dibromoethane (EDB)	ND	0.250						0		30	
Chlorobenzene	ND	1.00						0		30	
1,1,1,2-Tetrachloroethane	ND	1.00						0		30	
Bromoform	ND	2.00						0		30	
1,1,2,2-Tetrachloroethane	ND	1.00						0		30	
Bromobenzene	ND	1.00						0		30	
2-Chlorotoluene	ND	1.00						0		30	
4-Chlorotoluene	ND	1.00						0		30	
1,2,3-Trichloropropane	ND	1.00						0		30	
1,2,4-Trichlorobenzene	ND	2.00						0		30	
1,3-Dichlorobenzene	ND	1.00						0		30	
1,4-Dichlorobenzene	ND	1.00						0		30	
1,2-Dichlorobenzene	ND	1.00						0		30	
1,2-Dibromo-3-chloropropane	ND	1.00						0		30	
Hexachloro-1,3-butadiene	ND	4.00						0		30	
1,2,3-Trichlorobenzene	ND	4.00						0		30	
Surr: Dibromofluoromethane	24.0		25.00		96.0	81.1	118		0		
Surr: Toluene-d8	24.8		25.00		99.0	85.7	113		0		

Date: *5/15/2020*

Work Order: 2005086
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2005047-001ADUP** SampType: **DUP** Units: **µg/L** Prep Date: **5/12/2020** RunNo: **59146**
Client ID: **BATCH** Batch ID: **28304** Analysis Date: **5/12/2020** SeqNo: **1181638**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: 1-Bromo-4-fluorobenzene	24.7		25.00		99.0	84.2	111		0		

Sample Log-In Check List

Client Name:	**ONEILL**	Work Order Number:	**2005086**
Logged by:	**Carissa True**	Date Received:	**5/8/2020 4:27:00 PM**

Chain of Custody

1.	Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
2.	How was the sample delivered?	Client		

Log In

3.	Coolers are present?	Yes ☑	No ☐	NA ☐
4.	Shipping container/cooler in good condition?	Yes ☑	No ☐	
5.	Custody Seals present on shipping container/cooler? (Refer to comments for Custody Seals not intact)	Yes ☐	No ☐	Not Required ☑
6.	Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
7.	Were all items received at a temperature of >2°C to 6°C *	Yes ☑	No ☐	NA ☐
8.	Sample(s) in proper container(s)?	Yes ☑	No ☐	
9.	Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
10.	Are samples properly preserved?	Yes ☑	No ☐	
11.	Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
12.	Is there headspace in the VOA vials?	Yes ☐	No ☑	NA ☐
13.	Did all samples containers arrive in good condition(unbroken)?	Yes ☑	No ☐	
14.	Does paperwork match bottle labels?	Yes ☑	No ☐	
15.	Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
16.	Is it clear what analyses were requested?	Yes ☑	No ☐	
17.	Were all holding times able to be met?	Yes ☑	No ☐	

Special Handling (if applicable)

18.	Was client notified of all discrepancies with this order?	Yes ☐	No ☐	NA ☑

Person Notified: _____ Date: _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

19. Additional remarks:

em Blan out of tem

Item Information

Item #	Temp ºC
Cooler 1	0.9
Sample 1	1.0
Temp Blank 1	11.9

* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C

Fremont Analytical
3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790
Fax: 206-352-7178

Chain of Custody Record & Laboratory Services Agreement

Date: 5/8/20 Page: 1 of: 1

Laboratory Project No (internal): 20050816

Project Name: ~~202~~ 5200

Special Remarks:

Client: OSG

Project No: 2021

Address:

Collected by: Atkins

City, State, Zip:

Location: FL358 - GW

Telephone:

Report To (PM): Atkins

Sample Disposal: ☐ Return to client ☐ Disposal by lab (after 30 days)

Fax:

PM Email:

	Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	HAVOCs (EPA 8260 / 624)	GX/BTEX	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DX)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T) | Dissolved (D)	Anions (IC)***	EDB (8011)	Comments
1	358-B3-GW	5/8/15	815	GW	X													
2	358-B4-GW	↓	1235	↓	X													
3	358-B5-GW	↓	1430	↓	X													
4	Trip Blank	—	—	—	X													
5																		
6																		
7																		
8																		
9																		
10																		

*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

**Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL *Individual:* Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti Tl U V Zn

***Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above and that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished	Date/Time	Received	Date/Time
x [signature]	5/8/20 1612	x [signature]	5/8/20 @1627
Relinquished	Date/Time	Received	Date/Time
x		x	

Turn-around Time:
- ☐ Standard
- ☐ 3 Day
- ☐ 2 Day
- ☐ Next Day
- Same Day ____ (specify)

3600 Fremont Ave. N.
Seattle, WA 98103
T: (206) 352-3790
F: (206) 352-7178
info@fremontanalytical.com

O'Neill Service Group
Vance Atkins
17619 NE 67th Court, Suite 100
Redmond, WA 98052

RE: F200
Work Order Number: 2005098

June 09, 2020

Attention Vance Atkins:

Fremont Analytical, Inc. received 22 sample(s) on 5/11/2020 for the analyses presented in the following report.

Sample Moisture (Percent Moisture)
Volatile Organic Compounds by EPA Method 8260D

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Brianna Barnes
Project Manager

Date: *06/09/2020*

CLIENT: O'Neill Service Group
Project: F200
Work Order: 2005098

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
2005098-001	358-B7-5	05/11/2020 8:25 AM	05/11/2020 4:45 PM
2005098-002	358-B7-7.5	05/11/2020 8:30 AM	05/11/2020 4:45 PM
2005098-003	358-B7-10	05/11/2020 8:45 AM	05/11/2020 4:45 PM
2005098-004	358-B7-15	05/11/2020 8:55 AM	05/11/2020 4:45 PM
2005098-005	358-B7-20	05/11/2020 9:05 AM	05/11/2020 4:45 PM
2005098-006	358-B7-25	05/11/2020 9:10 AM	05/11/2020 4:45 PM
2005098-007	358-B8-2.5	05/11/2020 10:30 AM	05/11/2020 4:45 PM
2005098-008	358-B8-5	05/11/2020 10:35 AM	05/11/2020 4:45 PM
2005098-009	358-B8-7.5	05/11/2020 10:40 AM	05/11/2020 4:45 PM
2005098-010	358-B8-10	05/11/2020 10:45 AM	05/11/2020 4:45 PM
2005098-011	358-B8-12.5	05/11/2020 10:50 AM	05/11/2020 4:45 PM
2005098-012	358-B8-15	05/11/2020 11:00 AM	05/11/2020 4:45 PM
2005098-013	358-B8-20	05/11/2020 11:05 AM	05/11/2020 4:45 PM
2005098-014	358-B8-25	05/11/2020 11:15 AM	05/11/2020 4:45 PM
2005098-015	358-B9-2.5	05/11/2020 1:15 PM	05/11/2020 4:45 PM
2005098-016	358-B9-7.5	05/11/2020 1:30 PM	05/11/2020 4:45 PM
2005098-017	358-B9-10	05/11/2020 1:35 PM	05/11/2020 4:45 PM
2005098-018	358-B9-12.5	05/11/2020 1:40 PM	05/11/2020 4:45 PM
2005098-019	358-B9-15	05/11/2020 1:45 PM	05/11/2020 4:45 PM
2005098-020	358-B9-20	05/11/2020 1:50 PM	05/11/2020 4:45 PM
2005098-021	358-B9-25	05/11/2020 2:00 PM	05/11/2020 4:45 PM
2005098-022	Trip Blank	05/06/2020 12:40 PM	05/11/2020 4:45 PM

Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned

Case Narrative

WO#: **2005098**

Date: **6/9/2020**

CLIENT: O'Neill Service Group

Project: F200

I. SAMPLE RECEIPT:
Samples receipt information is recorded on the attached Sample Receipt Checklist.

II. GENERAL REPORTING COMMENTS:
Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

III. ANALYSES AND EXCEPTIONS:
Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

6/9/2020: Revision 1 includes additional analysis requested by client.

Qualifiers:

* - Flagged value is not within established control limits
B - Analyte detected in the associated Method Blank
D - Dilution was required
E - Value above quantitation range
H - Holding times for preparation or analysis exceeded
I - Analyte with an internal standard that does not meet established acceptance criteria
J - Analyte detected below Reporting Limit
N - Tentatively Identified Compound (TIC)
Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF)
S - Spike recovery outside accepted recovery limits
ND - Not detected at the Reporting Limit
R - High relative percent difference observed

Acronyms:

%Rec - Percent Recovery
CCB - Continued Calibration Blank
CCV - Continued Calibration Verification
DF - Dilution Factor
HEM - Hexane Extractable Material
ICV - Initial Calibration Verification
LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
MB or MBLANK - Method Blank
MDL - Method Detection Limit
MS/MSD - Matrix Spike / Matrix Spike Duplicate
PDS - Post Digestion Spike
Ref Val - Reference Value
RL - Reporting Limit
RPD - Relative Percent Difference
SD - Serial Dilution
SGT - Silica Gel Treatment
SPK - Spike
Surr - Surrogate

Analytical Report

Work Order: **2005098**
Date Reported: **6/9/2020**

Client: O'Neill Service Group
Collection Date: 5/11/2020 8:25:00 AM
Project: F200
Lab ID: 2005098-001
Matrix: Soil
Client Sample ID: 358-B7-5

Volatile Organic Compounds by EPA Method 8260D

Batch ID: 28305 Analyst: KT

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0185		mg/Kg-dry	1	5/12/2020 6:34:15 PM
Chloromethane	ND	0.0463		mg/Kg-dry	1	5/12/2020 6:34:15 PM
Vinyl chloride	ND	0.0231		mg/Kg-dry	1	5/12/2020 6:34:15 PM
Bromomethane	ND	0.0463		mg/Kg-dry	1	5/12/2020 6:34:15 PM
Trichlorofluoromethane (CFC-11)	ND	0.0185		mg/Kg-dry	1	5/12/2020 6:34:15 PM
Chloroethane	ND	0.0463		mg/Kg-dry	1	5/12/2020 6:34:15 PM
1,1-Dichloroethene	ND	0.0185		mg/Kg-dry	1	5/12/2020 6:34:15 PM
Methylene chloride	ND	0.0185		mg/Kg-dry	1	5/12/2020 6:34:15 PM
trans-1,2-Dichloroethene	ND	0.0185		mg/Kg-dry	1	5/12/2020 6:34:15 PM
1,1-Dichloroethane	ND	0.0185		mg/Kg-dry	1	5/12/2020 6:34:15 PM
cis-1,2-Dichloroethene	0.0509	0.0185		mg/Kg-dry	1	5/12/2020 6:34:15 PM
Chloroform	ND	0.0185		mg/Kg-dry	1	5/12/2020 6:34:15 PM
1,1,1-Trichloroethane (TCA)	ND	0.0231		mg/Kg-dry	1	5/12/2020 6:34:15 PM
1,1-Dichloropropene	ND	0.0185		mg/Kg-dry	1	5/12/2020 6:34:15 PM
Carbon tetrachloride	ND	0.0231		mg/Kg-dry	1	5/12/2020 6:34:15 PM
1,2-Dichloroethane (EDC)	ND	0.0185		mg/Kg-dry	1	5/12/2020 6:34:15 PM
Trichloroethene (TCE)	ND	0.0185		mg/Kg-dry	1	5/12/2020 6:34:15 PM
1,2-Dichloropropane	ND	0.0185		mg/Kg-dry	1	5/12/2020 6:34:15 PM
Bromodichloromethane	ND	0.0185		mg/Kg-dry	1	5/12/2020 6:34:15 PM
Dibromomethane	ND	0.0185		mg/Kg-dry	1	5/12/2020 6:34:15 PM
cis-1,3-Dichloropropene	ND	0.0185		mg/Kg-dry	1	5/12/2020 6:34:15 PM
trans-1,3-Dichloropropylene	ND	0.0185		mg/Kg-dry	1	5/12/2020 6:34:15 PM
1,1,2-Trichloroethane	ND	0.0185		mg/Kg-dry	1	5/12/2020 6:34:15 PM
1,3-Dichloropropane	ND	0.0231		mg/Kg-dry	1	5/12/2020 6:34:15 PM
Tetrachloroethene (PCE)	0.0438	0.0231		mg/Kg-dry	1	5/12/2020 6:34:15 PM
Dibromochloromethane	ND	0.0231		mg/Kg-dry	1	5/12/2020 6:34:15 PM
1,2-Dibromoethane (EDB)	ND	0.00463		mg/Kg-dry	1	5/12/2020 6:34:15 PM
Chlorobenzene	ND	0.0231		mg/Kg-dry	1	5/12/2020 6:34:15 PM
1,1,1,2-Tetrachloroethane	ND	0.0231		mg/Kg-dry	1	5/12/2020 6:34:15 PM
Bromoform	ND	0.0463		mg/Kg-dry	1	5/12/2020 6:34:15 PM
1,1,2,2-Tetrachloroethane	ND	0.0185		mg/Kg-dry	1	5/12/2020 6:34:15 PM
Bromobenzene	ND	0.0185		mg/Kg-dry	1	5/12/2020 6:34:15 PM
2-Chlorotoluene	ND	0.0231		mg/Kg-dry	1	5/12/2020 6:34:15 PM
4-Chlorotoluene	ND	0.0231		mg/Kg-dry	1	5/12/2020 6:34:15 PM
1,2,3-Trichloropropane	ND	0.0231		mg/Kg-dry	1	5/12/2020 6:34:15 PM
1,2,4-Trichlorobenzene	ND	0.0231		mg/Kg-dry	1	5/12/2020 6:34:15 PM
1,3-Dichlorobenzene	ND	0.0185		mg/Kg-dry	1	5/12/2020 6:34:15 PM
1,4-Dichlorobenzene	ND	0.0185		mg/Kg-dry	1	5/12/2020 6:34:15 PM
1,2-Dichlorobenzene	ND	0.0185		mg/Kg-dry	1	5/12/2020 6:34:15 PM

Analytical Report

Work Order: **2005098**
Date Reported: **6/9/2020**

Client: O'Neill Service Group
Collection Date: 5/11/2020 8:25:00 AM
Project: F200
Lab ID: 2005098-001
Matrix: Soil
Client Sample ID: 358-B7-5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28305		Analyst: KT
1,2-Dibromo-3-chloropropane	ND	0.463		mg/Kg-dry	1	5/12/2020 6:34:15 PM
Hexachloro-1,3-butadiene	ND	0.0463		mg/Kg-dry	1	5/12/2020 6:34:15 PM
1,2,3-Trichlorobenzene	ND	0.0185		mg/Kg-dry	1	5/12/2020 6:34:15 PM
Surr: Dibromofluoromethane	96.5	80 - 116		%Rec	1	5/12/2020 6:34:15 PM
Surr: Toluene-d8	99.1	84.8 - 113		%Rec	1	5/12/2020 6:34:15 PM
Surr: 1-Bromo-4-fluorobenzene	96.6	82.8 - 113		%Rec	1	5/12/2020 6:34:15 PM
Sample Moisture (Percent Moisture)				Batch ID: R59175		Analyst: EH
Percent Moisture	13.1	0.500		wt%	1	5/14/2020 9:58:14 AM

Analytical Report

Work Order: **2005098**
Date Reported: **6/9/2020**

Client: O'Neill Service Group
Collection Date: 5/11/2020 8:45:00 AM
Project: F200
Lab ID: 2005098-003
Matrix: Soil
Client Sample ID: 358-B7-10

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28305 Analyst: KT

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0174		mg/Kg-dry	1	5/12/2020 7:34:31 PM
Chloromethane	ND	0.0435		mg/Kg-dry	1	5/12/2020 7:34:31 PM
Vinyl chloride	ND	0.0218		mg/Kg-dry	1	5/12/2020 7:34:31 PM
Bromomethane	ND	0.0435		mg/Kg-dry	1	5/12/2020 7:34:31 PM
Trichlorofluoromethane (CFC-11)	ND	0.0174		mg/Kg-dry	1	5/12/2020 7:34:31 PM
Chloroethane	ND	0.0435		mg/Kg-dry	1	5/12/2020 7:34:31 PM
1,1-Dichloroethene	ND	0.0174		mg/Kg-dry	1	5/12/2020 7:34:31 PM
Methylene chloride	ND	0.0174		mg/Kg-dry	1	5/12/2020 7:34:31 PM
trans-1,2-Dichloroethene	ND	0.0174		mg/Kg-dry	1	5/12/2020 7:34:31 PM
1,1-Dichloroethane	ND	0.0174		mg/Kg-dry	1	5/12/2020 7:34:31 PM
cis-1,2-Dichloroethene	ND	0.0174		mg/Kg-dry	1	5/12/2020 7:34:31 PM
Chloroform	ND	0.0174		mg/Kg-dry	1	5/12/2020 7:34:31 PM
1,1,1-Trichloroethane (TCA)	ND	0.0218		mg/Kg-dry	1	5/12/2020 7:34:31 PM
1,1-Dichloropropene	ND	0.0174		mg/Kg-dry	1	5/12/2020 7:34:31 PM
Carbon tetrachloride	ND	0.0218		mg/Kg-dry	1	5/12/2020 7:34:31 PM
1,2-Dichloroethane (EDC)	ND	0.0174		mg/Kg-dry	1	5/12/2020 7:34:31 PM
Trichloroethene (TCE)	ND	0.0174		mg/Kg-dry	1	5/12/2020 7:34:31 PM
1,2-Dichloropropane	ND	0.0174		mg/Kg-dry	1	5/12/2020 7:34:31 PM
Bromodichloromethane	ND	0.0174		mg/Kg-dry	1	5/12/2020 7:34:31 PM
Dibromomethane	ND	0.0174		mg/Kg-dry	1	5/12/2020 7:34:31 PM
cis-1,3-Dichloropropene	ND	0.0174		mg/Kg-dry	1	5/12/2020 7:34:31 PM
trans-1,3-Dichloropropylene	ND	0.0174		mg/Kg-dry	1	5/12/2020 7:34:31 PM
1,1,2-Trichloroethane	ND	0.0174		mg/Kg-dry	1	5/12/2020 7:34:31 PM
1,3-Dichloropropane	ND	0.0218		mg/Kg-dry	1	5/12/2020 7:34:31 PM
Tetrachloroethene (PCE)	ND	0.0218		mg/Kg-dry	1	5/12/2020 7:34:31 PM
Dibromochloromethane	ND	0.0218		mg/Kg-dry	1	5/12/2020 7:34:31 PM
1,2-Dibromoethane (EDB)	ND	0.00435		mg/Kg-dry	1	5/12/2020 7:34:31 PM
Chlorobenzene	ND	0.0218		mg/Kg-dry	1	5/12/2020 7:34:31 PM
1,1,1,2-Tetrachloroethane	ND	0.0218		mg/Kg-dry	1	5/12/2020 7:34:31 PM
Bromoform	ND	0.0435		mg/Kg-dry	1	5/12/2020 7:34:31 PM
1,1,2,2-Tetrachloroethane	ND	0.0174		mg/Kg-dry	1	5/12/2020 7:34:31 PM
Bromobenzene	ND	0.0174		mg/Kg-dry	1	5/12/2020 7:34:31 PM
2-Chlorotoluene	ND	0.0218		mg/Kg-dry	1	5/12/2020 7:34:31 PM
4-Chlorotoluene	ND	0.0218		mg/Kg-dry	1	5/12/2020 7:34:31 PM
1,2,3-Trichloropropane	ND	0.0218		mg/Kg-dry	1	5/12/2020 7:34:31 PM
1,2,4-Trichlorobenzene	ND	0.0218		mg/Kg-dry	1	5/12/2020 7:34:31 PM
1,3-Dichlorobenzene	ND	0.0174		mg/Kg-dry	1	5/12/2020 7:34:31 PM
1,4-Dichlorobenzene	ND	0.0174		mg/Kg-dry	1	5/12/2020 7:34:31 PM
1,2-Dichlorobenzene	ND	0.0174		mg/Kg-dry	1	5/12/2020 7:34:31 PM

Analytical Report

Work Order: **2005098**
Date Reported: **6/9/2020**

Client: O'Neill Service Group
Collection Date: 5/11/2020 8:45:00 AM
Project: F200
Lab ID: 2005098-003
Matrix: Soil
Client Sample ID: 358-B7-10

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28305		Analyst: KT
1,2-Dibromo-3-chloropropane	ND	0.435		mg/Kg-dry	1	5/12/2020 7:34:31 PM
Hexachloro-1,3-butadiene	ND	0.0435		mg/Kg-dry	1	5/12/2020 7:34:31 PM
1,2,3-Trichlorobenzene	ND	0.0174		mg/Kg-dry	1	5/12/2020 7:34:31 PM
Surr: Dibromofluoromethane	97.5	80 - 116		%Rec	1	5/12/2020 7:34:31 PM
Surr: Toluene-d8	98.9	84.8 - 113		%Rec	1	5/12/2020 7:34:31 PM
Surr: 1-Bromo-4-fluorobenzene	96.5	82.8 - 113		%Rec	1	5/12/2020 7:34:31 PM
Sample Moisture (Percent Moisture)				Batch ID: R59175		Analyst: EH
Percent Moisture	12.5	0.500		wt%	1	5/14/2020 9:58:14 AM

Analytical Report

Work Order: **2005098**
Date Reported: **6/9/2020**

Client: O'Neill Service Group
Collection Date: 5/11/2020 9:05:00 AM
Project: F200
Lab ID: 2005098-005
Matrix: Soil
Client Sample ID: 358-B7-20

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28305 Analyst: KT

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0170		mg/Kg-dry	1	5/12/2020 8:04:38 PM
Chloromethane	ND	0.0426		mg/Kg-dry	1	5/12/2020 8:04:38 PM
Vinyl chloride	ND	0.0213		mg/Kg-dry	1	5/12/2020 8:04:38 PM
Bromomethane	ND	0.0426		mg/Kg-dry	1	5/12/2020 8:04:38 PM
Trichlorofluoromethane (CFC-11)	ND	0.0170		mg/Kg-dry	1	5/12/2020 8:04:38 PM
Chloroethane	ND	0.0426		mg/Kg-dry	1	5/12/2020 8:04:38 PM
1,1-Dichloroethene	ND	0.0170		mg/Kg-dry	1	5/12/2020 8:04:38 PM
Methylene chloride	ND	0.0170		mg/Kg-dry	1	5/12/2020 8:04:38 PM
trans-1,2-Dichloroethene	ND	0.0170		mg/Kg-dry	1	5/12/2020 8:04:38 PM
1,1-Dichloroethane	ND	0.0170		mg/Kg-dry	1	5/12/2020 8:04:38 PM
cis-1,2-Dichloroethene	0.0245	0.0170		mg/Kg-dry	1	5/12/2020 8:04:38 PM
Chloroform	ND	0.0170		mg/Kg-dry	1	5/12/2020 8:04:38 PM
1,1,1-Trichloroethane (TCA)	ND	0.0213		mg/Kg-dry	1	5/12/2020 8:04:38 PM
1,1-Dichloropropene	ND	0.0170		mg/Kg-dry	1	5/12/2020 8:04:38 PM
Carbon tetrachloride	ND	0.0213		mg/Kg-dry	1	5/12/2020 8:04:38 PM
1,2-Dichloroethane (EDC)	ND	0.0170		mg/Kg-dry	1	5/12/2020 8:04:38 PM
Trichloroethene (TCE)	ND	0.0170		mg/Kg-dry	1	5/12/2020 8:04:38 PM
1,2-Dichloropropane	ND	0.0170		mg/Kg-dry	1	5/12/2020 8:04:38 PM
Bromodichloromethane	ND	0.0170		mg/Kg-dry	1	5/12/2020 8:04:38 PM
Dibromomethane	ND	0.0170		mg/Kg-dry	1	5/12/2020 8:04:38 PM
cis-1,3-Dichloropropene	ND	0.0170		mg/Kg-dry	1	5/12/2020 8:04:38 PM
trans-1,3-Dichloropropylene	ND	0.0170		mg/Kg-dry	1	5/12/2020 8:04:38 PM
1,1,2-Trichloroethane	ND	0.0170		mg/Kg-dry	1	5/12/2020 8:04:38 PM
1,3-Dichloropropane	ND	0.0213		mg/Kg-dry	1	5/12/2020 8:04:38 PM
Tetrachloroethene (PCE)	ND	0.0213		mg/Kg-dry	1	5/12/2020 8:04:38 PM
Dibromochloromethane	ND	0.0213		mg/Kg-dry	1	5/12/2020 8:04:38 PM
1,2-Dibromoethane (EDB)	ND	0.00426		mg/Kg-dry	1	5/12/2020 8:04:38 PM
Chlorobenzene	ND	0.0213		mg/Kg-dry	1	5/12/2020 8:04:38 PM
1,1,1,2-Tetrachloroethane	ND	0.0213		mg/Kg-dry	1	5/12/2020 8:04:38 PM
Bromoform	ND	0.0426		mg/Kg-dry	1	5/12/2020 8:04:38 PM
1,1,2,2-Tetrachloroethane	ND	0.0170		mg/Kg-dry	1	5/12/2020 8:04:38 PM
Bromobenzene	ND	0.0170		mg/Kg-dry	1	5/12/2020 8:04:38 PM
2-Chlorotoluene	ND	0.0213		mg/Kg-dry	1	5/12/2020 8:04:38 PM
4-Chlorotoluene	ND	0.0213		mg/Kg-dry	1	5/12/2020 8:04:38 PM
1,2,3-Trichloropropane	ND	0.0213		mg/Kg-dry	1	5/12/2020 8:04:38 PM
1,2,4-Trichlorobenzene	ND	0.0213		mg/Kg-dry	1	5/12/2020 8:04:38 PM
1,3-Dichlorobenzene	ND	0.0170		mg/Kg-dry	1	5/12/2020 8:04:38 PM
1,4-Dichlorobenzene	ND	0.0170		mg/Kg-dry	1	5/12/2020 8:04:38 PM
1,2-Dichlorobenzene	ND	0.0170		mg/Kg-dry	1	5/12/2020 8:04:38 PM

Analytical Report

Work Order: **2005098**
Date Reported: **6/9/2020**

Client: O'Neill Service Group
Collection Date: 5/11/2020 9:05:00 AM
Project: F200
Lab ID: 2005098-005
Matrix: Soil
Client Sample ID: 358-B7-20

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28305		Analyst: KT
1,2-Dibromo-3-chloropropane	ND	0.426		mg/Kg-dry	1	5/12/2020 8:04:38 PM
Hexachloro-1,3-butadiene	ND	0.0426		mg/Kg-dry	1	5/12/2020 8:04:38 PM
1,2,3-Trichlorobenzene	ND	0.0170		mg/Kg-dry	1	5/12/2020 8:04:38 PM
Surr: Dibromofluoromethane	101	80 - 116		%Rec	1	5/12/2020 8:04:38 PM
Surr: Toluene-d8	99.9	84.8 - 113		%Rec	1	5/12/2020 8:04:38 PM
Surr: 1-Bromo-4-fluorobenzene	98.1	82.8 - 113		%Rec	1	5/12/2020 8:04:38 PM
Sample Moisture (Percent Moisture)				Batch ID: R59175		Analyst: EH
Percent Moisture	17.0	0.500		wt%	1	5/14/2020 9:58:14 AM

Analytical Report

Work Order: **2005098**
Date Reported: **6/9/2020**

Client: O'Neill Service Group
Collection Date: 5/11/2020 10:30:00 AM
Project: F200
Lab ID: 2005098-007
Matrix: Soil
Client Sample ID: 358-B8-2.5

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28544 Analyst: KT

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0208	H	mg/Kg-dry	1	6/5/2020 9:58:33 PM
Chloromethane	ND	0.0519	QH	mg/Kg-dry	1	6/5/2020 9:58:33 PM
Vinyl chloride	ND	0.0260	H	mg/Kg-dry	1	6/5/2020 9:58:33 PM
Bromomethane	ND	0.0519	QH	mg/Kg-dry	1	6/5/2020 9:58:33 PM
Trichlorofluoromethane (CFC-11)	ND	0.0208	H	mg/Kg-dry	1	6/5/2020 9:58:33 PM
Chloroethane	ND	0.0519	QH	mg/Kg-dry	1	6/5/2020 9:58:33 PM
1,1-Dichloroethene	ND	0.0208	H	mg/Kg-dry	1	6/5/2020 9:58:33 PM
Methylene chloride	ND	0.0208	H	mg/Kg-dry	1	6/5/2020 9:58:33 PM
trans-1,2-Dichloroethene	ND	0.0208	H	mg/Kg-dry	1	6/5/2020 9:58:33 PM
1,1-Dichloroethane	ND	0.0208	H	mg/Kg-dry	1	6/5/2020 9:58:33 PM
cis-1,2-Dichloroethene	ND	0.0208	H	mg/Kg-dry	1	6/5/2020 9:58:33 PM
Chloroform	ND	0.0208	H	mg/Kg-dry	1	6/5/2020 9:58:33 PM
1,1,1-Trichloroethane (TCA)	ND	0.0260	H	mg/Kg-dry	1	6/5/2020 9:58:33 PM
1,1-Dichloropropene	ND	0.0208	H	mg/Kg-dry	1	6/5/2020 9:58:33 PM
Carbon tetrachloride	ND	0.0260	H	mg/Kg-dry	1	6/5/2020 9:58:33 PM
1,2-Dichloroethane (EDC)	ND	0.0208	H	mg/Kg-dry	1	6/5/2020 9:58:33 PM
Trichloroethene (TCE)	ND	0.0208	H	mg/Kg-dry	1	6/5/2020 9:58:33 PM
1,2-Dichloropropane	ND	0.0208	H	mg/Kg-dry	1	6/5/2020 9:58:33 PM
Bromodichloromethane	ND	0.0208	H	mg/Kg-dry	1	6/5/2020 9:58:33 PM
Dibromomethane	ND	0.0208	H	mg/Kg-dry	1	6/5/2020 9:58:33 PM
cis-1,3-Dichloropropene	ND	0.0208	H	mg/Kg-dry	1	6/5/2020 9:58:33 PM
trans-1,3-Dichloropropylene	ND	0.0208	H	mg/Kg-dry	1	6/5/2020 9:58:33 PM
1,1,2-Trichloroethane	ND	0.0208	H	mg/Kg-dry	1	6/5/2020 9:58:33 PM
1,3-Dichloropropane	ND	0.0260	H	mg/Kg-dry	1	6/5/2020 9:58:33 PM
Tetrachloroethene (PCE)	0.0539	0.0260	H	mg/Kg-dry	1	6/5/2020 9:58:33 PM
Dibromochloromethane	ND	0.0260	H	mg/Kg-dry	1	6/5/2020 9:58:33 PM
1,2-Dibromoethane (EDB)	ND	0.00519	H	mg/Kg-dry	1	6/5/2020 9:58:33 PM
Chlorobenzene	ND	0.0260	H	mg/Kg-dry	1	6/5/2020 9:58:33 PM
1,1,1,2-Tetrachloroethane	ND	0.0260	H	mg/Kg-dry	1	6/5/2020 9:58:33 PM
Bromoform	ND	0.0519	H	mg/Kg-dry	1	6/5/2020 9:58:33 PM
1,1,2,2-Tetrachloroethane	ND	0.0208	H	mg/Kg-dry	1	6/5/2020 9:58:33 PM
Bromobenzene	ND	0.0208	H	mg/Kg-dry	1	6/5/2020 9:58:33 PM
2-Chlorotoluene	ND	0.0260	H	mg/Kg-dry	1	6/5/2020 9:58:33 PM
4-Chlorotoluene	ND	0.0260	H	mg/Kg-dry	1	6/5/2020 9:58:33 PM
1,2,3-Trichloropropane	ND	0.0260	H	mg/Kg-dry	1	6/5/2020 9:58:33 PM
1,2,4-Trichlorobenzene	ND	0.0260	H	mg/Kg-dry	1	6/5/2020 9:58:33 PM
1,3-Dichlorobenzene	ND	0.0208	H	mg/Kg-dry	1	6/5/2020 9:58:33 PM
1,4-Dichlorobenzene	ND	0.0208	H	mg/Kg-dry	1	6/5/2020 9:58:33 PM
1,2-Dichlorobenzene	ND	0.0208	H	mg/Kg-dry	1	6/5/2020 9:58:33 PM

Analytical Report

Work Order: **2005098**
Date Reported: **6/9/2020**

Client: O'Neill Service Group
Collection Date: 5/11/2020 10:30:00 AM
Project: F200
Lab ID: 2005098-007
Matrix: Soil
Client Sample ID: 358-B8-2.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28544		Analyst: KT
1,2-Dibromo-3-chloropropane	ND	0.519	QH	mg/Kg-dry	1	6/5/2020 9:58:33 PM
Hexachloro-1,3-butadiene	ND	0.0519	H	mg/Kg-dry	1	6/5/2020 9:58:33 PM
1,2,3-Trichlorobenzene	ND	0.0208	H	mg/Kg-dry	1	6/5/2020 9:58:33 PM
Surr: Dibromofluoromethane	90.7	83.3 - 111	H	%Rec	1	6/5/2020 9:58:33 PM
Surr: Toluene-d8	93.5	87.9 - 111	H	%Rec	1	6/5/2020 9:58:33 PM
Surr: 1-Bromo-4-fluorobenzene	98.5	85.1 - 111	H	%Rec	1	6/5/2020 9:58:33 PM

NOTES:
Q - Indicates an analyte with a continuing calibration that does not meet established acceptance criteria

Sample Moisture (Percent Moisture)				Batch ID: R59656		Analyst: SBM
Percent Moisture	9.06	0.500		wt%	1	6/8/2020 11:08:32 AM

Analytical Report

Work Order: **2005098**
Date Reported: **6/9/2020**

Client: O'Neill Service Group
Collection Date: 5/11/2020 10:35:00 AM
Project: F200
Lab ID: 2005098-008
Matrix: Soil
Client Sample ID: 358-B8-5

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28305 Analyst: KT

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0265		mg/Kg-dry	1	5/12/2020 8:34:45 PM
Chloromethane	ND	0.0661		mg/Kg-dry	1	5/12/2020 8:34:45 PM
Vinyl chloride	ND	0.0331		mg/Kg-dry	1	5/12/2020 8:34:45 PM
Bromomethane	ND	0.0661		mg/Kg-dry	1	5/12/2020 8:34:45 PM
Trichlorofluoromethane (CFC-11)	ND	0.0265		mg/Kg-dry	1	5/12/2020 8:34:45 PM
Chloroethane	ND	0.0661		mg/Kg-dry	1	5/12/2020 8:34:45 PM
1,1-Dichloroethene	ND	0.0265		mg/Kg-dry	1	5/12/2020 8:34:45 PM
Methylene chloride	ND	0.0265		mg/Kg-dry	1	5/12/2020 8:34:45 PM
trans-1,2-Dichloroethene	ND	0.0265		mg/Kg-dry	1	5/12/2020 8:34:45 PM
1,1-Dichloroethane	ND	0.0265		mg/Kg-dry	1	5/12/2020 8:34:45 PM
cis-1,2-Dichloroethene	0.205	0.0265		mg/Kg-dry	1	5/12/2020 8:34:45 PM
Chloroform	ND	0.0265		mg/Kg-dry	1	5/12/2020 8:34:45 PM
1,1,1-Trichloroethane (TCA)	ND	0.0331		mg/Kg-dry	1	5/12/2020 8:34:45 PM
1,1-Dichloropropene	ND	0.0265		mg/Kg-dry	1	5/12/2020 8:34:45 PM
Carbon tetrachloride	ND	0.0331		mg/Kg-dry	1	5/12/2020 8:34:45 PM
1,2-Dichloroethane (EDC)	ND	0.0265		mg/Kg-dry	1	5/12/2020 8:34:45 PM
Trichloroethene (TCE)	ND	0.0265		mg/Kg-dry	1	5/12/2020 8:34:45 PM
1,2-Dichloropropane	ND	0.0265		mg/Kg-dry	1	5/12/2020 8:34:45 PM
Bromodichloromethane	ND	0.0265		mg/Kg-dry	1	5/12/2020 8:34:45 PM
Dibromomethane	ND	0.0265		mg/Kg-dry	1	5/12/2020 8:34:45 PM
cis-1,3-Dichloropropene	ND	0.0265		mg/Kg-dry	1	5/12/2020 8:34:45 PM
trans-1,3-Dichloropropylene	ND	0.0265		mg/Kg-dry	1	5/12/2020 8:34:45 PM
1,1,2-Trichloroethane	ND	0.0265		mg/Kg-dry	1	5/12/2020 8:34:45 PM
1,3-Dichloropropane	ND	0.0331		mg/Kg-dry	1	5/12/2020 8:34:45 PM
Tetrachloroethene (PCE)	ND	0.0331		mg/Kg-dry	1	5/12/2020 8:34:45 PM
Dibromochloromethane	ND	0.0331		mg/Kg-dry	1	5/12/2020 8:34:45 PM
1,2-Dibromoethane (EDB)	ND	0.00661		mg/Kg-dry	1	5/12/2020 8:34:45 PM
Chlorobenzene	ND	0.0331		mg/Kg-dry	1	5/12/2020 8:34:45 PM
1,1,1,2-Tetrachloroethane	ND	0.0331		mg/Kg-dry	1	5/12/2020 8:34:45 PM
Bromoform	ND	0.0661		mg/Kg-dry	1	5/12/2020 8:34:45 PM
1,1,2,2-Tetrachloroethane	ND	0.0265		mg/Kg-dry	1	5/12/2020 8:34:45 PM
Bromobenzene	ND	0.0265		mg/Kg-dry	1	5/12/2020 8:34:45 PM
2-Chlorotoluene	ND	0.0331		mg/Kg-dry	1	5/12/2020 8:34:45 PM
4-Chlorotoluene	ND	0.0331		mg/Kg-dry	1	5/12/2020 8:34:45 PM
1,2,3-Trichloropropane	ND	0.0331		mg/Kg-dry	1	5/12/2020 8:34:45 PM
1,2,4-Trichlorobenzene	ND	0.0331		mg/Kg-dry	1	5/12/2020 8:34:45 PM
1,3-Dichlorobenzene	ND	0.0265		mg/Kg-dry	1	5/12/2020 8:34:45 PM
1,4-Dichlorobenzene	ND	0.0265		mg/Kg-dry	1	5/12/2020 8:34:45 PM
1,2-Dichlorobenzene	ND	0.0265		mg/Kg-dry	1	5/12/2020 8:34:45 PM

Analytical Report

Work Order: **2005098**
Date Reported: **6/9/2020**

Client: O'Neill Service Group
Collection Date: 5/11/2020 10:35:00 AM
Project: F200
Lab ID: 2005098-008
Matrix: Soil
Client Sample ID: 358-B8-5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28305		Analyst: KT
1,2-Dibromo-3-chloropropane	ND	0.661		mg/Kg-dry	1	5/12/2020 8:34:45 PM
Hexachloro-1,3-butadiene	ND	0.0661		mg/Kg-dry	1	5/12/2020 8:34:45 PM
1,2,3-Trichlorobenzene	ND	0.0265		mg/Kg-dry	1	5/12/2020 8:34:45 PM
Surr: Dibromofluoromethane	97.2	80 - 116		%Rec	1	5/12/2020 8:34:45 PM
Surr: Toluene-d8	98.7	84.8 - 113		%Rec	1	5/12/2020 8:34:45 PM
Surr: 1-Bromo-4-fluorobenzene	96.0	82.8 - 113		%Rec	1	5/12/2020 8:34:45 PM
Sample Moisture (Percent Moisture)				Batch ID: R59175		Analyst: EH
Percent Moisture	17.8	0.500		wt%	1	5/14/2020 9:58:14 AM

Analytical Report

Work Order: **2005098**
Date Reported: **6/9/2020**

Client: O'Neill Service Group
Collection Date: 5/11/2020 10:50:00 AM
Project: F200
Lab ID: 2005098-011
Matrix: Soil
Client Sample ID: 358-B8-12.5

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28305 Analyst: KT

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0199		mg/Kg-dry	1	5/12/2020 9:04:53 PM
Chloromethane	ND	0.0498		mg/Kg-dry	1	5/12/2020 9:04:53 PM
Vinyl chloride	ND	0.0249		mg/Kg-dry	1	5/12/2020 9:04:53 PM
Bromomethane	ND	0.0498		mg/Kg-dry	1	5/12/2020 9:04:53 PM
Trichlorofluoromethane (CFC-11)	ND	0.0199		mg/Kg-dry	1	5/12/2020 9:04:53 PM
Chloroethane	ND	0.0498		mg/Kg-dry	1	5/12/2020 9:04:53 PM
1,1-Dichloroethene	ND	0.0199		mg/Kg-dry	1	5/12/2020 9:04:53 PM
Methylene chloride	ND	0.0199		mg/Kg-dry	1	5/12/2020 9:04:53 PM
trans-1,2-Dichloroethene	ND	0.0199		mg/Kg-dry	1	5/12/2020 9:04:53 PM
1,1-Dichloroethane	ND	0.0199		mg/Kg-dry	1	5/12/2020 9:04:53 PM
cis-1,2-Dichloroethene	ND	0.0199		mg/Kg-dry	1	5/12/2020 9:04:53 PM
Chloroform	ND	0.0199		mg/Kg-dry	1	5/12/2020 9:04:53 PM
1,1,1-Trichloroethane (TCA)	ND	0.0249		mg/Kg-dry	1	5/12/2020 9:04:53 PM
1,1-Dichloropropene	ND	0.0199		mg/Kg-dry	1	5/12/2020 9:04:53 PM
Carbon tetrachloride	ND	0.0249		mg/Kg-dry	1	5/12/2020 9:04:53 PM
1,2-Dichloroethane (EDC)	ND	0.0199		mg/Kg-dry	1	5/12/2020 9:04:53 PM
Trichloroethene (TCE)	ND	0.0199		mg/Kg-dry	1	5/12/2020 9:04:53 PM
1,2-Dichloropropane	ND	0.0199		mg/Kg-dry	1	5/12/2020 9:04:53 PM
Bromodichloromethane	ND	0.0199		mg/Kg-dry	1	5/12/2020 9:04:53 PM
Dibromomethane	ND	0.0199		mg/Kg-dry	1	5/12/2020 9:04:53 PM
cis-1,3-Dichloropropene	ND	0.0199		mg/Kg-dry	1	5/12/2020 9:04:53 PM
trans-1,3-Dichloropropylene	ND	0.0199		mg/Kg-dry	1	5/12/2020 9:04:53 PM
1,1,2-Trichloroethane	ND	0.0199		mg/Kg-dry	1	5/12/2020 9:04:53 PM
1,3-Dichloropropane	ND	0.0249		mg/Kg-dry	1	5/12/2020 9:04:53 PM
Tetrachloroethene (PCE)	ND	0.0249		mg/Kg-dry	1	5/12/2020 9:04:53 PM
Dibromochloromethane	ND	0.0249		mg/Kg-dry	1	5/12/2020 9:04:53 PM
1,2-Dibromoethane (EDB)	ND	0.00498		mg/Kg-dry	1	5/12/2020 9:04:53 PM
Chlorobenzene	ND	0.0249		mg/Kg-dry	1	5/12/2020 9:04:53 PM
1,1,1,2-Tetrachloroethane	ND	0.0249		mg/Kg-dry	1	5/12/2020 9:04:53 PM
Bromoform	ND	0.0498		mg/Kg-dry	1	5/12/2020 9:04:53 PM
1,1,2,2-Tetrachloroethane	ND	0.0199		mg/Kg-dry	1	5/12/2020 9:04:53 PM
Bromobenzene	ND	0.0199		mg/Kg-dry	1	5/12/2020 9:04:53 PM
2-Chlorotoluene	ND	0.0249		mg/Kg-dry	1	5/12/2020 9:04:53 PM
4-Chlorotoluene	ND	0.0249		mg/Kg-dry	1	5/12/2020 9:04:53 PM
1,2,3-Trichloropropane	ND	0.0249		mg/Kg-dry	1	5/12/2020 9:04:53 PM
1,2,4-Trichlorobenzene	ND	0.0249		mg/Kg-dry	1	5/12/2020 9:04:53 PM
1,3-Dichlorobenzene	ND	0.0199		mg/Kg-dry	1	5/12/2020 9:04:53 PM
1,4-Dichlorobenzene	ND	0.0199		mg/Kg-dry	1	5/12/2020 9:04:53 PM
1,2-Dichlorobenzene	ND	0.0199		mg/Kg-dry	1	5/12/2020 9:04:53 PM

Analytical Report

Work Order: **2005098**
Date Reported: **6/9/2020**

Client: O'Neill Service Group
Collection Date: 5/11/2020 10:50:00 AM
Project: F200
Lab ID: 2005098-011
Matrix: Soil
Client Sample ID: 358-B8-12.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28305		Analyst: KT
1,2-Dibromo-3-chloropropane	ND	0.498		mg/Kg-dry	1	5/12/2020 9:04:53 PM
Hexachloro-1,3-butadiene	ND	0.0498		mg/Kg-dry	1	5/12/2020 9:04:53 PM
1,2,3-Trichlorobenzene	ND	0.0199		mg/Kg-dry	1	5/12/2020 9:04:53 PM
Surr: Dibromofluoromethane	96.0	80 - 116		%Rec	1	5/12/2020 9:04:53 PM
Surr: Toluene-d8	98.0	84.8 - 113		%Rec	1	5/12/2020 9:04:53 PM
Surr: 1-Bromo-4-fluorobenzene	95.2	82.8 - 113		%Rec	1	5/12/2020 9:04:53 PM
Sample Moisture (Percent Moisture)				Batch ID: R59175		Analyst: EH
Percent Moisture	11.2	0.500		wt%	1	5/14/2020 9:58:14 AM

Analytical Report

Work Order: **2005098**
Date Reported: **6/9/2020**

Client: O'Neill Service Group
Collection Date: 5/11/2020 11:05:00 AM
Project: F200
Lab ID: 2005098-013
Matrix: Soil
Client Sample ID: 358-B8-20

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28305 Analyst: KT

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0244		mg/Kg-dry	1	5/12/2020 9:34:59 PM
Chloromethane	ND	0.0611		mg/Kg-dry	1	5/12/2020 9:34:59 PM
Vinyl chloride	ND	0.0305		mg/Kg-dry	1	5/12/2020 9:34:59 PM
Bromomethane	ND	0.0611		mg/Kg-dry	1	5/12/2020 9:34:59 PM
Trichlorofluoromethane (CFC-11)	ND	0.0244		mg/Kg-dry	1	5/12/2020 9:34:59 PM
Chloroethane	ND	0.0611		mg/Kg-dry	1	5/12/2020 9:34:59 PM
1,1-Dichloroethene	ND	0.0244		mg/Kg-dry	1	5/12/2020 9:34:59 PM
Methylene chloride	ND	0.0244		mg/Kg-dry	1	5/12/2020 9:34:59 PM
trans-1,2-Dichloroethene	ND	0.0244		mg/Kg-dry	1	5/12/2020 9:34:59 PM
1,1-Dichloroethane	ND	0.0244		mg/Kg-dry	1	5/12/2020 9:34:59 PM
cis-1,2-Dichloroethene	ND	0.0244		mg/Kg-dry	1	5/12/2020 9:34:59 PM
Chloroform	ND	0.0244		mg/Kg-dry	1	5/12/2020 9:34:59 PM
1,1,1-Trichloroethane (TCA)	ND	0.0305		mg/Kg-dry	1	5/12/2020 9:34:59 PM
1,1-Dichloropropene	ND	0.0244		mg/Kg-dry	1	5/12/2020 9:34:59 PM
Carbon tetrachloride	ND	0.0305		mg/Kg-dry	1	5/12/2020 9:34:59 PM
1,2-Dichloroethane (EDC)	ND	0.0244		mg/Kg-dry	1	5/12/2020 9:34:59 PM
Trichloroethene (TCE)	ND	0.0244		mg/Kg-dry	1	5/12/2020 9:34:59 PM
1,2-Dichloropropane	ND	0.0244		mg/Kg-dry	1	5/12/2020 9:34:59 PM
Bromodichloromethane	ND	0.0244		mg/Kg-dry	1	5/12/2020 9:34:59 PM
Dibromomethane	ND	0.0244		mg/Kg-dry	1	5/12/2020 9:34:59 PM
cis-1,3-Dichloropropene	ND	0.0244		mg/Kg-dry	1	5/12/2020 9:34:59 PM
trans-1,3-Dichloropropylene	ND	0.0244		mg/Kg-dry	1	5/12/2020 9:34:59 PM
1,1,2-Trichloroethane	ND	0.0244		mg/Kg-dry	1	5/12/2020 9:34:59 PM
1,3-Dichloropropane	ND	0.0305		mg/Kg-dry	1	5/12/2020 9:34:59 PM
Tetrachloroethene (PCE)	ND	0.0305		mg/Kg-dry	1	5/12/2020 9:34:59 PM
Dibromochloromethane	ND	0.0305		mg/Kg-dry	1	5/12/2020 9:34:59 PM
1,2-Dibromoethane (EDB)	ND	0.00611		mg/Kg-dry	1	5/12/2020 9:34:59 PM
Chlorobenzene	ND	0.0305		mg/Kg-dry	1	5/12/2020 9:34:59 PM
1,1,1,2-Tetrachloroethane	ND	0.0305		mg/Kg-dry	1	5/12/2020 9:34:59 PM
Bromoform	ND	0.0611		mg/Kg-dry	1	5/12/2020 9:34:59 PM
1,1,2,2-Tetrachloroethane	ND	0.0244		mg/Kg-dry	1	5/12/2020 9:34:59 PM
Bromobenzene	ND	0.0244		mg/Kg-dry	1	5/12/2020 9:34:59 PM
2-Chlorotoluene	ND	0.0305		mg/Kg-dry	1	5/12/2020 9:34:59 PM
4-Chlorotoluene	ND	0.0305		mg/Kg-dry	1	5/12/2020 9:34:59 PM
1,2,3-Trichloropropane	ND	0.0305		mg/Kg-dry	1	5/12/2020 9:34:59 PM
1,2,4-Trichlorobenzene	ND	0.0305		mg/Kg-dry	1	5/12/2020 9:34:59 PM
1,3-Dichlorobenzene	ND	0.0244		mg/Kg-dry	1	5/12/2020 9:34:59 PM
1,4-Dichlorobenzene	ND	0.0244		mg/Kg-dry	1	5/12/2020 9:34:59 PM
1,2-Dichlorobenzene	ND	0.0244		mg/Kg-dry	1	5/12/2020 9:34:59 PM

Analytical Report

Work Order: **2005098**
Date Reported: **6/9/2020**

Client: O'Neill Service Group
Collection Date: 5/11/2020 11:05:00 AM
Project: F200
Lab ID: 2005098-013
Matrix: Soil
Client Sample ID: 358-B8-20

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28305		Analyst: KT
1,2-Dibromo-3-chloropropane	ND	0.611		mg/Kg-dry	1	5/12/2020 9:34:59 PM
Hexachloro-1,3-butadiene	ND	0.0611		mg/Kg-dry	1	5/12/2020 9:34:59 PM
1,2,3-Trichlorobenzene	ND	0.0244		mg/Kg-dry	1	5/12/2020 9:34:59 PM
Surr: Dibromofluoromethane	96.2	80 - 116		%Rec	1	5/12/2020 9:34:59 PM
Surr: Toluene-d8	99.4	84.8 - 113		%Rec	1	5/12/2020 9:34:59 PM
Surr: 1-Bromo-4-fluorobenzene	97.1	82.8 - 113		%Rec	1	5/12/2020 9:34:59 PM
Sample Moisture (Percent Moisture)				Batch ID: R59175		Analyst: EH
Percent Moisture	11.9	0.500		wt%	1	5/14/2020 9:58:14 AM

Analytical Report

Work Order: **2005098**
Date Reported: **6/9/2020**

Client: O'Neill Service Group
Collection Date: 5/11/2020 1:15:00 PM
Project: F200
Lab ID: 2005098-015
Matrix: Soil
Client Sample ID: 358-B9-2.5

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28544 Analyst: KT

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0317	H	mg/Kg-dry	1	6/5/2020 10:28:48 PM
Chloromethane	ND	0.0791	QH	mg/Kg-dry	1	6/5/2020 10:28:48 PM
Vinyl chloride	ND	0.0396	H	mg/Kg-dry	1	6/5/2020 10:28:48 PM
Bromomethane	ND	0.0791	QH	mg/Kg-dry	1	6/5/2020 10:28:48 PM
Trichlorofluoromethane (CFC-11)	ND	0.0317	H	mg/Kg-dry	1	6/5/2020 10:28:48 PM
Chloroethane	ND	0.0791	QH	mg/Kg-dry	1	6/5/2020 10:28:48 PM
1,1-Dichloroethene	ND	0.0317	H	mg/Kg-dry	1	6/5/2020 10:28:48 PM
Methylene chloride	ND	0.0317	H	mg/Kg-dry	1	6/5/2020 10:28:48 PM
trans-1,2-Dichloroethene	ND	0.0317	H	mg/Kg-dry	1	6/5/2020 10:28:48 PM
1,1-Dichloroethane	ND	0.0317	H	mg/Kg-dry	1	6/5/2020 10:28:48 PM
cis-1,2-Dichloroethene	ND	0.0317	H	mg/Kg-dry	1	6/5/2020 10:28:48 PM
Chloroform	ND	0.0317	H	mg/Kg-dry	1	6/5/2020 10:28:48 PM
1,1,1-Trichloroethane (TCA)	ND	0.0396	H	mg/Kg-dry	1	6/5/2020 10:28:48 PM
1,1-Dichloropropene	ND	0.0317	H	mg/Kg-dry	1	6/5/2020 10:28:48 PM
Carbon tetrachloride	ND	0.0396	H	mg/Kg-dry	1	6/5/2020 10:28:48 PM
1,2-Dichloroethane (EDC)	ND	0.0317	H	mg/Kg-dry	1	6/5/2020 10:28:48 PM
Trichloroethene (TCE)	ND	0.0317	H	mg/Kg-dry	1	6/5/2020 10:28:48 PM
1,2-Dichloropropane	ND	0.0317	H	mg/Kg-dry	1	6/5/2020 10:28:48 PM
Bromodichloromethane	ND	0.0317	H	mg/Kg-dry	1	6/5/2020 10:28:48 PM
Dibromomethane	ND	0.0317	H	mg/Kg-dry	1	6/5/2020 10:28:48 PM
cis-1,3-Dichloropropene	ND	0.0317	H	mg/Kg-dry	1	6/5/2020 10:28:48 PM
trans-1,3-Dichloropropylene	ND	0.0317	H	mg/Kg-dry	1	6/5/2020 10:28:48 PM
1,1,2-Trichloroethane	ND	0.0317	H	mg/Kg-dry	1	6/5/2020 10:28:48 PM
1,3-Dichloropropane	ND	0.0396	H	mg/Kg-dry	1	6/5/2020 10:28:48 PM
Tetrachloroethene (PCE)	ND	0.0396	H	mg/Kg-dry	1	6/5/2020 10:28:48 PM
Dibromochloromethane	ND	0.0396	H	mg/Kg-dry	1	6/5/2020 10:28:48 PM
1,2-Dibromoethane (EDB)	ND	0.00791	H	mg/Kg-dry	1	6/5/2020 10:28:48 PM
Chlorobenzene	ND	0.0396	H	mg/Kg-dry	1	6/5/2020 10:28:48 PM
1,1,1,2-Tetrachloroethane	ND	0.0396	H	mg/Kg-dry	1	6/5/2020 10:28:48 PM
Bromoform	ND	0.0791	H	mg/Kg-dry	1	6/5/2020 10:28:48 PM
1,1,2,2-Tetrachloroethane	ND	0.0317	H	mg/Kg-dry	1	6/5/2020 10:28:48 PM
Bromobenzene	ND	0.0317	H	mg/Kg-dry	1	6/5/2020 10:28:48 PM
2-Chlorotoluene	ND	0.0396	H	mg/Kg-dry	1	6/5/2020 10:28:48 PM
4-Chlorotoluene	ND	0.0396	H	mg/Kg-dry	1	6/5/2020 10:28:48 PM
1,2,3-Trichloropropane	ND	0.0396	H	mg/Kg-dry	1	6/5/2020 10:28:48 PM
1,2,4-Trichlorobenzene	ND	0.0396	H	mg/Kg-dry	1	6/5/2020 10:28:48 PM
1,3-Dichlorobenzene	ND	0.0317	H	mg/Kg-dry	1	6/5/2020 10:28:48 PM
1,4-Dichlorobenzene	ND	0.0317	H	mg/Kg-dry	1	6/5/2020 10:28:48 PM
1,2-Dichlorobenzene	ND	0.0317	H	mg/Kg-dry	1	6/5/2020 10:28:48 PM

Analytical Report

Work Order: **2005098**
Date Reported: **6/9/2020**

Client: O'Neill Service Group
Collection Date: 5/11/2020 1:15:00 PM
Project: F200
Lab ID: 2005098-015
Matrix: Soil
Client Sample ID: 358-B9-2.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28544		Analyst: KT
1,2-Dibromo-3-chloropropane	ND	0.791	QH	mg/Kg-dry	1	6/5/2020 10:28:48 PM
Hexachloro-1,3-butadiene	ND	0.0791	H	mg/Kg-dry	1	6/5/2020 10:28:48 PM
1,2,3-Trichlorobenzene	ND	0.0317	H	mg/Kg-dry	1	6/5/2020 10:28:48 PM
Surr: Dibromofluoromethane	89.9	83.3 - 111	H	%Rec	1	6/5/2020 10:28:48 PM
Surr: Toluene-d8	93.4	87.9 - 111	H	%Rec	1	6/5/2020 10:28:48 PM
Surr: 1-Bromo-4-fluorobenzene	98.1	85.1 - 111	H	%Rec	1	6/5/2020 10:28:48 PM

NOTES:
Q - Indicates an analyte with a continuing calibration that does not meet established acceptance criteria

Sample Moisture (Percent Moisture)				Batch ID: R59656		Analyst: SBM
Percent Moisture	8.98	0.500		wt%	1	6/8/2020 11:08:32 AM

Analytical Report

Work Order: **2005098**
Date Reported: **6/9/2020**

Client: O'Neill Service Group
Collection Date: 5/11/2020 1:30:00 PM
Project: F200
Lab ID: 2005098-016
Matrix: Soil
Client Sample ID: 358-B9-7.5

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28305 Analyst: KT

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.00989		mg/Kg-dry	1	5/12/2020 10:05:09 PM
Chloromethane	ND	0.0247		mg/Kg-dry	1	5/12/2020 10:05:09 PM
Vinyl chloride	ND	0.0124		mg/Kg-dry	1	5/12/2020 10:05:09 PM
Bromomethane	ND	0.0247		mg/Kg-dry	1	5/12/2020 10:05:09 PM
Trichlorofluoromethane (CFC-11)	ND	0.00989		mg/Kg-dry	1	5/12/2020 10:05:09 PM
Chloroethane	ND	0.0247		mg/Kg-dry	1	5/12/2020 10:05:09 PM
1,1-Dichloroethene	ND	0.00989		mg/Kg-dry	1	5/12/2020 10:05:09 PM
Methylene chloride	ND	0.00989		mg/Kg-dry	1	5/12/2020 10:05:09 PM
trans-1,2-Dichloroethene	ND	0.00989		mg/Kg-dry	1	5/12/2020 10:05:09 PM
1,1-Dichloroethane	ND	0.00989		mg/Kg-dry	1	5/12/2020 10:05:09 PM
cis-1,2-Dichloroethene	ND	0.00989		mg/Kg-dry	1	5/12/2020 10:05:09 PM
Chloroform	ND	0.00989		mg/Kg-dry	1	5/12/2020 10:05:09 PM
1,1,1-Trichloroethane (TCA)	ND	0.0124		mg/Kg-dry	1	5/12/2020 10:05:09 PM
1,1-Dichloropropene	ND	0.00989		mg/Kg-dry	1	5/12/2020 10:05:09 PM
Carbon tetrachloride	ND	0.0124		mg/Kg-dry	1	5/12/2020 10:05:09 PM
1,2-Dichloroethane (EDC)	ND	0.00989		mg/Kg-dry	1	5/12/2020 10:05:09 PM
Trichloroethene (TCE)	ND	0.00989		mg/Kg-dry	1	5/12/2020 10:05:09 PM
1,2-Dichloropropane	ND	0.00989		mg/Kg-dry	1	5/12/2020 10:05:09 PM
Bromodichloromethane	ND	0.00989		mg/Kg-dry	1	5/12/2020 10:05:09 PM
Dibromomethane	ND	0.00989		mg/Kg-dry	1	5/12/2020 10:05:09 PM
cis-1,3-Dichloropropene	ND	0.00989		mg/Kg-dry	1	5/12/2020 10:05:09 PM
trans-1,3-Dichloropropylene	ND	0.00989		mg/Kg-dry	1	5/12/2020 10:05:09 PM
1,1,2-Trichloroethane	ND	0.00989		mg/Kg-dry	1	5/12/2020 10:05:09 PM
1,3-Dichloropropane	ND	0.0124		mg/Kg-dry	1	5/12/2020 10:05:09 PM
Tetrachloroethene (PCE)	ND	0.0124		mg/Kg-dry	1	5/12/2020 10:05:09 PM
Dibromochloromethane	ND	0.0124		mg/Kg-dry	1	5/12/2020 10:05:09 PM
1,2-Dibromoethane (EDB)	ND	0.00247		mg/Kg-dry	1	5/12/2020 10:05:09 PM
Chlorobenzene	ND	0.0124		mg/Kg-dry	1	5/12/2020 10:05:09 PM
1,1,1,2-Tetrachloroethane	ND	0.0124		mg/Kg-dry	1	5/12/2020 10:05:09 PM
Bromoform	ND	0.0247		mg/Kg-dry	1	5/12/2020 10:05:09 PM
1,1,2,2-Tetrachloroethane	ND	0.00989		mg/Kg-dry	1	5/12/2020 10:05:09 PM
Bromobenzene	ND	0.00989		mg/Kg-dry	1	5/12/2020 10:05:09 PM
2-Chlorotoluene	ND	0.0124		mg/Kg-dry	1	5/12/2020 10:05:09 PM
4-Chlorotoluene	ND	0.0124		mg/Kg-dry	1	5/12/2020 10:05:09 PM
1,2,3-Trichloropropane	ND	0.0124		mg/Kg-dry	1	5/12/2020 10:05:09 PM
1,2,4-Trichlorobenzene	ND	0.0124		mg/Kg-dry	1	5/12/2020 10:05:09 PM
1,3-Dichlorobenzene	ND	0.00989		mg/Kg-dry	1	5/12/2020 10:05:09 PM
1,4-Dichlorobenzene	ND	0.00989		mg/Kg-dry	1	5/12/2020 10:05:09 PM
1,2-Dichlorobenzene	ND	0.00989		mg/Kg-dry	1	5/12/2020 10:05:09 PM

Analytical Report

Work Order: **2005098**
Date Reported: **6/9/2020**

Client: O'Neill Service Group
Collection Date: 5/11/2020 1:30:00 PM
Project: F200
Lab ID: 2005098-016
Matrix: Soil
Client Sample ID: 358-B9-7.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28305		Analyst: KT
1,2-Dibromo-3-chloropropane	ND	0.247		mg/Kg-dry	1	5/12/2020 10:05:09 PM
Hexachloro-1,3-butadiene	ND	0.0247		mg/Kg-dry	1	5/12/2020 10:05:09 PM
1,2,3-Trichlorobenzene	ND	0.00989		mg/Kg-dry	1	5/12/2020 10:05:09 PM
Surr: Dibromofluoromethane	96.3	80 - 116		%Rec	1	5/12/2020 10:05:09 PM
Surr: Toluene-d8	97.9	84.8 - 113		%Rec	1	5/12/2020 10:05:09 PM
Surr: 1-Bromo-4-fluorobenzene	95.6	82.8 - 113		%Rec	1	5/12/2020 10:05:09 PM
Sample Moisture (Percent Moisture)				Batch ID: R59175		Analyst: EH
Percent Moisture	11.8	0.500		wt%	1	5/14/2020 9:58:14 AM

Analytical Report

Work Order: **2005098**
Date Reported: **6/9/2020**

Client: O'Neill Service Group
Collection Date: 5/11/2020 1:40:00 PM
Project: F200
Lab ID: 2005098-018
Matrix: Soil
Client Sample ID: 358-B9-12.5

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28305 Analyst: KT

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0175		mg/Kg-dry	1	5/12/2020 10:35:16 PM
Chloromethane	ND	0.0438		mg/Kg-dry	1	5/12/2020 10:35:16 PM
Vinyl chloride	ND	0.0219		mg/Kg-dry	1	5/12/2020 10:35:16 PM
Bromomethane	ND	0.0438		mg/Kg-dry	1	5/12/2020 10:35:16 PM
Trichlorofluoromethane (CFC-11)	ND	0.0175		mg/Kg-dry	1	5/12/2020 10:35:16 PM
Chloroethane	ND	0.0438		mg/Kg-dry	1	5/12/2020 10:35:16 PM
1,1-Dichloroethene	ND	0.0175		mg/Kg-dry	1	5/12/2020 10:35:16 PM
Methylene chloride	ND	0.0175		mg/Kg-dry	1	5/12/2020 10:35:16 PM
trans-1,2-Dichloroethene	ND	0.0175		mg/Kg-dry	1	5/12/2020 10:35:16 PM
1,1-Dichloroethane	ND	0.0175		mg/Kg-dry	1	5/12/2020 10:35:16 PM
cis-1,2-Dichloroethene	ND	0.0175		mg/Kg-dry	1	5/12/2020 10:35:16 PM
Chloroform	ND	0.0175		mg/Kg-dry	1	5/12/2020 10:35:16 PM
1,1,1-Trichloroethane (TCA)	ND	0.0219		mg/Kg-dry	1	5/12/2020 10:35:16 PM
1,1-Dichloropropene	ND	0.0175		mg/Kg-dry	1	5/12/2020 10:35:16 PM
Carbon tetrachloride	ND	0.0219		mg/Kg-dry	1	5/12/2020 10:35:16 PM
1,2-Dichloroethane (EDC)	ND	0.0175		mg/Kg-dry	1	5/12/2020 10:35:16 PM
Trichloroethene (TCE)	ND	0.0175		mg/Kg-dry	1	5/12/2020 10:35:16 PM
1,2-Dichloropropane	ND	0.0175		mg/Kg-dry	1	5/12/2020 10:35:16 PM
Bromodichloromethane	ND	0.0175		mg/Kg-dry	1	5/12/2020 10:35:16 PM
Dibromomethane	ND	0.0175		mg/Kg-dry	1	5/12/2020 10:35:16 PM
cis-1,3-Dichloropropene	ND	0.0175		mg/Kg-dry	1	5/12/2020 10:35:16 PM
trans-1,3-Dichloropropylene	ND	0.0175		mg/Kg-dry	1	5/12/2020 10:35:16 PM
1,1,2-Trichloroethane	ND	0.0175		mg/Kg-dry	1	5/12/2020 10:35:16 PM
1,3-Dichloropropane	ND	0.0219		mg/Kg-dry	1	5/12/2020 10:35:16 PM
Tetrachloroethene (PCE)	ND	0.0219		mg/Kg-dry	1	5/12/2020 10:35:16 PM
Dibromochloromethane	ND	0.0219		mg/Kg-dry	1	5/12/2020 10:35:16 PM
1,2-Dibromoethane (EDB)	ND	0.00438		mg/Kg-dry	1	5/12/2020 10:35:16 PM
Chlorobenzene	ND	0.0219		mg/Kg-dry	1	5/12/2020 10:35:16 PM
1,1,1,2-Tetrachloroethane	ND	0.0219		mg/Kg-dry	1	5/12/2020 10:35:16 PM
Bromoform	ND	0.0438		mg/Kg-dry	1	5/12/2020 10:35:16 PM
1,1,2,2-Tetrachloroethane	ND	0.0175		mg/Kg-dry	1	5/12/2020 10:35:16 PM
Bromobenzene	ND	0.0175		mg/Kg-dry	1	5/12/2020 10:35:16 PM
2-Chlorotoluene	ND	0.0219		mg/Kg-dry	1	5/12/2020 10:35:16 PM
4-Chlorotoluene	ND	0.0219		mg/Kg-dry	1	5/12/2020 10:35:16 PM
1,2,3-Trichloropropane	ND	0.0219		mg/Kg-dry	1	5/12/2020 10:35:16 PM
1,2,4-Trichlorobenzene	ND	0.0219		mg/Kg-dry	1	5/12/2020 10:35:16 PM
1,3-Dichlorobenzene	ND	0.0175		mg/Kg-dry	1	5/12/2020 10:35:16 PM
1,4-Dichlorobenzene	ND	0.0175		mg/Kg-dry	1	5/12/2020 10:35:16 PM
1,2-Dichlorobenzene	ND	0.0175		mg/Kg-dry	1	5/12/2020 10:35:16 PM

Analytical Report

Work Order: **2005098**
Date Reported: **6/9/2020**

Client: O'Neill Service Group
Collection Date: 5/11/2020 1:40:00 PM
Project: F200
Lab ID: 2005098-018
Matrix: Soil
Client Sample ID: 358-B9-12.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28305		Analyst: KT
1,2-Dibromo-3-chloropropane	ND	0.438		mg/Kg-dry	1	5/12/2020 10:35:16 PM
Hexachloro-1,3-butadiene	ND	0.0438		mg/Kg-dry	1	5/12/2020 10:35:16 PM
1,2,3-Trichlorobenzene	ND	0.0175		mg/Kg-dry	1	5/12/2020 10:35:16 PM
Surr: Dibromofluoromethane	95.6	80 - 116		%Rec	1	5/12/2020 10:35:16 PM
Surr: Toluene-d8	98.5	84.8 - 113		%Rec	1	5/12/2020 10:35:16 PM
Surr: 1-Bromo-4-fluorobenzene	95.4	82.8 - 113		%Rec	1	5/12/2020 10:35:16 PM
Sample Moisture (Percent Moisture)				Batch ID: R59175		Analyst: EH
Percent Moisture	9.27	0.500		wt%	1	5/14/2020 9:58:14 AM

Analytical Report

Work Order: **2005098**
Date Reported: **6/9/2020**

Client: O'Neill Service Group
Collection Date: 5/11/2020 1:50:00 PM
Project: F200
Lab ID: 2005098-020
Matrix: Soil
Client Sample ID: 358-B9-20

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28305 Analyst: KT

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0221		mg/Kg-dry	1	5/12/2020 11:05:25 PM
Chloromethane	ND	0.0553		mg/Kg-dry	1	5/12/2020 11:05:25 PM
Vinyl chloride	ND	0.0276		mg/Kg-dry	1	5/12/2020 11:05:25 PM
Bromomethane	ND	0.0553		mg/Kg-dry	1	5/12/2020 11:05:25 PM
Trichlorofluoromethane (CFC-11)	ND	0.0221		mg/Kg-dry	1	5/12/2020 11:05:25 PM
Chloroethane	ND	0.0553		mg/Kg-dry	1	5/12/2020 11:05:25 PM
1,1-Dichloroethene	ND	0.0221		mg/Kg-dry	1	5/12/2020 11:05:25 PM
Methylene chloride	ND	0.0221		mg/Kg-dry	1	5/12/2020 11:05:25 PM
trans-1,2-Dichloroethene	ND	0.0221		mg/Kg-dry	1	5/12/2020 11:05:25 PM
1,1-Dichloroethane	ND	0.0221		mg/Kg-dry	1	5/12/2020 11:05:25 PM
cis-1,2-Dichloroethene	ND	0.0221		mg/Kg-dry	1	5/12/2020 11:05:25 PM
Chloroform	ND	0.0221		mg/Kg-dry	1	5/12/2020 11:05:25 PM
1,1,1-Trichloroethane (TCA)	ND	0.0276		mg/Kg-dry	1	5/12/2020 11:05:25 PM
1,1-Dichloropropene	ND	0.0221		mg/Kg-dry	1	5/12/2020 11:05:25 PM
Carbon tetrachloride	ND	0.0276		mg/Kg-dry	1	5/12/2020 11:05:25 PM
1,2-Dichloroethane (EDC)	ND	0.0221		mg/Kg-dry	1	5/12/2020 11:05:25 PM
Trichloroethene (TCE)	ND	0.0221		mg/Kg-dry	1	5/12/2020 11:05:25 PM
1,2-Dichloropropane	ND	0.0221		mg/Kg-dry	1	5/12/2020 11:05:25 PM
Bromodichloromethane	ND	0.0221		mg/Kg-dry	1	5/12/2020 11:05:25 PM
Dibromomethane	ND	0.0221		mg/Kg-dry	1	5/12/2020 11:05:25 PM
cis-1,3-Dichloropropene	ND	0.0221		mg/Kg-dry	1	5/12/2020 11:05:25 PM
trans-1,3-Dichloropropylene	ND	0.0221		mg/Kg-dry	1	5/12/2020 11:05:25 PM
1,1,2-Trichloroethane	ND	0.0221		mg/Kg-dry	1	5/12/2020 11:05:25 PM
1,3-Dichloropropane	ND	0.0276		mg/Kg-dry	1	5/12/2020 11:05:25 PM
Tetrachloroethene (PCE)	ND	0.0276		mg/Kg-dry	1	5/12/2020 11:05:25 PM
Dibromochloromethane	ND	0.0276		mg/Kg-dry	1	5/12/2020 11:05:25 PM
1,2-Dibromoethane (EDB)	ND	0.00553		mg/Kg-dry	1	5/12/2020 11:05:25 PM
Chlorobenzene	ND	0.0276		mg/Kg-dry	1	5/12/2020 11:05:25 PM
1,1,1,2-Tetrachloroethane	ND	0.0276		mg/Kg-dry	1	5/12/2020 11:05:25 PM
Bromoform	ND	0.0553		mg/Kg-dry	1	5/12/2020 11:05:25 PM
1,1,2,2-Tetrachloroethane	ND	0.0221		mg/Kg-dry	1	5/12/2020 11:05:25 PM
Bromobenzene	ND	0.0221		mg/Kg-dry	1	5/12/2020 11:05:25 PM
2-Chlorotoluene	ND	0.0276		mg/Kg-dry	1	5/12/2020 11:05:25 PM
4-Chlorotoluene	ND	0.0276		mg/Kg-dry	1	5/12/2020 11:05:25 PM
1,2,3-Trichloropropane	ND	0.0276		mg/Kg-dry	1	5/12/2020 11:05:25 PM
1,2,4-Trichlorobenzene	ND	0.0276		mg/Kg-dry	1	5/12/2020 11:05:25 PM
1,3-Dichlorobenzene	ND	0.0221		mg/Kg-dry	1	5/12/2020 11:05:25 PM
1,4-Dichlorobenzene	ND	0.0221		mg/Kg-dry	1	5/12/2020 11:05:25 PM
1,2-Dichlorobenzene	ND	0.0221		mg/Kg-dry	1	5/12/2020 11:05:25 PM

Analytical Report

Work Order: **2005098**
Date Reported: **6/9/2020**

Client: O'Neill Service Group
Collection Date: 5/11/2020 1:50:00 PM
Project: F200
Lab ID: 2005098-020
Matrix: Soil
Client Sample ID: 358-B9-20

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28305		Analyst: KT
1,2-Dibromo-3-chloropropane	ND	0.553		mg/Kg-dry	1	5/12/2020 11:05:25 PM
Hexachloro-1,3-butadiene	ND	0.0553		mg/Kg-dry	1	5/12/2020 11:05:25 PM
1,2,3-Trichlorobenzene	ND	0.0221		mg/Kg-dry	1	5/12/2020 11:05:25 PM
Surr: Dibromofluoromethane	95.5	80 - 116		%Rec	1	5/12/2020 11:05:25 PM
Surr: Toluene-d8	99.5	84.8 - 113		%Rec	1	5/12/2020 11:05:25 PM
Surr: 1-Bromo-4-fluorobenzene	96.2	82.8 - 113		%Rec	1	5/12/2020 11:05:25 PM
Sample Moisture (Percent Moisture)				Batch ID: R59175		Analyst: EH
Percent Moisture	8.59	0.500		wt%	1	5/14/2020 9:58:14 AM

Date: *6/9/2020*

Work Order: 2005098
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **LCS-28544** SampType: **LCS** Units: **mg/Kg** Prep Date: **6/4/2020** RunNo: **59665**
Client ID: **LCSS** Batch ID: **28544** Analysis Date: **6/5/2020** SeqNo: **1193512**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	1.93	0.0200	1.000	0	193	13.4	185				S
Chloromethane	1.03	0.0500	1.000	0	103	38.5	158				
Vinyl chloride	1.14	0.0250	1.000	0	114	53.6	138				
Bromomethane	0.696	0.0500	1.000	0	69.6	56.6	151				
Trichlorofluoromethane (CFC-11)	1.18	0.0200	1.000	0	118	64.2	137				
Chloroethane	0.582	0.0500	1.000	0	58.2	54.1	134				
1,1-Dichloroethene	1.12	0.0200	1.000	0	112	66	133				
Methylene chloride	1.02	0.0200	1.000	0	102	74.3	117				
trans-1,2-Dichloroethene	1.06	0.0200	1.000	0	106	79.6	115				
1,1-Dichloroethane	0.991	0.0200	1.000	0	99.1	75.8	117				
cis-1,2-Dichloroethene	1.03	0.0200	1.000	0	103	77.8	115				
Chloroform	0.982	0.0200	1.000	0	98.2	78.2	115				
1,1,1-Trichloroethane (TCA)	1.02	0.0250	1.000	0	102	76	121				
1,1-Dichloropropene	1.01	0.0200	1.000	0	101	77.2	120				
Carbon tetrachloride	1.02	0.0500	1.000	0	102	74	122				
1,2-Dichloroethane (EDC)	0.942	0.0200	1.000	0	94.2	74.7	115				
Trichloroethene (TCE)	1.01	0.0200	1.000	0	101	79.6	118				
1,2-Dichloropropane	0.907	0.0200	1.000	0	90.7	78.2	115				
Bromodichloromethane	0.909	0.0200	1.000	0	90.9	76.6	116				
Dibromomethane	0.928	0.0200	1.000	0	92.8	77.9	115				
cis-1,3-Dichloropropene	0.986	0.0200	1.000	0	98.6	74.6	119				
trans-1,3-Dichloropropylene	0.951	0.0200	1.000	0	95.1	70.6	124				
1,1,2-Trichloroethane	0.904	0.0200	1.000	0	90.4	75.6	116				
1,3-Dichloropropane	0.882	0.0250	1.000	0	88.2	75.3	116				
Tetrachloroethene (PCE)	1.09	0.0250	1.000	0	109	78.8	119				
Dibromochloromethane	0.890	0.0250	1.000	0	89.0	72.5	123				
1,2-Dibromoethane (EDB)	0.901	0.00500	1.000	0	90.1	75	116				
Chlorobenzene	0.990	0.0250	1.000	0	99.0	83.4	113				
1,1,1,2-Tetrachloroethane	0.966	0.0250	1.000	0	96.6	80.8	117				
Bromoform	0.890	0.0500	1.000	0	89.0	71	129				
1,1,2,2-Tetrachloroethane	0.840	0.0200	1.000	0	84.0	71.3	119				

Date: *6/9/2020*

Work Order: 2005098
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **LCS-28544** SampType: **LCS** Units: **mg/Kg** Prep Date: **6/4/2020** RunNo: **59665**
Client ID: **LCSS** Batch ID: **28544** Analysis Date: **6/5/2020** SeqNo: **1193512**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromobenzene	1.02	0.0200	1.000	0	102	78.6	115				
2-Chlorotoluene	0.981	0.0250	1.000	0	98.1	78.6	116				
4-Chlorotoluene	0.994	0.0250	1.000	0	99.4	78.8	117				
1,2,3-Trichloropropane	0.894	0.0250	1.000	0	89.4	67.5	129				
1,2,4-Trichlorobenzene	1.03	0.0250	1.000	0	103	79.6	124				
1,3-Dichlorobenzene	1.07	0.0200	1.000	0	107	87.1	117				
1,4-Dichlorobenzene	1.02	0.0200	1.000	0	102	87.6	115				
1,2-Dichlorobenzene	0.979	0.0200	1.000	0	97.9	87.9	115				
1,2-Dibromo-3-chloropropane	0.777	0.500	1.000	0	77.7	65.6	132				
Hexachloro-1,3-butadiene	1.18	0.0500	1.000	0	118	75	130				
1,2,3-Trichlorobenzene	0.987	0.0200	1.000	0	98.7	74.3	128				
Surr: Dibromofluoromethane	1.29		1.250		103	83.3	111				
Surr: Toluene-d8	1.27		1.250		102	87.9	111				
Surr: 1-Bromo-4-fluorobenzene	1.27		1.250		102	85.1	111				

NOTES:
S - Outlying spike recovery observed (high bias). Samples are non-detect for this analyte; no further action required.

Sample ID: **MB-28544** SampType: **MBLK** Units: **mg/Kg** Prep Date: **6/4/2020** RunNo: **59665**
Client ID: **MBLKS** Batch ID: **28544** Analysis Date: **6/5/2020** SeqNo: **1193513**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	0.0200									
Chloromethane	ND	0.0500									Q
Vinyl chloride	ND	0.0250									
Bromomethane	ND	0.0500									Q
Trichlorofluoromethane (CFC-11)	ND	0.0200									
Chloroethane	ND	0.0500									Q
1,1-Dichloroethene	ND	0.0200									
Methylene chloride	ND	0.0200									
trans-1,2-Dichloroethene	ND	0.0200									
1,1-Dichloroethane	ND	0.0200									

Date: *6/9/2020*

Work Order: 2005098
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **MB-28544** SampType: **MBLK** Units: **mg/Kg** Prep Date: **6/4/2020** RunNo: **59665**
Client ID: **MBLKS** Batch ID: **28544** Analysis Date: **6/5/2020** SeqNo: **1193513**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
cis-1,2-Dichloroethene	ND	0.0200									
Chloroform	ND	0.0200									
1,1,1-Trichloroethane (TCA)	ND	0.0250									
1,1-Dichloropropene	ND	0.0200									
Carbon tetrachloride	ND	0.0500									
1,2-Dichloroethane (EDC)	ND	0.0200									
Trichloroethene (TCE)	ND	0.0200									
1,2-Dichloropropane	ND	0.0200									
Bromodichloromethane	ND	0.0200									
Dibromomethane	ND	0.0200									
cis-1,3-Dichloropropene	ND	0.0200									
trans-1,3-Dichloropropylene	ND	0.0200									
1,1,2-Trichloroethane	ND	0.0200									
1,3-Dichloropropane	ND	0.0250									
Tetrachloroethene (PCE)	ND	0.0250									
Dibromochloromethane	ND	0.0250									
1,2-Dibromoethane (EDB)	ND	0.00500									
Chlorobenzene	ND	0.0250									
1,1,1,2-Tetrachloroethane	ND	0.0250									
Bromoform	ND	0.0500									
1,1,2,2-Tetrachloroethane	ND	0.0200									
Bromobenzene	ND	0.0200									
2-Chlorotoluene	ND	0.0250									
4-Chlorotoluene	ND	0.0250									
1,2,3-Trichloropropane	ND	0.0250									
1,2,4-Trichlorobenzene	ND	0.0250									
1,3-Dichlorobenzene	ND	0.0200									
1,4-Dichlorobenzene	ND	0.0200									
1,2-Dichlorobenzene	ND	0.0200									
1,2-Dibromo-3-chloropropane	ND	0.500									Q
Hexachloro-1,3-butadiene	ND	0.0500									

Date: *6/9/2020*

Work Order: 2005098
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **MB-28544** SampType: **MBLK** Units: **mg/Kg** Prep Date: **6/4/2020** RunNo: **59665**
Client ID: **MBLKS** Batch ID: **28544** Analysis Date: **6/5/2020** SeqNo: **1193513**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,3-Trichlorobenzene	ND	0.0200									
Surr: Dibromofluoromethane	1.13		1.250		90.5	83.3	111				
Surr: Toluene-d8	1.15		1.250		92.2	87.9	111				
Surr: 1-Bromo-4-fluorobenzene	1.23		1.250		98.3	85.1	111				

NOTES:
Q - Indicates an analyte with a continuing calibration that does not meet established acceptance criteria

Sample ID: **2005085-007BDUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **6/4/2020** RunNo: **59665**
Client ID: **BATCH** Batch ID: **28544** Analysis Date: **6/5/2020** SeqNo: **1193500**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	0.0306						0		30	H
Chloromethane	ND	0.0765						0		30	QH
Vinyl chloride	ND	0.0382						0		30	H
Bromomethane	ND	0.0765						0		30	QH
Trichlorofluoromethane (CFC-11)	ND	0.0306						0		30	H
Chloroethane	ND	0.0765						0		30	QH
1,1-Dichloroethene	ND	0.0306						0		30	H
Methylene chloride	ND	0.0306						0		30	H
trans-1,2-Dichloroethene	ND	0.0306						0		30	H
1,1-Dichloroethane	ND	0.0306						0		30	H
cis-1,2-Dichloroethene	ND	0.0306						0		30	H
Chloroform	ND	0.0306						0		30	H
1,1,1-Trichloroethane (TCA)	ND	0.0382						0		30	H
1,1-Dichloropropene	ND	0.0306						0		30	H
Carbon tetrachloride	ND	0.0765						0		30	H
1,2-Dichloroethane (EDC)	ND	0.0306						0		30	H
Trichloroethene (TCE)	ND	0.0306						0		30	H
1,2-Dichloropropane	ND	0.0306						0		30	H
Bromodichloromethane	ND	0.0306						0		30	H
Dibromomethane	ND	0.0306						0		30	H

Date: *6/9/2020*

Work Order: 2005098
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2005085-007BDUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **6/4/2020** RunNo: **59665**
Client ID: **BATCH** Batch ID: **28544** Analysis Date: **6/5/2020** SeqNo: **1193500**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
cis-1,3-Dichloropropene	ND	0.0306						0		30	H
trans-1,3-Dichloropropylene	ND	0.0306						0		30	H
1,1,2-Trichloroethane	ND	0.0306						0		30	H
1,3-Dichloropropane	ND	0.0382						0		30	H
Tetrachloroethene (PCE)	ND	0.0382						0		30	H
Dibromochloromethane	ND	0.0382						0		30	H
1,2-Dibromoethane (EDB)	ND	0.00765						0		30	H
Chlorobenzene	ND	0.0382						0		30	H
1,1,1,2-Tetrachloroethane	ND	0.0382						0		30	H
Bromoform	ND	0.0765						0		30	H
1,1,2,2-Tetrachloroethane	ND	0.0306						0		30	H
Bromobenzene	ND	0.0306						0		30	H
2-Chlorotoluene	ND	0.0382						0		30	H
4-Chlorotoluene	ND	0.0382						0		30	H
1,2,3-Trichloropropane	ND	0.0382						0		30	H
1,2,4-Trichlorobenzene	ND	0.0382						0		30	H
1,3-Dichlorobenzene	ND	0.0306						0		30	H
1,4-Dichlorobenzene	ND	0.0306						0		30	H
1,2-Dichlorobenzene	0.0882	0.0306						0.08726	1.02	30	H
1,2-Dibromo-3-chloropropane	ND	0.765						0		30	QH
Hexachloro-1,3-butadiene	ND	0.0765						0		30	H
1,2,3-Trichlorobenzene	ND	0.0306						0		30	H
Surr: Dibromofluoromethane	1.75		1.912		91.3	83.3	111		0		H
Surr: Toluene-d8	1.78		1.912		93.1	87.9	111		0		H
Surr: 1-Bromo-4-fluorobenzene	1.87		1.912		97.8	85.1	111		0		H

NOTES:
Q - Indicates an analyte with a continuing calibration that does not meet established acceptance criteria

Date: *6/9/2020*

Work Order: 2005098
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2005354-013BDUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **6/4/2020** RunNo: **59665**
Client ID: **BATCH** Batch ID: **28544** Analysis Date: **6/6/2020** SeqNo: **1193507**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	0.0264						0		30	
Chloromethane	ND	0.0660						0		30	Q
Vinyl chloride	ND	0.0330						0		30	
Bromomethane	ND	0.0660						0		30	Q
Trichlorofluoromethane (CFC-11)	ND	0.0264						0		30	
Chloroethane	ND	0.0660						0		30	Q
1,1-Dichloroethene	ND	0.0264						0		30	
Methylene chloride	ND	0.0264						0		30	
trans-1,2-Dichloroethene	ND	0.0264						0		30	
1,1-Dichloroethane	ND	0.0264						0		30	
cis-1,2-Dichloroethene	ND	0.0264						0		30	
Chloroform	ND	0.0264						0		30	
1,1,1-Trichloroethane (TCA)	ND	0.0330						0		30	
1,1-Dichloropropene	ND	0.0264						0		30	
Carbon tetrachloride	ND	0.0660						0		30	
1,2-Dichloroethane (EDC)	ND	0.0264						0		30	
Trichloroethene (TCE)	ND	0.0264						0		30	
1,2-Dichloropropane	ND	0.0264						0		30	
Bromodichloromethane	ND	0.0264						0		30	
Dibromomethane	ND	0.0264						0		30	
cis-1,3-Dichloropropene	ND	0.0264						0		30	
trans-1,3-Dichloropropylene	ND	0.0264						0		30	
1,1,2-Trichloroethane	ND	0.0264						0		30	
1,3-Dichloropropane	ND	0.0330						0		30	
Tetrachloroethene (PCE)	ND	0.0330						0		30	
Dibromochloromethane	ND	0.0330						0		30	
1,2-Dibromoethane (EDB)	ND	0.00660						0		30	
Chlorobenzene	ND	0.0330						0		30	
1,1,1,2-Tetrachloroethane	ND	0.0330						0		30	
Bromoform	ND	0.0660						0		30	
1,1,2,2-Tetrachloroethane	ND	0.0264						0		30	

Date: *6/9/2020*

Work Order: 2005098
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2005354-013BDUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **6/4/2020** RunNo: **59665**
Client ID: **BATCH** Batch ID: **28544** Analysis Date: **6/6/2020** SeqNo: **1193507**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromobenzene	ND	0.0264						0		30	
2-Chlorotoluene	ND	0.0330						0		30	
4-Chlorotoluene	ND	0.0330						0		30	
1,2,3-Trichloropropane	ND	0.0330						0		30	
1,2,4-Trichlorobenzene	ND	0.0330						0		30	
1,3-Dichlorobenzene	ND	0.0264						0		30	
1,4-Dichlorobenzene	ND	0.0264						0		30	
1,2-Dichlorobenzene	ND	0.0264						0		30	
1,2-Dibromo-3-chloropropane	ND	0.660						0		30	Q
Hexachloro-1,3-butadiene	ND	0.0660						0		30	
1,2,3-Trichlorobenzene	ND	0.0264						0		30	
Surr: Dibromofluoromethane	1.50		1.649		90.7	83.3	111		0		
Surr: Toluene-d8	1.51		1.649		91.8	87.9	111		0		
Surr: 1-Bromo-4-fluorobenzene	1.60		1.649		97.2	85.1	111		0		

NOTES:
Q - Indicates an analyte with a continuing calibration that does not meet established acceptance criteria

Sample ID: **2006001-002CMS** SampType: **MS** Units: **mg/Kg-dry** Prep Date: **6/4/2020** RunNo: **59665**
Client ID: **BATCH** Batch ID: **28544** Analysis Date: **6/6/2020** SeqNo: **1193509**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	1.40	0.0217	1.083	0	129	5.73	173				
Chloromethane	0.674	0.0542	1.083	0	62.2	41.3	150				
Vinyl chloride	0.962	0.0271	1.083	0	88.9	49.5	138				
Bromomethane	0.594	0.0542	1.083	0	54.8	48.5	158				
Trichlorofluoromethane (CFC-11)	1.05	0.0217	1.083	0	96.6	40.6	159				
Chloroethane	0.545	0.0542	1.083	0	50.3	30.4	166				
1,1-Dichloroethene	0.993	0.0217	1.083	0	91.7	55	138				
Methylene chloride	0.964	0.0217	1.083	0	89.0	70.3	123				
trans-1,2-Dichloroethene	0.990	0.0217	1.083	0	91.4	73.1	121				
1,1-Dichloroethane	0.933	0.0217	1.083	0	86.1	70.8	122				

Date: *6/9/2020*

Work Order: 2005098
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2006001-002CMS** SampType: **MS** Units: **mg/Kg-dry** Prep Date: **6/4/2020** RunNo: **59665**
Client ID: **BATCH** Batch ID: **28544** Analysis Date: **6/6/2020** SeqNo: **1193509**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
cis-1,2-Dichloroethene	0.952	0.0217	1.083	0	87.9	71.8	122				
Chloroform	0.930	0.0217	1.083	0	85.9	72.9	122				
1,1,1-Trichloroethane (TCA)	0.934	0.0271	1.083	0	86.3	69.6	125				
1,1-Dichloropropene	0.902	0.0217	1.083	0	83.2	69.3	126				
Carbon tetrachloride	0.921	0.0542	1.083	0	85.0	65	127				
1,2-Dichloroethane (EDC)	0.926	0.0217	1.083	0	85.5	70.1	121				
Trichloroethene (TCE)	0.948	0.0217	1.083	0	87.5	70.1	129				
1,2-Dichloropropane	0.871	0.0217	1.083	0	80.4	74.6	120				
Bromodichloromethane	0.861	0.0217	1.083	0	79.5	70.9	122				
Dibromomethane	0.913	0.0217	1.083	0	84.3	75.6	120				
cis-1,3-Dichloropropene	0.912	0.0217	1.083	0	84.2	68.3	120				
trans-1,3-Dichloropropylene	0.900	0.0217	1.083	0	83.1	62.2	127				
1,1,2-Trichloroethane	0.923	0.0217	1.083	0	85.2	72.9	120				
1,3-Dichloropropane	0.891	0.0271	1.083	0	82.3	71.9	119				
Tetrachloroethene (PCE)	0.995	0.0271	1.083	0	91.9	71.1	122				
Dibromochloromethane	0.873	0.0271	1.083	0	80.6	65.9	126				
1,2-Dibromoethane (EDB)	0.914	0.00542	1.083	0	84.4	72	119				
Chlorobenzene	1.03	0.0271	1.083	0	94.8	81.4	116				
1,1,1,2-Tetrachloroethane	1.01	0.0271	1.083	0	93.0	72.9	125				
Bromoform	0.969	0.0542	1.083	0	89.4	63.4	133				
1,1,2,2-Tetrachloroethane	0.932	0.0217	1.083	0	86.0	61	128				
Bromobenzene	1.06	0.0217	1.083	0	98.2	77	120				
2-Chlorotoluene	1.07	0.0271	1.083	0	99.1	71.4	126				
4-Chlorotoluene	1.06	0.0271	1.083	0	97.9	73.6	124				
1,2,3-Trichloropropane	0.967	0.0271	1.083	0	89.3	65.7	132				
1,2,4-Trichlorobenzene	1.05	0.0271	1.083	0	96.8	70.5	130				
1,3-Dichlorobenzene	1.07	0.0217	1.083	0	98.9	83.8	121				
1,4-Dichlorobenzene	1.05	0.0217	1.083	0	97.1	85.7	117				
1,2-Dichlorobenzene	1.03	0.0217	1.083	0	95.4	81.8	120				
1,2-Dibromo-3-chloropropane	0.922	0.542	1.083	0	85.1	56.9	139				
Hexachloro-1,3-butadiene	1.17	0.0542	1.083	0	108	61.1	140				

Date: *6/9/2020*

Work Order: 2005098
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2006001-002CMS** SampType: **MS** Units: **mg/Kg-dry** Prep Date: **6/4/2020** RunNo: **59665**
Client ID: **BATCH** Batch ID: **28544** Analysis Date: **6/6/2020** SeqNo: **1193509**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,3-Trichlorobenzene	1.05	0.0217	1.083	0	96.6	67.8	132				
Surr: Dibromofluoromethane	1.27		1.354		93.8	83.3	111				
Surr: Toluene-d8	1.27		1.354		94.0	87.9	111				
Surr: 1-Bromo-4-fluorobenzene	1.38		1.354		102	85.1	111				

Sample ID: **2006001-002CMSD** SampType: **MSD** Units: **mg/Kg-dry** Prep Date: **6/4/2020** RunNo: **59665**
Client ID: **BATCH** Batch ID: **28544** Analysis Date: **6/6/2020** SeqNo: **1193510**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	1.28	0.0217	1.083	0	119	5.73	173	1.400	8.64	30	
Chloromethane	0.747	0.0542	1.083	0	69.0	41.3	150	0.6736	10.4	30	
Vinyl chloride	0.910	0.0271	1.083	0	84.1	49.5	138	0.9624	5.55	30	
Bromomethane	0.549	0.0542	1.083	0	50.7	48.5	158	0.5938	7.86	30	
Trichlorofluoromethane (CFC-11)	0.962	0.0217	1.083	0	88.8	40.6	159	1.047	8.48	30	
Chloroethane	0.506	0.0542	1.083	0	46.7	30.4	166	0.5446	7.43	30	
1,1-Dichloroethene	0.878	0.0217	1.083	0	81.0	55	138	0.9931	12.3	30	
Methylene chloride	0.935	0.0217	1.083	0	86.3	70.3	123	0.9638	3.07	30	
trans-1,2-Dichloroethene	0.970	0.0217	1.083	0	89.5	73.1	121	0.9897	2.03	30	
1,1-Dichloroethane	0.885	0.0217	1.083	0	81.7	70.8	122	0.9331	5.24	30	
cis-1,2-Dichloroethene	0.933	0.0217	1.083	0	86.1	71.8	122	0.9518	2.01	30	
Chloroform	0.898	0.0217	1.083	0	83.0	72.9	122	0.9301	3.46	30	
1,1,1-Trichloroethane (TCA)	0.901	0.0271	1.083	0	83.2	69.6	125	0.9343	3.64	30	
1,1-Dichloropropene	0.860	0.0217	1.083	0	79.4	69.3	126	0.9016	4.77	30	
Carbon tetrachloride	0.879	0.0542	1.083	0	81.2	65	127	0.9210	4.66	30	
1,2-Dichloroethane (EDC)	0.922	0.0217	1.083	0	85.2	70.1	121	0.9255	0.345	30	
Trichloroethene (TCE)	0.912	0.0217	1.083	0	84.2	70.1	129	0.9477	3.82	30	
1,2-Dichloropropane	0.857	0.0217	1.083	0	79.1	74.6	120	0.8711	1.63	30	
Bromodichloromethane	0.856	0.0217	1.083	0	79.0	70.9	122	0.8614	0.648	30	
Dibromomethane	0.898	0.0217	1.083	0	82.9	75.6	120	0.9132	1.69	30	
cis-1,3-Dichloropropene	0.896	0.0217	1.083	0	82.7	68.3	120	0.9122	1.82	30	

Date: *6/9/2020*

Work Order: 2005098
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2006001-002CMSD** SampType: **MSD** Units: **mg/Kg-dry** Prep Date: **6/4/2020** RunNo: **59665**
Client ID: **BATCH** Batch ID: **28544** Analysis Date: **6/6/2020** SeqNo: **1193510**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
trans-1,3-Dichloropropylene	0.897	0.0217	1.083	0	82.8	62.2	127	0.9002	0.373	30	
1,1,2-Trichloroethane	0.918	0.0217	1.083	0	84.8	72.9	120	0.9230	0.544	30	
1,3-Dichloropropane	0.872	0.0271	1.083	0	80.5	71.9	119	0.8911	2.21	30	
Tetrachloroethene (PCE)	0.946	0.0271	1.083	0	87.4	71.1	122	0.9951	5.02	30	
Dibromochloromethane	0.868	0.0271	1.083	0	80.1	65.9	126	0.8726	0.527	30	
1,2-Dibromoethane (EDB)	0.896	0.00542	1.083	0	82.7	72	119	0.9137	1.95	30	
Chlorobenzene	1.01	0.0271	1.083	0	92.9	81.4	116	1.027	2.00	30	
1,1,1,2-Tetrachloroethane	0.993	0.0271	1.083	0	91.6	72.9	125	1.007	1.42	30	
Bromoform	0.959	0.0542	1.083	0	88.6	63.4	133	0.9687	0.974	30	
1,1,2,2-Tetrachloroethane	0.918	0.0217	1.083	0	84.7	61	128	0.9318	1.54	30	
Bromobenzene	1.04	0.0217	1.083	0	96.2	77	120	1.064	2.13	30	
2-Chlorotoluene	1.04	0.0271	1.083	0	96.3	71.4	126	1.073	2.85	30	
4-Chlorotoluene	1.04	0.0271	1.083	0	96.4	73.6	124	1.061	1.56	30	
1,2,3-Trichloropropane	0.955	0.0271	1.083	0	88.2	65.7	132	0.9670	1.20	30	
1,2,4-Trichlorobenzene	1.07	0.0271	1.083	0	99.2	70.5	130	1.049	2.44	30	
1,3-Dichlorobenzene	1.08	0.0217	1.083	0	99.8	83.8	121	1.071	0.936	30	
1,4-Dichlorobenzene	1.05	0.0217	1.083	0	97.2	85.7	117	1.051	0.141	30	
1,2-Dichlorobenzene	1.02	0.0217	1.083	0	94.6	81.8	120	1.033	0.767	30	
1,2-Dibromo-3-chloropropane	0.914	0.542	1.083	0	84.4	56.9	139	0.9220	0.816	30	
Hexachloro-1,3-butadiene	1.17	0.0542	1.083	0	108	61.1	140	1.174	0.705	30	
1,2,3-Trichlorobenzene	1.08	0.0217	1.083	0	100	67.8	132	1.046	3.56	30	
Surr: Dibromofluoromethane	1.27		1.354		94.1	83.3	111		0		
Surr: Toluene-d8	1.26		1.354		93.0	87.9	111		0		
Surr: 1-Bromo-4-fluorobenzene	1.37		1.354		101	85.1	111		0		

Sample ID: **2006006-001BDUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **6/4/2020** RunNo: **59665**
Client ID: **BATCH** Batch ID: **28544** Analysis Date: **6/8/2020** SeqNo: **1193886**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	0.0250						0		30	

Date: *6/9/2020*

Work Order: 2005098
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2006006-001BDUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **6/4/2020** RunNo: **59665**
Client ID: **BATCH** Batch ID: **28544** Analysis Date: **6/8/2020** SeqNo: **1193886**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloromethane	ND	0.0626						0		30	Q
Vinyl chloride	ND	0.0313						0		30	
Bromomethane	ND	0.0626						0		30	
Trichlorofluoromethane (CFC-11)	ND	0.0250						0		30	
Chloroethane	ND	0.0626						0		30	
1,1-Dichloroethene	ND	0.0250						0		30	
Methylene chloride	ND	0.0250						0		30	
trans-1,2-Dichloroethene	ND	0.0250						0		30	
1,1-Dichloroethane	ND	0.0250						0		30	
cis-1,2-Dichloroethene	ND	0.0250						0		30	
Chloroform	ND	0.0250						0		30	
1,1,1-Trichloroethane (TCA)	ND	0.0313						0		30	
1,1-Dichloropropene	ND	0.0250						0		30	
Carbon tetrachloride	ND	0.0626						0		30	
1,2-Dichloroethane (EDC)	ND	0.0250						0		30	
Trichloroethene (TCE)	ND	0.0250						0		30	
1,2-Dichloropropane	ND	0.0250						0		30	
Bromodichloromethane	ND	0.0250						0		30	
Dibromomethane	ND	0.0250						0		30	
cis-1,3-Dichloropropene	ND	0.0250						0		30	
trans-1,3-Dichloropropylene	ND	0.0250						0		30	
1,1,2-Trichloroethane	ND	0.0250						0		30	
1,3-Dichloropropane	ND	0.0313						0		30	
Tetrachloroethene (PCE)	ND	0.0313						0		30	
Dibromochloromethane	ND	0.0313						0		30	
1,2-Dibromoethane (EDB)	ND	0.00626						0		30	
Chlorobenzene	ND	0.0313						0		30	
1,1,1,2-Tetrachloroethane	ND	0.0313						0		30	
Bromoform	ND	0.0626						0		30	
1,1,2,2-Tetrachloroethane	ND	0.0250						0		30	
Bromobenzene	ND	0.0250						0		30	

Date: *6/9/2020*

Work Order: 2005098
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2006006-001BDUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **6/4/2020** RunNo: **59665**
Client ID: **BATCH** Batch ID: **28544** Analysis Date: **6/8/2020** SeqNo: **1193886**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2-Chlorotoluene	ND	0.0313						0		30	
4-Chlorotoluene	ND	0.0313						0		30	
1,2,3-Trichloropropane	ND	0.0313						0		30	
1,2,4-Trichlorobenzene	ND	0.0313						0		30	
1,3-Dichlorobenzene	ND	0.0250						0		30	
1,4-Dichlorobenzene	ND	0.0250						0		30	
1,2-Dichlorobenzene	ND	0.0250						0		30	
1,2-Dibromo-3-chloropropane	ND	0.626						0		30	
Hexachloro-1,3-butadiene	ND	0.0626						0		30	
1,2,3-Trichlorobenzene	ND	0.0250						0		30	
Surr: Dibromofluoromethane	1.47		1.565		94.1	83.3	111		0		
Surr: Toluene-d8	1.48		1.565		94.6	87.9	111		0		
Surr: 1-Bromo-4-fluorobenzene	1.55		1.565		99.0	85.1	111		0		

NOTES:
Q - Indicates an analyte with a continuing calibration that does not meet established acceptance criteria

Date: *6/9/2020*

Work Order: 2005098
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **LCS-28305** SampType: **LCS** Units: **mg/Kg** Prep Date: **5/12/2020** RunNo: **59171**
Client ID: **LCSS** Batch ID: **28305** Analysis Date: **5/12/2020** SeqNo: **1182320**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	1.10	0.0200	1.000	0	110	21.6	169				
Chloromethane	0.985	0.0500	1.000	0	98.5	45.3	153				
Vinyl chloride	0.970	0.0250	1.000	0	97.0	57.5	137				
Bromomethane	1.28	0.0500	1.000	0	128	32.8	194				
Trichlorofluoromethane (CFC-11)	1.06	0.0200	1.000	0	106	54.3	152				
Chloroethane	0.925	0.0500	1.000	0	92.5	52	146				
1,1-Dichloroethene	1.04	0.0200	1.000	0	104	62.8	139				
Methylene chloride	1.00	0.0200	1.000	0	100	78.4	118				
trans-1,2-Dichloroethene	1.02	0.0200	1.000	0	102	82	117				
1,1-Dichloroethane	0.973	0.0200	1.000	0	97.3	78	119				
cis-1,2-Dichloroethene	0.993	0.0200	1.000	0	99.3	81.9	116				
Chloroform	1.00	0.0200	1.000	0	100	80.8	117				
1,1,1-Trichloroethane (TCA)	1.00	0.0250	1.000	0	100	81.4	117				
1,1-Dichloropropene	0.997	0.0200	1.000	0	99.7	79.9	117				
Carbon tetrachloride	1.02	0.0500	1.000	0	102	80.4	117				
1,2-Dichloroethane (EDC)	0.988	0.0200	1.000	0	98.8	77.5	117				
Trichloroethene (TCE)	1.00	0.0200	1.000	0	100	83.4	115				
1,2-Dichloropropane	0.937	0.0200	1.000	0	93.7	77.6	117				
Bromodichloromethane	0.967	0.0200	1.000	0	96.7	78.9	116				
Dibromomethane	0.951	0.0200	1.000	0	95.1	81.2	115				
cis-1,3-Dichloropropene	0.939	0.0200	1.000	0	93.9	78	115				
trans-1,3-Dichloropropylene	0.916	0.0200	1.000	0	91.6	75.7	117				
1,1,2-Trichloroethane	0.935	0.0200	1.000	0	93.5	77.9	118				
1,3-Dichloropropane	0.933	0.0250	1.000	0	93.3	77.1	118				
Tetrachloroethene (PCE)	0.982	0.0250	1.000	0	98.2	84.3	117				
Dibromochloromethane	0.921	0.0250	1.000	0	92.1	77.9	118				
1,2-Dibromoethane (EDB)	0.933	0.00500	1.000	0	93.3	78.6	117				
Chlorobenzene	0.997	0.0250	1.000	0	99.7	86.5	113				
1,1,1,2-Tetrachloroethane	0.991	0.0250	1.000	0	99.1	84.8	113				
Bromoform	0.914	0.0500	1.000	0	91.4	70.7	125				
1,1,2,2-Tetrachloroethane	0.883	0.0200	1.000	0	88.3	68.3	125				

Date: *6/9/2020*

Work Order: 2005098
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **LCS-28305** SampType: **LCS** Units: **mg/Kg** Prep Date: **5/12/2020** RunNo: **59171**
Client ID: **LCSS** Batch ID: **28305** Analysis Date: **5/12/2020** SeqNo: **1182320**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromobenzene	0.977	0.0200	1.000	0	97.7	84	117				
2-Chlorotoluene	1.01	0.0250	1.000	0	101	80.4	122				
4-Chlorotoluene	1.00	0.0250	1.000	0	100	83.1	118				
1,2,3-Trichloropropane	0.907	0.0250	1.000	0	90.7	71	125				
1,2,4-Trichlorobenzene	1.00	0.0250	1.000	0	100	81	126				
1,3-Dichlorobenzene	1.03	0.0200	1.000	0	103	90.4	115				
1,4-Dichlorobenzene	1.02	0.0200	1.000	0	102	90.3	115				
1,2-Dichlorobenzene	1.02	0.0200	1.000	0	102	90.3	115				
1,2-Dibromo-3-chloropropane	0.955	0.500	1.000	0	95.5	62.3	136				
Hexachloro-1,3-butadiene	1.01	0.0500	1.000	0	101	77.8	133				
1,2,3-Trichlorobenzene	0.971	0.0200	1.000	0	97.1	75.9	130				
Surr: Dibromofluoromethane	1.32		1.250		105	80	116				
Surr: Toluene-d8	1.22		1.250		97.5	84.8	113				
Surr: 1-Bromo-4-fluorobenzene	1.27		1.250		102	82.8	113				

Sample ID: **MB-28305** SampType: **MBLK** Units: **mg/Kg** Prep Date: **5/12/2020** RunNo: **59171**
Client ID: **MBLKS** Batch ID: **28305** Analysis Date: **5/12/2020** SeqNo: **1182321**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	0.0200									
Chloromethane	ND	0.0500									
Vinyl chloride	ND	0.0250									
Bromomethane	ND	0.0500									
Trichlorofluoromethane (CFC-11)	ND	0.0200									
Chloroethane	ND	0.0500									
1,1-Dichloroethene	ND	0.0200									
Methylene chloride	ND	0.0200									
trans-1,2-Dichloroethene	ND	0.0200									
1,1-Dichloroethane	ND	0.0200									
cis-1,2-Dichloroethene	ND	0.0200									

Date: *6/9/2020*

Work Order: 2005098
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **MB-28305** SampType: **MBLK** Units: **mg/Kg** Prep Date: **5/12/2020** RunNo: **59171**
Client ID: **MBLKS** Batch ID: **28305** Analysis Date: **5/12/2020** SeqNo: **1182321**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloroform	ND	0.0200									
1,1,1-Trichloroethane (TCA)	ND	0.0250									
1,1-Dichloropropene	ND	0.0200									
Carbon tetrachloride	ND	0.0500									
1,2-Dichloroethane (EDC)	ND	0.0200									
Trichloroethene (TCE)	ND	0.0200									
1,2-Dichloropropane	ND	0.0200									
Bromodichloromethane	ND	0.0200									
Dibromomethane	ND	0.0200									
cis-1,3-Dichloropropene	ND	0.0200									
trans-1,3-Dichloropropylene	ND	0.0200									
1,1,2-Trichloroethane	ND	0.0200									
1,3-Dichloropropane	ND	0.0250									
Tetrachloroethene (PCE)	ND	0.0250									
Dibromochloromethane	ND	0.0250									
1,2-Dibromoethane (EDB)	ND	0.00500									
Chlorobenzene	ND	0.0250									
1,1,1,2-Tetrachloroethane	ND	0.0250									
Bromoform	ND	0.0500									
1,1,2,2-Tetrachloroethane	ND	0.0200									
Bromobenzene	ND	0.0200									
2-Chlorotoluene	ND	0.0250									
4-Chlorotoluene	ND	0.0250									
1,2,3-Trichloropropane	ND	0.0250									
1,2,4-Trichlorobenzene	ND	0.0250									
1,3-Dichlorobenzene	ND	0.0200									
1,4-Dichlorobenzene	ND	0.0200									
1,2-Dichlorobenzene	ND	0.0200									
1,2-Dibromo-3-chloropropane	ND	0.500									
Hexachloro-1,3-butadiene	ND	0.0500									
1,2,3-Trichlorobenzene	ND	0.0200									

Date: *6/9/2020*

Work Order: 2005098
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **MB-28305** SampType: **MBLK** Units: **mg/Kg** Prep Date: **5/12/2020** RunNo: **59171**
Client ID: **MBLKS** Batch ID: **28305** Analysis Date: **5/12/2020** SeqNo: **1182321**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	1.16		1.250		92.5	80	116				
Surr: Toluene-d8	1.22		1.250		97.8	84.8	113				
Surr: 1-Bromo-4-fluorobenzene	1.20		1.250		95.8	82.8	113				

Sample ID: **2005085-004BDUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **5/12/2020** RunNo: **59171**
Client ID: **BATCH** Batch ID: **28305** Analysis Date: **5/12/2020** SeqNo: **1182297**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	0.0275						0		30	
Chloromethane	ND	0.0688						0		30	
Vinyl chloride	ND	0.0344						0		30	
Bromomethane	ND	0.0688						0		30	
Trichlorofluoromethane (CFC-11)	ND	0.0275						0		30	
Chloroethane	ND	0.0688						0		30	
1,1-Dichloroethene	ND	0.0275						0		30	
Methylene chloride	ND	0.0275						0		30	
trans-1,2-Dichloroethene	ND	0.0275						0		30	
1,1-Dichloroethane	ND	0.0275						0		30	
cis-1,2-Dichloroethene	ND	0.0275						0		30	
Chloroform	ND	0.0275						0		30	
1,1,1-Trichloroethane (TCA)	ND	0.0344						0		30	
1,1-Dichloropropene	ND	0.0275						0		30	
Carbon tetrachloride	ND	0.0688						0		30	
1,2-Dichloroethane (EDC)	ND	0.0275						0		30	
Trichloroethene (TCE)	ND	0.0275						0		30	
1,2-Dichloropropane	ND	0.0275						0		30	
Bromodichloromethane	ND	0.0275						0		30	
Dibromomethane	ND	0.0275						0		30	
cis-1,3-Dichloropropene	ND	0.0275						0		30	
trans-1,3-Dichloropropylene	ND	0.0275						0		30	

Date: *6/9/2020*

Work Order: 2005098
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2005085-004BDUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **5/12/2020** RunNo: **59171**
Client ID: **BATCH** Batch ID: **28305** Analysis Date: **5/12/2020** SeqNo: **1182297**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,2-Trichloroethane	ND	0.0275						0		30	
1,3-Dichloropropane	ND	0.0344						0		30	
Tetrachloroethene (PCE)	ND	0.0344						0		30	
Dibromochloromethane	ND	0.0344						0		30	
1,2-Dibromoethane (EDB)	ND	0.00688						0		30	
Chlorobenzene	ND	0.0344						0		30	
1,1,1,2-Tetrachloroethane	ND	0.0344						0		30	
Bromoform	ND	0.0688						0		30	
1,1,2,2-Tetrachloroethane	ND	0.0275						0		30	
Bromobenzene	ND	0.0275						0		30	
2-Chlorotoluene	ND	0.0344						0		30	
4-Chlorotoluene	ND	0.0344						0		30	
1,2,3-Trichloropropane	ND	0.0344						0		30	
1,2,4-Trichlorobenzene	ND	0.0344						0		30	
1,3-Dichlorobenzene	ND	0.0275						0		30	
1,4-Dichlorobenzene	ND	0.0275						0		30	
1,2-Dichlorobenzene	ND	0.0275						0		30	
1,2-Dibromo-3-chloropropane	ND	0.688						0		30	
Hexachloro-1,3-butadiene	ND	0.0688						0		30	
1,2,3-Trichlorobenzene	ND	0.0275						0		30	
Surr: Dibromofluoromethane	1.70		1.720		99.1	80	116		0		
Surr: Toluene-d8	1.73		1.720		101	84.8	113		0		
Surr: 1-Bromo-4-fluorobenzene	1.68		1.720		97.7	82.8	113		0		

Sample ID: **2005085-005BMS** SampType: **MS** Units: **mg/Kg-dry** Prep Date: **5/12/2020** RunNo: **59171**
Client ID: **BATCH** Batch ID: **28305** Analysis Date: **5/12/2020** SeqNo: **1182299**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	1.21	0.0235	1.177	0	103	-0.64	180				
Chloromethane	1.25	0.0588	1.177	0	107	33.2	162				

Date: *6/9/2020*

Work Order: 2005098
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2005085-005BMS** SampType: **MS** Units: **mg/Kg-dry** Prep Date: **5/12/2020** RunNo: **59171**
Client ID: **BATCH** Batch ID: **28305** Analysis Date: **5/12/2020** SeqNo: **1182299**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	1.28	0.0294	1.177	0	109	47.2	146				
Bromomethane	1.99	0.0588	1.177	0	169	18.7	226				
Trichlorofluoromethane (CFC-11)	1.35	0.0235	1.177	0	114	48.9	158				
Chloroethane	1.44	0.0588	1.177	0	123	20.8	195				
1,1-Dichloroethene	1.33	0.0235	1.177	0	113	67.1	135				
Methylene chloride	1.26	0.0235	1.177	0	107	64.9	137				
trans-1,2-Dichloroethene	1.32	0.0235	1.177	0	113	75.1	126				
1,1-Dichloroethane	1.29	0.0235	1.177	0	110	68.4	132				
cis-1,2-Dichloroethene	1.28	0.0235	1.177	0	109	76.2	125				
Chloroform	1.29	0.0235	1.177	0	110	74.5	127				
1,1,1-Trichloroethane (TCA)	1.33	0.0294	1.177	0	113	74.5	126				
1,1-Dichloropropene	1.33	0.0235	1.177	0	113	70.7	128				
Carbon tetrachloride	1.33	0.0588	1.177	0	113	72.5	126				
1,2-Dichloroethane (EDC)	1.30	0.0235	1.177	0	110	70.4	128				
Trichloroethene (TCE)	1.29	0.0235	1.177	0	109	64.7	145				
1,2-Dichloropropane	1.26	0.0235	1.177	0	107	69.3	129				
Bromodichloromethane	1.26	0.0235	1.177	0	107	75.9	120				
Dibromomethane	1.25	0.0235	1.177	0	106	78.5	123				
cis-1,3-Dichloropropene	1.23	0.0235	1.177	0	104	67.3	122				
trans-1,3-Dichloropropylene	1.18	0.0235	1.177	0	100	64.4	124				
1,1,2-Trichloroethane	1.24	0.0235	1.177	0	106	72.4	129				
1,3-Dichloropropane	1.26	0.0294	1.177	0	107	70.5	128				
Tetrachloroethene (PCE)	1.28	0.0294	1.177	0	109	64.9	140				
Dibromochloromethane	1.20	0.0294	1.177	0	102	71.8	125				
1,2-Dibromoethane (EDB)	1.25	0.00588	1.177	0	106	73.8	126				
Chlorobenzene	1.26	0.0294	1.177	0	107	85.1	118				
1,1,1,2-Tetrachloroethane	1.26	0.0294	1.177	0	107	82.2	118				
Bromoform	1.18	0.0588	1.177	0	100	66.1	130				
1,1,2,2-Tetrachloroethane	1.25	0.0235	1.177	0	106	41.2	150				
Bromobenzene	1.23	0.0235	1.177	0	105	84.6	121				
2-Chlorotoluene	1.24	0.0294	1.177	0	105	78.4	128				

Date: *6/9/2020*

Work Order: 2005098
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2005085-005BMS** SampType: **MS** Units: **mg/Kg-dry** Prep Date: **5/12/2020** RunNo: **59171**
Client ID: **BATCH** Batch ID: **28305** Analysis Date: **5/12/2020** SeqNo: **1182299**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4-Chlorotoluene	1.24	0.0294	1.177	0	106	81.2	123				
1,2,3-Trichloropropane	1.42	0.0294	1.177	0	121	66.4	132				
1,2,4-Trichlorobenzene	1.26	0.0294	1.177	0	107	68.9	139				
1,3-Dichlorobenzene	1.27	0.0235	1.177	0	108	87.8	120				
1,4-Dichlorobenzene	1.26	0.0235	1.177	0	107	88.1	119				
1,2-Dichlorobenzene	1.27	0.0235	1.177	0	108	88.1	120				
1,2-Dibromo-3-chloropropane	1.21	0.588	1.177	0	103	56.6	144				
Hexachloro-1,3-butadiene	1.38	0.0588	1.177	0	117	64.8	148				
1,2,3-Trichlorobenzene	1.29	0.0235	1.177	0	110	59.3	150				
Surr: Dibromofluoromethane	1.58		1.471		107	80	116				
Surr: Toluene-d8	1.49		1.471		101	84.8	113				
Surr: 1-Bromo-4-fluorobenzene	1.47		1.471		100	82.8	113				

Sample ID: **2005085-005BMSD** SampType: **MSD** Units: **mg/Kg-dry** Prep Date: **5/12/2020** RunNo: **59171**
Client ID: **BATCH** Batch ID: **28305** Analysis Date: **5/12/2020** SeqNo: **1182300**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	1.20	0.0235	1.177	0	102	-0.64	180	1.211	0.979	30	
Chloromethane	1.29	0.0588	1.177	0	109	33.2	162	1.254	2.57	30	
Vinyl chloride	1.27	0.0294	1.177	0	108	47.2	146	1.278	0.929	30	
Bromomethane	1.83	0.0588	1.177	0	155	18.7	226	1.994	8.76	30	
Trichlorofluoromethane (CFC-11)	1.34	0.0235	1.177	0	114	48.9	158	1.346	0.454	30	
Chloroethane	1.41	0.0588	1.177	0	120	20.8	195	1.442	2.39	30	
1,1-Dichloroethene	1.28	0.0235	1.177	0	109	67.1	135	1.326	3.46	30	
Methylene chloride	1.21	0.0235	1.177	0	103	64.9	137	1.256	3.38	30	
trans-1,2-Dichloroethene	1.28	0.0235	1.177	0	109	75.1	126	1.325	3.29	30	
1,1-Dichloroethane	1.25	0.0235	1.177	0	106	68.4	132	1.290	2.94	30	
cis-1,2-Dichloroethene	1.25	0.0235	1.177	0	106	76.2	125	1.278	2.27	30	
Chloroform	1.26	0.0235	1.177	0	107	74.5	127	1.291	2.15	30	
1,1,1-Trichloroethane (TCA)	1.30	0.0294	1.177	0	110	74.5	126	1.334	2.60	30	

Date: *6/9/2020*

Work Order: 2005098
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2005085-005BMSD** SampType: **MSD** Units: **mg/Kg-dry** Prep Date: **5/12/2020** RunNo: **59171**
Client ID: **BATCH** Batch ID: **28305** Analysis Date: **5/12/2020** SeqNo: **1182300**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloropropene	1.33	0.0235	1.177	0	113	70.7	128	1.327	0.250	30	
Carbon tetrachloride	1.31	0.0588	1.177	0	111	72.5	126	1.329	1.25	30	
1,2-Dichloroethane (EDC)	1.25	0.0235	1.177	0	106	70.4	128	1.297	3.83	30	
Trichloroethene (TCE)	1.26	0.0235	1.177	0	107	64.7	145	1.287	2.16	30	
1,2-Dichloropropane	1.23	0.0235	1.177	0	105	69.3	129	1.262	2.41	30	
Bromodichloromethane	1.22	0.0235	1.177	0	104	75.9	120	1.263	3.15	30	
Dibromomethane	1.21	0.0235	1.177	0	103	78.5	123	1.252	3.05	30	
cis-1,3-Dichloropropene	1.19	0.0235	1.177	0	101	67.3	122	1.226	3.16	30	
trans-1,3-Dichloropropylene	1.16	0.0235	1.177	0	98.9	64.4	124	1.182	1.54	30	
1,1,2-Trichloroethane	1.22	0.0235	1.177	0	103	72.4	129	1.242	2.07	30	
1,3-Dichloropropane	1.22	0.0294	1.177	0	103	70.5	128	1.257	3.41	30	
Tetrachloroethene (PCE)	1.26	0.0294	1.177	0	107	64.9	140	1.280	1.69	30	
Dibromochloromethane	1.18	0.0294	1.177	0	100	71.8	125	1.197	1.28	30	
1,2-Dibromoethane (EDB)	1.20	0.00588	1.177	0	102	73.8	126	1.253	4.34	30	
Chlorobenzene	1.25	0.0294	1.177	0	107	85.1	118	1.262	0.589	30	
1,1,1,2-Tetrachloroethane	1.23	0.0294	1.177	0	105	82.2	118	1.263	2.40	30	
Bromoform	1.14	0.0588	1.177	0	96.9	66.1	130	1.178	3.23	30	
1,1,2,2-Tetrachloroethane	1.26	0.0235	1.177	0	107	41.2	150	1.253	0.312	30	
Bromobenzene	1.23	0.0235	1.177	0	104	84.6	121	1.231	0.137	30	
2-Chlorotoluene	1.23	0.0294	1.177	0	104	78.4	128	1.241	0.969	30	
4-Chlorotoluene	1.24	0.0294	1.177	0	105	81.2	123	1.243	0.382	30	
1,2,3-Trichloropropane	1.42	0.0294	1.177	0	121	66.4	132	1.419	0.0349	30	
1,2,4-Trichlorobenzene	1.27	0.0294	1.177	0	108	68.9	139	1.261	0.295	30	
1,3-Dichlorobenzene	1.27	0.0235	1.177	0	108	87.8	120	1.270	0.290	30	
1,4-Dichlorobenzene	1.26	0.0235	1.177	0	107	88.1	119	1.258	0.561	30	
1,2-Dichlorobenzene	1.27	0.0235	1.177	0	108	88.1	120	1.270	0.128	30	
1,2-Dibromo-3-chloropropane	1.25	0.588	1.177	0	106	56.6	144	1.208	3.58	30	
Hexachloro-1,3-butadiene	1.38	0.0588	1.177	0	117	64.8	148	1.377	0.298	30	
1,2,3-Trichlorobenzene	1.29	0.0235	1.177	0	110	59.3	150	1.293	0.0884	30	
Surr: Dibromofluoromethane	1.56		1.471		106	80	116		0		
Surr: Toluene-d8	1.46		1.471		99.3	84.8	113		0		

Date: *6/9/2020*

Work Order: 2005098
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2005085-005BMSD** SampType: **MSD** Units: **mg/Kg-dry** Prep Date: **5/12/2020** RunNo: **59171**
Client ID: **BATCH** Batch ID: **28305** Analysis Date: **5/12/2020** SeqNo: **1182300**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: 1-Bromo-4-fluorobenzene	1.47		1.471		100	82.8	113		0		

Sample ID: **2005098-001BDUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **5/12/2020** RunNo: **59171**
Client ID: **358-B7-5** Batch ID: **28305** Analysis Date: **5/12/2020** SeqNo: **1182308**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	0.0185						0		30	
Chloromethane	ND	0.0463						0		30	
Vinyl chloride	ND	0.0231						0		30	
Bromomethane	ND	0.0463						0		30	
Trichlorofluoromethane (CFC-11)	ND	0.0185						0		30	
Chloroethane	ND	0.0463						0		30	
1,1-Dichloroethene	ND	0.0185						0		30	
Methylene chloride	ND	0.0185						0		30	
trans-1,2-Dichloroethene	ND	0.0185						0		30	
1,1-Dichloroethane	ND	0.0185						0		30	
cis-1,2-Dichloroethene	0.0529	0.0185						0.05089	3.80	30	
Chloroform	ND	0.0185						0		30	
1,1,1-Trichloroethane (TCA)	ND	0.0231						0		30	
1,1-Dichloropropene	ND	0.0185						0		30	
Carbon tetrachloride	ND	0.0463						0		30	
1,2-Dichloroethane (EDC)	ND	0.0185						0		30	
Trichloroethene (TCE)	ND	0.0185						0		30	
1,2-Dichloropropane	ND	0.0185						0		30	
Bromodichloromethane	ND	0.0185						0		30	
Dibromomethane	ND	0.0185						0		30	
cis-1,3-Dichloropropene	ND	0.0185						0		30	
trans-1,3-Dichloropropylene	ND	0.0185						0		30	
1,1,2-Trichloroethane	ND	0.0185						0		30	
1,3-Dichloropropane	ND	0.0231						0		30	

Date: *6/9/2020*

Work Order: 2005098
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2005098-001BDUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **5/12/2020** RunNo: **59171**
Client ID: **358-B7-5** Batch ID: **28305** Analysis Date: **5/12/2020** SeqNo: **1182308**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tetrachloroethene (PCE)	0.0437	0.0231						0.04384	0.310	30	
Dibromochloromethane	ND	0.0231						0		30	
1,2-Dibromoethane (EDB)	ND	0.00463						0		30	
Chlorobenzene	ND	0.0231						0		30	
1,1,1,2-Tetrachloroethane	ND	0.0231						0		30	
Bromoform	ND	0.0463						0		30	
1,1,2,2-Tetrachloroethane	ND	0.0185						0		30	
Bromobenzene	ND	0.0185						0		30	
2-Chlorotoluene	ND	0.0231						0		30	
4-Chlorotoluene	ND	0.0231						0		30	
1,2,3-Trichloropropane	ND	0.0231						0		30	
1,2,4-Trichlorobenzene	ND	0.0231						0		30	
1,3-Dichlorobenzene	ND	0.0185						0		30	
1,4-Dichlorobenzene	ND	0.0185						0		30	
1,2-Dichlorobenzene	ND	0.0185						0		30	
1,2-Dibromo-3-chloropropane	ND	0.463						0		30	
Hexachloro-1,3-butadiene	ND	0.0463						0		30	
1,2,3-Trichlorobenzene	ND	0.0185						0		30	
Surr: Dibromofluoromethane	1.11		1.157		95.7	80	116		0		
Surr: Toluene-d8	1.14		1.157		98.4	84.8	113		0		
Surr: 1-Bromo-4-fluorobenzene	1.12		1.157		96.5	82.8	113		0		

Sample Log-In Check List

Client Name:	**ONEILL**	Work Order Number:	**2005098**
Logged by:	**Clare Griggs**	Date Received:	**5/11/2020 4:45:00 PM**

Chain of Custody

1. Is Chain of Custody complete? Yes ☑ No ☐ Not Present ☐
2. How was the sample delivered? Client

Log In

3. Coolers are present? Yes ☑ No ☐ NA ☐
4. Shipping container/cooler in good condition? Yes ☑ No ☐
5. Custody Seals present on shipping container/cooler? (Refer to comments for Custody Seals not intact) Yes ☐ No ☐ Not Present ☑
6. Was an attempt made to cool the samples? Yes ☑ No ☐ NA ☐
7. Were all items received at a temperature of >2°C to 6°C * Yes ☐ No ☑ NA ☐

Samples were collected the same day and chilled.

8. Sample(s) in proper container(s)? Yes ☑ No ☐
9. Sufficient sample volume for indicated test(s)? Yes ☑ No ☐
10. Are samples properly preserved? Yes ☑ No ☐
11. Was preservative added to bottles? Yes ☐ No ☑ NA ☐
12. Is there headspace in the VOA vials? Yes ☐ No ☐ NA ☑
13. Did all samples containers arrive in good condition(unbroken)? Yes ☑ No ☐
14. Does paperwork match bottle labels? Yes ☑ No ☐
15. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐
16. Is it clear what analyses were requested? Yes ☑ No ☐
17. Were all holding times able to be met? Yes ☑ No ☐

Special Handling (if applicable)

18. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified:		Date:	
By Whom:		Via:	☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:			
Client Instructions:			

19. Additional remarks:

Item Information

Item #	Temp ºC
Cooler	6.2
Sample	6.3

* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C

Fremont Analytical
3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790
Fax: 206-352-7178

Chain of Custody Record & Laboratory Services Agreement

Date: 5/11/20 Page: 1 of: 2

Laboratory Project No (internal): 2005098

Project Name: F200

Project No: 2021

Collected by: ATKINS

Location: F1358

Report To (PM): ATKINS

PM Email:

Client: OSG

Address:

City, State, Zip:

Telephone:

Fax:

Special Remarks:

Sample Disposal: ☐ Return to client ☐ Disposal by lab (after 30 days)

	Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	VOCs (EPA 8260 / 624)	GX/BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DX)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8) Total (T) | Dissolved (D)	Anions (IC)***	EDB (8011)	Comments
1	358-B7-5	5/11/20	825	S	X											
2	-7.5		830													
3	-10		845		X											
4	-15		855													
5	-20		905		X											
6	-25		910													
7	358-B8-2.5		1030													
8	-5		1035		X											
9	-7.5		1040													
10	-10		1045													

*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

**Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL *Individual:* Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti Tl U V Zn

***Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above and that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished	Date/Time	Received	Date/Time
x [signature]	5/11/20 - 1620	x [signature]	5/11/12 1645
x		x	

Turn-around Time:
- ☑ Standard
- ☐ 3 Day
- ☐ 2 Day
- ☐ Next Day
- Same Day ____ (specify)

Chain of Custody Record & Laboratory Services Agreement

Fremont Analytical
3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790
Fax: 206-352-7178

Date: 5/11/20 Page: 2 of: 2

Laboratory Project No (internal): 2005098

Project Name: F200

Project No: 2021

Collected by: ATKINS

Location: FL358

Report To (PM): ATKINS

PM Email:

Client: OSG

Address:

City, State, Zip:

Telephone:

Fax:

Special Remarks:

Sample Disposal: ☐ Return to client ☐ Disposal by lab (after 30 days)

	Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	VOCs (EPA 8260 / 624)	GX/BTEX	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DX)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T) | Dissolved (D)	Anions (IC)***	EDB (8011)	Comments
1	358-B8-12.5	5/11/20	1050	S	X													
2	-15		1100															
3	-20		1105		X													
4	-25		1115															
5	358-B9-2.5		1315															
6	-7.5		1330		X													
7	-10		1335															
8	-12.5		1340		X													
9	-15		1345															
10	-20		1350		X													
	-25		1400															

*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

**Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL *Individual:* Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti Tl U V Zn

***Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above and that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Turn-around Time:
- ☑ Standard
- ☐ 3 Day
- ☐ 2 Day
- ☐ Next Day
- Same Day ____ (specify)

Relinquished	Date/Time	Received	Date/Time
x [signature]	5/11/20 -1620	x [signature]	5/11/20 1645
Relinquished	Date/Time	Received	Date/Time
x		x	

Fremont Analytical
3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790
Fax: 206-352-7178

Chain of Custody Record & Laboratory Services Agreement

Date: 5/11/20 Page: 1 of: 2

Laboratory Project No (internal): 2005098

Project Name: F200

Project No: 2021

Collected by: ATKINS

Location: FL358

Report To (PM): ATK165

PM Email:

Client: OSG

Address:

City, State, Zip:

Telephone:

Fax:

Special Remarks:

Sample Disposal: ☐ Return to client ☐ Disposal by lab (after 30 days)

	Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	VOCs (EPA 8260 / 624)	GX/BTEX	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DX)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T) | Dissolved (D)	Anions (IC)***	EDB (8011)					Comments
1	358-B7-5	5/11/20	825	S	X																	
2	-7.5		830																			
3	-10		845		X																	
4	-15		855																			
5	-20		905		X																	
6	-25		910																			
7	358-B8-2.5		1030		X																	
8	-5		1035		X																	
9	-7.5		1040																			
10	-10		1045																			

*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

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- ☐ 2 Day
- ☐ Next Day
- Same Day _____ (specify)

Relinquished	Date/Time	Received	Date/Time
x [signature]	5/11/20 - 1620	x [signature]	5/11/12 1645
Relinquished	Date/Time	Received	Date/Time
x		x	

Fremont Analytical
3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790
Fax: 206-352-7178

Chain of Custody Record & Laboratory Services Agreement

Date: 5/11/20 Page: 2 of: 2 Laboratory Project No (internal): 2005098

Project Name: F200

Project No: 2021

Collected by: ATKINS

Location: F358

Report To (PM): ATKINS

PM Email:

Client: OSG

Address:

City, State, Zip:

Telephone:

Fax:

Special Remarks:

* 2 DAY TAT *

Edits by ART 6/8 per VA.

Sample Disposal: ☐ Return to client ☐ Disposal by lab (after 30 days)

	Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	HVOCs (EPA 8260 / 624)	GX/BTEX	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DX)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8) Total (T) | Dissolved (D)	Anions (IC)***	EDB (8011)	Comments
1	358-B8-12.5	5/11/20	1050	S	X												
2	-15		1102														
3	-20		1105		X												
4	-25		1115														
5	358-B9-2.5		1315		X												
6	-7.5		1330		X												
7	-10		1335														
8	-12.5		1340		X												
9	-15		1345														
10	-20		1350		X												
	-25		1400														

*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

**Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL *Individual:* Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti Tl U V Zn

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- ☐ 3 Day
- ☐ 2 Day
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- Same Day ____ (specify)

Relinquished	Date/Time	Received	Date/Time
x [signature]	5/11/20 - 1620	x [signature]	5/11/20 1645
Relinquished	Date/Time	Received	Date/Time
x		x	

3600 Fremont Ave. N.
Seattle, WA 98103
T: (206) 352-3790
F: (206) 352-7178
info@fremontanalytical.com

O'Neill Service Group
Vance Atkins
17619 NE 67th Court, Suite 100
Redmond, WA 98052

RE: F200
Work Order Number: 2005099

May 19, 2020

Attention Vance Atkins:

Fremont Analytical, Inc. received 3 sample(s) on 5/11/2020 for the analyses presented in the following report.

Volatile Organic Compounds by EPA Method 8260D

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Brianna Barnes
Project Manager

Date: *05/19/2020*

CLIENT: O'Neill Service Group
Project: F200
Work Order: 2005099

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
2005099-001	358-B6-GW	05/11/2020 10:15 AM	05/11/2020 4:45 PM
2005099-002	358-B7-GW	05/11/2020 2:45 PM	05/11/2020 4:45 PM
2005099-003	Trip Blank	05/06/2020 12:00 AM	05/11/2020 4:45 PM

Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned

Case Narrative

WO#: **2005099**

Date: **5/19/2020**

CLIENT: O'Neill Service Group

Project: F200

I. SAMPLE RECEIPT:
Samples receipt information is recorded on the attached Sample Receipt Checklist.

II. GENERAL REPORTING COMMENTS:
Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

III. ANALYSES AND EXCEPTIONS:
Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

Qualifiers:

* - Flagged value is not within established control limits
B - Analyte detected in the associated Method Blank
D - Dilution was required
E - Value above quantitation range
H - Holding times for preparation or analysis exceeded
I - Analyte with an internal standard that does not meet established acceptance criteria
J - Analyte detected below Reporting Limit
N - Tentatively Identified Compound (TIC)
Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF)
S - Spike recovery outside accepted recovery limits
ND - Not detected at the Reporting Limit
R - High relative percent difference observed

Acronyms:

%Rec - Percent Recovery
CCB - Continued Calibration Blank
CCV - Continued Calibration Verification
DF - Dilution Factor
HEM - Hexane Extractable Material
ICV - Initial Calibration Verification
LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
MB or MBLANK - Method Blank
MDL - Method Detection Limit
MS/MSD - Matrix Spike / Matrix Spike Duplicate
PDS - Post Digestion Spike
Ref Val - Reference Value
RL - Reporting Limit
RPD - Relative Percent Difference
SD - Serial Dilution
SGT - Silica Gel Treatment
SPK - Spike
Surr - Surrogate

Analytical Report

Work Order: **2005099**
Date Reported: **5/19/2020**

Client: O'Neill Service Group
Collection Date: 5/11/2020 10:15:00 AM
Project: F200
Lab ID: 2005099-001
Matrix: Groundwater
Client Sample ID: 358-B6-GW

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28339 Analyst: KT

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	1.00		µg/L	1	5/16/2020 1:47:05 AM
Chloromethane	ND	2.00		µg/L	1	5/16/2020 1:47:05 AM
Vinyl chloride	ND	0.200		µg/L	1	5/16/2020 1:47:05 AM
Bromomethane	ND	1.00		µg/L	1	5/16/2020 1:47:05 AM
Trichlorofluoromethane (CFC-11)	ND	1.00		µg/L	1	5/16/2020 1:47:05 AM
Chloroethane	ND	1.00		µg/L	1	5/16/2020 1:47:05 AM
1,1-Dichloroethene	ND	1.00		µg/L	1	5/16/2020 1:47:05 AM
Methylene chloride	ND	1.00		µg/L	1	5/16/2020 1:47:05 AM
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	5/16/2020 1:47:05 AM
1,1-Dichloroethane	ND	1.00		µg/L	1	5/16/2020 1:47:05 AM
cis-1,2-Dichloroethene	17.8	1.00		µg/L	1	5/16/2020 1:47:05 AM
Chloroform	ND	1.00		µg/L	1	5/16/2020 1:47:05 AM
1,1,1-Trichloroethane (TCA)	ND	1.00		µg/L	1	5/16/2020 1:47:05 AM
1,1-Dichloropropene	ND	1.00		µg/L	1	5/16/2020 1:47:05 AM
Carbon tetrachloride	ND	1.00		µg/L	1	5/16/2020 1:47:05 AM
1,2-Dichloroethane (EDC)	ND	1.00		µg/L	1	5/16/2020 1:47:05 AM
Trichloroethene (TCE)	6.24	0.500		µg/L	1	5/16/2020 1:47:05 AM
1,2-Dichloropropane	ND	1.00		µg/L	1	5/16/2020 1:47:05 AM
Bromodichloromethane	ND	1.00		µg/L	1	5/16/2020 1:47:05 AM
Dibromomethane	ND	1.00		µg/L	1	5/16/2020 1:47:05 AM
cis-1,3-Dichloropropene	ND	1.00		µg/L	1	5/16/2020 1:47:05 AM
trans-1,3-Dichloropropylene	ND	1.00		µg/L	1	5/16/2020 1:47:05 AM
1,1,2-Trichloroethane	ND	1.00		µg/L	1	5/16/2020 1:47:05 AM
1,3-Dichloropropane	ND	1.00		µg/L	1	5/16/2020 1:47:05 AM
Tetrachloroethene (PCE)	6.08	1.00		µg/L	1	5/16/2020 1:47:05 AM
Dibromochloromethane	ND	1.00		µg/L	1	5/16/2020 1:47:05 AM
1,2-Dibromoethane (EDB)	ND	0.250		µg/L	1	5/16/2020 1:47:05 AM
Chlorobenzene	ND	1.00		µg/L	1	5/16/2020 1:47:05 AM
1,1,1,2-Tetrachloroethane	ND	1.00		µg/L	1	5/16/2020 1:47:05 AM
Bromoform	ND	2.00		µg/L	1	5/16/2020 1:47:05 AM
1,1,2,2-Tetrachloroethane	ND	1.00		µg/L	1	5/16/2020 1:47:05 AM
Bromobenzene	ND	1.00		µg/L	1	5/16/2020 1:47:05 AM
2-Chlorotoluene	ND	1.00		µg/L	1	5/16/2020 1:47:05 AM
4-Chlorotoluene	ND	1.00		µg/L	1	5/16/2020 1:47:05 AM
1,2,3-Trichloropropane	ND	1.00		µg/L	1	5/16/2020 1:47:05 AM
1,2,4-Trichlorobenzene	ND	2.00		µg/L	1	5/16/2020 1:47:05 AM
1,3-Dichlorobenzene	ND	1.00		µg/L	1	5/16/2020 1:47:05 AM
1,4-Dichlorobenzene	ND	1.00		µg/L	1	5/16/2020 1:47:05 AM
1,2-Dichlorobenzene	ND	1.00		µg/L	1	5/16/2020 1:47:05 AM

Analytical Report

Work Order: **2005099**
Date Reported: **5/19/2020**

Client: O'Neill Service Group
Collection Date: 5/11/2020 10:15:00 AM
Project: F200
Lab ID: 2005099-001
Matrix: Groundwater
Client Sample ID: 358-B6-GW

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28339		Analyst: KT
1,2-Dibromo-3-chloropropane	ND	1.00		µg/L	1	5/16/2020 1:47:05 AM
Hexachloro-1,3-butadiene	ND	4.00		µg/L	1	5/16/2020 1:47:05 AM
1,2,3-Trichlorobenzene	ND	4.00		µg/L	1	5/16/2020 1:47:05 AM
Surr: Dibromofluoromethane	99.0	81.1 - 118		%Rec	1	5/16/2020 1:47:05 AM
Surr: Toluene-d8	98.8	85.7 - 113		%Rec	1	5/16/2020 1:47:05 AM
Surr: 1-Bromo-4-fluorobenzene	98.5	84.2 - 111		%Rec	1	5/16/2020 1:47:05 AM

Analytical Report

Work Order: **2005099**
Date Reported: **5/19/2020**

Client: O'Neill Service Group
Collection Date: 5/11/2020 2:45:00 PM
Project: F200
Lab ID: 2005099-002
Matrix: Groundwater
Client Sample ID: 358-B7-GW

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28339 Analyst: KT

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	1.00		µg/L	1	5/16/2020 2:17:21 AM
Chloromethane	ND	2.00		µg/L	1	5/16/2020 2:17:21 AM
Vinyl chloride	18.8	0.200		µg/L	1	5/16/2020 2:17:21 AM
Bromomethane	ND	1.00		µg/L	1	5/16/2020 2:17:21 AM
Trichlorofluoromethane (CFC-11)	ND	1.00		µg/L	1	5/16/2020 2:17:21 AM
Chloroethane	ND	1.00		µg/L	1	5/16/2020 2:17:21 AM
1,1-Dichloroethene	ND	1.00		µg/L	1	5/16/2020 2:17:21 AM
Methylene chloride	ND	1.00		µg/L	1	5/16/2020 2:17:21 AM
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	5/16/2020 2:17:21 AM
1,1-Dichloroethane	ND	1.00		µg/L	1	5/16/2020 2:17:21 AM
cis-1,2-Dichloroethene	33.6	1.00		µg/L	1	5/16/2020 2:17:21 AM
Chloroform	ND	1.00		µg/L	1	5/16/2020 2:17:21 AM
1,1,1-Trichloroethane (TCA)	ND	1.00		µg/L	1	5/16/2020 2:17:21 AM
1,1-Dichloropropene	ND	1.00		µg/L	1	5/16/2020 2:17:21 AM
Carbon tetrachloride	ND	1.00		µg/L	1	5/16/2020 2:17:21 AM
1,2-Dichloroethane (EDC)	ND	1.00		µg/L	1	5/16/2020 2:17:21 AM
Trichloroethene (TCE)	2.99	0.500		µg/L	1	5/16/2020 2:17:21 AM
1,2-Dichloropropane	ND	1.00		µg/L	1	5/16/2020 2:17:21 AM
Bromodichloromethane	ND	1.00		µg/L	1	5/16/2020 2:17:21 AM
Dibromomethane	ND	1.00		µg/L	1	5/16/2020 2:17:21 AM
cis-1,3-Dichloropropene	ND	1.00		µg/L	1	5/16/2020 2:17:21 AM
trans-1,3-Dichloropropylene	ND	1.00		µg/L	1	5/16/2020 2:17:21 AM
1,1,2-Trichloroethane	ND	1.00		µg/L	1	5/16/2020 2:17:21 AM
1,3-Dichloropropane	ND	1.00		µg/L	1	5/16/2020 2:17:21 AM
Tetrachloroethene (PCE)	ND	1.00		µg/L	1	5/16/2020 2:17:21 AM
Dibromochloromethane	ND	1.00		µg/L	1	5/16/2020 2:17:21 AM
1,2-Dibromoethane (EDB)	ND	0.250		µg/L	1	5/16/2020 2:17:21 AM
Chlorobenzene	ND	1.00		µg/L	1	5/16/2020 2:17:21 AM
1,1,1,2-Tetrachloroethane	ND	1.00		µg/L	1	5/16/2020 2:17:21 AM
Bromoform	ND	2.00		µg/L	1	5/16/2020 2:17:21 AM
1,1,2,2-Tetrachloroethane	ND	1.00		µg/L	1	5/16/2020 2:17:21 AM
Bromobenzene	ND	1.00		µg/L	1	5/16/2020 2:17:21 AM
2-Chlorotoluene	ND	1.00		µg/L	1	5/16/2020 2:17:21 AM
4-Chlorotoluene	ND	1.00		µg/L	1	5/16/2020 2:17:21 AM
1,2,3-Trichloropropane	ND	1.00		µg/L	1	5/16/2020 2:17:21 AM
1,2,4-Trichlorobenzene	ND	2.00		µg/L	1	5/16/2020 2:17:21 AM
1,3-Dichlorobenzene	ND	1.00		µg/L	1	5/16/2020 2:17:21 AM
1,4-Dichlorobenzene	ND	1.00		µg/L	1	5/16/2020 2:17:21 AM
1,2-Dichlorobenzene	ND	1.00		µg/L	1	5/16/2020 2:17:21 AM

Analytical Report

Work Order: **2005099**
Date Reported: **5/19/2020**

Client: O'Neill Service Group
Collection Date: 5/11/2020 2:45:00 PM
Project: F200
Lab ID: 2005099-002
Matrix: Groundwater
Client Sample ID: 358-B7-GW

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28339		Analyst: KT
1,2-Dibromo-3-chloropropane	ND	1.00		µg/L	1	5/16/2020 2:17:21 AM
Hexachloro-1,3-butadiene	ND	4.00		µg/L	1	5/16/2020 2:17:21 AM
1,2,3-Trichlorobenzene	ND	4.00		µg/L	1	5/16/2020 2:17:21 AM
Surr: Dibromofluoromethane	96.6	81.1 - 118		%Rec	1	5/16/2020 2:17:21 AM
Surr: Toluene-d8	99.3	85.7 - 113		%Rec	1	5/16/2020 2:17:21 AM
Surr: 1-Bromo-4-fluorobenzene	98.8	84.2 - 111		%Rec	1	5/16/2020 2:17:21 AM

Fremont Analytical

Date: *5/19/2020*

Work Order: 2005099
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **LCS-28339** SampType: **LCS** Units: **µg/L** Prep Date: **5/15/2020** RunNo: **59216**
Client ID: **LCSW** Batch ID: **28339** Analysis Date: **5/15/2020** SeqNo: **1183340**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	14.7	1.00	20.00	0	73.5	14.5	175				
Chloromethane	16.8	2.00	20.00	0	84.1	44.8	153				
Vinyl chloride	18.2	0.200	20.00	0	90.9	64.1	131				
Bromomethane	20.1	1.00	20.00	0	100	34.2	171				
Trichlorofluoromethane (CFC-11)	19.3	1.00	20.00	0	96.4	77.4	121				
Chloroethane	19.3	1.00	20.00	0	96.5	73.3	123				
1,1-Dichloroethene	19.5	1.00	20.00	0	97.4	81.8	116				
Methylene chloride	20.2	1.00	20.00	0	101	80.4	116				
trans-1,2-Dichloroethene	19.9	1.00	20.00	0	99.7	83.1	115				
1,1-Dichloroethane	19.4	1.00	20.00	0	97.1	79.5	119				
cis-1,2-Dichloroethene	19.8	1.00	20.00	0	99.2	83.5	115				
Chloroform	20.1	1.00	20.00	0	101	81	117				
1,1,1-Trichloroethane (TCA)	19.7	1.00	20.00	0	98.5	82.8	116				
1,1-Dichloropropene	19.9	1.00	20.00	0	99.6	81.5	117				
Carbon tetrachloride	19.6	1.00	20.00	0	98.1	83.3	114				
1,2-Dichloroethane (EDC)	19.8	1.00	20.00	0	98.8	78.4	118				
Trichloroethene (TCE)	20.3	0.500	20.00	0	101	82.2	116				
1,2-Dichloropropane	20.5	1.00	20.00	0	103	78	120				
Bromodichloromethane	19.9	1.00	20.00	0	99.5	80.9	116				
Dibromomethane	20.2	1.00	20.00	0	101	80	117				
cis-1,3-Dichloropropene	20.6	1.00	20.00	0	103	79.8	118				
trans-1,3-Dichloropropylene	20.5	1.00	20.00	0	102	75.8	122				
1,1,2-Trichloroethane	20.7	1.00	20.00	0	103	77.8	120				
1,3-Dichloropropane	20.6	1.00	20.00	0	103	76.5	121				
Tetrachloroethene (PCE)	20.3	1.00	20.00	0	101	86.2	114				
Dibromochloromethane	21.0	1.00	20.00	0	105	78	117				
1,2-Dibromoethane (EDB)	20.6	0.250	20.00	0	103	76.8	120				
Chlorobenzene	19.8	1.00	20.00	0	99.1	85.2	112				
1,1,1,2-Tetrachloroethane	19.7	1.00	20.00	0	98.4	85.5	110				

Fremont Analytical

Date: *5/19/2020*

Work Order: 2005099
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **LCS-28339** SampType: **LCS** Units: **µg/L** Prep Date: **5/15/2020** RunNo: **59216**
Client ID: **LCSW** Batch ID: **28339** Analysis Date: **5/15/2020** SeqNo: **1183340**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromoform	19.7	2.00	20.00	0	98.6	73.4	119				
1,1,2,2-Tetrachloroethane	20.1	1.00	20.00	0	101	74.8	124				
Bromobenzene	19.7	1.00	20.00	0	98.3	83.2	116				
2-Chlorotoluene	20.0	1.00	20.00	0	100	81.8	119				
4-Chlorotoluene	19.6	1.00	20.00	0	98.0	81.6	118				
1,2,3-Trichloropropane	19.9	1.00	20.00	0	99.6	73.2	126				
1,2,4-Trichlorobenzene	19.6	2.00	20.00	0	98.1	68.7	138				
1,3-Dichlorobenzene	20.5	1.00	20.00	0	103	90.7	114				
1,4-Dichlorobenzene	20.6	1.00	20.00	0	103	90.1	114				
1,2-Dichlorobenzene	20.5	1.00	20.00	0	103	90.1	115				
1,2-Dibromo-3-chloropropane	19.2	1.00	20.00	0	95.9	54.8	147				
Hexachloro-1,3-butadiene	20.3	4.00	20.00	0	101	73.6	134				
1,2,3-Trichlorobenzene	20.3	4.00	20.00	0	102	57.1	150				
Surr: Dibromofluoromethane	26.0		25.00		104	81.1	118				
Surr: Toluene-d8	25.3		25.00		101	85.7	113				
Surr: 1-Bromo-4-fluorobenzene	25.8		25.00		103	84.2	111				

Sample ID: **MB-28339** SampType: **MBLK** Units: **µg/L** Prep Date: **5/15/2020** RunNo: **59216**
Client ID: **MBLKW** Batch ID: **28339** Analysis Date: **5/15/2020** SeqNo: **1183341**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	1.00									
Chloromethane	ND	2.00									
Vinyl chloride	ND	0.200									
Bromomethane	ND	1.00									
Trichlorofluoromethane (CFC-11)	ND	1.00									
Chloroethane	ND	1.00									
1,1-Dichloroethene	ND	1.00									
Methylene chloride	ND	1.00									

Date: *5/19/2020*

Work Order: 2005099
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **MB-28339** SampType: **MBLK** Units: **µg/L** Prep Date: **5/15/2020** RunNo: **59216**
Client ID: **MBLKW** Batch ID: **28339** Analysis Date: **5/15/2020** SeqNo: **1183341**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
trans-1,2-Dichloroethene	ND	1.00									
1,1-Dichloroethane	ND	1.00									
cis-1,2-Dichloroethene	ND	1.00									
Chloroform	ND	1.00									
1,1,1-Trichloroethane (TCA)	ND	1.00									
1,1-Dichloropropene	ND	1.00									
Carbon tetrachloride	ND	1.00									
1,2-Dichloroethane (EDC)	ND	1.00									
Trichloroethene (TCE)	ND	0.500									
1,2-Dichloropropane	ND	1.00									
Bromodichloromethane	ND	1.00									
Dibromomethane	ND	1.00									
cis-1,3-Dichloropropene	ND	1.00									
trans-1,3-Dichloropropylene	ND	1.00									
1,1,2-Trichloroethane	ND	1.00									
1,3-Dichloropropane	ND	1.00									
Tetrachloroethene (PCE)	ND	1.00									
Dibromochloromethane	ND	1.00									
1,2-Dibromoethane (EDB)	ND	0.250									
Chlorobenzene	ND	1.00									
1,1,1,2-Tetrachloroethane	ND	1.00									
Bromoform	ND	2.00									
1,1,2,2-Tetrachloroethane	ND	1.00									
Bromobenzene	ND	1.00									
2-Chlorotoluene	ND	1.00									
4-Chlorotoluene	ND	1.00									
1,2,3-Trichloropropane	ND	1.00									
1,2,4-Trichlorobenzene	ND	2.00									
1,3-Dichlorobenzene	ND	1.00									

Date: *5/19/2020*

Work Order: 2005099
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **MB-28339** SampType: **MBLK** Units: **µg/L** Prep Date: **5/15/2020** RunNo: **59216**
Client ID: **MBLKW** Batch ID: **28339** Analysis Date: **5/15/2020** SeqNo: **1183341**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,4-Dichlorobenzene	ND	1.00									
1,2-Dichlorobenzene	ND	1.00									
1,2-Dibromo-3-chloropropane	ND	1.00									
Hexachloro-1,3-butadiene	ND	4.00									
1,2,3-Trichlorobenzene	ND	4.00									
Surr: Dibromofluoromethane	24.6		25.00		98.3	81.1	118				
Surr: Toluene-d8	24.9		25.00		99.7	85.7	113				
Surr: 1-Bromo-4-fluorobenzene	24.8		25.00		99.1	84.2	111				

Sample ID: **2005097-001ADUP** SampType: **DUP** Units: **µg/L** Prep Date: **5/15/2020** RunNo: **59216**
Client ID: **BATCH** Batch ID: **28339** Analysis Date: **5/15/2020** SeqNo: **1183297**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	1.00						0		30	
Chloromethane	ND	2.00						0		30	
Vinyl chloride	ND	0.200						0		30	
Bromomethane	ND	1.00						0		30	
Trichlorofluoromethane (CFC-11)	ND	1.00						0		30	
Chloroethane	ND	1.00						0		30	
1,1-Dichloroethene	ND	1.00						0		30	
Methylene chloride	ND	1.00						0		30	
trans-1,2-Dichloroethene	ND	1.00						0		30	
1,1-Dichloroethane	ND	1.00						0		30	
cis-1,2-Dichloroethene	ND	1.00						0		30	
Chloroform	ND	1.00						0		30	
1,1,1-Trichloroethane (TCA)	ND	1.00						0		30	
1,1-Dichloropropene	ND	1.00						0		30	
Carbon tetrachloride	ND	1.00						0		30	
1,2-Dichloroethane (EDC)	ND	1.00						0		30	

Date: *5/19/2020*

Work Order: 2005099
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2005097-001ADUP** SampType: **DUP** Units: **µg/L** Prep Date: **5/15/2020** RunNo: **59216**
Client ID: **BATCH** Batch ID: **28339** Analysis Date: **5/15/2020** SeqNo: **1183297**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Trichloroethene (TCE)	ND	0.500						0		30	
1,2-Dichloropropane	ND	1.00						0		30	
Bromodichloromethane	ND	1.00						0		30	
Dibromomethane	ND	1.00						0		30	
cis-1,3-Dichloropropene	ND	1.00						0		30	
trans-1,3-Dichloropropylene	ND	1.00						0		30	
1,1,2-Trichloroethane	ND	1.00						0		30	
1,3-Dichloropropane	ND	1.00						0		30	
Tetrachloroethene (PCE)	ND	1.00						0		30	
Dibromochloromethane	ND	1.00						0		30	
1,2-Dibromoethane (EDB)	ND	0.250						0		30	
Chlorobenzene	ND	1.00						0		30	
1,1,1,2-Tetrachloroethane	ND	1.00						0		30	
Bromoform	ND	2.00						0		30	
1,1,2,2-Tetrachloroethane	ND	1.00						0		30	
Bromobenzene	ND	1.00						0		30	
2-Chlorotoluene	ND	1.00						0		30	
4-Chlorotoluene	ND	1.00						0		30	
1,2,3-Trichloropropane	ND	1.00						0		30	
1,2,4-Trichlorobenzene	ND	2.00						0		30	
1,3-Dichlorobenzene	ND	1.00						0		30	
1,4-Dichlorobenzene	ND	1.00						0		30	
1,2-Dichlorobenzene	ND	1.00						0		30	
1,2-Dibromo-3-chloropropane	ND	1.00						0		30	
Hexachloro-1,3-butadiene	ND	4.00						0		30	
1,2,3-Trichlorobenzene	ND	4.00						0		30	
Surr: Dibromofluoromethane	25.3		25.00		101	81.1	118		0		
Surr: Toluene-d8	25.0		25.00		100	85.7	113		0		
Surr: 1-Bromo-4-fluorobenzene	24.9		25.00		99.5	84.2	111		0		

Date: *5/19/2020*

Work Order: 2005099
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2005097-001ADUP**	SampType: **DUP**	Units: **µg/L**	Prep Date: **5/15/2020**	RunNo: **59216**
Client ID: **BATCH**	Batch ID: **28339**		Analysis Date: **5/15/2020**	SeqNo: **1183297**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sample ID: **2005107-001ADUP**	SampType: **DUP**	Units: **µg/L**	Prep Date: **5/15/2020**	RunNo: **59216**
Client ID: **BATCH**	Batch ID: **28339**		Analysis Date: **5/15/2020**	SeqNo: **1183309**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	1.00						0		30	
Chloromethane	ND	2.00						0		30	
Vinyl chloride	ND	0.200						0		30	
Bromomethane	ND	1.00						0		30	
Trichlorofluoromethane (CFC-11)	ND	1.00						0		30	
Chloroethane	ND	1.00						0		30	
1,1-Dichloroethene	ND	1.00						0		30	
Methylene chloride	ND	1.00						0		30	
trans-1,2-Dichloroethene	ND	1.00						0		30	
1,1-Dichloroethane	ND	1.00						0		30	
cis-1,2-Dichloroethene	ND	1.00						0		30	
Chloroform	ND	1.00						0		30	
1,1,1-Trichloroethane (TCA)	ND	1.00						0		30	
1,1-Dichloropropene	ND	1.00						0		30	
Carbon tetrachloride	ND	1.00						0		30	
1,2-Dichloroethane (EDC)	ND	1.00						0		30	
Trichloroethene (TCE)	ND	0.500						0		30	
1,2-Dichloropropane	ND	1.00						0		30	
Bromodichloromethane	ND	1.00						0		30	
Dibromomethane	ND	1.00						0		30	
cis-1,3-Dichloropropene	ND	1.00						0		30	
trans-1,3-Dichloropropylene	ND	1.00						0		30	
1,1,2-Trichloroethane	ND	1.00						0		30	
1,3-Dichloropropane	ND	1.00						0		30	

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Date: *5/19/2020*

Work Order: 2005099
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2005107-001ADUP** SampType: **DUP** Units: **µg/L** Prep Date: **5/15/2020** RunNo: **59216**
Client ID: **BATCH** Batch ID: **28339** Analysis Date: **5/15/2020** SeqNo: **1183309**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tetrachloroethene (PCE)	ND	1.00						0		30	
Dibromochloromethane	ND	1.00						0		30	
1,2-Dibromoethane (EDB)	ND	0.250						0		30	
Chlorobenzene	ND	1.00						0		30	
1,1,1,2-Tetrachloroethane	ND	1.00						0		30	
Bromoform	ND	2.00						0		30	
1,1,2,2-Tetrachloroethane	ND	1.00						0		30	
Bromobenzene	ND	1.00						0		30	
2-Chlorotoluene	ND	1.00						0		30	
4-Chlorotoluene	ND	1.00						0		30	
1,2,3-Trichloropropane	ND	1.00						0		30	
1,2,4-Trichlorobenzene	ND	2.00						0		30	
1,3-Dichlorobenzene	ND	1.00						0		30	
1,4-Dichlorobenzene	ND	1.00						0		30	
1,2-Dichlorobenzene	ND	1.00						0		30	
1,2-Dibromo-3-chloropropane	ND	1.00						0		30	
Hexachloro-1,3-butadiene	ND	4.00						0		30	
1,2,3-Trichlorobenzene	ND	4.00						0		30	
Surr: Dibromofluoromethane	24.8		25.00		99.4	81.1	118		0		
Surr: Toluene-d8	24.7		25.00		99.0	85.7	113		0		
Surr: 1-Bromo-4-fluorobenzene	24.8		25.00		99.0	84.2	111		0		

Sample ID: **2005132-003AMS** SampType: **MS** Units: **µg/L** Prep Date: **5/15/2020** RunNo: **59216**
Client ID: **BATCH** Batch ID: **28339** Analysis Date: **5/15/2020** SeqNo: **1183326**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	13.9	1.00	20.00	0	69.5	6.11	189				
Chloromethane	16.2	2.00	20.00	0	81.0	23.9	203				
Vinyl chloride	19.0	0.200	20.00	0	95.0	53.4	152				

Date: *5/19/2020*

Work Order: 2005099
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2005132-003AMS** SampType: **MS** Units: **µg/L** Prep Date: **5/15/2020** RunNo: **59216**
Client ID: **BATCH** Batch ID: **28339** Analysis Date: **5/15/2020** SeqNo: **1183326**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromomethane	20.3	1.00	20.00	0	101	29.7	169				
Trichlorofluoromethane (CFC-11)	20.5	1.00	20.00	0	103	76.7	132				
Chloroethane	20.3	1.00	20.00	0	101	62.5	149				
1,1-Dichloroethene	21.4	1.00	20.00	0	107	84.5	127				
Methylene chloride	20.9	1.00	20.00	0	105	79.9	125				
trans-1,2-Dichloroethene	21.4	1.00	20.00	0	107	86.2	125				
1,1-Dichloroethane	20.5	1.00	20.00	0	102	78.4	131				
cis-1,2-Dichloroethene	20.7	1.00	20.00	0	104	84.5	124				
Chloroform	27.7	1.00	20.00	6.333	107	75.2	131				
1,1,1-Trichloroethane (TCA)	21.0	1.00	20.00	0	105	80.4	131				
1,1-Dichloropropene	21.1	1.00	20.00	0	105	84.2	129				
Carbon tetrachloride	21.2	1.00	20.00	0	106	81.3	130				
1,2-Dichloroethane (EDC)	20.3	1.00	20.00	0	102	74.8	130				
Trichloroethene (TCE)	21.6	0.500	20.00	0	108	82.7	128				
1,2-Dichloropropane	21.0	1.00	20.00	0	105	78.2	130				
Bromodichloromethane	20.9	1.00	20.00	0	104	75.2	130				
Dibromomethane	21.0	1.00	20.00	0	105	74.7	129				
cis-1,3-Dichloropropene	20.5	1.00	20.00	0	103	66.8	129				
trans-1,3-Dichloropropylene	20.0	1.00	20.00	0	100	62.6	132				
1,1,2-Trichloroethane	21.7	1.00	20.00	0	109	70.9	135				
1,3-Dichloropropane	21.3	1.00	20.00	0	106	70.5	132				
Tetrachloroethene (PCE)	21.6	1.00	20.00	0	108	83.2	128				
Dibromochloromethane	21.8	1.00	20.00	0	109	72.9	130				
1,2-Dibromoethane (EDB)	21.2	0.250	20.00	0	106	69.3	132				
Chlorobenzene	20.8	1.00	20.00	0	104	87.8	120				
1,1,1,2-Tetrachloroethane	20.7	1.00	20.00	0	104	86.1	119				
Bromoform	20.6	2.00	20.00	0	103	72.7	127				
1,1,2,2-Tetrachloroethane	20.3	1.00	20.00	0	102	72.6	133				
Bromobenzene	20.5	1.00	20.00	0	103	81.4	126				

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Date: *5/19/2020*

Work Order: 2005099
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2005132-003AMS** SampType: **MS** Units: **µg/L** Prep Date: **5/15/2020** RunNo: **59216**
Client ID: **BATCH** Batch ID: **28339** Analysis Date: **5/15/2020** SeqNo: **1183326**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2-Chlorotoluene	20.9	1.00	20.00	0	104	70.2	143				
4-Chlorotoluene	20.5	1.00	20.00	0	102	73.5	136				
1,2,3-Trichloropropane	19.2	1.00	20.00	0	96.0	62.4	136				
1,2,4-Trichlorobenzene	18.2	2.00	20.00	0	91.2	52.7	158				
1,3-Dichlorobenzene	20.9	1.00	20.00	0	105	86.9	124				
1,4-Dichlorobenzene	20.8	1.00	20.00	0	104	86.8	123				
1,2-Dichlorobenzene	20.8	1.00	20.00	0	104	85.5	126				
1,2-Dibromo-3-chloropropane	18.7	1.00	20.00	0	93.4	40.6	171				
Hexachloro-1,3-butadiene	20.0	4.00	20.00	0	100	65.1	145				
1,2,3-Trichlorobenzene	19.1	4.00	20.00	0	95.5	34	179				
Surr: Dibromofluoromethane	26.2		25.00		105	81.1	118				
Surr: Toluene-d8	25.4		25.00		102	85.7	113				
Surr: 1-Bromo-4-fluorobenzene	25.5		25.00		102	84.2	111				

Sample ID: **2005132-003AMSD** SampType: **MSD** Units: **µg/L** Prep Date: **5/15/2020** RunNo: **59216**
Client ID: **BATCH** Batch ID: **28339** Analysis Date: **5/15/2020** SeqNo: **1183328**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	14.1	1.00	20.00	0	70.5	6.11	189	13.89	1.54	30	
Chloromethane	17.1	2.00	20.00	0	85.4	23.9	203	16.21	5.21	30	
Vinyl chloride	19.1	0.200	20.00	0	95.4	53.4	152	19.00	0.352	30	
Bromomethane	19.0	1.00	20.00	0	94.9	29.7	169	20.29	6.68	30	
Trichlorofluoromethane (CFC-11)	20.6	1.00	20.00	0	103	76.7	132	20.53	0.390	30	
Chloroethane	19.9	1.00	20.00	0	99.7	62.5	149	20.30	1.78	30	
1,1-Dichloroethene	21.7	1.00	20.00	0	109	84.5	127	21.43	1.31	30	
Methylene chloride	21.1	1.00	20.00	0	106	79.9	125	20.92	1.06	30	
trans-1,2-Dichloroethene	21.5	1.00	20.00	0	108	86.2	125	21.40	0.518	30	
1,1-Dichloroethane	20.6	1.00	20.00	0	103	78.4	131	20.48	0.372	30	
cis-1,2-Dichloroethene	20.9	1.00	20.00	0	104	84.5	124	20.75	0.534	30	

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Date: *5/19/2020*

Work Order: 2005099
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2005132-003AMSD** SampType: **MSD** Units: **µg/L** Prep Date: **5/15/2020** RunNo: **59216**
Client ID: **BATCH** Batch ID: **28339** Analysis Date: **5/15/2020** SeqNo: **1183328**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloroform	27.2	1.00	20.00	6.333	104	75.2	131	27.67	1.68	30	
1,1,1-Trichloroethane (TCA)	21.0	1.00	20.00	0	105	80.4	131	21.02	0.216	30	
1,1-Dichloropropene	21.2	1.00	20.00	0	106	84.2	129	21.06	0.425	30	
Carbon tetrachloride	21.1	1.00	20.00	0	105	81.3	130	21.20	0.475	30	
1,2-Dichloroethane (EDC)	20.2	1.00	20.00	0	101	74.8	130	20.31	0.637	30	
Trichloroethene (TCE)	21.4	0.500	20.00	0	107	82.7	128	21.64	1.11	30	
1,2-Dichloropropane	20.9	1.00	20.00	0	105	78.2	130	20.97	0.323	30	
Bromodichloromethane	20.5	1.00	20.00	0	103	75.2	130	20.87	1.77	30	
Dibromomethane	20.7	1.00	20.00	0	104	74.7	129	20.96	1.14	30	
cis-1,3-Dichloropropene	20.2	1.00	20.00	0	101	66.8	129	20.52	1.38	30	
trans-1,3-Dichloropropylene	19.9	1.00	20.00	0	99.3	62.6	132	20.05	0.900	30	
1,1,2-Trichloroethane	21.4	1.00	20.00	0	107	70.9	135	21.74	1.75	30	
1,3-Dichloropropane	21.0	1.00	20.00	0	105	70.5	132	21.30	1.19	30	
Tetrachloroethene (PCE)	21.5	1.00	20.00	0	107	83.2	128	21.60	0.626	30	
Dibromochloromethane	21.4	1.00	20.00	0	107	72.9	130	21.78	1.92	30	
1,2-Dibromoethane (EDB)	20.9	0.250	20.00	0	104	69.3	132	21.17	1.37	30	
Chlorobenzene	20.8	1.00	20.00	0	104	87.8	120	20.75	0.456	30	
1,1,1,2-Tetrachloroethane	20.8	1.00	20.00	0	104	86.1	119	20.73	0.122	30	
Bromoform	20.7	2.00	20.00	0	103	72.7	127	20.56	0.564	30	
1,1,2,2-Tetrachloroethane	20.4	1.00	20.00	0	102	72.6	133	20.31	0.642	30	
Bromobenzene	20.6	1.00	20.00	0	103	81.4	126	20.53	0.487	30	
2-Chlorotoluene	21.1	1.00	20.00	0	105	70.2	143	20.86	1.00	30	
4-Chlorotoluene	20.4	1.00	20.00	0	102	73.5	136	20.47	0.183	30	
1,2,3-Trichloropropane	20.1	1.00	20.00	0	101	62.4	136	19.21	4.72	30	
1,2,4-Trichlorobenzene	19.5	2.00	20.00	0	97.6	52.7	158	18.25	6.75	30	
1,3-Dichlorobenzene	21.2	1.00	20.00	0	106	86.9	124	20.93	1.09	30	
1,4-Dichlorobenzene	21.2	1.00	20.00	0	106	86.8	123	20.84	1.67	30	
1,2-Dichlorobenzene	21.2	1.00	20.00	0	106	85.5	126	20.80	1.84	30	
1,2-Dibromo-3-chloropropane	19.4	1.00	20.00	0	97.2	40.6	171	18.67	4.03	30	

Date: *5/19/2020*

Work Order: 2005099
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2005132-003AMSD** SampType: **MSD** Units: **µg/L** Prep Date: **5/15/2020** RunNo: **59216**
Client ID: **BATCH** Batch ID: **28339** Analysis Date: **5/15/2020** SeqNo: **1183328**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexachloro-1,3-butadiene	21.1	4.00	20.00	0	106	65.1	145	20.01	5.48	30	
1,2,3-Trichlorobenzene	20.2	4.00	20.00	0	101	34	179	19.09	5.50	30	
Surr: Dibromofluoromethane	26.0		25.00		104	81.1	118		0		
Surr: Toluene-d8	25.0		25.00		100	85.7	113		0		
Surr: 1-Bromo-4-fluorobenzene	25.6		25.00		102	84.2	111		0		

Sample Log-In Check List

Client Name:	**ONEILL**	Work Order Number:	**2005099**
Logged by:	**Carissa True**	Date Received:	**5/11/2020 4:45:00 PM**

Chain of Custody

1. Is Chain of Custody complete? Yes ☑ No ☐ Not Present ☐
2. How was the sample delivered? Client

Log In

3. Coolers are present? Yes ☑ No ☐ NA ☐
4. Shipping container/cooler in good condition? Yes ☑ No ☐
5. Custody Seals present on shipping container/cooler? (Refer to comments for Custody Seals not intact) Yes ☐ No ☐ Not Required ☑
6. Was an attempt made to cool the samples? Yes ☑ No ☐ NA ☐
7. Were all items received at a temperature of >2°C to 6°C * Yes ☐ No ☑ NA ☐

Samples were collected the same day and chilled.

8. Sample(s) in proper container(s)? Yes ☑ No ☐
9. Sufficient sample volume for indicated test(s)? Yes ☑ No ☐
10. Are samples properly preserved? Yes ☑ No ☐
11. Was preservative added to bottles? Yes ☐ No ☑ NA ☐
12. Is there headspace in the VOA vials? Yes ☐ No ☑ NA ☐
13. Did all samples containers arrive in good condition(unbroken)? Yes ☑ No ☐
14. Does paperwork match bottle labels? Yes ☑ No ☐
15. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐
16. Is it clear what analyses were requested? Yes ☑ No ☐
17. Were all holding times able to be met? Yes ☑ No ☐

Special Handling (if applicable)

18. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified:		Date:	
By Whom:		Via:	☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:			
Client Instructions:			

19. Additional remarks:

Item Information

Item #	Temp ºC
Cooler 1	6.2
Sample 1	6.3
Temp Blank 1	13.2

* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C

Chain of Custody Record & Laboratory Services Agreement

Fremont Analytical
3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790
Fax: 206-352-7178

Date: 5/11/20 Page: 1 of: 1

Laboratory Project No (internal): 2005099

Project Name: F200

Project No: 2021

Collected by: Atkins

Location: FLSB

Report To (PM): Atkins

PM Email:

Client: OSG

Address:

City, State, Zip:

Telephone:

Fax:

Special Remarks:

Sample Disposal: ☐ Return to client ☑ Disposal by lab (after 30 days)

	Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	VOCs (EPA 8260 / 624)	GX/BTEX	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DX)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T) | Dissolved (D)	Anions (IC)***	EDB (8011)					Comments
1	358-B6-GW	5/11/20	1015	GW	X																	
2	358-B7-GW	5/11/20	1440	GW	X																	
3	TRIP BLANK	5/6/20	—		X																	
4																						
5																						
6																						
7																						
8																						
9																						
10																						

*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

**Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL *Individual:* Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti Tl U V Zn

***Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above and that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished	Date/Time	Received	Date/Time
x [signature]	5/11/20 - 1625	x [signature]	5/11/12 1645
Relinquished	Date/Time	Received	Date/Time
x		x	

Turn-around Time:
- ☑ Standard
- ☐ 3 Day
- ☐ 2 Day
- ☐ Next Day
- Same Day ____ (specify)

3600 Fremont Ave. N.
Seattle, WA 98103
T: (206) 352-3790
F: (206) 352-7178
info@fremontanalytical.com

O'Neill Service Group
Vance Atkins
17619 NE 67th Court, Suite 100
Redmond, WA 98052

RE: F200
Work Order Number: 2006154

June 10, 2020

Attention Vance Atkins:

Fremont Analytical, Inc. received 7 sample(s) on 6/9/2020 for the analyses presented in the following report.

Sample Moisture (Percent Moisture)
Volatile Organic Compounds by EPA Method 8260D

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Brianna Barnes
Project Manager

Date: *06/10/2020*

CLIENT: O'Neill Service Group
Project: F200
Work Order: 2006154

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
2006154-001	358-B10-0.5	06/09/2020 9:55 AM	06/09/2020 3:23 PM
2006154-002	358-B10-25	06/09/2020 10:55 AM	06/09/2020 3:23 PM
2006154-003	358-B10-30	06/09/2020 11:20 AM	06/09/2020 3:23 PM
2006154-004	358-B10-35	06/09/2020 11:45 AM	06/09/2020 3:23 PM
2006154-005	358-B10-40	06/09/2020 12:50 PM	06/09/2020 3:23 PM
2006154-006	358-B10-45	06/09/2020 1:15 PM	06/09/2020 3:23 PM
2006154-007	358-B10-50	06/09/2020 1:35 PM	06/09/2020 3:23 PM

Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned

Case Narrative

WO#: **2006154**

Date: **6/10/2020**

CLIENT: O'Neill Service Group

Project: F200

I. SAMPLE RECEIPT:
Samples receipt information is recorded on the attached Sample Receipt Checklist.

II. GENERAL REPORTING COMMENTS:
Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

III. ANALYSES AND EXCEPTIONS:
Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

Qualifiers:

* - Flagged value is not within established control limits
B - Analyte detected in the associated Method Blank
D - Dilution was required
E - Value above quantitation range
H - Holding times for preparation or analysis exceeded
I - Analyte with an internal standard that does not meet established acceptance criteria
J - Analyte detected below Reporting Limit
N - Tentatively Identified Compound (TIC)
Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF)
S - Spike recovery outside accepted recovery limits
ND - Not detected at the Reporting Limit
R - High relative percent difference observed

Acronyms:

%Rec - Percent Recovery
CCB - Continued Calibration Blank
CCV - Continued Calibration Verification
DF - Dilution Factor
HEM - Hexane Extractable Material
ICV - Initial Calibration Verification
LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
MB or MBLANK - Method Blank
MDL - Method Detection Limit
MS/MSD - Matrix Spike / Matrix Spike Duplicate
PDS - Post Digestion Spike
Ref Val - Reference Value
RL - Reporting Limit
RPD - Relative Percent Difference
SD - Serial Dilution
SGT - Silica Gel Treatment
SPK - Spike
Surr - Surrogate

Analytical Report

Work Order: **2006154**
Date Reported: **6/10/2020**

Client: O'Neill Service Group
Collection Date: 6/9/2020 9:55:00 AM
Project: F200
Lab ID: 2006154-001
Matrix: Soil
Client Sample ID: 358-B10-0.5

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28610 Analyst: KT

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0226		mg/Kg-dry	1	6/10/2020 6:12:29 AM
Chloromethane	ND	0.0564		mg/Kg-dry	1	6/10/2020 6:12:29 AM
Vinyl chloride	ND	0.0282		mg/Kg-dry	1	6/10/2020 6:12:29 AM
Bromomethane	ND	0.0564		mg/Kg-dry	1	6/10/2020 6:12:29 AM
Trichlorofluoromethane (CFC-11)	ND	0.0226		mg/Kg-dry	1	6/10/2020 6:12:29 AM
Chloroethane	ND	0.0564		mg/Kg-dry	1	6/10/2020 6:12:29 AM
1,1-Dichloroethene	ND	0.0226		mg/Kg-dry	1	6/10/2020 6:12:29 AM
Methylene chloride	ND	0.0226		mg/Kg-dry	1	6/10/2020 6:12:29 AM
trans-1,2-Dichloroethene	ND	0.0226		mg/Kg-dry	1	6/10/2020 6:12:29 AM
1,1-Dichloroethane	ND	0.0226		mg/Kg-dry	1	6/10/2020 6:12:29 AM
cis-1,2-Dichloroethene	ND	0.0226		mg/Kg-dry	1	6/10/2020 6:12:29 AM
Chloroform	ND	0.0226		mg/Kg-dry	1	6/10/2020 6:12:29 AM
1,1,1-Trichloroethane (TCA)	ND	0.0282		mg/Kg-dry	1	6/10/2020 6:12:29 AM
1,1-Dichloropropene	ND	0.0226		mg/Kg-dry	1	6/10/2020 6:12:29 AM
Carbon tetrachloride	ND	0.0282		mg/Kg-dry	1	6/10/2020 6:12:29 AM
1,2-Dichloroethane (EDC)	ND	0.0226		mg/Kg-dry	1	6/10/2020 6:12:29 AM
Trichloroethene (TCE)	ND	0.0226		mg/Kg-dry	1	6/10/2020 6:12:29 AM
1,2-Dichloropropane	ND	0.0226		mg/Kg-dry	1	6/10/2020 6:12:29 AM
Bromodichloromethane	ND	0.0226		mg/Kg-dry	1	6/10/2020 6:12:29 AM
Dibromomethane	ND	0.0226		mg/Kg-dry	1	6/10/2020 6:12:29 AM
cis-1,3-Dichloropropene	ND	0.0226		mg/Kg-dry	1	6/10/2020 6:12:29 AM
trans-1,3-Dichloropropylene	ND	0.0226		mg/Kg-dry	1	6/10/2020 6:12:29 AM
1,1,2-Trichloroethane	ND	0.0226		mg/Kg-dry	1	6/10/2020 6:12:29 AM
1,3-Dichloropropane	ND	0.0282		mg/Kg-dry	1	6/10/2020 6:12:29 AM
Tetrachloroethene (PCE)	ND	0.0282		mg/Kg-dry	1	6/10/2020 6:12:29 AM
Dibromochloromethane	ND	0.0282		mg/Kg-dry	1	6/10/2020 6:12:29 AM
1,2-Dibromoethane (EDB)	ND	0.00564		mg/Kg-dry	1	6/10/2020 6:12:29 AM
Chlorobenzene	ND	0.0282		mg/Kg-dry	1	6/10/2020 6:12:29 AM
1,1,1,2-Tetrachloroethane	ND	0.0282		mg/Kg-dry	1	6/10/2020 6:12:29 AM
Bromoform	ND	0.0564		mg/Kg-dry	1	6/10/2020 6:12:29 AM
1,1,2,2-Tetrachloroethane	ND	0.0226		mg/Kg-dry	1	6/10/2020 6:12:29 AM
Bromobenzene	ND	0.0226		mg/Kg-dry	1	6/10/2020 6:12:29 AM
2-Chlorotoluene	ND	0.0282		mg/Kg-dry	1	6/10/2020 6:12:29 AM
4-Chlorotoluene	ND	0.0282		mg/Kg-dry	1	6/10/2020 6:12:29 AM
1,2,3-Trichloropropane	ND	0.0282		mg/Kg-dry	1	6/10/2020 6:12:29 AM
1,2,4-Trichlorobenzene	ND	0.0282		mg/Kg-dry	1	6/10/2020 6:12:29 AM
1,3-Dichlorobenzene	ND	0.0226		mg/Kg-dry	1	6/10/2020 6:12:29 AM
1,4-Dichlorobenzene	ND	0.0226	*	mg/Kg-dry	1	6/10/2020 6:12:29 AM
1,2-Dichlorobenzene	ND	0.0226		mg/Kg-dry	1	6/10/2020 6:12:29 AM

Analytical Report

Work Order: **2006154**
Date Reported: **6/10/2020**

Client: O'Neill Service Group
Collection Date: 6/9/2020 9:55:00 AM
Project: F200
Lab ID: 2006154-001
Matrix: Soil
Client Sample ID: 358-B10-0.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28610		Analyst: KT
1,2-Dibromo-3-chloropropane	ND	0.564		mg/Kg-dry	1	6/10/2020 6:12:29 AM
Hexachloro-1,3-butadiene	ND	0.0564		mg/Kg-dry	1	6/10/2020 6:12:29 AM
1,2,3-Trichlorobenzene	ND	0.0226		mg/Kg-dry	1	6/10/2020 6:12:29 AM
Surr: Dibromofluoromethane	96.1	83.3 - 111		%Rec	1	6/10/2020 6:12:29 AM
Surr: Toluene-d8	97.5	87.9 - 111		%Rec	1	6/10/2020 6:12:29 AM
Surr: 1-Bromo-4-fluorobenzene	98.7	85.1 - 111		%Rec	1	6/10/2020 6:12:29 AM
Sample Moisture (Percent Moisture)				Batch ID: R59721		Analyst: CJ
Percent Moisture	8.66	0.500		wt%	1	6/10/2020 11:27:07 AM

Analytical Report

Work Order: **2006154**
Date Reported: **6/10/2020**

Client: O'Neill Service Group
Collection Date: 6/9/2020 10:55:00 AM
Project: F200
Lab ID: 2006154-002
Matrix: Soil
Client Sample ID: 358-B10-25

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28610 Analyst: KT

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.00976		mg/Kg-dry	1	6/10/2020 6:42:36 AM
Chloromethane	ND	0.0244		mg/Kg-dry	1	6/10/2020 6:42:36 AM
Vinyl chloride	ND	0.0122		mg/Kg-dry	1	6/10/2020 6:42:36 AM
Bromomethane	ND	0.0244		mg/Kg-dry	1	6/10/2020 6:42:36 AM
Trichlorofluoromethane (CFC-11)	ND	0.00976		mg/Kg-dry	1	6/10/2020 6:42:36 AM
Chloroethane	ND	0.0244		mg/Kg-dry	1	6/10/2020 6:42:36 AM
1,1-Dichloroethene	ND	0.00976		mg/Kg-dry	1	6/10/2020 6:42:36 AM
Methylene chloride	ND	0.00976		mg/Kg-dry	1	6/10/2020 6:42:36 AM
trans-1,2-Dichloroethene	ND	0.00976		mg/Kg-dry	1	6/10/2020 6:42:36 AM
1,1-Dichloroethane	ND	0.00976		mg/Kg-dry	1	6/10/2020 6:42:36 AM
cis-1,2-Dichloroethene	ND	0.00976		mg/Kg-dry	1	6/10/2020 6:42:36 AM
Chloroform	ND	0.00976		mg/Kg-dry	1	6/10/2020 6:42:36 AM
1,1,1-Trichloroethane (TCA)	ND	0.0122		mg/Kg-dry	1	6/10/2020 6:42:36 AM
1,1-Dichloropropene	ND	0.00976		mg/Kg-dry	1	6/10/2020 6:42:36 AM
Carbon tetrachloride	ND	0.0122		mg/Kg-dry	1	6/10/2020 6:42:36 AM
1,2-Dichloroethane (EDC)	ND	0.00976		mg/Kg-dry	1	6/10/2020 6:42:36 AM
Trichloroethene (TCE)	ND	0.00976		mg/Kg-dry	1	6/10/2020 6:42:36 AM
1,2-Dichloropropane	ND	0.00976		mg/Kg-dry	1	6/10/2020 6:42:36 AM
Bromodichloromethane	ND	0.00976		mg/Kg-dry	1	6/10/2020 6:42:36 AM
Dibromomethane	ND	0.00976		mg/Kg-dry	1	6/10/2020 6:42:36 AM
cis-1,3-Dichloropropene	ND	0.00976		mg/Kg-dry	1	6/10/2020 6:42:36 AM
trans-1,3-Dichloropropylene	ND	0.00976		mg/Kg-dry	1	6/10/2020 6:42:36 AM
1,1,2-Trichloroethane	ND	0.00976		mg/Kg-dry	1	6/10/2020 6:42:36 AM
1,3-Dichloropropane	ND	0.0122		mg/Kg-dry	1	6/10/2020 6:42:36 AM
Tetrachloroethene (PCE)	ND	0.0122		mg/Kg-dry	1	6/10/2020 6:42:36 AM
Dibromochloromethane	ND	0.0122		mg/Kg-dry	1	6/10/2020 6:42:36 AM
1,2-Dibromoethane (EDB)	ND	0.00244		mg/Kg-dry	1	6/10/2020 6:42:36 AM
Chlorobenzene	ND	0.0122		mg/Kg-dry	1	6/10/2020 6:42:36 AM
1,1,1,2-Tetrachloroethane	ND	0.0122		mg/Kg-dry	1	6/10/2020 6:42:36 AM
Bromoform	ND	0.0244		mg/Kg-dry	1	6/10/2020 6:42:36 AM
1,1,2,2-Tetrachloroethane	ND	0.00976		mg/Kg-dry	1	6/10/2020 6:42:36 AM
Bromobenzene	ND	0.00976		mg/Kg-dry	1	6/10/2020 6:42:36 AM
2-Chlorotoluene	ND	0.0122		mg/Kg-dry	1	6/10/2020 6:42:36 AM
4-Chlorotoluene	ND	0.0122		mg/Kg-dry	1	6/10/2020 6:42:36 AM
1,2,3-Trichloropropane	ND	0.0122		mg/Kg-dry	1	6/10/2020 6:42:36 AM
1,2,4-Trichlorobenzene	ND	0.0122		mg/Kg-dry	1	6/10/2020 6:42:36 AM
1,3-Dichlorobenzene	ND	0.00976		mg/Kg-dry	1	6/10/2020 6:42:36 AM
1,4-Dichlorobenzene	ND	0.00976	*	mg/Kg-dry	1	6/10/2020 6:42:36 AM
1,2-Dichlorobenzene	ND	0.00976		mg/Kg-dry	1	6/10/2020 6:42:36 AM

Analytical Report

Work Order: **2006154**
Date Reported: **6/10/2020**

Client: O'Neill Service Group
Collection Date: 6/9/2020 10:55:00 AM
Project: F200
Lab ID: 2006154-002
Matrix: Soil
Client Sample ID: 358-B10-25

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28610		Analyst: KT
1,2-Dibromo-3-chloropropane	ND	0.244		mg/Kg-dry	1	6/10/2020 6:42:36 AM
Hexachloro-1,3-butadiene	ND	0.0244		mg/Kg-dry	1	6/10/2020 6:42:36 AM
1,2,3-Trichlorobenzene	ND	0.00976		mg/Kg-dry	1	6/10/2020 6:42:36 AM
Surr: Dibromofluoromethane	95.3	83.3 - 111		%Rec	1	6/10/2020 6:42:36 AM
Surr: Toluene-d8	97.2	87.9 - 111		%Rec	1	6/10/2020 6:42:36 AM
Surr: 1-Bromo-4-fluorobenzene	99.5	85.1 - 111		%Rec	1	6/10/2020 6:42:36 AM
Sample Moisture (Percent Moisture)				Batch ID: R59721		Analyst: CJ
Percent Moisture	12.1	0.500		wt%	1	6/10/2020 11:27:07 AM

Analytical Report

Work Order: **2006154**
Date Reported: **6/10/2020**

Client: O'Neill Service Group
Collection Date: 6/9/2020 11:20:00 AM
Project: F200
Lab ID: 2006154-003
Matrix: Soil
Client Sample ID: 358-B10-30

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28610 Analyst: KT

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0182		mg/Kg-dry	1	6/10/2020 7:12:43 AM
Chloromethane	ND	0.0454		mg/Kg-dry	1	6/10/2020 7:12:43 AM
Vinyl chloride	ND	0.0227		mg/Kg-dry	1	6/10/2020 7:12:43 AM
Bromomethane	ND	0.0454		mg/Kg-dry	1	6/10/2020 7:12:43 AM
Trichlorofluoromethane (CFC-11)	ND	0.0182		mg/Kg-dry	1	6/10/2020 7:12:43 AM
Chloroethane	ND	0.0454		mg/Kg-dry	1	6/10/2020 7:12:43 AM
1,1-Dichloroethene	ND	0.0182		mg/Kg-dry	1	6/10/2020 7:12:43 AM
Methylene chloride	ND	0.0182		mg/Kg-dry	1	6/10/2020 7:12:43 AM
trans-1,2-Dichloroethene	ND	0.0182		mg/Kg-dry	1	6/10/2020 7:12:43 AM
1,1-Dichloroethane	ND	0.0182		mg/Kg-dry	1	6/10/2020 7:12:43 AM
cis-1,2-Dichloroethene	ND	0.0182		mg/Kg-dry	1	6/10/2020 7:12:43 AM
Chloroform	ND	0.0182		mg/Kg-dry	1	6/10/2020 7:12:43 AM
1,1,1-Trichloroethane (TCA)	ND	0.0227		mg/Kg-dry	1	6/10/2020 7:12:43 AM
1,1-Dichloropropene	ND	0.0182		mg/Kg-dry	1	6/10/2020 7:12:43 AM
Carbon tetrachloride	ND	0.0227		mg/Kg-dry	1	6/10/2020 7:12:43 AM
1,2-Dichloroethane (EDC)	ND	0.0182		mg/Kg-dry	1	6/10/2020 7:12:43 AM
Trichloroethene (TCE)	ND	0.0182		mg/Kg-dry	1	6/10/2020 7:12:43 AM
1,2-Dichloropropane	ND	0.0182		mg/Kg-dry	1	6/10/2020 7:12:43 AM
Bromodichloromethane	ND	0.0182		mg/Kg-dry	1	6/10/2020 7:12:43 AM
Dibromomethane	ND	0.0182		mg/Kg-dry	1	6/10/2020 7:12:43 AM
cis-1,3-Dichloropropene	ND	0.0182		mg/Kg-dry	1	6/10/2020 7:12:43 AM
trans-1,3-Dichloropropylene	ND	0.0182		mg/Kg-dry	1	6/10/2020 7:12:43 AM
1,1,2-Trichloroethane	ND	0.0182		mg/Kg-dry	1	6/10/2020 7:12:43 AM
1,3-Dichloropropane	ND	0.0227		mg/Kg-dry	1	6/10/2020 7:12:43 AM
Tetrachloroethene (PCE)	ND	0.0227		mg/Kg-dry	1	6/10/2020 7:12:43 AM
Dibromochloromethane	ND	0.0227		mg/Kg-dry	1	6/10/2020 7:12:43 AM
1,2-Dibromoethane (EDB)	ND	0.00454		mg/Kg-dry	1	6/10/2020 7:12:43 AM
Chlorobenzene	ND	0.0227		mg/Kg-dry	1	6/10/2020 7:12:43 AM
1,1,1,2-Tetrachloroethane	ND	0.0227		mg/Kg-dry	1	6/10/2020 7:12:43 AM
Bromoform	ND	0.0454		mg/Kg-dry	1	6/10/2020 7:12:43 AM
1,1,2,2-Tetrachloroethane	ND	0.0182		mg/Kg-dry	1	6/10/2020 7:12:43 AM
Bromobenzene	ND	0.0182		mg/Kg-dry	1	6/10/2020 7:12:43 AM
2-Chlorotoluene	ND	0.0227		mg/Kg-dry	1	6/10/2020 7:12:43 AM
4-Chlorotoluene	ND	0.0227		mg/Kg-dry	1	6/10/2020 7:12:43 AM
1,2,3-Trichloropropane	ND	0.0227		mg/Kg-dry	1	6/10/2020 7:12:43 AM
1,2,4-Trichlorobenzene	ND	0.0227		mg/Kg-dry	1	6/10/2020 7:12:43 AM
1,3-Dichlorobenzene	ND	0.0182		mg/Kg-dry	1	6/10/2020 7:12:43 AM
1,4-Dichlorobenzene	ND	0.0182	*	mg/Kg-dry	1	6/10/2020 7:12:43 AM
1,2-Dichlorobenzene	ND	0.0182		mg/Kg-dry	1	6/10/2020 7:12:43 AM

Analytical Report

Work Order: **2006154**
Date Reported: **6/10/2020**

Client: O'Neill Service Group
Collection Date: 6/9/2020 11:20:00 AM
Project: F200
Lab ID: 2006154-003
Matrix: Soil
Client Sample ID: 358-B10-30

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28610		Analyst: KT
1,2-Dibromo-3-chloropropane	ND	0.454		mg/Kg-dry	1	6/10/2020 7:12:43 AM
Hexachloro-1,3-butadiene	ND	0.0454		mg/Kg-dry	1	6/10/2020 7:12:43 AM
1,2,3-Trichlorobenzene	ND	0.0182		mg/Kg-dry	1	6/10/2020 7:12:43 AM
Surr: Dibromofluoromethane	97.7	83.3 - 111		%Rec	1	6/10/2020 7:12:43 AM
Surr: Toluene-d8	98.3	87.9 - 111		%Rec	1	6/10/2020 7:12:43 AM
Surr: 1-Bromo-4-fluorobenzene	98.7	85.1 - 111		%Rec	1	6/10/2020 7:12:43 AM
Sample Moisture (Percent Moisture)				Batch ID: R59721		Analyst: CJ
Percent Moisture	9.78	0.500		wt%	1	6/10/2020 11:27:07 AM

Analytical Report

Work Order: **2006154**
Date Reported: **6/10/2020**

Client: O'Neill Service Group
Collection Date: 6/9/2020 11:45:00 AM
Project: F200
Lab ID: 2006154-004
Matrix: Soil
Client Sample ID: 358-B10-35

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28610 Analyst: KT

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0167		mg/Kg-dry	1	6/10/2020 7:42:49 AM
Chloromethane	ND	0.0419		mg/Kg-dry	1	6/10/2020 7:42:49 AM
Vinyl chloride	ND	0.0209		mg/Kg-dry	1	6/10/2020 7:42:49 AM
Bromomethane	ND	0.0419		mg/Kg-dry	1	6/10/2020 7:42:49 AM
Trichlorofluoromethane (CFC-11)	ND	0.0167		mg/Kg-dry	1	6/10/2020 7:42:49 AM
Chloroethane	ND	0.0419		mg/Kg-dry	1	6/10/2020 7:42:49 AM
1,1-Dichloroethene	ND	0.0167		mg/Kg-dry	1	6/10/2020 7:42:49 AM
Methylene chloride	ND	0.0167		mg/Kg-dry	1	6/10/2020 7:42:49 AM
trans-1,2-Dichloroethene	ND	0.0167		mg/Kg-dry	1	6/10/2020 7:42:49 AM
1,1-Dichloroethane	ND	0.0167		mg/Kg-dry	1	6/10/2020 7:42:49 AM
cis-1,2-Dichloroethene	ND	0.0167		mg/Kg-dry	1	6/10/2020 7:42:49 AM
Chloroform	ND	0.0167		mg/Kg-dry	1	6/10/2020 7:42:49 AM
1,1,1-Trichloroethane (TCA)	ND	0.0209		mg/Kg-dry	1	6/10/2020 7:42:49 AM
1,1-Dichloropropene	ND	0.0167		mg/Kg-dry	1	6/10/2020 7:42:49 AM
Carbon tetrachloride	ND	0.0209		mg/Kg-dry	1	6/10/2020 7:42:49 AM
1,2-Dichloroethane (EDC)	ND	0.0167		mg/Kg-dry	1	6/10/2020 7:42:49 AM
Trichloroethene (TCE)	ND	0.0167		mg/Kg-dry	1	6/10/2020 7:42:49 AM
1,2-Dichloropropane	ND	0.0167		mg/Kg-dry	1	6/10/2020 7:42:49 AM
Bromodichloromethane	ND	0.0167		mg/Kg-dry	1	6/10/2020 7:42:49 AM
Dibromomethane	ND	0.0167		mg/Kg-dry	1	6/10/2020 7:42:49 AM
cis-1,3-Dichloropropene	ND	0.0167		mg/Kg-dry	1	6/10/2020 7:42:49 AM
trans-1,3-Dichloropropylene	ND	0.0167		mg/Kg-dry	1	6/10/2020 7:42:49 AM
1,1,2-Trichloroethane	ND	0.0167		mg/Kg-dry	1	6/10/2020 7:42:49 AM
1,3-Dichloropropane	ND	0.0209		mg/Kg-dry	1	6/10/2020 7:42:49 AM
Tetrachloroethene (PCE)	ND	0.0209		mg/Kg-dry	1	6/10/2020 7:42:49 AM
Dibromochloromethane	ND	0.0209		mg/Kg-dry	1	6/10/2020 7:42:49 AM
1,2-Dibromoethane (EDB)	ND	0.00419		mg/Kg-dry	1	6/10/2020 7:42:49 AM
Chlorobenzene	ND	0.0209		mg/Kg-dry	1	6/10/2020 7:42:49 AM
1,1,1,2-Tetrachloroethane	ND	0.0209		mg/Kg-dry	1	6/10/2020 7:42:49 AM
Bromoform	ND	0.0419		mg/Kg-dry	1	6/10/2020 7:42:49 AM
1,1,2,2-Tetrachloroethane	ND	0.0167		mg/Kg-dry	1	6/10/2020 7:42:49 AM
Bromobenzene	ND	0.0167		mg/Kg-dry	1	6/10/2020 7:42:49 AM
2-Chlorotoluene	ND	0.0209		mg/Kg-dry	1	6/10/2020 7:42:49 AM
4-Chlorotoluene	ND	0.0209		mg/Kg-dry	1	6/10/2020 7:42:49 AM
1,2,3-Trichloropropane	ND	0.0209		mg/Kg-dry	1	6/10/2020 7:42:49 AM
1,2,4-Trichlorobenzene	ND	0.0209		mg/Kg-dry	1	6/10/2020 7:42:49 AM
1,3-Dichlorobenzene	ND	0.0167		mg/Kg-dry	1	6/10/2020 7:42:49 AM
1,4-Dichlorobenzene	ND	0.0167	*	mg/Kg-dry	1	6/10/2020 7:42:49 AM
1,2-Dichlorobenzene	ND	0.0167		mg/Kg-dry	1	6/10/2020 7:42:49 AM

Analytical Report

Work Order: **2006154**
Date Reported: **6/10/2020**

Client: O'Neill Service Group
Collection Date: 6/9/2020 11:45:00 AM
Project: F200
Lab ID: 2006154-004
Matrix: Soil
Client Sample ID: 358-B10-35

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28610		Analyst: KT
1,2-Dibromo-3-chloropropane	ND	0.419		mg/Kg-dry	1	6/10/2020 7:42:49 AM
Hexachloro-1,3-butadiene	ND	0.0419		mg/Kg-dry	1	6/10/2020 7:42:49 AM
1,2,3-Trichlorobenzene	ND	0.0167		mg/Kg-dry	1	6/10/2020 7:42:49 AM
Surr: Dibromofluoromethane	99.0	83.3 - 111		%Rec	1	6/10/2020 7:42:49 AM
Surr: Toluene-d8	97.5	87.9 - 111		%Rec	1	6/10/2020 7:42:49 AM
Surr: 1-Bromo-4-fluorobenzene	99.6	85.1 - 111		%Rec	1	6/10/2020 7:42:49 AM
Sample Moisture (Percent Moisture)				Batch ID: R59721		Analyst: CJ
Percent Moisture	10.6	0.500		wt%	1	6/10/2020 11:27:07 AM

Analytical Report

Work Order: **2006154**
Date Reported: **6/10/2020**

Client: O'Neill Service Group
Collection Date: 6/9/2020 12:50:00 PM
Project: F200
Lab ID: 2006154-005
Matrix: Soil
Client Sample ID: 358-B10-40

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28610 Analyst: KT

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0179		mg/Kg-dry	1	6/10/2020 8:12:57 AM
Chloromethane	ND	0.0448		mg/Kg-dry	1	6/10/2020 8:12:57 AM
Vinyl chloride	ND	0.0224		mg/Kg-dry	1	6/10/2020 8:12:57 AM
Bromomethane	ND	0.0448		mg/Kg-dry	1	6/10/2020 8:12:57 AM
Trichlorofluoromethane (CFC-11)	ND	0.0179		mg/Kg-dry	1	6/10/2020 8:12:57 AM
Chloroethane	ND	0.0448		mg/Kg-dry	1	6/10/2020 8:12:57 AM
1,1-Dichloroethene	ND	0.0179		mg/Kg-dry	1	6/10/2020 8:12:57 AM
Methylene chloride	ND	0.0179		mg/Kg-dry	1	6/10/2020 8:12:57 AM
trans-1,2-Dichloroethene	ND	0.0179		mg/Kg-dry	1	6/10/2020 8:12:57 AM
1,1-Dichloroethane	ND	0.0179		mg/Kg-dry	1	6/10/2020 8:12:57 AM
cis-1,2-Dichloroethene	ND	0.0179		mg/Kg-dry	1	6/10/2020 8:12:57 AM
Chloroform	ND	0.0179		mg/Kg-dry	1	6/10/2020 8:12:57 AM
1,1,1-Trichloroethane (TCA)	ND	0.0224		mg/Kg-dry	1	6/10/2020 8:12:57 AM
1,1-Dichloropropene	ND	0.0179		mg/Kg-dry	1	6/10/2020 8:12:57 AM
Carbon tetrachloride	ND	0.0224		mg/Kg-dry	1	6/10/2020 8:12:57 AM
1,2-Dichloroethane (EDC)	ND	0.0179		mg/Kg-dry	1	6/10/2020 8:12:57 AM
Trichloroethene (TCE)	ND	0.0179		mg/Kg-dry	1	6/10/2020 8:12:57 AM
1,2-Dichloropropane	ND	0.0179		mg/Kg-dry	1	6/10/2020 8:12:57 AM
Bromodichloromethane	ND	0.0179		mg/Kg-dry	1	6/10/2020 8:12:57 AM
Dibromomethane	ND	0.0179		mg/Kg-dry	1	6/10/2020 8:12:57 AM
cis-1,3-Dichloropropene	ND	0.0179		mg/Kg-dry	1	6/10/2020 8:12:57 AM
trans-1,3-Dichloropropylene	ND	0.0179		mg/Kg-dry	1	6/10/2020 8:12:57 AM
1,1,2-Trichloroethane	ND	0.0179		mg/Kg-dry	1	6/10/2020 8:12:57 AM
1,3-Dichloropropane	ND	0.0224		mg/Kg-dry	1	6/10/2020 8:12:57 AM
Tetrachloroethene (PCE)	ND	0.0224		mg/Kg-dry	1	6/10/2020 8:12:57 AM
Dibromochloromethane	ND	0.0224		mg/Kg-dry	1	6/10/2020 8:12:57 AM
1,2-Dibromoethane (EDB)	ND	0.00448		mg/Kg-dry	1	6/10/2020 8:12:57 AM
Chlorobenzene	ND	0.0224		mg/Kg-dry	1	6/10/2020 8:12:57 AM
1,1,1,2-Tetrachloroethane	ND	0.0224		mg/Kg-dry	1	6/10/2020 8:12:57 AM
Bromoform	ND	0.0448		mg/Kg-dry	1	6/10/2020 8:12:57 AM
1,1,2,2-Tetrachloroethane	ND	0.0179		mg/Kg-dry	1	6/10/2020 8:12:57 AM
Bromobenzene	ND	0.0179		mg/Kg-dry	1	6/10/2020 8:12:57 AM
2-Chlorotoluene	ND	0.0224		mg/Kg-dry	1	6/10/2020 8:12:57 AM
4-Chlorotoluene	ND	0.0224		mg/Kg-dry	1	6/10/2020 8:12:57 AM
1,2,3-Trichloropropane	ND	0.0224		mg/Kg-dry	1	6/10/2020 8:12:57 AM
1,2,4-Trichlorobenzene	ND	0.0224		mg/Kg-dry	1	6/10/2020 8:12:57 AM
1,3-Dichlorobenzene	ND	0.0179		mg/Kg-dry	1	6/10/2020 8:12:57 AM
1,4-Dichlorobenzene	ND	0.0179	*	mg/Kg-dry	1	6/10/2020 8:12:57 AM
1,2-Dichlorobenzene	ND	0.0179		mg/Kg-dry	1	6/10/2020 8:12:57 AM

Analytical Report

Work Order: **2006154**
Date Reported: **6/10/2020**

Client: O'Neill Service Group
Collection Date: 6/9/2020 12:50:00 PM
Project: F200
Lab ID: 2006154-005
Matrix: Soil
Client Sample ID: 358-B10-40

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28610		Analyst: KT
1,2-Dibromo-3-chloropropane	ND	0.448		mg/Kg-dry	1	6/10/2020 8:12:57 AM
Hexachloro-1,3-butadiene	ND	0.0448		mg/Kg-dry	1	6/10/2020 8:12:57 AM
1,2,3-Trichlorobenzene	ND	0.0179		mg/Kg-dry	1	6/10/2020 8:12:57 AM
Surr: Dibromofluoromethane	95.9	83.3 - 111		%Rec	1	6/10/2020 8:12:57 AM
Surr: Toluene-d8	97.9	87.9 - 111		%Rec	1	6/10/2020 8:12:57 AM
Surr: 1-Bromo-4-fluorobenzene	100	85.1 - 111		%Rec	1	6/10/2020 8:12:57 AM
Sample Moisture (Percent Moisture)				Batch ID: R59721		Analyst: CJ
Percent Moisture	9.41	0.500		wt%	1	6/10/2020 11:27:07 AM

Analytical Report

Work Order: **2006154**
Date Reported: **6/10/2020**

Client: O'Neill Service Group
Collection Date: 6/9/2020 1:15:00 PM
Project: F200
Lab ID: 2006154-006
Matrix: Soil
Client Sample ID: 358-B10-45

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28610 Analyst: KT

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0209		mg/Kg-dry	1	6/10/2020 9:13:14 AM
Chloromethane	ND	0.0523		mg/Kg-dry	1	6/10/2020 9:13:14 AM
Vinyl chloride	ND	0.0262		mg/Kg-dry	1	6/10/2020 9:13:14 AM
Bromomethane	ND	0.0523		mg/Kg-dry	1	6/10/2020 9:13:14 AM
Trichlorofluoromethane (CFC-11)	ND	0.0209		mg/Kg-dry	1	6/10/2020 9:13:14 AM
Chloroethane	ND	0.0523		mg/Kg-dry	1	6/10/2020 9:13:14 AM
1,1-Dichloroethene	ND	0.0209		mg/Kg-dry	1	6/10/2020 9:13:14 AM
Methylene chloride	ND	0.0209		mg/Kg-dry	1	6/10/2020 9:13:14 AM
trans-1,2-Dichloroethene	ND	0.0209		mg/Kg-dry	1	6/10/2020 9:13:14 AM
1,1-Dichloroethane	ND	0.0209		mg/Kg-dry	1	6/10/2020 9:13:14 AM
cis-1,2-Dichloroethene	ND	0.0209		mg/Kg-dry	1	6/10/2020 9:13:14 AM
Chloroform	ND	0.0209		mg/Kg-dry	1	6/10/2020 9:13:14 AM
1,1,1-Trichloroethane (TCA)	ND	0.0262		mg/Kg-dry	1	6/10/2020 9:13:14 AM
1,1-Dichloropropene	ND	0.0209		mg/Kg-dry	1	6/10/2020 9:13:14 AM
Carbon tetrachloride	ND	0.0262		mg/Kg-dry	1	6/10/2020 9:13:14 AM
1,2-Dichloroethane (EDC)	ND	0.0209		mg/Kg-dry	1	6/10/2020 9:13:14 AM
Trichloroethene (TCE)	ND	0.0209		mg/Kg-dry	1	6/10/2020 9:13:14 AM
1,2-Dichloropropane	ND	0.0209		mg/Kg-dry	1	6/10/2020 9:13:14 AM
Bromodichloromethane	ND	0.0209		mg/Kg-dry	1	6/10/2020 9:13:14 AM
Dibromomethane	ND	0.0209		mg/Kg-dry	1	6/10/2020 9:13:14 AM
cis-1,3-Dichloropropene	ND	0.0209		mg/Kg-dry	1	6/10/2020 9:13:14 AM
trans-1,3-Dichloropropylene	ND	0.0209		mg/Kg-dry	1	6/10/2020 9:13:14 AM
1,1,2-Trichloroethane	ND	0.0209		mg/Kg-dry	1	6/10/2020 9:13:14 AM
1,3-Dichloropropane	ND	0.0262		mg/Kg-dry	1	6/10/2020 9:13:14 AM
Tetrachloroethene (PCE)	ND	0.0262		mg/Kg-dry	1	6/10/2020 9:13:14 AM
Dibromochloromethane	ND	0.0262		mg/Kg-dry	1	6/10/2020 9:13:14 AM
1,2-Dibromoethane (EDB)	ND	0.00523		mg/Kg-dry	1	6/10/2020 9:13:14 AM
Chlorobenzene	ND	0.0262		mg/Kg-dry	1	6/10/2020 9:13:14 AM
1,1,1,2-Tetrachloroethane	ND	0.0262		mg/Kg-dry	1	6/10/2020 9:13:14 AM
Bromoform	ND	0.0523		mg/Kg-dry	1	6/10/2020 9:13:14 AM
1,1,2,2-Tetrachloroethane	ND	0.0209		mg/Kg-dry	1	6/10/2020 9:13:14 AM
Bromobenzene	ND	0.0209		mg/Kg-dry	1	6/10/2020 9:13:14 AM
2-Chlorotoluene	ND	0.0262		mg/Kg-dry	1	6/10/2020 9:13:14 AM
4-Chlorotoluene	ND	0.0262		mg/Kg-dry	1	6/10/2020 9:13:14 AM
1,2,3-Trichloropropane	ND	0.0262		mg/Kg-dry	1	6/10/2020 9:13:14 AM
1,2,4-Trichlorobenzene	ND	0.0262		mg/Kg-dry	1	6/10/2020 9:13:14 AM
1,3-Dichlorobenzene	ND	0.0209		mg/Kg-dry	1	6/10/2020 9:13:14 AM
1,4-Dichlorobenzene	ND	0.0209	*	mg/Kg-dry	1	6/10/2020 9:13:14 AM
1,2-Dichlorobenzene	ND	0.0209		mg/Kg-dry	1	6/10/2020 9:13:14 AM

Analytical Report

Work Order: **2006154**
Date Reported: **6/10/2020**

Client: O'Neill Service Group
Collection Date: 6/9/2020 1:15:00 PM
Project: F200
Lab ID: 2006154-006
Matrix: Soil
Client Sample ID: 358-B10-45

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28610		Analyst: KT
1,2-Dibromo-3-chloropropane	ND	0.523		mg/Kg-dry	1	6/10/2020 9:13:14 AM
Hexachloro-1,3-butadiene	ND	0.0523		mg/Kg-dry	1	6/10/2020 9:13:14 AM
1,2,3-Trichlorobenzene	ND	0.0209		mg/Kg-dry	1	6/10/2020 9:13:14 AM
Surr: Dibromofluoromethane	97.3	83.3 - 111		%Rec	1	6/10/2020 9:13:14 AM
Surr: Toluene-d8	98.6	87.9 - 111		%Rec	1	6/10/2020 9:13:14 AM
Surr: 1-Bromo-4-fluorobenzene	101	85.1 - 111		%Rec	1	6/10/2020 9:13:14 AM
Sample Moisture (Percent Moisture)				Batch ID: R59721		Analyst: CJ
Percent Moisture	19.8	0.500		wt%	1	6/10/2020 11:27:07 AM

Analytical Report

Work Order: **2006154**
Date Reported: **6/10/2020**

Client: O'Neill Service Group
Collection Date: 6/9/2020 1:35:00 PM
Project: F200
Lab ID: 2006154-007
Matrix: Soil
Client Sample ID: 358-B10-50

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28610 Analyst: KT

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0249		mg/Kg-dry	1	6/10/2020 9:43:22 AM
Chloromethane	ND	0.0621		mg/Kg-dry	1	6/10/2020 9:43:22 AM
Vinyl chloride	ND	0.0311		mg/Kg-dry	1	6/10/2020 9:43:22 AM
Bromomethane	ND	0.0621		mg/Kg-dry	1	6/10/2020 9:43:22 AM
Trichlorofluoromethane (CFC-11)	ND	0.0249		mg/Kg-dry	1	6/10/2020 9:43:22 AM
Chloroethane	ND	0.0621		mg/Kg-dry	1	6/10/2020 9:43:22 AM
1,1-Dichloroethene	ND	0.0249		mg/Kg-dry	1	6/10/2020 9:43:22 AM
Methylene chloride	ND	0.0249		mg/Kg-dry	1	6/10/2020 9:43:22 AM
trans-1,2-Dichloroethene	ND	0.0249		mg/Kg-dry	1	6/10/2020 9:43:22 AM
1,1-Dichloroethane	ND	0.0249		mg/Kg-dry	1	6/10/2020 9:43:22 AM
cis-1,2-Dichloroethene	ND	0.0249		mg/Kg-dry	1	6/10/2020 9:43:22 AM
Chloroform	ND	0.0249		mg/Kg-dry	1	6/10/2020 9:43:22 AM
1,1,1-Trichloroethane (TCA)	ND	0.0311		mg/Kg-dry	1	6/10/2020 9:43:22 AM
1,1-Dichloropropene	ND	0.0249		mg/Kg-dry	1	6/10/2020 9:43:22 AM
Carbon tetrachloride	ND	0.0311		mg/Kg-dry	1	6/10/2020 9:43:22 AM
1,2-Dichloroethane (EDC)	ND	0.0249		mg/Kg-dry	1	6/10/2020 9:43:22 AM
Trichloroethene (TCE)	ND	0.0249		mg/Kg-dry	1	6/10/2020 9:43:22 AM
1,2-Dichloropropane	ND	0.0249		mg/Kg-dry	1	6/10/2020 9:43:22 AM
Bromodichloromethane	ND	0.0249		mg/Kg-dry	1	6/10/2020 9:43:22 AM
Dibromomethane	ND	0.0249		mg/Kg-dry	1	6/10/2020 9:43:22 AM
cis-1,3-Dichloropropene	ND	0.0249		mg/Kg-dry	1	6/10/2020 9:43:22 AM
trans-1,3-Dichloropropylene	ND	0.0249		mg/Kg-dry	1	6/10/2020 9:43:22 AM
1,1,2-Trichloroethane	ND	0.0249		mg/Kg-dry	1	6/10/2020 9:43:22 AM
1,3-Dichloropropane	ND	0.0311		mg/Kg-dry	1	6/10/2020 9:43:22 AM
Tetrachloroethene (PCE)	ND	0.0311		mg/Kg-dry	1	6/10/2020 9:43:22 AM
Dibromochloromethane	ND	0.0311		mg/Kg-dry	1	6/10/2020 9:43:22 AM
1,2-Dibromoethane (EDB)	ND	0.00621		mg/Kg-dry	1	6/10/2020 9:43:22 AM
Chlorobenzene	ND	0.0311		mg/Kg-dry	1	6/10/2020 9:43:22 AM
1,1,1,2-Tetrachloroethane	ND	0.0311		mg/Kg-dry	1	6/10/2020 9:43:22 AM
Bromoform	ND	0.0621		mg/Kg-dry	1	6/10/2020 9:43:22 AM
1,1,2,2-Tetrachloroethane	ND	0.0249		mg/Kg-dry	1	6/10/2020 9:43:22 AM
Bromobenzene	ND	0.0249		mg/Kg-dry	1	6/10/2020 9:43:22 AM
2-Chlorotoluene	ND	0.0311		mg/Kg-dry	1	6/10/2020 9:43:22 AM
4-Chlorotoluene	ND	0.0311		mg/Kg-dry	1	6/10/2020 9:43:22 AM
1,2,3-Trichloropropane	ND	0.0311		mg/Kg-dry	1	6/10/2020 9:43:22 AM
1,2,4-Trichlorobenzene	ND	0.0311		mg/Kg-dry	1	6/10/2020 9:43:22 AM
1,3-Dichlorobenzene	ND	0.0249		mg/Kg-dry	1	6/10/2020 9:43:22 AM
1,4-Dichlorobenzene	ND	0.0249	*	mg/Kg-dry	1	6/10/2020 9:43:22 AM
1,2-Dichlorobenzene	ND	0.0249		mg/Kg-dry	1	6/10/2020 9:43:22 AM

Analytical Report

Work Order: **2006154**
Date Reported: **6/10/2020**

Client: O'Neill Service Group
Collection Date: 6/9/2020 1:35:00 PM
Project: F200
Lab ID: 2006154-007
Matrix: Soil
Client Sample ID: 358-B10-50

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28610		Analyst: KT
1,2-Dibromo-3-chloropropane	ND	0.621		mg/Kg-dry	1	6/10/2020 9:43:22 AM
Hexachloro-1,3-butadiene	ND	0.0621		mg/Kg-dry	1	6/10/2020 9:43:22 AM
1,2,3-Trichlorobenzene	ND	0.0249		mg/Kg-dry	1	6/10/2020 9:43:22 AM
Surr: Dibromofluoromethane	97.1	83.3 - 111		%Rec	1	6/10/2020 9:43:22 AM
Surr: Toluene-d8	98.1	87.9 - 111		%Rec	1	6/10/2020 9:43:22 AM
Surr: 1-Bromo-4-fluorobenzene	98.6	85.1 - 111		%Rec	1	6/10/2020 9:43:22 AM
Sample Moisture (Percent Moisture)				Batch ID: R59729		Analyst: SBM
Percent Moisture	13.4	0.500		wt%	1	6/10/2020 2:38:48 PM

Date: *6/10/2020*

Work Order: 2006154
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **LCS-28610** SampType: **LCS** Units: **mg/Kg** Prep Date: **6/9/2020** RunNo: **59720**
Client ID: **LCSS** Batch ID: **28610** Analysis Date: **6/10/2020** SeqNo: **1195004**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	0.766	0.0200	1.000	0	76.6	13.4	185				
Chloromethane	0.854	0.0500	1.000	0	85.4	38.5	158				
Vinyl chloride	0.825	0.0250	1.000	0	82.5	53.6	138				
Bromomethane	0.887	0.0500	1.000	0	88.7	56.6	151				
Trichlorofluoromethane (CFC-11)	0.859	0.0200	1.000	0	85.9	64.2	137				
Chloroethane	0.928	0.0500	1.000	0	92.8	54.1	134				
1,1-Dichloroethene	0.873	0.0200	1.000	0	87.3	66	133				
Methylene chloride	0.892	0.0200	1.000	0	89.2	74.3	117				
trans-1,2-Dichloroethene	0.871	0.0200	1.000	0	87.1	79.6	115				
1,1-Dichloroethane	0.903	0.0200	1.000	0	90.3	75.8	117				
cis-1,2-Dichloroethene	0.886	0.0200	1.000	0	88.6	77.8	115				
Chloroform	0.888	0.0200	1.000	0	88.8	78.2	115				
1,1,1-Trichloroethane (TCA)	0.887	0.0250	1.000	0	88.7	76	121				
1,1-Dichloropropene	0.880	0.0200	1.000	0	88.0	77.2	120				
Carbon tetrachloride	0.884	0.0250	1.000	0	88.4	74	122				
1,2-Dichloroethane (EDC)	0.897	0.0200	1.000	0	89.7	74.7	115				
Trichloroethene (TCE)	0.875	0.0200	1.000	0	87.5	79.6	118				
1,2-Dichloropropane	0.889	0.0200	1.000	0	88.9	78.2	115				
Bromodichloromethane	0.902	0.0200	1.000	0	90.2	76.6	116				
Dibromomethane	0.913	0.0200	1.000	0	91.3	77.9	115				
cis-1,3-Dichloropropene	0.867	0.0200	1.000	0	86.7	74.6	119				
trans-1,3-Dichloropropylene	0.867	0.0200	1.000	0	86.7	70.6	124				
1,1,2-Trichloroethane	0.901	0.0200	1.000	0	90.1	75.6	116				
1,3-Dichloropropane	0.884	0.0250	1.000	0	88.4	75.3	116				
Tetrachloroethene (PCE)	0.865	0.0250	1.000	0	86.5	78.8	119				
Dibromochloromethane	0.892	0.0250	1.000	0	89.2	72.5	123				
1,2-Dibromoethane (EDB)	0.880	0.00500	1.000	0	88.0	75	116				
Chlorobenzene	0.863	0.0250	1.000	0	86.3	83.4	113				
1,1,1,2-Tetrachloroethane	0.852	0.0250	1.000	0	85.2	80.8	117				
Bromoform	0.847	0.0500	1.000	0	84.7	71	129				
1,1,2,2-Tetrachloroethane	0.854	0.0200	1.000	0	85.4	71.3	119				

Date: *6/10/2020*

Work Order: 2006154
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **LCS-28610** SampType: **LCS** Units: **mg/Kg** Prep Date: **6/9/2020** RunNo: **59720**
Client ID: **LCSS** Batch ID: **28610** Analysis Date: **6/10/2020** SeqNo: **1195004**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromobenzene	0.888	0.0200	1.000	0	88.8	78.6	115				
2-Chlorotoluene	0.876	0.0250	1.000	0	87.6	78.6	116				
4-Chlorotoluene	0.877	0.0250	1.000	0	87.7	78.8	117				
1,2,3-Trichloropropane	0.853	0.0250	1.000	0	85.3	67.5	129				
1,2,4-Trichlorobenzene	0.873	0.0250	1.000	0	87.3	79.6	124				
1,3-Dichlorobenzene	0.878	0.0200	1.000	0	87.8	87.1	117				
1,4-Dichlorobenzene	0.874	0.0200	1.000	0	87.4	87.6	115				S
1,2-Dichlorobenzene	0.881	0.0200	1.000	0	88.1	87.9	115				
1,2-Dibromo-3-chloropropane	0.875	0.500	1.000	0	87.5	65.6	132				
Hexachloro-1,3-butadiene	0.874	0.0500	1.000	0	87.4	75	130				
1,2,3-Trichlorobenzene	0.873	0.0200	1.000	0	87.3	74.3	128				
Surr: Dibromofluoromethane	1.36		1.250		109	83.3	111				
Surr: Toluene-d8	1.31		1.250		105	87.9	111				
Surr: 1-Bromo-4-fluorobenzene	1.26		1.250		101	85.1	111				

NOTES:
S - Outlying spike recovery observed (low bias). Samples will be qualified with a *.

Sample ID: **MB-28610** SampType: **MBLK** Units: **mg/Kg** Prep Date: **6/9/2020** RunNo: **59720**
Client ID: **MBLKS** Batch ID: **28610** Analysis Date: **6/10/2020** SeqNo: **1195005**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	0.0200									
Chloromethane	ND	0.0500									
Vinyl chloride	ND	0.0250									
Bromomethane	ND	0.0500									
Trichlorofluoromethane (CFC-11)	ND	0.0200									
Chloroethane	ND	0.0500									
1,1-Dichloroethene	ND	0.0200									
Methylene chloride	ND	0.0200									
trans-1,2-Dichloroethene	ND	0.0200									
1,1-Dichloroethane	ND	0.0200									

Date: *6/10/2020*

Work Order: 2006154
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **MB-28610** SampType: **MBLK** Units: **mg/Kg** Prep Date: **6/9/2020** RunNo: **59720**
Client ID: **MBLKS** Batch ID: **28610** Analysis Date: **6/10/2020** SeqNo: **1195005**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
cis-1,2-Dichloroethene	ND	0.0200									
Chloroform	ND	0.0200									
1,1,1-Trichloroethane (TCA)	ND	0.0250									
1,1-Dichloropropene	ND	0.0200									
Carbon tetrachloride	ND	0.0250									
1,2-Dichloroethane (EDC)	ND	0.0200									
Trichloroethene (TCE)	ND	0.0200									
1,2-Dichloropropane	ND	0.0200									
Bromodichloromethane	ND	0.0200									
Dibromomethane	ND	0.0200									
cis-1,3-Dichloropropene	ND	0.0200									
trans-1,3-Dichloropropylene	ND	0.0200									
1,1,2-Trichloroethane	ND	0.0200									
1,3-Dichloropropane	ND	0.0250									
Tetrachloroethene (PCE)	ND	0.0250									
Dibromochloromethane	ND	0.0250									
1,2-Dibromoethane (EDB)	ND	0.00500									
Chlorobenzene	ND	0.0250									
1,1,1,2-Tetrachloroethane	ND	0.0250									
Bromoform	ND	0.0500									
1,1,2,2-Tetrachloroethane	ND	0.0200									
Bromobenzene	ND	0.0200									
2-Chlorotoluene	ND	0.0250									
4-Chlorotoluene	ND	0.0250									
1,2,3-Trichloropropane	ND	0.0250									
1,2,4-Trichlorobenzene	ND	0.0250									
1,3-Dichlorobenzene	ND	0.0200									
1,4-Dichlorobenzene	ND	0.0200									*
1,2-Dichlorobenzene	ND	0.0200									
1,2-Dibromo-3-chloropropane	ND	0.500									
Hexachloro-1,3-butadiene	ND	0.0500									

Date: *6/10/2020*

Work Order: 2006154
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **MB-28610** SampType: **MBLK** Units: **mg/Kg** Prep Date: **6/9/2020** RunNo: **59720**
Client ID: **MBLKS** Batch ID: **28610** Analysis Date: **6/10/2020** SeqNo: **1195005**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,3-Trichlorobenzene	ND	0.0200									
Surr: Dibromofluoromethane	1.21		1.250		96.9	83.3	111				
Surr: Toluene-d8	1.22		1.250		97.8	87.9	111				
Surr: 1-Bromo-4-fluorobenzene	1.26		1.250		101	85.1	111				

NOTES:
* - Flagged value is not within established control limits.

Sample ID: **2006154-005BDUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **6/9/2020** RunNo: **59720**
Client ID: **358-B10-40** Batch ID: **28610** Analysis Date: **6/10/2020** SeqNo: **1194998**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	0.0179						0		30	
Chloromethane	ND	0.0448						0		30	
Vinyl chloride	ND	0.0224						0		30	
Bromomethane	ND	0.0448						0		30	
Trichlorofluoromethane (CFC-11)	ND	0.0179						0		30	
Chloroethane	ND	0.0448						0		30	
1,1-Dichloroethene	ND	0.0179						0		30	
Methylene chloride	ND	0.0179						0		30	
trans-1,2-Dichloroethene	ND	0.0179						0		30	
1,1-Dichloroethane	ND	0.0179						0		30	
cis-1,2-Dichloroethene	ND	0.0179						0		30	
Chloroform	ND	0.0179						0		30	
1,1,1-Trichloroethane (TCA)	ND	0.0224						0		30	
1,1-Dichloropropene	ND	0.0179						0		30	
Carbon tetrachloride	ND	0.0224						0		30	
1,2-Dichloroethane (EDC)	ND	0.0179						0		30	
Trichloroethene (TCE)	ND	0.0179						0		30	
1,2-Dichloropropane	ND	0.0179						0		30	
Bromodichloromethane	ND	0.0179						0		30	
Dibromomethane	ND	0.0179						0		30	

Date: *6/10/2020*

Work Order: 2006154
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2006154-005BDUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **6/9/2020** RunNo: **59720**
Client ID: **358-B10-40** Batch ID: **28610** Analysis Date: **6/10/2020** SeqNo: **1194998**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
cis-1,3-Dichloropropene	ND	0.0179						0		30	
trans-1,3-Dichloropropylene	ND	0.0179						0		30	
1,1,2-Trichloroethane	ND	0.0179						0		30	
1,3-Dichloropropane	ND	0.0224						0		30	
Tetrachloroethene (PCE)	ND	0.0224						0		30	
Dibromochloromethane	ND	0.0224						0		30	
1,2-Dibromoethane (EDB)	ND	0.00448						0		30	
Chlorobenzene	ND	0.0224						0		30	
1,1,1,2-Tetrachloroethane	ND	0.0224						0		30	
Bromoform	ND	0.0448						0		30	
1,1,2,2-Tetrachloroethane	ND	0.0179						0		30	
Bromobenzene	ND	0.0179						0		30	
2-Chlorotoluene	ND	0.0224						0		30	
4-Chlorotoluene	ND	0.0224						0		30	
1,2,3-Trichloropropane	ND	0.0224						0		30	
1,2,4-Trichlorobenzene	ND	0.0224						0		30	
1,3-Dichlorobenzene	ND	0.0179						0		30	
1,4-Dichlorobenzene	ND	0.0179						0		30	*
1,2-Dichlorobenzene	ND	0.0179						0		30	
1,2-Dibromo-3-chloropropane	ND	0.448						0		30	
Hexachloro-1,3-butadiene	ND	0.0448						0		30	
1,2,3-Trichlorobenzene	ND	0.0179						0		30	
Surr: Dibromofluoromethane	1.07		1.119		95.5	83.3	111		0		
Surr: Toluene-d8	1.10		1.119		98.2	87.9	111		0		
Surr: 1-Bromo-4-fluorobenzene	1.11		1.119		99.3	85.1	111		0		

NOTES:
* - Flagged value is not within established control limits.

Date: *6/10/2020*

Work Order: 2006154
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2006154-007BMS** SampType: **MS** Units: **mg/Kg-dry** Prep Date: **6/9/2020** RunNo: **59720**
Client ID: **358-B10-50** Batch ID: **28610** Analysis Date: **6/10/2020** SeqNo: **1195001**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	2.42	0.0249	1.243	0	195	5.73	173				S
Chloromethane	1.49	0.0621	1.243	0	120	41.3	150				
Vinyl chloride	1.46	0.0311	1.243	0	117	49.5	138				
Bromomethane	1.56	0.0621	1.243	0	126	48.5	158				
Trichlorofluoromethane (CFC-11)	1.30	0.0249	1.243	0	105	40.6	159				
Chloroethane	1.43	0.0621	1.243	0	115	30.4	166				
1,1-Dichloroethene	1.24	0.0249	1.243	0	99.5	55	138				
Methylene chloride	1.15	0.0249	1.243	0	92.9	70.3	123				
trans-1,2-Dichloroethene	1.17	0.0249	1.243	0	94.5	73.1	121				
1,1-Dichloroethane	1.13	0.0249	1.243	0	90.6	70.8	122				
cis-1,2-Dichloroethene	1.15	0.0249	1.243	0	92.4	71.8	122				
Chloroform	1.12	0.0249	1.243	0	90.5	72.9	122				
1,1,1-Trichloroethane (TCA)	1.16	0.0311	1.243	0	93.3	69.6	125				
1,1-Dichloropropene	1.15	0.0249	1.243	0	92.2	69.3	126				
Carbon tetrachloride	1.17	0.0311	1.243	0	93.8	65	127				
1,2-Dichloroethane (EDC)	1.07	0.0249	1.243	0	85.7	70.1	121				
Trichloroethene (TCE)	1.13	0.0249	1.243	0	90.8	70.1	129				
1,2-Dichloropropane	1.09	0.0249	1.243	0	87.3	74.6	120				
Bromodichloromethane	1.08	0.0249	1.243	0	87.2	70.9	122				
Dibromomethane	1.10	0.0249	1.243	0	88.4	75.6	120				
cis-1,3-Dichloropropene	1.07	0.0249	1.243	0	85.8	68.3	120				
trans-1,3-Dichloropropylene	1.05	0.0249	1.243	0	84.3	62.2	127				
1,1,2-Trichloroethane	1.07	0.0249	1.243	0	85.8	72.9	120				
1,3-Dichloropropane	1.06	0.0311	1.243	0	85.4	71.9	119				
Tetrachloroethene (PCE)	1.15	0.0311	1.243	0	92.5	71.1	122				
Dibromochloromethane	1.06	0.0311	1.243	0	85.2	65.9	126				
1,2-Dibromoethane (EDB)	1.04	0.00621	1.243	0	83.7	72	119				
Chlorobenzene	1.13	0.0311	1.243	0	90.8	81.4	116				
1,1,1,2-Tetrachloroethane	1.08	0.0311	1.243	0	86.8	72.9	125				
Bromoform	1.02	0.0621	1.243	0	82.1	63.4	133				
1,1,2,2-Tetrachloroethane	1.01	0.0249	1.243	0	81.1	61	128				

Fremont Analytical

Date: *6/10/2020*

Work Order: 2006154
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2006154-007BMS** SampType: **MS** Units: **mg/Kg-dry** Prep Date: **6/9/2020** RunNo: **59720**
Client ID: **358-B10-50** Batch ID: **28610** Analysis Date: **6/10/2020** SeqNo: **1195001**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromobenzene	1.12	0.0249	1.243	0	90.1	77	120				
2-Chlorotoluene	1.11	0.0311	1.243	0	89.5	71.4	126				
4-Chlorotoluene	1.12	0.0311	1.243	0	90.0	73.6	124				
1,2,3-Trichloropropane	1.04	0.0311	1.243	0	83.8	65.7	132				
1,2,4-Trichlorobenzene	1.12	0.0311	1.243	0	90.1	70.5	130				
1,3-Dichlorobenzene	1.17	0.0249	1.243	0	93.8	83.8	121				
1,4-Dichlorobenzene	1.15	0.0249	1.243	0	92.8	85.7	117				
1,2-Dichlorobenzene	1.14	0.0249	1.243	0	91.9	81.8	120				
1,2-Dibromo-3-chloropropane	1.01	0.621	1.243	0	81.4	56.9	139				
Hexachloro-1,3-butadiene	1.18	0.0621	1.243	0	94.7	61.1	140				
1,2,3-Trichlorobenzene	1.08	0.0249	1.243	0	87.1	67.8	132				
Surr: Dibromofluoromethane	1.56		1.554		100	83.3	111				
Surr: Toluene-d8	1.52		1.554		97.8	87.9	111				
Surr: 1-Bromo-4-fluorobenzene	1.49		1.554		96.2	85.1	111				

NOTES:
S - Outlying spike recovery observed.

Sample ID: **2006154-007BMSD** SampType: **MSD** Units: **mg/Kg-dry** Prep Date: **6/9/2020** RunNo: **59720**
Client ID: **358-B10-50** Batch ID: **28610** Analysis Date: **6/10/2020** SeqNo: **1195002**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	2.43	0.0249	1.243	0	195	5.73	173	2.420	0.368	30	S
Chloromethane	1.52	0.0621	1.243	0	122	41.3	150	1.486	2.06	30	
Vinyl chloride	1.43	0.0311	1.243	0	115	49.5	138	1.456	1.80	30	
Bromomethane	1.45	0.0621	1.243	0	117	48.5	158	1.560	7.27	30	
Trichlorofluoromethane (CFC-11)	1.29	0.0249	1.243	0	104	40.6	159	1.299	0.386	30	
Chloroethane	1.47	0.0621	1.243	0	118	30.4	166	1.428	2.65	30	
1,1-Dichloroethene	1.23	0.0249	1.243	0	99.0	55	138	1.237	0.534	30	
Methylene chloride	1.14	0.0249	1.243	0	91.9	70.3	123	1.155	1.03	30	
trans-1,2-Dichloroethene	1.17	0.0249	1.243	0	94.3	73.1	121	1.174	0.236	30	
1,1-Dichloroethane	1.13	0.0249	1.243	0	90.6	70.8	122	1.126	0.0666	30	

Fremont Analytical

Date: *6/10/2020*

Work Order: 2006154
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2006154-007BMSD** SampType: **MSD** Units: **mg/Kg-dry** Prep Date: **6/9/2020** RunNo: **59720**
Client ID: **358-B10-50** Batch ID: **28610** Analysis Date: **6/10/2020** SeqNo: **1195002**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
cis-1,2-Dichloroethene	1.12	0.0249	1.243	0	90.0	71.8	122	1.148	2.62	30	
Chloroform	1.11	0.0249	1.243	0	89.4	72.9	122	1.125	1.20	30	
1,1,1-Trichloroethane (TCA)	1.14	0.0311	1.243	0	91.9	69.6	125	1.159	1.45	30	
1,1-Dichloropropene	1.15	0.0249	1.243	0	92.7	69.3	126	1.147	0.473	30	
Carbon tetrachloride	1.16	0.0311	1.243	0	93.4	65	127	1.166	0.486	30	
1,2-Dichloroethane (EDC)	1.05	0.0249	1.243	0	84.1	70.1	121	1.066	1.95	30	
Trichloroethene (TCE)	1.11	0.0249	1.243	0	89.3	70.1	129	1.129	1.74	30	
1,2-Dichloropropane	1.08	0.0249	1.243	0	86.5	74.6	120	1.086	0.919	30	
Bromodichloromethane	1.06	0.0249	1.243	0	85.6	70.9	122	1.084	1.83	30	
Dibromomethane	1.06	0.0249	1.243	0	85.5	75.6	120	1.099	3.32	30	
cis-1,3-Dichloropropene	1.05	0.0249	1.243	0	84.1	68.3	120	1.066	2.01	30	
trans-1,3-Dichloropropylene	1.03	0.0249	1.243	0	82.7	62.2	127	1.048	2.00	30	
1,1,2-Trichloroethane	1.03	0.0249	1.243	0	82.8	72.9	120	1.066	3.49	30	
1,3-Dichloropropane	1.03	0.0311	1.243	0	83.0	71.9	119	1.062	2.87	30	
Tetrachloroethene (PCE)	1.15	0.0311	1.243	0	92.5	71.1	122	1.150	0.0739	30	
Dibromochloromethane	1.05	0.0311	1.243	0	84.4	65.9	126	1.059	0.881	30	
1,2-Dibromoethane (EDB)	1.03	0.00621	1.243	0	83.2	72	119	1.041	0.667	30	
Chlorobenzene	1.14	0.0311	1.243	0	91.7	81.4	116	1.128	0.965	30	
1,1,1,2-Tetrachloroethane	1.09	0.0311	1.243	0	87.5	72.9	125	1.079	0.747	30	
Bromoform	1.03	0.0621	1.243	0	82.8	63.4	133	1.021	0.872	30	
1,1,2,2-Tetrachloroethane	1.03	0.0249	1.243	0	83.0	61	128	1.008	2.37	30	
Bromobenzene	1.12	0.0249	1.243	0	90.0	77	120	1.120	0.0703	30	
2-Chlorotoluene	1.12	0.0311	1.243	0	90.4	71.4	126	1.112	0.971	30	
4-Chlorotoluene	1.13	0.0311	1.243	0	90.7	73.6	124	1.118	0.801	30	
1,2,3-Trichloropropane	1.06	0.0311	1.243	0	85.0	65.7	132	1.042	1.37	30	
1,2,4-Trichlorobenzene	1.15	0.0311	1.243	0	92.3	70.5	130	1.120	2.41	30	
1,3-Dichlorobenzene	1.17	0.0249	1.243	0	94.5	83.8	121	1.166	0.799	30	
1,4-Dichlorobenzene	1.17	0.0249	1.243	0	94.5	85.7	117	1.153	1.86	30	
1,2-Dichlorobenzene	1.16	0.0249	1.243	0	93.6	81.8	120	1.142	1.82	30	
1,2-Dibromo-3-chloropropane	1.03	0.621	1.243	0	83.1	56.9	139	1.011	2.15	30	
Hexachloro-1,3-butadiene	1.23	0.0621	1.243	0	99.0	61.1	140	1.177	4.47	30	

Date: *6/10/2020*

Work Order: 2006154
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2006154-007BMSD** SampType: **MSD** Units: **mg/Kg-dry** Prep Date: **6/9/2020** RunNo: **59720**
Client ID: **358-B10-50** Batch ID: **28610** Analysis Date: **6/10/2020** SeqNo: **1195002**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,3-Trichlorobenzene	1.11	0.0249	1.243	0	89.7	67.8	132	1.083	2.88	30	
Surr: Dibromofluoromethane	1.55		1.554		99.7	83.3	111		0		
Surr: Toluene-d8	1.52		1.554		97.6	87.9	111		0		
Surr: 1-Bromo-4-fluorobenzene	1.49		1.554		95.8	85.1	111		0		

NOTES:
S - Outlying spike recovery observed.

Sample Log-In Check List

Client Name:	**ONEILL**	Work Order Number:	**2006154**
Logged by:	**Carissa True**	Date Received:	**6/9/2020 3:23:00 PM**

Chain of Custody

		Yes	No	Not Present
1.	Is Chain of Custody complete?	☑	☐	☐
2.	How was the sample delivered?	Client		

Log In

		Yes	No	NA
3.	Coolers are present?	☑	☐	☐
4.	Shipping container/cooler in good condition?	☑	☐	
5.	Custody Seals present on shipping container/cooler? (Refer to comments for Custody Seals not intact)	☑	☐	Not Present ☐
6.	Was an attempt made to cool the samples?	☑	☐	☐
7.	Were all items received at a temperature of >2°C to 6°C *	☑	☐	☐
8.	Sample(s) in proper container(s)?	☑	☐	
9.	Sufficient sample volume for indicated test(s)?	☑	☐	
10.	Are samples properly preserved?	☑	☐	
11.	Was preservative added to bottles?	☐	☑	☐
12.	Is there headspace in the VOA vials?	☐	☐	☑
13.	Did all samples containers arrive in good condition(unbroken)?	☑	☐	
14.	Does paperwork match bottle labels?	☑	☐	
15.	Are matrices correctly identified on Chain of Custody?	☑	☐	
16.	Is it clear what analyses were requested?	☑	☐	
17.	Were all holding times able to be met?	☑	☐	

Special Handling (if applicable)

		Yes	No	NA
18.	Was client notified of all discrepancies with this order?	☐	☐	☑

Person Notified: Date:

By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

Client Instructions:

19. Additional remarks:

Item Information

Item #	Temp ºC
Cooler 1	2.7
Sample 1	5.4
Temp blank 1	1.2

* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C

Chain of Custody Record & Laboratory Services Agreement

Fremont Analytical
3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790
Fax: 206-352-7178

Date: 6/9/20 Page: 1 of:

Laboratory Project No (internal): 2006154

Project Name: F200

Project No: 2021

Collected by: Atkins

Location: FL358 -

Report To (PM): Atkins

PM Email:

Client: OSS

Address:

City, State, Zip:

Telephone:

Fax:

Special Remarks:

Sample Disposal: ☐ Return to client ☐ Disposal by lab (after 30 days)

	Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	VOCs (EPA 8260 / 624)	GX/BTEX	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DX)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T) | Dissolved (D)	Anions (IC)***	EDB (8011)					Comments
1	358-B10-0.5	6/9/20	955	S	X																	
2	358-B10-25		1055																			
3	358-B10-30		1120																			
4	358-B10-35		1145																			
5	358-B10-40		1250																			
6	358-B10-45		1315																			
7	358-B10-50		1335		X																	
8																						
9																						
10																						

*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

**Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL *Individual:* Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti Tl U V Zn

***Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above and that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished	Date/Time	Received	Date/Time
x [signature]	6/9/20 - 1600	x [signature]	6/9/20 1623
Relinquished	Date/Time	Received	Date/Time
x		x	

Turn-around Time:

- ☐ Standard
- ☐ 3 Day
- ☐ 2 Day
- ☐ Next Day
- Same Day _____ (specify)

3600 Fremont Ave. N.
Seattle, WA 98103
T: (206) 352-3790
F: (206) 352-7178
info@fremontanalytical.com

O'Neill Service Group
Vance Atkins
17619 NE 67th Court, Suite 100
Redmond, WA 98052

RE: F200
Work Order Number: 2006195

June 12, 2020

Attention Vance Atkins:

Fremont Analytical, Inc. received 17 sample(s) on 6/10/2020 for the analyses presented in the following report.

Sample Moisture (Percent Moisture)
Volatile Organic Compounds by EPA Method 8260D

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Brianna Barnes
Project Manager

Date: *06/12/2020*

CLIENT: O'Neill Service Group
Project: F200
Work Order: 2006195

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
2006195-001	358-B11-1	06/10/2020 8:15 AM	06/10/2020 5:23 PM
2006195-002	358-B11-2.5	06/10/2020 8:25 AM	06/10/2020 5:23 PM
2006195-003	358-B11-5	06/10/2020 8:35 AM	06/10/2020 5:23 PM
2006195-004	358-B11-7.5	06/10/2020 8:55 AM	06/10/2020 5:23 PM
2006195-005	358-B11-10	06/10/2020 9:00 AM	06/10/2020 5:23 PM
2006195-006	358-B11-22.5	06/10/2020 9:55 AM	06/10/2020 5:23 PM
2006195-007	358-B11-25	06/10/2020 10:05 AM	06/10/2020 5:23 PM
2006195-008	358-B12-1	06/10/2020 1:10 PM	06/10/2020 5:23 PM
2006195-009	358-B12-2.5	06/10/2020 1:20 PM	06/10/2020 5:23 PM
2006195-010	358-B12-5	06/10/2020 1:25 PM	06/10/2020 5:23 PM
2006195-011	358-B12-7.5	06/10/2020 1:30 PM	06/10/2020 5:23 PM
2006195-012	358-B12-10	06/10/2020 1:45 PM	06/10/2020 5:23 PM
2006195-013	358-B12-15	06/10/2020 1:55 PM	06/10/2020 5:23 PM
2006195-014	358-B12-20	06/10/2020 2:10 PM	06/10/2020 5:23 PM
2006195-015	358-B12-25	06/10/2020 2:25 PM	06/10/2020 5:23 PM
2006195-016	358-B12-30	06/10/2020 3:15 PM	06/10/2020 5:23 PM
2006195-017	358-B12-35	06/10/2020 3:40 PM	06/10/2020 5:23 PM

Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned

Case Narrative

WO#: **2006195**

Date: **6/12/2020**

CLIENT: O'Neill Service Group

Project: F200

I. SAMPLE RECEIPT:
Samples receipt information is recorded on the attached Sample Receipt Checklist.

II. GENERAL REPORTING COMMENTS:
Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

III. ANALYSES AND EXCEPTIONS:
Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

Qualifiers:

* - Flagged value is not within established control limits
B - Analyte detected in the associated Method Blank
D - Dilution was required
E - Value above quantitation range
H - Holding times for preparation or analysis exceeded
I - Analyte with an internal standard that does not meet established acceptance criteria
J - Analyte detected below Reporting Limit
N - Tentatively Identified Compound (TIC)
Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF)
S - Spike recovery outside accepted recovery limits
ND - Not detected at the Reporting Limit
R - High relative percent difference observed

Acronyms:

%Rec - Percent Recovery
CCB - Continued Calibration Blank
CCV - Continued Calibration Verification
DF - Dilution Factor
HEM - Hexane Extractable Material
ICV - Initial Calibration Verification
LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
MB or MBLANK - Method Blank
MDL - Method Detection Limit
MS/MSD - Matrix Spike / Matrix Spike Duplicate
PDS - Post Digestion Spike
Ref Val - Reference Value
RL - Reporting Limit
RPD - Relative Percent Difference
SD - Serial Dilution
SGT - Silica Gel Treatment
SPK - Spike
Surr - Surrogate

Analytical Report

Work Order: **2006195**
Date Reported: **6/12/2020**

Client: O'Neill Service Group
Collection Date: 6/10/2020 8:15:00 AM
Project: F200
Lab ID: 2006195-001
Matrix: Soil
Client Sample ID: 358-B11-1

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28626 Analyst: KT

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0159		mg/Kg-dry	1	6/11/2020 1:15:08 PM
Chloromethane	ND	0.0397		mg/Kg-dry	1	6/11/2020 1:15:08 PM
Vinyl chloride	ND	0.0199		mg/Kg-dry	1	6/11/2020 1:15:08 PM
Bromomethane	ND	0.0397		mg/Kg-dry	1	6/11/2020 1:15:08 PM
Trichlorofluoromethane (CFC-11)	ND	0.0159		mg/Kg-dry	1	6/11/2020 1:15:08 PM
Chloroethane	ND	0.0397		mg/Kg-dry	1	6/11/2020 1:15:08 PM
1,1-Dichloroethene	ND	0.0159		mg/Kg-dry	1	6/11/2020 1:15:08 PM
Methylene chloride	ND	0.0159		mg/Kg-dry	1	6/11/2020 1:15:08 PM
trans-1,2-Dichloroethene	ND	0.0159		mg/Kg-dry	1	6/11/2020 1:15:08 PM
1,1-Dichloroethane	ND	0.0159		mg/Kg-dry	1	6/11/2020 1:15:08 PM
cis-1,2-Dichloroethene	ND	0.0159		mg/Kg-dry	1	6/11/2020 1:15:08 PM
Chloroform	ND	0.0159		mg/Kg-dry	1	6/11/2020 1:15:08 PM
1,1,1-Trichloroethane (TCA)	ND	0.0199		mg/Kg-dry	1	6/11/2020 1:15:08 PM
1,1-Dichloropropene	ND	0.0159		mg/Kg-dry	1	6/11/2020 1:15:08 PM
Carbon tetrachloride	ND	0.0199		mg/Kg-dry	1	6/11/2020 1:15:08 PM
1,2-Dichloroethane (EDC)	ND	0.0159		mg/Kg-dry	1	6/11/2020 1:15:08 PM
Trichloroethene (TCE)	ND	0.0159		mg/Kg-dry	1	6/11/2020 1:15:08 PM
1,2-Dichloropropane	ND	0.0159		mg/Kg-dry	1	6/11/2020 1:15:08 PM
Bromodichloromethane	ND	0.0159		mg/Kg-dry	1	6/11/2020 1:15:08 PM
Dibromomethane	ND	0.0159		mg/Kg-dry	1	6/11/2020 1:15:08 PM
cis-1,3-Dichloropropene	ND	0.0159		mg/Kg-dry	1	6/11/2020 1:15:08 PM
trans-1,3-Dichloropropylene	ND	0.0159		mg/Kg-dry	1	6/11/2020 1:15:08 PM
1,1,2-Trichloroethane	ND	0.0159		mg/Kg-dry	1	6/11/2020 1:15:08 PM
1,3-Dichloropropane	ND	0.0199		mg/Kg-dry	1	6/11/2020 1:15:08 PM
Tetrachloroethene (PCE)	ND	0.0199		mg/Kg-dry	1	6/11/2020 1:15:08 PM
Dibromochloromethane	ND	0.0199		mg/Kg-dry	1	6/11/2020 1:15:08 PM
1,2-Dibromoethane (EDB)	ND	0.00397		mg/Kg-dry	1	6/11/2020 1:15:08 PM
Chlorobenzene	ND	0.0199		mg/Kg-dry	1	6/11/2020 1:15:08 PM
1,1,1,2-Tetrachloroethane	ND	0.0199		mg/Kg-dry	1	6/11/2020 1:15:08 PM
Bromoform	ND	0.0397	Q	mg/Kg-dry	1	6/11/2020 1:15:08 PM
1,1,2,2-Tetrachloroethane	ND	0.0159		mg/Kg-dry	1	6/11/2020 1:15:08 PM
Bromobenzene	ND	0.0159		mg/Kg-dry	1	6/11/2020 1:15:08 PM
2-Chlorotoluene	ND	0.0199		mg/Kg-dry	1	6/11/2020 1:15:08 PM
4-Chlorotoluene	ND	0.0199		mg/Kg-dry	1	6/11/2020 1:15:08 PM
1,2,3-Trichloropropane	ND	0.0199		mg/Kg-dry	1	6/11/2020 1:15:08 PM
1,2,4-Trichlorobenzene	ND	0.0199		mg/Kg-dry	1	6/11/2020 1:15:08 PM
1,3-Dichlorobenzene	ND	0.0159		mg/Kg-dry	1	6/11/2020 1:15:08 PM
1,4-Dichlorobenzene	ND	0.0159		mg/Kg-dry	1	6/11/2020 1:15:08 PM
1,2-Dichlorobenzene	ND	0.0159		mg/Kg-dry	1	6/11/2020 1:15:08 PM

Analytical Report

Work Order: **2006195**
Date Reported: **6/12/2020**

Client: O'Neill Service Group
Collection Date: 6/10/2020 8:15:00 AM
Project: F200
Lab ID: 2006195-001
Matrix: Soil
Client Sample ID: 358-B11-1

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28626		Analyst: KT
1,2-Dibromo-3-chloropropane	ND	0.397	Q	mg/Kg-dry	1	6/11/2020 1:15:08 PM
Hexachloro-1,3-butadiene	ND	0.0397		mg/Kg-dry	1	6/11/2020 1:15:08 PM
1,2,3-Trichlorobenzene	ND	0.0159		mg/Kg-dry	1	6/11/2020 1:15:08 PM
Surr: Dibromofluoromethane	98.1	83.3 - 111		%Rec	1	6/11/2020 1:15:08 PM
Surr: Toluene-d8	98.1	87.9 - 111		%Rec	1	6/11/2020 1:15:08 PM
Surr: 1-Bromo-4-fluorobenzene	96.6	85.1 - 111		%Rec	1	6/11/2020 1:15:08 PM

NOTES:
Q - Indicates an analyte with a continuing calibration that does not meet established acceptance criteria

Sample Moisture (Percent Moisture)				Batch ID: R59778		Analyst: CG
Percent Moisture	9.82	0.500		wt%	1	6/12/2020 6:37:43 AM

Analytical Report

Work Order: **2006195**
Date Reported: **6/12/2020**

Client: O'Neill Service Group
Collection Date: 6/10/2020 8:25:00 AM
Project: F200
Lab ID: 2006195-002
Matrix: Soil
Client Sample ID: 358-B11-2.5

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28626 Analyst: KT

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0294		mg/Kg-dry	1	6/11/2020 5:53:01 PM
Chloromethane	ND	0.0736		mg/Kg-dry	1	6/11/2020 5:53:01 PM
Vinyl chloride	ND	0.0368		mg/Kg-dry	1	6/11/2020 5:53:01 PM
Bromomethane	ND	0.0736		mg/Kg-dry	1	6/11/2020 5:53:01 PM
Trichlorofluoromethane (CFC-11)	ND	0.0294		mg/Kg-dry	1	6/11/2020 5:53:01 PM
Chloroethane	ND	0.0736		mg/Kg-dry	1	6/11/2020 5:53:01 PM
1,1-Dichloroethene	ND	0.0294		mg/Kg-dry	1	6/11/2020 5:53:01 PM
Methylene chloride	ND	0.0294		mg/Kg-dry	1	6/11/2020 5:53:01 PM
trans-1,2-Dichloroethene	ND	0.0294		mg/Kg-dry	1	6/11/2020 5:53:01 PM
1,1-Dichloroethane	ND	0.0294		mg/Kg-dry	1	6/11/2020 5:53:01 PM
cis-1,2-Dichloroethene	ND	0.0294		mg/Kg-dry	1	6/11/2020 5:53:01 PM
Chloroform	ND	0.0294		mg/Kg-dry	1	6/11/2020 5:53:01 PM
1,1,1-Trichloroethane (TCA)	ND	0.0368		mg/Kg-dry	1	6/11/2020 5:53:01 PM
1,1-Dichloropropene	ND	0.0294		mg/Kg-dry	1	6/11/2020 5:53:01 PM
Carbon tetrachloride	ND	0.0368		mg/Kg-dry	1	6/11/2020 5:53:01 PM
1,2-Dichloroethane (EDC)	ND	0.0294		mg/Kg-dry	1	6/11/2020 5:53:01 PM
Trichloroethene (TCE)	ND	0.0294		mg/Kg-dry	1	6/11/2020 5:53:01 PM
1,2-Dichloropropane	ND	0.0294		mg/Kg-dry	1	6/11/2020 5:53:01 PM
Bromodichloromethane	ND	0.0294		mg/Kg-dry	1	6/11/2020 5:53:01 PM
Dibromomethane	ND	0.0294		mg/Kg-dry	1	6/11/2020 5:53:01 PM
cis-1,3-Dichloropropene	ND	0.0294		mg/Kg-dry	1	6/11/2020 5:53:01 PM
trans-1,3-Dichloropropylene	ND	0.0294		mg/Kg-dry	1	6/11/2020 5:53:01 PM
1,1,2-Trichloroethane	ND	0.0294		mg/Kg-dry	1	6/11/2020 5:53:01 PM
1,3-Dichloropropane	ND	0.0368		mg/Kg-dry	1	6/11/2020 5:53:01 PM
Tetrachloroethene (PCE)	ND	0.0368		mg/Kg-dry	1	6/11/2020 5:53:01 PM
Dibromochloromethane	ND	0.0368		mg/Kg-dry	1	6/11/2020 5:53:01 PM
1,2-Dibromoethane (EDB)	ND	0.00736		mg/Kg-dry	1	6/11/2020 5:53:01 PM
Chlorobenzene	ND	0.0368		mg/Kg-dry	1	6/11/2020 5:53:01 PM
1,1,1,2-Tetrachloroethane	ND	0.0368		mg/Kg-dry	1	6/11/2020 5:53:01 PM
Bromoform	ND	0.0736	Q	mg/Kg-dry	1	6/11/2020 5:53:01 PM
1,1,2,2-Tetrachloroethane	ND	0.0294		mg/Kg-dry	1	6/11/2020 5:53:01 PM
Bromobenzene	ND	0.0294		mg/Kg-dry	1	6/11/2020 5:53:01 PM
2-Chlorotoluene	ND	0.0368		mg/Kg-dry	1	6/11/2020 5:53:01 PM
4-Chlorotoluene	ND	0.0368		mg/Kg-dry	1	6/11/2020 5:53:01 PM
1,2,3-Trichloropropane	ND	0.0368		mg/Kg-dry	1	6/11/2020 5:53:01 PM
1,2,4-Trichlorobenzene	ND	0.0368		mg/Kg-dry	1	6/11/2020 5:53:01 PM
1,3-Dichlorobenzene	ND	0.0294		mg/Kg-dry	1	6/11/2020 5:53:01 PM
1,4-Dichlorobenzene	ND	0.0294		mg/Kg-dry	1	6/11/2020 5:53:01 PM
1,2-Dichlorobenzene	ND	0.0294		mg/Kg-dry	1	6/11/2020 5:53:01 PM

Analytical Report

Work Order: **2006195**
Date Reported: **6/12/2020**

Client: O'Neill Service Group
Collection Date: 6/10/2020 8:25:00 AM
Project: F200
Lab ID: 2006195-002
Matrix: Soil
Client Sample ID: 358-B11-2.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28626		Analyst: KT
1,2-Dibromo-3-chloropropane	ND	0.736	Q	mg/Kg-dry	1	6/11/2020 5:53:01 PM
Hexachloro-1,3-butadiene	ND	0.0736		mg/Kg-dry	1	6/11/2020 5:53:01 PM
1,2,3-Trichlorobenzene	ND	0.0294		mg/Kg-dry	1	6/11/2020 5:53:01 PM
Surr: Dibromofluoromethane	99.3	83.3 - 111		%Rec	1	6/11/2020 5:53:01 PM
Surr: Toluene-d8	98.0	87.9 - 111		%Rec	1	6/11/2020 5:53:01 PM
Surr: 1-Bromo-4-fluorobenzene	97.2	85.1 - 111		%Rec	1	6/11/2020 5:53:01 PM

NOTES:
Q - Indicates an analyte with a continuing calibration that does not meet established acceptance criteria

Sample Moisture (Percent Moisture)				Batch ID: R59778		Analyst: CG
Percent Moisture	10.9	0.500		wt%	1	6/12/2020 6:37:43 AM

Analytical Report

Work Order: **2006195**
Date Reported: **6/12/2020**

Client: O'Neill Service Group
Collection Date: 6/10/2020 9:00:00 AM
Project: F200
Lab ID: 2006195-005
Matrix: Soil
Client Sample ID: 358-B11-10

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28626 Analyst: KT

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0188		mg/Kg-dry	1	6/11/2020 7:53:34 PM
Chloromethane	ND	0.0470		mg/Kg-dry	1	6/11/2020 7:53:34 PM
Vinyl chloride	ND	0.0235		mg/Kg-dry	1	6/11/2020 7:53:34 PM
Bromomethane	ND	0.0470		mg/Kg-dry	1	6/11/2020 7:53:34 PM
Trichlorofluoromethane (CFC-11)	ND	0.0188		mg/Kg-dry	1	6/11/2020 7:53:34 PM
Chloroethane	ND	0.0470		mg/Kg-dry	1	6/11/2020 7:53:34 PM
1,1-Dichloroethene	ND	0.0188		mg/Kg-dry	1	6/11/2020 7:53:34 PM
Methylene chloride	ND	0.0188		mg/Kg-dry	1	6/11/2020 7:53:34 PM
trans-1,2-Dichloroethene	ND	0.0188		mg/Kg-dry	1	6/11/2020 7:53:34 PM
1,1-Dichloroethane	ND	0.0188		mg/Kg-dry	1	6/11/2020 7:53:34 PM
cis-1,2-Dichloroethene	ND	0.0188		mg/Kg-dry	1	6/11/2020 7:53:34 PM
Chloroform	ND	0.0188		mg/Kg-dry	1	6/11/2020 7:53:34 PM
1,1,1-Trichloroethane (TCA)	ND	0.0235		mg/Kg-dry	1	6/11/2020 7:53:34 PM
1,1-Dichloropropene	ND	0.0188		mg/Kg-dry	1	6/11/2020 7:53:34 PM
Carbon tetrachloride	ND	0.0235		mg/Kg-dry	1	6/11/2020 7:53:34 PM
1,2-Dichloroethane (EDC)	ND	0.0188		mg/Kg-dry	1	6/11/2020 7:53:34 PM
Trichloroethene (TCE)	ND	0.0188		mg/Kg-dry	1	6/11/2020 7:53:34 PM
1,2-Dichloropropane	ND	0.0188		mg/Kg-dry	1	6/11/2020 7:53:34 PM
Bromodichloromethane	ND	0.0188		mg/Kg-dry	1	6/11/2020 7:53:34 PM
Dibromomethane	ND	0.0188		mg/Kg-dry	1	6/11/2020 7:53:34 PM
cis-1,3-Dichloropropene	ND	0.0188		mg/Kg-dry	1	6/11/2020 7:53:34 PM
trans-1,3-Dichloropropylene	ND	0.0188		mg/Kg-dry	1	6/11/2020 7:53:34 PM
1,1,2-Trichloroethane	ND	0.0188		mg/Kg-dry	1	6/11/2020 7:53:34 PM
1,3-Dichloropropane	ND	0.0235		mg/Kg-dry	1	6/11/2020 7:53:34 PM
Tetrachloroethene (PCE)	ND	0.0235		mg/Kg-dry	1	6/11/2020 7:53:34 PM
Dibromochloromethane	ND	0.0235		mg/Kg-dry	1	6/11/2020 7:53:34 PM
1,2-Dibromoethane (EDB)	ND	0.00470		mg/Kg-dry	1	6/11/2020 7:53:34 PM
Chlorobenzene	ND	0.0235		mg/Kg-dry	1	6/11/2020 7:53:34 PM
1,1,1,2-Tetrachloroethane	ND	0.0235		mg/Kg-dry	1	6/11/2020 7:53:34 PM
Bromoform	ND	0.0470	Q	mg/Kg-dry	1	6/11/2020 7:53:34 PM
1,1,2,2-Tetrachloroethane	ND	0.0188		mg/Kg-dry	1	6/11/2020 7:53:34 PM
Bromobenzene	ND	0.0188		mg/Kg-dry	1	6/11/2020 7:53:34 PM
2-Chlorotoluene	ND	0.0235		mg/Kg-dry	1	6/11/2020 7:53:34 PM
4-Chlorotoluene	ND	0.0235		mg/Kg-dry	1	6/11/2020 7:53:34 PM
1,2,3-Trichloropropane	ND	0.0235		mg/Kg-dry	1	6/11/2020 7:53:34 PM
1,2,4-Trichlorobenzene	ND	0.0235		mg/Kg-dry	1	6/11/2020 7:53:34 PM
1,3-Dichlorobenzene	ND	0.0188		mg/Kg-dry	1	6/11/2020 7:53:34 PM
1,4-Dichlorobenzene	ND	0.0188		mg/Kg-dry	1	6/11/2020 7:53:34 PM
1,2-Dichlorobenzene	ND	0.0188		mg/Kg-dry	1	6/11/2020 7:53:34 PM

Analytical Report

Work Order: **2006195**
Date Reported: **6/12/2020**

Client: O'Neill Service Group
Collection Date: 6/10/2020 9:00:00 AM
Project: F200
Lab ID: 2006195-005
Matrix: Soil
Client Sample ID: 358-B11-10

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28626		Analyst: KT
1,2-Dibromo-3-chloropropane	ND	0.470	Q	mg/Kg-dry	1	6/11/2020 7:53:34 PM
Hexachloro-1,3-butadiene	ND	0.0470		mg/Kg-dry	1	6/11/2020 7:53:34 PM
1,2,3-Trichlorobenzene	ND	0.0188		mg/Kg-dry	1	6/11/2020 7:53:34 PM
Surr: Dibromofluoromethane	97.7	83.3 - 111		%Rec	1	6/11/2020 7:53:34 PM
Surr: Toluene-d8	97.3	87.9 - 111		%Rec	1	6/11/2020 7:53:34 PM
Surr: 1-Bromo-4-fluorobenzene	96.3	85.1 - 111		%Rec	1	6/11/2020 7:53:34 PM

NOTES:
Q - Indicates an analyte with a continuing calibration that does not meet established acceptance criteria

Sample Moisture (Percent Moisture)				Batch ID: R59778		Analyst: CG
Percent Moisture	20.5	0.500		wt%	1	6/12/2020 6:37:43 AM

Analytical Report

Work Order: **2006195**
Date Reported: **6/12/2020**

Client: O'Neill Service Group
Collection Date: 6/10/2020 10:05:00 AM
Project: F200
Lab ID: 2006195-007
Matrix: Soil
Client Sample ID: 358-B11-25

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28626 Analyst: KT

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0223		mg/Kg-dry	1	6/11/2020 8:53:47 PM
Chloromethane	ND	0.0558		mg/Kg-dry	1	6/11/2020 8:53:47 PM
Vinyl chloride	ND	0.0279		mg/Kg-dry	1	6/11/2020 8:53:47 PM
Bromomethane	ND	0.0558		mg/Kg-dry	1	6/11/2020 8:53:47 PM
Trichlorofluoromethane (CFC-11)	ND	0.0223		mg/Kg-dry	1	6/11/2020 8:53:47 PM
Chloroethane	ND	0.0558		mg/Kg-dry	1	6/11/2020 8:53:47 PM
1,1-Dichloroethene	ND	0.0223		mg/Kg-dry	1	6/11/2020 8:53:47 PM
Methylene chloride	ND	0.0223		mg/Kg-dry	1	6/11/2020 8:53:47 PM
trans-1,2-Dichloroethene	ND	0.0223		mg/Kg-dry	1	6/11/2020 8:53:47 PM
1,1-Dichloroethane	ND	0.0223		mg/Kg-dry	1	6/11/2020 8:53:47 PM
cis-1,2-Dichloroethene	ND	0.0223		mg/Kg-dry	1	6/11/2020 8:53:47 PM
Chloroform	ND	0.0223		mg/Kg-dry	1	6/11/2020 8:53:47 PM
1,1,1-Trichloroethane (TCA)	ND	0.0279		mg/Kg-dry	1	6/11/2020 8:53:47 PM
1,1-Dichloropropene	ND	0.0223		mg/Kg-dry	1	6/11/2020 8:53:47 PM
Carbon tetrachloride	ND	0.0279		mg/Kg-dry	1	6/11/2020 8:53:47 PM
1,2-Dichloroethane (EDC)	ND	0.0223		mg/Kg-dry	1	6/11/2020 8:53:47 PM
Trichloroethene (TCE)	ND	0.0223		mg/Kg-dry	1	6/11/2020 8:53:47 PM
1,2-Dichloropropane	ND	0.0223		mg/Kg-dry	1	6/11/2020 8:53:47 PM
Bromodichloromethane	ND	0.0223		mg/Kg-dry	1	6/11/2020 8:53:47 PM
Dibromomethane	ND	0.0223		mg/Kg-dry	1	6/11/2020 8:53:47 PM
cis-1,3-Dichloropropene	ND	0.0223		mg/Kg-dry	1	6/11/2020 8:53:47 PM
trans-1,3-Dichloropropylene	ND	0.0223		mg/Kg-dry	1	6/11/2020 8:53:47 PM
1,1,2-Trichloroethane	ND	0.0223		mg/Kg-dry	1	6/11/2020 8:53:47 PM
1,3-Dichloropropane	ND	0.0279		mg/Kg-dry	1	6/11/2020 8:53:47 PM
Tetrachloroethene (PCE)	ND	0.0279		mg/Kg-dry	1	6/11/2020 8:53:47 PM
Dibromochloromethane	ND	0.0279		mg/Kg-dry	1	6/11/2020 8:53:47 PM
1,2-Dibromoethane (EDB)	ND	0.00558		mg/Kg-dry	1	6/11/2020 8:53:47 PM
Chlorobenzene	ND	0.0279		mg/Kg-dry	1	6/11/2020 8:53:47 PM
1,1,1,2-Tetrachloroethane	ND	0.0279		mg/Kg-dry	1	6/11/2020 8:53:47 PM
Bromoform	ND	0.0558	Q	mg/Kg-dry	1	6/11/2020 8:53:47 PM
1,1,2,2-Tetrachloroethane	ND	0.0223		mg/Kg-dry	1	6/11/2020 8:53:47 PM
Bromobenzene	ND	0.0223		mg/Kg-dry	1	6/11/2020 8:53:47 PM
2-Chlorotoluene	ND	0.0279		mg/Kg-dry	1	6/11/2020 8:53:47 PM
4-Chlorotoluene	ND	0.0279		mg/Kg-dry	1	6/11/2020 8:53:47 PM
1,2,3-Trichloropropane	ND	0.0279		mg/Kg-dry	1	6/11/2020 8:53:47 PM
1,2,4-Trichlorobenzene	ND	0.0279		mg/Kg-dry	1	6/11/2020 8:53:47 PM
1,3-Dichlorobenzene	ND	0.0223		mg/Kg-dry	1	6/11/2020 8:53:47 PM
1,4-Dichlorobenzene	ND	0.0223		mg/Kg-dry	1	6/11/2020 8:53:47 PM
1,2-Dichlorobenzene	ND	0.0223		mg/Kg-dry	1	6/11/2020 8:53:47 PM

Analytical Report

Work Order: **2006195**
Date Reported: **6/12/2020**

Client: O'Neill Service Group
Collection Date: 6/10/2020 10:05:00 AM
Project: F200
Lab ID: 2006195-007
Matrix: Soil
Client Sample ID: 358-B11-25

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28626		Analyst: KT
1,2-Dibromo-3-chloropropane	ND	0.558	Q	mg/Kg-dry	1	6/11/2020 8:53:47 PM
Hexachloro-1,3-butadiene	ND	0.0558		mg/Kg-dry	1	6/11/2020 8:53:47 PM
1,2,3-Trichlorobenzene	ND	0.0223		mg/Kg-dry	1	6/11/2020 8:53:47 PM
Surr: Dibromofluoromethane	98.2	83.3 - 111		%Rec	1	6/11/2020 8:53:47 PM
Surr: Toluene-d8	98.1	87.9 - 111		%Rec	1	6/11/2020 8:53:47 PM
Surr: 1-Bromo-4-fluorobenzene	98.1	85.1 - 111		%Rec	1	6/11/2020 8:53:47 PM

NOTES:
Q - Indicates an analyte with a continuing calibration that does not meet established acceptance criteria

Sample Moisture (Percent Moisture)				Batch ID: R59778		Analyst: CG
Percent Moisture	16.1	0.500		wt%	1	6/12/2020 6:37:43 AM

Analytical Report

Work Order: **2006195**
Date Reported: **6/12/2020**

Client: O'Neill Service Group
Collection Date: 6/10/2020 1:20:00 PM
Project: F200
Lab ID: 2006195-009
Matrix: Soil
Client Sample ID: 358-B12-2.5

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28626 Analyst: KT

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0206		mg/Kg-dry	1	6/11/2020 9:54:01 PM
Chloromethane	ND	0.0514		mg/Kg-dry	1	6/11/2020 9:54:01 PM
Vinyl chloride	ND	0.0257		mg/Kg-dry	1	6/11/2020 9:54:01 PM
Bromomethane	ND	0.0514		mg/Kg-dry	1	6/11/2020 9:54:01 PM
Trichlorofluoromethane (CFC-11)	ND	0.0206		mg/Kg-dry	1	6/11/2020 9:54:01 PM
Chloroethane	ND	0.0514		mg/Kg-dry	1	6/11/2020 9:54:01 PM
1,1-Dichloroethene	ND	0.0206		mg/Kg-dry	1	6/11/2020 9:54:01 PM
Methylene chloride	ND	0.0206		mg/Kg-dry	1	6/11/2020 9:54:01 PM
trans-1,2-Dichloroethene	ND	0.0206		mg/Kg-dry	1	6/11/2020 9:54:01 PM
1,1-Dichloroethane	ND	0.0206		mg/Kg-dry	1	6/11/2020 9:54:01 PM
cis-1,2-Dichloroethene	ND	0.0206		mg/Kg-dry	1	6/11/2020 9:54:01 PM
Chloroform	ND	0.0206		mg/Kg-dry	1	6/11/2020 9:54:01 PM
1,1,1-Trichloroethane (TCA)	ND	0.0257		mg/Kg-dry	1	6/11/2020 9:54:01 PM
1,1-Dichloropropene	ND	0.0206		mg/Kg-dry	1	6/11/2020 9:54:01 PM
Carbon tetrachloride	ND	0.0257		mg/Kg-dry	1	6/11/2020 9:54:01 PM
1,2-Dichloroethane (EDC)	ND	0.0206		mg/Kg-dry	1	6/11/2020 9:54:01 PM
Trichloroethene (TCE)	ND	0.0206		mg/Kg-dry	1	6/11/2020 9:54:01 PM
1,2-Dichloropropane	ND	0.0206		mg/Kg-dry	1	6/11/2020 9:54:01 PM
Bromodichloromethane	ND	0.0206		mg/Kg-dry	1	6/11/2020 9:54:01 PM
Dibromomethane	ND	0.0206		mg/Kg-dry	1	6/11/2020 9:54:01 PM
cis-1,3-Dichloropropene	ND	0.0206		mg/Kg-dry	1	6/11/2020 9:54:01 PM
trans-1,3-Dichloropropylene	ND	0.0206		mg/Kg-dry	1	6/11/2020 9:54:01 PM
1,1,2-Trichloroethane	ND	0.0206		mg/Kg-dry	1	6/11/2020 9:54:01 PM
1,3-Dichloropropane	ND	0.0257		mg/Kg-dry	1	6/11/2020 9:54:01 PM
Tetrachloroethene (PCE)	ND	0.0257		mg/Kg-dry	1	6/11/2020 9:54:01 PM
Dibromochloromethane	ND	0.0257		mg/Kg-dry	1	6/11/2020 9:54:01 PM
1,2-Dibromoethane (EDB)	ND	0.00514		mg/Kg-dry	1	6/11/2020 9:54:01 PM
Chlorobenzene	ND	0.0257		mg/Kg-dry	1	6/11/2020 9:54:01 PM
1,1,1,2-Tetrachloroethane	ND	0.0257		mg/Kg-dry	1	6/11/2020 9:54:01 PM
Bromoform	ND	0.0514	Q	mg/Kg-dry	1	6/11/2020 9:54:01 PM
1,1,2,2-Tetrachloroethane	ND	0.0206		mg/Kg-dry	1	6/11/2020 9:54:01 PM
Bromobenzene	ND	0.0206		mg/Kg-dry	1	6/11/2020 9:54:01 PM
2-Chlorotoluene	ND	0.0257		mg/Kg-dry	1	6/11/2020 9:54:01 PM
4-Chlorotoluene	ND	0.0257		mg/Kg-dry	1	6/11/2020 9:54:01 PM
1,2,3-Trichloropropane	ND	0.0257		mg/Kg-dry	1	6/11/2020 9:54:01 PM
1,2,4-Trichlorobenzene	ND	0.0257		mg/Kg-dry	1	6/11/2020 9:54:01 PM
1,3-Dichlorobenzene	ND	0.0206		mg/Kg-dry	1	6/11/2020 9:54:01 PM
1,4-Dichlorobenzene	ND	0.0206		mg/Kg-dry	1	6/11/2020 9:54:01 PM
1,2-Dichlorobenzene	ND	0.0206		mg/Kg-dry	1	6/11/2020 9:54:01 PM

Analytical Report

Work Order: **2006195**
Date Reported: **6/12/2020**

Client: O'Neill Service Group
Collection Date: 6/10/2020 1:20:00 PM
Project: F200
Lab ID: 2006195-009
Matrix: Soil
Client Sample ID: 358-B12-2.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28626		Analyst: KT
1,2-Dibromo-3-chloropropane	ND	0.514	Q	mg/Kg-dry	1	6/11/2020 9:54:01 PM
Hexachloro-1,3-butadiene	ND	0.0514		mg/Kg-dry	1	6/11/2020 9:54:01 PM
1,2,3-Trichlorobenzene	ND	0.0206		mg/Kg-dry	1	6/11/2020 9:54:01 PM
Surr: Dibromofluoromethane	96.5	83.3 - 111		%Rec	1	6/11/2020 9:54:01 PM
Surr: Toluene-d8	96.5	87.9 - 111		%Rec	1	6/11/2020 9:54:01 PM
Surr: 1-Bromo-4-fluorobenzene	96.4	85.1 - 111		%Rec	1	6/11/2020 9:54:01 PM

NOTES:
Q - Indicates an analyte with a continuing calibration that does not meet established acceptance criteria

Sample Moisture (Percent Moisture)				Batch ID: R59778		Analyst: CG
Percent Moisture	7.57	0.500		wt%	1	6/12/2020 6:37:43 AM

Analytical Report

Work Order: **2006195**
Date Reported: **6/12/2020**

Client: O'Neill Service Group
Collection Date: 6/10/2020 1:30:00 PM
Project: F200
Lab ID: 2006195-011
Matrix: Soil
Client Sample ID: 358-B12-7.5

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28626 Analyst: KT

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0207		mg/Kg-dry	1	6/12/2020 12:54:53 AM
Chloromethane	ND	0.0518		mg/Kg-dry	1	6/12/2020 12:54:53 AM
Vinyl chloride	ND	0.0259		mg/Kg-dry	1	6/12/2020 12:54:53 AM
Bromomethane	ND	0.0518		mg/Kg-dry	1	6/12/2020 12:54:53 AM
Trichlorofluoromethane (CFC-11)	ND	0.0207		mg/Kg-dry	1	6/12/2020 12:54:53 AM
Chloroethane	ND	0.0518		mg/Kg-dry	1	6/12/2020 12:54:53 AM
1,1-Dichloroethene	ND	0.0207		mg/Kg-dry	1	6/12/2020 12:54:53 AM
Methylene chloride	ND	0.0207		mg/Kg-dry	1	6/12/2020 12:54:53 AM
trans-1,2-Dichloroethene	ND	0.0207		mg/Kg-dry	1	6/12/2020 12:54:53 AM
1,1-Dichloroethane	ND	0.0207		mg/Kg-dry	1	6/12/2020 12:54:53 AM
cis-1,2-Dichloroethene	0.0289	0.0207		mg/Kg-dry	1	6/12/2020 12:54:53 AM
Chloroform	ND	0.0207		mg/Kg-dry	1	6/12/2020 12:54:53 AM
1,1,1-Trichloroethane (TCA)	ND	0.0259		mg/Kg-dry	1	6/12/2020 12:54:53 AM
1,1-Dichloropropene	ND	0.0207		mg/Kg-dry	1	6/12/2020 12:54:53 AM
Carbon tetrachloride	ND	0.0259		mg/Kg-dry	1	6/12/2020 12:54:53 AM
1,2-Dichloroethane (EDC)	ND	0.0207		mg/Kg-dry	1	6/12/2020 12:54:53 AM
Trichloroethene (TCE)	0.110	0.0207		mg/Kg-dry	1	6/12/2020 12:54:53 AM
1,2-Dichloropropane	ND	0.0207		mg/Kg-dry	1	6/12/2020 12:54:53 AM
Bromodichloromethane	ND	0.0207		mg/Kg-dry	1	6/12/2020 12:54:53 AM
Dibromomethane	ND	0.0207		mg/Kg-dry	1	6/12/2020 12:54:53 AM
cis-1,3-Dichloropropene	ND	0.0207		mg/Kg-dry	1	6/12/2020 12:54:53 AM
trans-1,3-Dichloropropylene	ND	0.0207		mg/Kg-dry	1	6/12/2020 12:54:53 AM
1,1,2-Trichloroethane	ND	0.0207		mg/Kg-dry	1	6/12/2020 12:54:53 AM
1,3-Dichloropropane	ND	0.0259		mg/Kg-dry	1	6/12/2020 12:54:53 AM
Tetrachloroethene (PCE)	0.319	0.0259		mg/Kg-dry	1	6/12/2020 12:54:53 AM
Dibromochloromethane	ND	0.0259		mg/Kg-dry	1	6/12/2020 12:54:53 AM
1,2-Dibromoethane (EDB)	ND	0.00518		mg/Kg-dry	1	6/12/2020 12:54:53 AM
Chlorobenzene	ND	0.0259		mg/Kg-dry	1	6/12/2020 12:54:53 AM
1,1,1,2-Tetrachloroethane	ND	0.0259		mg/Kg-dry	1	6/12/2020 12:54:53 AM
Bromoform	ND	0.0518		mg/Kg-dry	1	6/12/2020 12:54:53 AM
1,1,2,2-Tetrachloroethane	ND	0.0207		mg/Kg-dry	1	6/12/2020 12:54:53 AM
Bromobenzene	ND	0.0207		mg/Kg-dry	1	6/12/2020 12:54:53 AM
2-Chlorotoluene	ND	0.0259		mg/Kg-dry	1	6/12/2020 12:54:53 AM
4-Chlorotoluene	ND	0.0259		mg/Kg-dry	1	6/12/2020 12:54:53 AM
1,2,3-Trichloropropane	ND	0.0259		mg/Kg-dry	1	6/12/2020 12:54:53 AM
1,2,4-Trichlorobenzene	ND	0.0259		mg/Kg-dry	1	6/12/2020 12:54:53 AM
1,3-Dichlorobenzene	ND	0.0207		mg/Kg-dry	1	6/12/2020 12:54:53 AM
1,4-Dichlorobenzene	ND	0.0207		mg/Kg-dry	1	6/12/2020 12:54:53 AM
1,2-Dichlorobenzene	ND	0.0207		mg/Kg-dry	1	6/12/2020 12:54:53 AM

Analytical Report

Work Order: **2006195**
Date Reported: **6/12/2020**

Client: O'Neill Service Group
Collection Date: 6/10/2020 1:30:00 PM
Project: F200
Lab ID: 2006195-011
Matrix: Soil
Client Sample ID: 358-B12-7.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28626		Analyst: KT
1,2-Dibromo-3-chloropropane	ND	0.518		mg/Kg-dry	1	6/12/2020 12:54:53 AM
Hexachloro-1,3-butadiene	ND	0.0518		mg/Kg-dry	1	6/12/2020 12:54:53 AM
1,2,3-Trichlorobenzene	ND	0.0207		mg/Kg-dry	1	6/12/2020 12:54:53 AM
Surr: Dibromofluoromethane	98.6	83.3 - 111		%Rec	1	6/12/2020 12:54:53 AM
Surr: Toluene-d8	96.6	87.9 - 111		%Rec	1	6/12/2020 12:54:53 AM
Surr: 1-Bromo-4-fluorobenzene	98.1	85.1 - 111		%Rec	1	6/12/2020 12:54:53 AM
Sample Moisture (Percent Moisture)				Batch ID: R59778		Analyst: CG
Percent Moisture	13.8	0.500		wt%	1	6/12/2020 6:37:43 AM

Analytical Report

Work Order: **2006195**
Date Reported: **6/12/2020**

Client: O'Neill Service Group
Collection Date: 6/10/2020 1:55:00 PM
Project: F200
Lab ID: 2006195-013
Matrix: Soil
Client Sample ID: 358-B12-15

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28626 Analyst: KT

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0186		mg/Kg-dry	1	6/12/2020 1:55:08 AM
Chloromethane	ND	0.0464		mg/Kg-dry	1	6/12/2020 1:55:08 AM
Vinyl chloride	ND	0.0232		mg/Kg-dry	1	6/12/2020 1:55:08 AM
Bromomethane	ND	0.0464		mg/Kg-dry	1	6/12/2020 1:55:08 AM
Trichlorofluoromethane (CFC-11)	ND	0.0186		mg/Kg-dry	1	6/12/2020 1:55:08 AM
Chloroethane	ND	0.0464		mg/Kg-dry	1	6/12/2020 1:55:08 AM
1,1-Dichloroethene	ND	0.0186		mg/Kg-dry	1	6/12/2020 1:55:08 AM
Methylene chloride	ND	0.0186		mg/Kg-dry	1	6/12/2020 1:55:08 AM
trans-1,2-Dichloroethene	ND	0.0186		mg/Kg-dry	1	6/12/2020 1:55:08 AM
1,1-Dichloroethane	ND	0.0186		mg/Kg-dry	1	6/12/2020 1:55:08 AM
cis-1,2-Dichloroethene	ND	0.0186		mg/Kg-dry	1	6/12/2020 1:55:08 AM
Chloroform	ND	0.0186		mg/Kg-dry	1	6/12/2020 1:55:08 AM
1,1,1-Trichloroethane (TCA)	ND	0.0232		mg/Kg-dry	1	6/12/2020 1:55:08 AM
1,1-Dichloropropene	ND	0.0186		mg/Kg-dry	1	6/12/2020 1:55:08 AM
Carbon tetrachloride	ND	0.0232		mg/Kg-dry	1	6/12/2020 1:55:08 AM
1,2-Dichloroethane (EDC)	ND	0.0186		mg/Kg-dry	1	6/12/2020 1:55:08 AM
Trichloroethene (TCE)	0.0612	0.0186		mg/Kg-dry	1	6/12/2020 1:55:08 AM
1,2-Dichloropropane	ND	0.0186		mg/Kg-dry	1	6/12/2020 1:55:08 AM
Bromodichloromethane	ND	0.0186		mg/Kg-dry	1	6/12/2020 1:55:08 AM
Dibromomethane	ND	0.0186		mg/Kg-dry	1	6/12/2020 1:55:08 AM
cis-1,3-Dichloropropene	ND	0.0186		mg/Kg-dry	1	6/12/2020 1:55:08 AM
trans-1,3-Dichloropropylene	ND	0.0186		mg/Kg-dry	1	6/12/2020 1:55:08 AM
1,1,2-Trichloroethane	ND	0.0186		mg/Kg-dry	1	6/12/2020 1:55:08 AM
1,3-Dichloropropane	ND	0.0232		mg/Kg-dry	1	6/12/2020 1:55:08 AM
Tetrachloroethene (PCE)	0.387	0.0232		mg/Kg-dry	1	6/12/2020 1:55:08 AM
Dibromochloromethane	ND	0.0232		mg/Kg-dry	1	6/12/2020 1:55:08 AM
1,2-Dibromoethane (EDB)	ND	0.00464		mg/Kg-dry	1	6/12/2020 1:55:08 AM
Chlorobenzene	ND	0.0232		mg/Kg-dry	1	6/12/2020 1:55:08 AM
1,1,1,2-Tetrachloroethane	ND	0.0232		mg/Kg-dry	1	6/12/2020 1:55:08 AM
Bromoform	ND	0.0464		mg/Kg-dry	1	6/12/2020 1:55:08 AM
1,1,2,2-Tetrachloroethane	ND	0.0186		mg/Kg-dry	1	6/12/2020 1:55:08 AM
Bromobenzene	ND	0.0186		mg/Kg-dry	1	6/12/2020 1:55:08 AM
2-Chlorotoluene	ND	0.0232		mg/Kg-dry	1	6/12/2020 1:55:08 AM
4-Chlorotoluene	ND	0.0232		mg/Kg-dry	1	6/12/2020 1:55:08 AM
1,2,3-Trichloropropane	ND	0.0232		mg/Kg-dry	1	6/12/2020 1:55:08 AM
1,2,4-Trichlorobenzene	ND	0.0232		mg/Kg-dry	1	6/12/2020 1:55:08 AM
1,3-Dichlorobenzene	ND	0.0186		mg/Kg-dry	1	6/12/2020 1:55:08 AM
1,4-Dichlorobenzene	ND	0.0186		mg/Kg-dry	1	6/12/2020 1:55:08 AM
1,2-Dichlorobenzene	ND	0.0186		mg/Kg-dry	1	6/12/2020 1:55:08 AM

Analytical Report

Work Order: **2006195**
Date Reported: **6/12/2020**

Client: O'Neill Service Group
Collection Date: 6/10/2020 1:55:00 PM
Project: F200
Lab ID: 2006195-013
Matrix: Soil
Client Sample ID: 358-B12-15

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28626		Analyst: KT
1,2-Dibromo-3-chloropropane	ND	0.464		mg/Kg-dry	1	6/12/2020 1:55:08 AM
Hexachloro-1,3-butadiene	ND	0.0464		mg/Kg-dry	1	6/12/2020 1:55:08 AM
1,2,3-Trichlorobenzene	ND	0.0186		mg/Kg-dry	1	6/12/2020 1:55:08 AM
Surr: Dibromofluoromethane	103	83.3 - 111		%Rec	1	6/12/2020 1:55:08 AM
Surr: Toluene-d8	97.4	87.9 - 111		%Rec	1	6/12/2020 1:55:08 AM
Surr: 1-Bromo-4-fluorobenzene	96.7	85.1 - 111		%Rec	1	6/12/2020 1:55:08 AM
Sample Moisture (Percent Moisture)				Batch ID: R59778		Analyst: CG
Percent Moisture	13.2	0.500		wt%	1	6/12/2020 6:37:43 AM

Analytical Report

Work Order: **2006195**
Date Reported: **6/12/2020**

Client: O'Neill Service Group
Collection Date: 6/10/2020 2:25:00 PM
Project: F200
Lab ID: 2006195-015
Matrix: Soil
Client Sample ID: 358-B12-25

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28626 Analyst: KT

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0270		mg/Kg-dry	1	6/12/2020 2:55:24 AM
Chloromethane	ND	0.0676		mg/Kg-dry	1	6/12/2020 2:55:24 AM
Vinyl chloride	ND	0.0338		mg/Kg-dry	1	6/12/2020 2:55:24 AM
Bromomethane	ND	0.0676		mg/Kg-dry	1	6/12/2020 2:55:24 AM
Trichlorofluoromethane (CFC-11)	ND	0.0270		mg/Kg-dry	1	6/12/2020 2:55:24 AM
Chloroethane	ND	0.0676		mg/Kg-dry	1	6/12/2020 2:55:24 AM
1,1-Dichloroethene	ND	0.0270		mg/Kg-dry	1	6/12/2020 2:55:24 AM
Methylene chloride	ND	0.0270		mg/Kg-dry	1	6/12/2020 2:55:24 AM
trans-1,2-Dichloroethene	ND	0.0270		mg/Kg-dry	1	6/12/2020 2:55:24 AM
1,1-Dichloroethane	ND	0.0270		mg/Kg-dry	1	6/12/2020 2:55:24 AM
cis-1,2-Dichloroethene	ND	0.0270		mg/Kg-dry	1	6/12/2020 2:55:24 AM
Chloroform	ND	0.0270		mg/Kg-dry	1	6/12/2020 2:55:24 AM
1,1,1-Trichloroethane (TCA)	ND	0.0338		mg/Kg-dry	1	6/12/2020 2:55:24 AM
1,1-Dichloropropene	ND	0.0270		mg/Kg-dry	1	6/12/2020 2:55:24 AM
Carbon tetrachloride	ND	0.0338		mg/Kg-dry	1	6/12/2020 2:55:24 AM
1,2-Dichloroethane (EDC)	ND	0.0270		mg/Kg-dry	1	6/12/2020 2:55:24 AM
Trichloroethene (TCE)	ND	0.0270		mg/Kg-dry	1	6/12/2020 2:55:24 AM
1,2-Dichloropropane	ND	0.0270		mg/Kg-dry	1	6/12/2020 2:55:24 AM
Bromodichloromethane	ND	0.0270		mg/Kg-dry	1	6/12/2020 2:55:24 AM
Dibromomethane	ND	0.0270		mg/Kg-dry	1	6/12/2020 2:55:24 AM
cis-1,3-Dichloropropene	ND	0.0270		mg/Kg-dry	1	6/12/2020 2:55:24 AM
trans-1,3-Dichloropropylene	ND	0.0270		mg/Kg-dry	1	6/12/2020 2:55:24 AM
1,1,2-Trichloroethane	ND	0.0270		mg/Kg-dry	1	6/12/2020 2:55:24 AM
1,3-Dichloropropane	ND	0.0338		mg/Kg-dry	1	6/12/2020 2:55:24 AM
Tetrachloroethene (PCE)	0.0600	0.0338		mg/Kg-dry	1	6/12/2020 2:55:24 AM
Dibromochloromethane	ND	0.0338		mg/Kg-dry	1	6/12/2020 2:55:24 AM
1,2-Dibromoethane (EDB)	ND	0.00676		mg/Kg-dry	1	6/12/2020 2:55:24 AM
Chlorobenzene	ND	0.0338		mg/Kg-dry	1	6/12/2020 2:55:24 AM
1,1,1,2-Tetrachloroethane	ND	0.0338		mg/Kg-dry	1	6/12/2020 2:55:24 AM
Bromoform	ND	0.0676		mg/Kg-dry	1	6/12/2020 2:55:24 AM
1,1,2,2-Tetrachloroethane	ND	0.0270		mg/Kg-dry	1	6/12/2020 2:55:24 AM
Bromobenzene	ND	0.0270		mg/Kg-dry	1	6/12/2020 2:55:24 AM
2-Chlorotoluene	ND	0.0338		mg/Kg-dry	1	6/12/2020 2:55:24 AM
4-Chlorotoluene	ND	0.0338		mg/Kg-dry	1	6/12/2020 2:55:24 AM
1,2,3-Trichloropropane	ND	0.0338		mg/Kg-dry	1	6/12/2020 2:55:24 AM
1,2,4-Trichlorobenzene	ND	0.0338		mg/Kg-dry	1	6/12/2020 2:55:24 AM
1,3-Dichlorobenzene	ND	0.0270		mg/Kg-dry	1	6/12/2020 2:55:24 AM
1,4-Dichlorobenzene	ND	0.0270		mg/Kg-dry	1	6/12/2020 2:55:24 AM
1,2-Dichlorobenzene	ND	0.0270		mg/Kg-dry	1	6/12/2020 2:55:24 AM

Analytical Report

Work Order: **2006195**
Date Reported: **6/12/2020**

Client: O'Neill Service Group
Collection Date: 6/10/2020 2:25:00 PM
Project: F200
Lab ID: 2006195-015
Matrix: Soil
Client Sample ID: 358-B12-25

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28626		Analyst: KT
1,2-Dibromo-3-chloropropane	ND	0.676		mg/Kg-dry	1	6/12/2020 2:55:24 AM
Hexachloro-1,3-butadiene	ND	0.0676		mg/Kg-dry	1	6/12/2020 2:55:24 AM
1,2,3-Trichlorobenzene	ND	0.0270		mg/Kg-dry	1	6/12/2020 2:55:24 AM
Surr: Dibromofluoromethane	99.7	83.3 - 111		%Rec	1	6/12/2020 2:55:24 AM
Surr: Toluene-d8	98.6	87.9 - 111		%Rec	1	6/12/2020 2:55:24 AM
Surr: 1-Bromo-4-fluorobenzene	97.0	85.1 - 111		%Rec	1	6/12/2020 2:55:24 AM
Sample Moisture (Percent Moisture)				Batch ID: R59778		Analyst: CG
Percent Moisture	13.4	0.500		wt%	1	6/12/2020 6:37:43 AM

Analytical Report

Work Order: **2006195**
Date Reported: **6/12/2020**

Client: O'Neill Service Group
Collection Date: 6/10/2020 3:15:00 PM
Project: F200
Lab ID: 2006195-016
Matrix: Soil
Client Sample ID: 358-B12-30

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28626 Analyst: KT

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0203		mg/Kg-dry	1	6/12/2020 3:25:32 AM
Chloromethane	ND	0.0509		mg/Kg-dry	1	6/12/2020 3:25:32 AM
Vinyl chloride	ND	0.0254		mg/Kg-dry	1	6/12/2020 3:25:32 AM
Bromomethane	ND	0.0509		mg/Kg-dry	1	6/12/2020 3:25:32 AM
Trichlorofluoromethane (CFC-11)	ND	0.0203		mg/Kg-dry	1	6/12/2020 3:25:32 AM
Chloroethane	ND	0.0509		mg/Kg-dry	1	6/12/2020 3:25:32 AM
1,1-Dichloroethene	ND	0.0203		mg/Kg-dry	1	6/12/2020 3:25:32 AM
Methylene chloride	ND	0.0203		mg/Kg-dry	1	6/12/2020 3:25:32 AM
trans-1,2-Dichloroethene	ND	0.0203		mg/Kg-dry	1	6/12/2020 3:25:32 AM
1,1-Dichloroethane	ND	0.0203		mg/Kg-dry	1	6/12/2020 3:25:32 AM
cis-1,2-Dichloroethene	ND	0.0203		mg/Kg-dry	1	6/12/2020 3:25:32 AM
Chloroform	ND	0.0203		mg/Kg-dry	1	6/12/2020 3:25:32 AM
1,1,1-Trichloroethane (TCA)	ND	0.0254		mg/Kg-dry	1	6/12/2020 3:25:32 AM
1,1-Dichloropropene	ND	0.0203		mg/Kg-dry	1	6/12/2020 3:25:32 AM
Carbon tetrachloride	ND	0.0254		mg/Kg-dry	1	6/12/2020 3:25:32 AM
1,2-Dichloroethane (EDC)	ND	0.0203		mg/Kg-dry	1	6/12/2020 3:25:32 AM
Trichloroethene (TCE)	ND	0.0203		mg/Kg-dry	1	6/12/2020 3:25:32 AM
1,2-Dichloropropane	ND	0.0203		mg/Kg-dry	1	6/12/2020 3:25:32 AM
Bromodichloromethane	ND	0.0203		mg/Kg-dry	1	6/12/2020 3:25:32 AM
Dibromomethane	ND	0.0203		mg/Kg-dry	1	6/12/2020 3:25:32 AM
cis-1,3-Dichloropropene	ND	0.0203		mg/Kg-dry	1	6/12/2020 3:25:32 AM
trans-1,3-Dichloropropylene	ND	0.0203		mg/Kg-dry	1	6/12/2020 3:25:32 AM
1,1,2-Trichloroethane	ND	0.0203		mg/Kg-dry	1	6/12/2020 3:25:32 AM
1,3-Dichloropropane	ND	0.0254		mg/Kg-dry	1	6/12/2020 3:25:32 AM
Tetrachloroethene (PCE)	ND	0.0254		mg/Kg-dry	1	6/12/2020 3:25:32 AM
Dibromochloromethane	ND	0.0254		mg/Kg-dry	1	6/12/2020 3:25:32 AM
1,2-Dibromoethane (EDB)	ND	0.00509		mg/Kg-dry	1	6/12/2020 3:25:32 AM
Chlorobenzene	ND	0.0254		mg/Kg-dry	1	6/12/2020 3:25:32 AM
1,1,1,2-Tetrachloroethane	ND	0.0254		mg/Kg-dry	1	6/12/2020 3:25:32 AM
Bromoform	ND	0.0509		mg/Kg-dry	1	6/12/2020 3:25:32 AM
1,1,2,2-Tetrachloroethane	ND	0.0203		mg/Kg-dry	1	6/12/2020 3:25:32 AM
Bromobenzene	ND	0.0203		mg/Kg-dry	1	6/12/2020 3:25:32 AM
2-Chlorotoluene	ND	0.0254		mg/Kg-dry	1	6/12/2020 3:25:32 AM
4-Chlorotoluene	ND	0.0254		mg/Kg-dry	1	6/12/2020 3:25:32 AM
1,2,3-Trichloropropane	ND	0.0254		mg/Kg-dry	1	6/12/2020 3:25:32 AM
1,2,4-Trichlorobenzene	ND	0.0254		mg/Kg-dry	1	6/12/2020 3:25:32 AM
1,3-Dichlorobenzene	ND	0.0203		mg/Kg-dry	1	6/12/2020 3:25:32 AM
1,4-Dichlorobenzene	ND	0.0203		mg/Kg-dry	1	6/12/2020 3:25:32 AM
1,2-Dichlorobenzene	ND	0.0203		mg/Kg-dry	1	6/12/2020 3:25:32 AM

Analytical Report

Work Order: **2006195**
Date Reported: **6/12/2020**

Client: O'Neill Service Group
Collection Date: 6/10/2020 3:15:00 PM
Project: F200
Lab ID: 2006195-016
Matrix: Soil
Client Sample ID: 358-B12-30

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28626		Analyst: KT
1,2-Dibromo-3-chloropropane	ND	0.509		mg/Kg-dry	1	6/12/2020 3:25:32 AM
Hexachloro-1,3-butadiene	ND	0.0509		mg/Kg-dry	1	6/12/2020 3:25:32 AM
1,2,3-Trichlorobenzene	ND	0.0203		mg/Kg-dry	1	6/12/2020 3:25:32 AM
Surr: Dibromofluoromethane	98.9	83.3 - 111		%Rec	1	6/12/2020 3:25:32 AM
Surr: Toluene-d8	98.3	87.9 - 111		%Rec	1	6/12/2020 3:25:32 AM
Surr: 1-Bromo-4-fluorobenzene	97.2	85.1 - 111		%Rec	1	6/12/2020 3:25:32 AM
Sample Moisture (Percent Moisture)				Batch ID: R59779		Analyst: CG
Percent Moisture	15.3	0.500		wt%	1	6/12/2020 6:43:19 AM

Date: *6/12/2020*

Work Order: 2006195
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **LCS-28626** SampType: **LCS** Units: **mg/Kg** Prep Date: **6/11/2020** RunNo: **59780**
Client ID: **LCSS** Batch ID: **28626** Analysis Date: **6/11/2020** SeqNo: **1196380**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	1.58	0.0200	1.000	0	158	13.4	185				
Chloromethane	1.11	0.0500	1.000	0	111	38.5	158				
Vinyl chloride	1.04	0.0250	1.000	0	104	53.6	138				
Bromomethane	1.23	0.0500	1.000	0	123	56.6	151				
Trichlorofluoromethane (CFC-11)	1.00	0.0200	1.000	0	100	64.2	137				
Chloroethane	1.19	0.0500	1.000	0	119	54.1	134				
1,1-Dichloroethene	0.983	0.0200	1.000	0	98.3	66	133				
Methylene chloride	0.937	0.0200	1.000	0	93.7	74.3	117				
trans-1,2-Dichloroethene	0.935	0.0200	1.000	0	93.5	79.6	115				
1,1-Dichloroethane	0.873	0.0200	1.000	0	87.3	75.8	117				
cis-1,2-Dichloroethene	0.925	0.0200	1.000	0	92.5	77.8	115				
Chloroform	0.894	0.0200	1.000	0	89.4	78.2	115				
1,1,1-Trichloroethane (TCA)	0.901	0.0250	1.000	0	90.1	76	121				
1,1-Dichloropropene	0.889	0.0200	1.000	0	88.9	77.2	120				
Carbon tetrachloride	0.904	0.0500	1.000	0	90.4	74	122				
1,2-Dichloroethane (EDC)	0.855	0.0200	1.000	0	85.5	74.7	115				
Trichloroethene (TCE)	0.899	0.0200	1.000	0	89.9	79.6	118				
1,2-Dichloropropane	0.858	0.0200	1.000	0	85.8	78.2	115				
Bromodichloromethane	0.872	0.0200	1.000	0	87.2	76.6	116				
Dibromomethane	0.924	0.0200	1.000	0	92.4	77.9	115				
cis-1,3-Dichloropropene	0.874	0.0200	1.000	0	87.4	74.6	119				
trans-1,3-Dichloropropylene	0.864	0.0200	1.000	0	86.4	70.6	124				
1,1,2-Trichloroethane	0.915	0.0200	1.000	0	91.5	75.6	116				
1,3-Dichloropropane	0.879	0.0250	1.000	0	87.9	75.3	116				
Tetrachloroethene (PCE)	0.959	0.0250	1.000	0	95.9	78.8	119				
Dibromochloromethane	0.888	0.0250	1.000	0	88.8	72.5	123				
1,2-Dibromoethane (EDB)	0.905	0.00500	1.000	0	90.5	75	116				
Chlorobenzene	0.977	0.0250	1.000	0	97.7	83.4	113				
1,1,1,2-Tetrachloroethane	0.949	0.0250	1.000	0	94.9	80.8	117				
Bromoform	0.910	0.0500	1.000	0	91.0	71	129				
1,1,2,2-Tetrachloroethane	0.946	0.0200	1.000	0	94.6	71.3	119				

Date: *6/12/2020*

Work Order: 2006195
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **LCS-28626** SampType: **LCS** Units: **mg/Kg** Prep Date: **6/11/2020** RunNo: **59780**
Client ID: **LCSS** Batch ID: **28626** Analysis Date: **6/11/2020** SeqNo: **1196380**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromobenzene	0.991	0.0200	1.000	0	99.1	78.6	115				
2-Chlorotoluene	0.970	0.0250	1.000	0	97.0	78.6	116				
4-Chlorotoluene	0.977	0.0250	1.000	0	97.7	78.8	117				
1,2,3-Trichloropropane	0.908	0.0250	1.000	0	90.8	67.5	129				
1,2,4-Trichlorobenzene	0.988	0.0250	1.000	0	98.8	79.6	124				
1,3-Dichlorobenzene	0.982	0.0200	1.000	0	98.2	87.1	117				
1,4-Dichlorobenzene	0.996	0.0200	1.000	0	99.6	87.6	115				
1,2-Dichlorobenzene	0.990	0.0200	1.000	0	99.0	87.9	115				
1,2-Dibromo-3-chloropropane	0.876	0.500	1.000	0	87.6	65.6	132				
Hexachloro-1,3-butadiene	0.979	0.0500	1.000	0	97.9	75	130				
1,2,3-Trichlorobenzene	0.970	0.0200	1.000	0	97.0	74.3	128				
Surr: Dibromofluoromethane	1.32		1.250		105	83.3	111				
Surr: Toluene-d8	1.32		1.250		105	87.9	111				
Surr: 1-Bromo-4-fluorobenzene	1.34		1.250		107	85.1	111				

Sample ID: **MB-28626** SampType: **MBLK** Units: **mg/Kg** Prep Date: **6/11/2020** RunNo: **59780**
Client ID: **MBLKS** Batch ID: **28626** Analysis Date: **6/11/2020** SeqNo: **1196381**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	0.0200									
Chloromethane	ND	0.0500									
Vinyl chloride	ND	0.0250									
Bromomethane	ND	0.0500									
Trichlorofluoromethane (CFC-11)	ND	0.0200									
Chloroethane	ND	0.0500									
1,1-Dichloroethene	ND	0.0200									
Methylene chloride	ND	0.0200									
trans-1,2-Dichloroethene	ND	0.0200									
1,1-Dichloroethane	ND	0.0200									
cis-1,2-Dichloroethene	ND	0.0200									

Date: *6/12/2020*

Work Order: 2006195
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **MB-28626**	SampType: **MBLK**	Units: **mg/Kg**	Prep Date: **6/11/2020**	RunNo: **59780**
Client ID: **MBLKS**	Batch ID: **28626**		Analysis Date: **6/11/2020**	SeqNo: **1196381**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloroform	ND	0.0200									
1,1,1-Trichloroethane (TCA)	ND	0.0250									
1,1-Dichloropropene	ND	0.0200									
Carbon tetrachloride	ND	0.0500									
1,2-Dichloroethane (EDC)	ND	0.0200									
Trichloroethene (TCE)	ND	0.0200									
1,2-Dichloropropane	ND	0.0200									
Bromodichloromethane	ND	0.0200									
Dibromomethane	ND	0.0200									
cis-1,3-Dichloropropene	ND	0.0200									
trans-1,3-Dichloropropylene	ND	0.0200									
1,1,2-Trichloroethane	ND	0.0200									
1,3-Dichloropropane	ND	0.0250									
Tetrachloroethene (PCE)	ND	0.0250									
Dibromochloromethane	ND	0.0250									
1,2-Dibromoethane (EDB)	ND	0.00500									
Chlorobenzene	ND	0.0250									
1,1,1,2-Tetrachloroethane	ND	0.0250									
Bromoform	ND	0.0500									Q
1,1,2,2-Tetrachloroethane	ND	0.0200									
Bromobenzene	ND	0.0200									
2-Chlorotoluene	ND	0.0250									
4-Chlorotoluene	ND	0.0250									
1,2,3-Trichloropropane	ND	0.0250									
1,2,4-Trichlorobenzene	ND	0.0250									
1,3-Dichlorobenzene	ND	0.0200									
1,4-Dichlorobenzene	ND	0.0200									
1,2-Dichlorobenzene	ND	0.0200									
1,2-Dibromo-3-chloropropane	ND	0.500									Q
Hexachloro-1,3-butadiene	ND	0.0500									
1,2,3-Trichlorobenzene	ND	0.0200									

Date: *6/12/2020*

Work Order: 2006195
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **MB-28626** SampType: **MBLK** Units: **mg/Kg** Prep Date: **6/11/2020** RunNo: **59780**
Client ID: **MBLKS** Batch ID: **28626** Analysis Date: **6/11/2020** SeqNo: **1196381**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	1.19		1.250		95.0	83.3	111				
Surr: Toluene-d8	1.20		1.250		96.3	87.9	111				
Surr: 1-Bromo-4-fluorobenzene	1.21		1.250		97.1	85.1	111				

NOTES:
Q - Indicates an analyte with a continuing calibration that does not meet established acceptance criteria

Sample ID: **2006116-001BDUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **6/11/2020** RunNo: **59780**
Client ID: **BATCH** Batch ID: **28626** Analysis Date: **6/11/2020** SeqNo: **1196352**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	0.0196						0		30	
Chloromethane	ND	0.0489						0		30	
Vinyl chloride	ND	0.0245						0		30	
Bromomethane	ND	0.0489						0		30	
Trichlorofluoromethane (CFC-11)	ND	0.0196						0		30	
Chloroethane	ND	0.0489						0		30	
1,1-Dichloroethene	ND	0.0196						0		30	
Methylene chloride	ND	0.0196						0		30	
trans-1,2-Dichloroethene	ND	0.0196						0		30	
1,1-Dichloroethane	ND	0.0196						0		30	
cis-1,2-Dichloroethene	ND	0.0196						0		30	
Chloroform	ND	0.0196						0		30	
1,1,1-Trichloroethane (TCA)	ND	0.0245						0		30	
1,1-Dichloropropene	ND	0.0196						0		30	
Carbon tetrachloride	ND	0.0489						0		30	
1,2-Dichloroethane (EDC)	ND	0.0196						0		30	
Trichloroethene (TCE)	ND	0.0196						0		30	
1,2-Dichloropropane	ND	0.0196						0		30	
Bromodichloromethane	ND	0.0196						0		30	
Dibromomethane	ND	0.0196						0		30	
cis-1,3-Dichloropropene	ND	0.0196						0		30	

Date: *6/12/2020*

Work Order: 2006195
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2006116-001BDUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **6/11/2020** RunNo: **59780**
Client ID: **BATCH** Batch ID: **28626** Analysis Date: **6/11/2020** SeqNo: **1196352**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
trans-1,3-Dichloropropylene	ND	0.0196						0		30	
1,1,2-Trichloroethane	ND	0.0196						0		30	
1,3-Dichloropropane	ND	0.0245						0		30	
Tetrachloroethene (PCE)	ND	0.0245						0		30	
Dibromochloromethane	ND	0.0245						0		30	
1,2-Dibromoethane (EDB)	ND	0.00489						0		30	
Chlorobenzene	ND	0.0245						0		30	
1,1,1,2-Tetrachloroethane	ND	0.0245						0		30	
Bromoform	ND	0.0489						0		30	Q
1,1,2,2-Tetrachloroethane	ND	0.0196						0		30	
Bromobenzene	ND	0.0196						0		30	
2-Chlorotoluene	ND	0.0245						0		30	
4-Chlorotoluene	ND	0.0245						0		30	
1,2,3-Trichloropropane	ND	0.0245						0		30	
1,2,4-Trichlorobenzene	ND	0.0245						0		30	
1,3-Dichlorobenzene	ND	0.0196						0		30	
1,4-Dichlorobenzene	ND	0.0196						0		30	
1,2-Dichlorobenzene	ND	0.0196						0		30	
1,2-Dibromo-3-chloropropane	ND	0.489						0		30	Q
Hexachloro-1,3-butadiene	ND	0.0489						0		30	
1,2,3-Trichlorobenzene	ND	0.0196						0		30	
Surr: Dibromofluoromethane	1.16		1.223		95.2	83.3	111		0		
Surr: Toluene-d8	1.18		1.223		96.5	87.9	111		0		
Surr: 1-Bromo-4-fluorobenzene	1.19		1.223		97.3	85.1	111		0		

NOTES:
Q - Indicates an analyte with a continuing calibration that does not meet established acceptance criteria

Date: *6/12/2020*

Work Order: 2006195
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2006195-001BDUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **6/11/2020** RunNo: **59780**
Client ID: **358-B11-1** Batch ID: **28626** Analysis Date: **6/11/2020** SeqNo: **1196356**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	0.0159						0		30	
Chloromethane	ND	0.0397						0		30	
Vinyl chloride	ND	0.0199						0		30	
Bromomethane	ND	0.0397						0		30	
Trichlorofluoromethane (CFC-11)	ND	0.0159						0		30	
Chloroethane	ND	0.0397						0		30	
1,1-Dichloroethene	ND	0.0159						0		30	
Methylene chloride	ND	0.0159						0		30	
trans-1,2-Dichloroethene	ND	0.0159						0		30	
1,1-Dichloroethane	ND	0.0159						0		30	
cis-1,2-Dichloroethene	ND	0.0159						0		30	
Chloroform	ND	0.0159						0		30	
1,1,1-Trichloroethane (TCA)	ND	0.0199						0		30	
1,1-Dichloropropene	ND	0.0159						0		30	
Carbon tetrachloride	ND	0.0397						0		30	
1,2-Dichloroethane (EDC)	ND	0.0159						0		30	
Trichloroethene (TCE)	ND	0.0159						0		30	
1,2-Dichloropropane	ND	0.0159						0		30	
Bromodichloromethane	ND	0.0159						0		30	
Dibromomethane	ND	0.0159						0		30	
cis-1,3-Dichloropropene	ND	0.0159						0		30	
trans-1,3-Dichloropropylene	ND	0.0159						0		30	
1,1,2-Trichloroethane	ND	0.0159						0		30	
1,3-Dichloropropane	ND	0.0199						0		30	
Tetrachloroethene (PCE)	ND	0.0199						0		30	
Dibromochloromethane	ND	0.0199						0		30	
1,2-Dibromoethane (EDB)	ND	0.00397						0		30	
Chlorobenzene	ND	0.0199						0		30	
1,1,1,2-Tetrachloroethane	ND	0.0199						0		30	
Bromoform	ND	0.0397						0		30	Q
1,1,2,2-Tetrachloroethane	ND	0.0159						0		30	

Date: *6/12/2020*

Work Order: 2006195
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2006195-001BDUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **6/11/2020** RunNo: **59780**
Client ID: **358-B11-1** Batch ID: **28626** Analysis Date: **6/11/2020** SeqNo: **1196356**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromobenzene	ND	0.0159						0		30	
2-Chlorotoluene	ND	0.0199						0		30	
4-Chlorotoluene	ND	0.0199						0		30	
1,2,3-Trichloropropane	ND	0.0199						0		30	
1,2,4-Trichlorobenzene	ND	0.0199						0		30	
1,3-Dichlorobenzene	ND	0.0159						0		30	
1,4-Dichlorobenzene	ND	0.0159						0		30	
1,2-Dichlorobenzene	ND	0.0159						0		30	
1,2-Dibromo-3-chloropropane	ND	0.397						0		30	Q
Hexachloro-1,3-butadiene	ND	0.0397						0		30	
1,2,3-Trichlorobenzene	ND	0.0159						0		30	
Surr: Dibromofluoromethane	0.981		0.9935		98.8	83.3	111		0		
Surr: Toluene-d8	0.969		0.9935		97.5	87.9	111		0		
Surr: 1-Bromo-4-fluorobenzene	0.952		0.9935		95.8	85.1	111		0		

NOTES:
Q - Indicates an analyte with a continuing calibration that does not meet established acceptance criteria

Sample ID: **2006195-002BMS** SampType: **MS** Units: **mg/Kg-dry** Prep Date: **6/11/2020** RunNo: **59780**
Client ID: **358-B11-2.5** Batch ID: **28626** Analysis Date: **6/11/2020** SeqNo: **1196359**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	1.79	0.0294	1.471	0	121	5.73	173				
Chloromethane	1.32	0.0736	1.471	0	89.6	41.3	150				
Vinyl chloride	1.44	0.0368	1.471	0	97.8	49.5	138				
Bromomethane	1.95	0.0736	1.471	0	133	48.5	158				
Trichlorofluoromethane (CFC-11)	1.49	0.0294	1.471	0	101	40.6	159				
Chloroethane	1.78	0.0736	1.471	0	121	30.4	166				
1,1-Dichloroethene	1.43	0.0294	1.471	0	97.5	55	138				
Methylene chloride	1.37	0.0294	1.471	0	93.0	70.3	123				
trans-1,2-Dichloroethene	1.38	0.0294	1.471	0	93.6	73.1	121				
1,1-Dichloroethane	1.31	0.0294	1.471	0	89.3	70.8	122				

Date: *6/12/2020*

Work Order: 2006195
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2006195-002BMS** SampType: **MS** Units: **mg/Kg-dry** Prep Date: **6/11/2020** RunNo: **59780**
Client ID: **358-B11-2.5** Batch ID: **28626** Analysis Date: **6/11/2020** SeqNo: **1196359**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
cis-1,2-Dichloroethene	1.38	0.0294	1.471	0	94.1	71.8	122				
Chloroform	1.35	0.0294	1.471	0	91.8	72.9	122				
1,1,1-Trichloroethane (TCA)	1.38	0.0368	1.471	0	93.9	69.6	125				
1,1-Dichloropropene	1.39	0.0294	1.471	0	94.2	69.3	126				
Carbon tetrachloride	1.38	0.0736	1.471	0	94.1	65	127				
1,2-Dichloroethane (EDC)	1.26	0.0294	1.471	0	85.4	70.1	121				
Trichloroethene (TCE)	1.37	0.0294	1.471	0	92.9	70.1	129				
1,2-Dichloropropane	1.26	0.0294	1.471	0	85.7	74.6	120				
Bromodichloromethane	1.30	0.0294	1.471	0	88.4	70.9	122				
Dibromomethane	1.33	0.0294	1.471	0	90.3	75.6	120				
cis-1,3-Dichloropropene	1.22	0.0294	1.471	0	83.2	68.3	120				
trans-1,3-Dichloropropylene	1.20	0.0294	1.471	0	81.5	62.2	127				
1,1,2-Trichloroethane	1.34	0.0294	1.471	0	90.9	72.9	120				
1,3-Dichloropropane	1.27	0.0368	1.471	0	86.4	71.9	119				
Tetrachloroethene (PCE)	1.41	0.0368	1.471	0	95.7	71.1	122				
Dibromochloromethane	1.29	0.0368	1.471	0	87.9	65.9	126				
1,2-Dibromoethane (EDB)	1.30	0.00736	1.471	0	88.4	72	119				
Chlorobenzene	1.33	0.0368	1.471	0	90.7	81.4	116				
1,1,1,2-Tetrachloroethane	1.25	0.0368	1.471	0	84.8	72.9	125				
Bromoform	1.16	0.0736	1.471	0	78.8	63.4	133				
1,1,2,2-Tetrachloroethane	1.17	0.0294	1.471	0	79.8	61	128				
Bromobenzene	1.33	0.0294	1.471	0	90.5	77	120				
2-Chlorotoluene	1.27	0.0368	1.471	0	86.7	71.4	126				
4-Chlorotoluene	1.29	0.0368	1.471	0	87.6	73.6	124				
1,2,3-Trichloropropane	1.27	0.0368	1.471	0	86.1	65.7	132				
1,2,4-Trichlorobenzene	1.30	0.0368	1.471	0	88.4	70.5	130				
1,3-Dichlorobenzene	1.35	0.0294	1.471	0	91.8	83.8	121				
1,4-Dichlorobenzene	1.35	0.0294	1.471	0	91.6	85.7	117				
1,2-Dichlorobenzene	1.34	0.0294	1.471	0	91.1	81.8	120				
1,2-Dibromo-3-chloropropane	1.11	0.736	1.471	0	75.1	56.9	139				
Hexachloro-1,3-butadiene	1.31	0.0736	1.471	0	89.2	61.1	140				

Fremont Analytical

Date: *6/12/2020*

Work Order: 2006195
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2006195-002BMS** SampType: **MS** Units: **mg/Kg-dry** Prep Date: **6/11/2020** RunNo: **59780**
Client ID: **358-B11-2.5** Batch ID: **28626** Analysis Date: **6/11/2020** SeqNo: **1196359**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,3-Trichlorobenzene	1.28	0.0294	1.471	0	87.1	67.8	132				
Surr: Dibromofluoromethane	1.95		1.839		106	83.3	111				
Surr: Toluene-d8	1.90		1.839		103	87.9	111				
Surr: 1-Bromo-4-fluorobenzene	1.75		1.839		94.9	85.1	111				

Sample ID: **2006195-002BMSD** SampType: **MSD** Units: **mg/Kg-dry** Prep Date: **6/11/2020** RunNo: **59780**
Client ID: **358-B11-2.5** Batch ID: **28626** Analysis Date: **6/11/2020** SeqNo: **1196360**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	1.71	0.0294	1.471	0	116	5.73	173	1.787	4.42	30	
Chloromethane	1.35	0.0736	1.471	0	91.8	41.3	150	1.318	2.41	30	
Vinyl chloride	1.42	0.0368	1.471	0	96.8	49.5	138	1.439	1.04	30	
Bromomethane	1.81	0.0736	1.471	0	123	48.5	158	1.953	7.48	30	
Trichlorofluoromethane (CFC-11)	1.47	0.0294	1.471	0	100	40.6	159	1.485	0.908	30	
Chloroethane	1.78	0.0736	1.471	0	121	30.4	166	1.783	0.387	30	
1,1-Dichloroethene	1.44	0.0294	1.471	0	98.1	55	138	1.434	0.692	30	
Methylene chloride	1.39	0.0294	1.471	0	94.5	70.3	123	1.368	1.54	30	
trans-1,2-Dichloroethene	1.36	0.0294	1.471	0	92.6	73.1	121	1.377	1.09	30	
1,1-Dichloroethane	1.34	0.0294	1.471	0	91.4	70.8	122	1.313	2.32	30	
cis-1,2-Dichloroethene	1.41	0.0294	1.471	0	95.9	71.8	122	1.385	1.91	30	
Chloroform	1.36	0.0294	1.471	0	92.3	72.9	122	1.351	0.463	30	
1,1,1-Trichloroethane (TCA)	1.39	0.0368	1.471	0	94.8	69.6	125	1.381	0.977	30	
1,1-Dichloropropene	1.41	0.0294	1.471	0	95.8	69.3	126	1.386	1.64	30	
Carbon tetrachloride	1.40	0.0736	1.471	0	95.0	65	127	1.385	0.966	30	
1,2-Dichloroethane (EDC)	1.27	0.0294	1.471	0	86.4	70.1	121	1.257	1.12	30	
Trichloroethene (TCE)	1.38	0.0294	1.471	0	93.7	70.1	129	1.367	0.911	30	
1,2-Dichloropropane	1.29	0.0294	1.471	0	87.8	74.6	120	1.261	2.41	30	
Bromodichloromethane	1.31	0.0294	1.471	0	89.1	70.9	122	1.300	0.873	30	
Dibromomethane	1.36	0.0294	1.471	0	92.2	75.6	120	1.328	2.10	30	
cis-1,3-Dichloropropene	1.23	0.0294	1.471	0	83.9	68.3	120	1.223	0.873	30	

Fremont Analytical

Date: *6/12/2020*

Work Order: 2006195
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2006195-002BMSD** SampType: **MSD** Units: **mg/Kg-dry** Prep Date: **6/11/2020** RunNo: **59780**
Client ID: **358-B11-2.5** Batch ID: **28626** Analysis Date: **6/11/2020** SeqNo: **1196360**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
trans-1,3-Dichloropropylene	1.21	0.0294	1.471	0	82.1	62.2	127	1.199	0.721	30	
1,1,2-Trichloroethane	1.32	0.0294	1.471	0	89.7	72.9	120	1.338	1.38	30	
1,3-Dichloropropane	1.27	0.0368	1.471	0	86.7	71.9	119	1.272	0.265	30	
Tetrachloroethene (PCE)	1.42	0.0368	1.471	0	96.4	71.1	122	1.408	0.707	30	
Dibromochloromethane	1.30	0.0368	1.471	0	88.4	65.9	126	1.293	0.566	30	
1,2-Dibromoethane (EDB)	1.28	0.00736	1.471	0	87.1	72	119	1.300	1.49	30	
Chlorobenzene	1.37	0.0368	1.471	0	93.3	81.4	116	1.334	2.87	30	
1,1,1,2-Tetrachloroethane	1.30	0.0368	1.471	0	88.1	72.9	125	1.248	3.74	30	
Bromoform	1.20	0.0736	1.471	0	81.6	63.4	133	1.160	3.39	30	
1,1,2,2-Tetrachloroethane	1.20	0.0294	1.471	0	81.6	61	128	1.175	2.18	30	
Bromobenzene	1.36	0.0294	1.471	0	92.3	77	120	1.332	1.87	30	
2-Chlorotoluene	1.29	0.0368	1.471	0	87.7	71.4	126	1.275	1.18	30	
4-Chlorotoluene	1.29	0.0368	1.471	0	87.7	73.6	124	1.289	0.0509	30	
1,2,3-Trichloropropane	1.27	0.0368	1.471	0	86.6	65.7	132	1.267	0.602	30	
1,2,4-Trichlorobenzene	1.33	0.0368	1.471	0	90.6	70.5	130	1.300	2.47	30	
1,3-Dichlorobenzene	1.42	0.0294	1.471	0	96.4	83.8	121	1.351	4.90	30	
1,4-Dichlorobenzene	1.41	0.0294	1.471	0	95.6	85.7	117	1.348	4.23	30	
1,2-Dichlorobenzene	1.38	0.0294	1.471	0	94.1	81.8	120	1.341	3.20	30	
1,2-Dibromo-3-chloropropane	1.14	0.736	1.471	0	77.7	56.9	139	1.105	3.44	30	
Hexachloro-1,3-butadiene	1.43	0.0736	1.471	0	97.2	61.1	140	1.312	8.63	30	
1,2,3-Trichlorobenzene	1.42	0.0294	1.471	0	96.6	67.8	132	1.282	10.4	30	
Surr: Dibromofluoromethane	1.90		1.839		103	83.3	111		0		
Surr: Toluene-d8	1.86		1.839		101	87.9	111		0		
Surr: 1-Bromo-4-fluorobenzene	1.69		1.839		92.1	85.1	111		0		

Sample Log-In Check List

Client Name:	**ONEILL**	Work Order Number:	**2006195**
Logged by:	**Carissa True**	Date Received:	**6/10/2020 5:23:00 PM**

Chain of Custody

1.	Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
2.	How was the sample delivered?	Client		

Log In

3.	Coolers are present?	Yes ☑	No ☐	NA ☐
4.	Shipping container/cooler in good condition?	Yes ☑	No ☐	
5.	Custody Seals present on shipping container/cooler? (Refer to comments for Custody Seals not intact)	Yes ☐	No ☐	Not Present ☑
6.	Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
7.	Were all items received at a temperature of >2°C to 6°C *	Yes ☑	No ☐	NA ☐
8.	Sample(s) in proper container(s)?	Yes ☑	No ☐	
9.	Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
10.	Are samples properly preserved?	Yes ☑	No ☐	
11.	Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
12.	Is there headspace in the VOA vials?	Yes ☐	No ☐	NA ☑
13.	Did all samples containers arrive in good condition(unbroken)?	Yes ☑	No ☐	
14.	Does paperwork match bottle labels?	Yes ☑	No ☐	
15.	Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
16.	Is it clear what analyses were requested?	Yes ☑	No ☐	
17.	Were all holding times able to be met?	Yes ☑	No ☐	

Special Handling (if applicable)

18.	Was client notified of all discrepancies with this order?	Yes ☐	No ☐	NA ☑

Person Notified: _____ Date: _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

19. Additional remarks:

Item Information

Item #	Temp ºC
Cooler 1	2.1
Sample 1	4.2

* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C

Fremont Analytical
3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790
Fax: 206-352-7178

Chain of Custody Record & Laboratory Services Agreement

Date: 6/10/20 Page: 1 of: 2

Laboratory Project No (internal): 20061195

Project Name: F200

Special Remarks:

Client: OSG

Project No: 2021

Address:

Collected by: ATKINS

City, State, Zip:

Location: FL358

Telephone:

Report To (PM): Atkins

Sample Disposal: ☐ Return to client ☑ Disposal by lab (after 30 days)

Fax:

PM Email:

	Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	HVOCs (EPA 8260 / 624)	GX/BTEX	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DX)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T) | Dissolved (D)	Anions (IC)***	EDB (8011)					Comments
1	358-B11-1	6/10/20	815		X																	
2	-2.5		825		X																	
3	-5		835																			
4	-7.5		855																			
5	-10		900		X																	
6	~~-15~~		~~915~~																			
7	-22.5		955																			
8	-25		1005		X																	
9	358-B12-1		1310																			
10	-2.5		1320		X																	

*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

**Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL *Individual:* Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti Tl U V Zn

***Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above and that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished	Date/Time	Received	Date/Time
x		x	6/10/20 1723
Relinquished	Date/Time	Received	Date/Time
x		x	

Turn-around Time:
- ☐ Standard
- ☐ 3 Day
- ☐ 2 Day
- ☑ Next Day
- Same Day ____ (specify)

Fremont Analytical
3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790
Fax: 206-352-7178

Chain of Custody Record & Laboratory Services Agreement

Date: 6/10/20 Page: 2 of: 2

Laboratory Project No (internal): 2006195

Project Name: F200

Project No: 2021

Collected by: Atkins

Location: FL358

Report To (PM): Atkins

PM Email:

Client: OSG

Address:

City, State, Zip:

Telephone:

Fax:

Special Remarks:

Sample Disposal: ☐ Return to client ☐ Disposal by lab (after 30 days)

	Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	VOCs (EPA 8260 / 624)	GX/BTEX	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DX)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T) | Dissolved (D)	Anions (IC)***	EDB (8011)	Comments
1	358-B12-5	6/10/20	1325	S														
2	-7.5		1330		X													
3	-10		1345															
4	-15		1358		X													
5	-20		1410															
6	-25		1425		X													
7	-30		1515		X													
8	-35		1540															
9																		
10																		

*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

**Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL *Individual:* Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti Tl U V Zn

***Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite

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Relinquished	Date/Time	Received	Date/Time
x		x	6/10/20 1723
Relinquished	Date/Time	Received	Date/Time
x		x	

Turn-around Time:

- ☐ Standard
- ☐ 3 Day
- ☐ 2 Day
- ☐ Next Day
- Same Day _____ (specify)

Chain of Custody Record & Laboratory Services Agreement

Fremont Analytical
3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790
Fax: 206-352-7178

Date: 6/10/20 Page: 1 of: 2

Laboratory Project No (internal): 20061195

Project Name: F200

Special Remarks:

Client: OSG

Project No: 2021

Address:

Collected by: ATKINS

City, State, Zip:

Location: FL358

Telephone:

Report To (PM): Atkins

Sample Disposal: ☐ Return to client ☑ Disposal by lab (after 30 days)

Fax:

PM Email:

	Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	HVOCs (EPA 8260 / 624)	GX/BTEX	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DX)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T) | Dissolved (D)	Anions (IC)***	EDB (8011)					Comments
1	358-B11-1	6/10/20	815		X																	
2	-2.5		825		X																	
3	-5		835																			
4	-7.5		855																			
5	-10		900		X																	
6	~~-15~~		~~915~~																			
7	-22.5		955																			
8	-25		1005		X																	
9	358-B12-1		1310																			
10	-2.5		1320		X																	

*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

**Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL *Individual:* Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti Tl U V Zn

***Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above and that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished	Date/Time	Received	Date/Time
x [signature]	6/10/20 1720	x [signature]	6/10/20 1723
Relinquished	Date/Time	Received	Date/Time
x		x	

Turn-around Time:
- ☐ Standard
- ☐ 3 Day
- ☐ 2 Day
- ☑ Next Day
- Same Day ____ (specify)

Fremont Analytical
3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790
Fax: 206-352-7178

Chain of Custody Record & Laboratory Services Agreement

Date: 6/10/20 Page: 2 of: 2

Laboratory Project No (internal): 2006195

Project Name: F200

Project No: 2021

Collected by: Atkins

Location: FL358

Report To (PM): Atkins

PM Email:

Client: OSG

Address:

City, State, Zip:

Telephone:

Fax:

Special Remarks:

Sample Disposal: ☐ Return to client ☐ Disposal by lab (after 30 days)

	Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	HVOCs (EPA 8260 / 624)	GX/BTEX	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DX)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T) | Dissolved (D)	Anions (IC)***	EDB (8011)	Comments
1	358-B12-5	6/10/20	1325	S														
2	-7.5		1330		X													
3	-10		1345															
4	-15		1358		X													
5	-20		1410															
6	-25		1425		X													
7	-30		1515		X													
8	-35		1540															
9																		
10																		

*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

**Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL *Individual:* Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti Tl U V Zn

***Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above and that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished	Date/Time	Received	Date/Time
x [signature]	6/10/20 1720	x [signature]	6/10/20 1723
Relinquished	Date/Time	Received	Date/Time
x		x	

Turn-around Time:
- ☐ Standard
- ☐ 3 Day
- ☐ 2 Day
- ☐ Next Day
- Same Day ____ (specify)

3600 Fremont Ave. N.
Seattle, WA 98103
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info@fremontanalytical.com

O'Neill Service Group
Vance Atkins
17619 NE 67th Court, Suite 100
Redmond, WA 98052

RE: F200
Work Order Number: 2006220

June 15, 2020

Attention Vance Atkins:

Fremont Analytical, Inc. received 8 sample(s) on 6/12/2020 for the analyses presented in the following report.

Sample Moisture (Percent Moisture)
Volatile Organic Compounds by EPA Method 8260D

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Brianna Barnes
Project Manager

Date: *06/15/2020*

CLIENT: O'Neill Service Group
Project: F200
Work Order: 2006220

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
2006220-001	358-B13-1	06/11/2020 11:55 AM	06/12/2020 8:11 AM
2006220-002	358-B13-2.5	06/11/2020 12:00 PM	06/12/2020 8:11 AM
2006220-003	358-B13-5	06/11/2020 12:10 PM	06/12/2020 8:11 AM
2006220-004	358-B13-7.5	06/11/2020 5:15 PM	06/12/2020 8:11 AM
2006220-005	358-B13-10	06/11/2020 5:20 PM	06/12/2020 8:11 AM
2006220-006	358-B13-15	06/11/2020 5:30 PM	06/12/2020 8:11 AM
2006220-007	358-B13-20	06/11/2020 5:45 PM	06/12/2020 8:11 AM
2006220-008	358-B13-25	06/11/2020 5:50 PM	06/12/2020 8:11 AM

Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned

Case Narrative

WO#: **2006220**

Date: **6/15/2020**

CLIENT: O'Neill Service Group

Project: F200

I. SAMPLE RECEIPT:
Samples receipt information is recorded on the attached Sample Receipt Checklist.

II. GENERAL REPORTING COMMENTS:
Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

III. ANALYSES AND EXCEPTIONS:
Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

Qualifiers:

* - Flagged value is not within established control limits
B - Analyte detected in the associated Method Blank
D - Dilution was required
E - Value above quantitation range
H - Holding times for preparation or analysis exceeded
I - Analyte with an internal standard that does not meet established acceptance criteria
J - Analyte detected below Reporting Limit
N - Tentatively Identified Compound (TIC)
Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF)
S - Spike recovery outside accepted recovery limits
ND - Not detected at the Reporting Limit
R - High relative percent difference observed

Acronyms:

%Rec - Percent Recovery
CCB - Continued Calibration Blank
CCV - Continued Calibration Verification
DF - Dilution Factor
HEM - Hexane Extractable Material
ICV - Initial Calibration Verification
LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
MB or MBLANK - Method Blank
MDL - Method Detection Limit
MS/MSD - Matrix Spike / Matrix Spike Duplicate
PDS - Post Digestion Spike
Ref Val - Reference Value
RL - Reporting Limit
RPD - Relative Percent Difference
SD - Serial Dilution
SGT - Silica Gel Treatment
SPK - Spike
Surr - Surrogate

Analytical Report

Work Order: **2006220**
Date Reported: **6/15/2020**

Client: O'Neill Service Group
Collection Date: 6/11/2020 12:00:00 PM
Project: F200
Lab ID: 2006220-002
Matrix: Soil
Client Sample ID: 358-B13-2.5

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28646 Analyst: KT

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0263		mg/Kg-dry	1	6/13/2020 3:31:57 AM
Chloromethane	ND	0.0656		mg/Kg-dry	1	6/13/2020 3:31:57 AM
Vinyl chloride	ND	0.0328		mg/Kg-dry	1	6/13/2020 3:31:57 AM
Bromomethane	ND	0.0656		mg/Kg-dry	1	6/13/2020 3:31:57 AM
Trichlorofluoromethane (CFC-11)	ND	0.0263		mg/Kg-dry	1	6/13/2020 3:31:57 AM
Chloroethane	ND	0.0656		mg/Kg-dry	1	6/13/2020 3:31:57 AM
1,1-Dichloroethene	ND	0.0263		mg/Kg-dry	1	6/13/2020 3:31:57 AM
Methylene chloride	ND	0.0263		mg/Kg-dry	1	6/13/2020 3:31:57 AM
trans-1,2-Dichloroethene	ND	0.0263		mg/Kg-dry	1	6/13/2020 3:31:57 AM
1,1-Dichloroethane	ND	0.0263		mg/Kg-dry	1	6/13/2020 3:31:57 AM
cis-1,2-Dichloroethene	ND	0.0263		mg/Kg-dry	1	6/13/2020 3:31:57 AM
Chloroform	ND	0.0263		mg/Kg-dry	1	6/13/2020 3:31:57 AM
1,1,1-Trichloroethane (TCA)	ND	0.0328		mg/Kg-dry	1	6/13/2020 3:31:57 AM
1,1-Dichloropropene	ND	0.0263		mg/Kg-dry	1	6/13/2020 3:31:57 AM
Carbon tetrachloride	ND	0.0328		mg/Kg-dry	1	6/13/2020 3:31:57 AM
1,2-Dichloroethane (EDC)	ND	0.0263		mg/Kg-dry	1	6/13/2020 3:31:57 AM
Trichloroethene (TCE)	ND	0.0263		mg/Kg-dry	1	6/13/2020 3:31:57 AM
1,2-Dichloropropane	ND	0.0263		mg/Kg-dry	1	6/13/2020 3:31:57 AM
Bromodichloromethane	ND	0.0263		mg/Kg-dry	1	6/13/2020 3:31:57 AM
Dibromomethane	ND	0.0263		mg/Kg-dry	1	6/13/2020 3:31:57 AM
cis-1,3-Dichloropropene	ND	0.0263		mg/Kg-dry	1	6/13/2020 3:31:57 AM
trans-1,3-Dichloropropylene	ND	0.0263		mg/Kg-dry	1	6/13/2020 3:31:57 AM
1,1,2-Trichloroethane	ND	0.0263		mg/Kg-dry	1	6/13/2020 3:31:57 AM
1,3-Dichloropropane	ND	0.0328		mg/Kg-dry	1	6/13/2020 3:31:57 AM
Tetrachloroethene (PCE)	ND	0.0328		mg/Kg-dry	1	6/13/2020 3:31:57 AM
Dibromochloromethane	ND	0.0328		mg/Kg-dry	1	6/13/2020 3:31:57 AM
1,2-Dibromoethane (EDB)	ND	0.00656		mg/Kg-dry	1	6/13/2020 3:31:57 AM
Chlorobenzene	ND	0.0328		mg/Kg-dry	1	6/13/2020 3:31:57 AM
1,1,1,2-Tetrachloroethane	ND	0.0328		mg/Kg-dry	1	6/13/2020 3:31:57 AM
Bromoform	ND	0.0656		mg/Kg-dry	1	6/13/2020 3:31:57 AM
1,1,2,2-Tetrachloroethane	ND	0.0263		mg/Kg-dry	1	6/13/2020 3:31:57 AM
Bromobenzene	ND	0.0263		mg/Kg-dry	1	6/13/2020 3:31:57 AM
2-Chlorotoluene	ND	0.0328		mg/Kg-dry	1	6/13/2020 3:31:57 AM
4-Chlorotoluene	ND	0.0328		mg/Kg-dry	1	6/13/2020 3:31:57 AM
1,2,3-Trichloropropane	ND	0.0328		mg/Kg-dry	1	6/13/2020 3:31:57 AM
1,2,4-Trichlorobenzene	ND	0.0328		mg/Kg-dry	1	6/13/2020 3:31:57 AM
1,3-Dichlorobenzene	ND	0.0263		mg/Kg-dry	1	6/13/2020 3:31:57 AM
1,4-Dichlorobenzene	ND	0.0263		mg/Kg-dry	1	6/13/2020 3:31:57 AM
1,2-Dichlorobenzene	ND	0.0263		mg/Kg-dry	1	6/13/2020 3:31:57 AM

Analytical Report

Work Order: **2006220**
Date Reported: **6/15/2020**

Client: O'Neill Service Group
Collection Date: 6/11/2020 12:00:00 PM
Project: F200
Lab ID: 2006220-002
Matrix: Soil
Client Sample ID: 358-B13-2.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28646		Analyst: KT
1,2-Dibromo-3-chloropropane	ND	0.656		mg/Kg-dry	1	6/13/2020 3:31:57 AM
Hexachloro-1,3-butadiene	ND	0.0656		mg/Kg-dry	1	6/13/2020 3:31:57 AM
1,2,3-Trichlorobenzene	ND	0.0263		mg/Kg-dry	1	6/13/2020 3:31:57 AM
Surr: Dibromofluoromethane	96.7	83.3 - 111		%Rec	1	6/13/2020 3:31:57 AM
Surr: Toluene-d8	96.0	87.9 - 111		%Rec	1	6/13/2020 3:31:57 AM
Surr: 1-Bromo-4-fluorobenzene	99.6	85.1 - 111		%Rec	1	6/13/2020 3:31:57 AM
Sample Moisture (Percent Moisture)				Batch ID: R59818		Analyst: CJ
Percent Moisture	9.27	0.500		wt%	1	6/15/2020 8:41:21 AM

Analytical Report

Work Order: **2006220**
Date Reported: **6/15/2020**

Client: O'Neill Service Group
Collection Date: 6/11/2020 5:20:00 PM
Project: F200
Lab ID: 2006220-005
Matrix: Soil
Client Sample ID: 358-B13-10

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28646 Analyst: KT

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0229		mg/Kg-dry	1	6/13/2020 4:02:07 AM
Chloromethane	ND	0.0571		mg/Kg-dry	1	6/13/2020 4:02:07 AM
Vinyl chloride	ND	0.0286		mg/Kg-dry	1	6/13/2020 4:02:07 AM
Bromomethane	ND	0.0571		mg/Kg-dry	1	6/13/2020 4:02:07 AM
Trichlorofluoromethane (CFC-11)	ND	0.0229		mg/Kg-dry	1	6/13/2020 4:02:07 AM
Chloroethane	ND	0.0571		mg/Kg-dry	1	6/13/2020 4:02:07 AM
1,1-Dichloroethene	ND	0.0229		mg/Kg-dry	1	6/13/2020 4:02:07 AM
Methylene chloride	ND	0.0229		mg/Kg-dry	1	6/13/2020 4:02:07 AM
trans-1,2-Dichloroethene	ND	0.0229		mg/Kg-dry	1	6/13/2020 4:02:07 AM
1,1-Dichloroethane	ND	0.0229		mg/Kg-dry	1	6/13/2020 4:02:07 AM
cis-1,2-Dichloroethene	ND	0.0229		mg/Kg-dry	1	6/13/2020 4:02:07 AM
Chloroform	ND	0.0229		mg/Kg-dry	1	6/13/2020 4:02:07 AM
1,1,1-Trichloroethane (TCA)	ND	0.0286		mg/Kg-dry	1	6/13/2020 4:02:07 AM
1,1-Dichloropropene	ND	0.0229		mg/Kg-dry	1	6/13/2020 4:02:07 AM
Carbon tetrachloride	ND	0.0286		mg/Kg-dry	1	6/13/2020 4:02:07 AM
1,2-Dichloroethane (EDC)	ND	0.0229		mg/Kg-dry	1	6/13/2020 4:02:07 AM
Trichloroethene (TCE)	ND	0.0229		mg/Kg-dry	1	6/13/2020 4:02:07 AM
1,2-Dichloropropane	ND	0.0229		mg/Kg-dry	1	6/13/2020 4:02:07 AM
Bromodichloromethane	ND	0.0229		mg/Kg-dry	1	6/13/2020 4:02:07 AM
Dibromomethane	ND	0.0229		mg/Kg-dry	1	6/13/2020 4:02:07 AM
cis-1,3-Dichloropropene	ND	0.0229		mg/Kg-dry	1	6/13/2020 4:02:07 AM
trans-1,3-Dichloropropylene	ND	0.0229		mg/Kg-dry	1	6/13/2020 4:02:07 AM
1,1,2-Trichloroethane	ND	0.0229		mg/Kg-dry	1	6/13/2020 4:02:07 AM
1,3-Dichloropropane	ND	0.0286		mg/Kg-dry	1	6/13/2020 4:02:07 AM
Tetrachloroethene (PCE)	ND	0.0286		mg/Kg-dry	1	6/13/2020 4:02:07 AM
Dibromochloromethane	ND	0.0286		mg/Kg-dry	1	6/13/2020 4:02:07 AM
1,2-Dibromoethane (EDB)	ND	0.00571		mg/Kg-dry	1	6/13/2020 4:02:07 AM
Chlorobenzene	ND	0.0286		mg/Kg-dry	1	6/13/2020 4:02:07 AM
1,1,1,2-Tetrachloroethane	ND	0.0286		mg/Kg-dry	1	6/13/2020 4:02:07 AM
Bromoform	ND	0.0571		mg/Kg-dry	1	6/13/2020 4:02:07 AM
1,1,2,2-Tetrachloroethane	ND	0.0229		mg/Kg-dry	1	6/13/2020 4:02:07 AM
Bromobenzene	ND	0.0229		mg/Kg-dry	1	6/13/2020 4:02:07 AM
2-Chlorotoluene	ND	0.0286		mg/Kg-dry	1	6/13/2020 4:02:07 AM
4-Chlorotoluene	ND	0.0286		mg/Kg-dry	1	6/13/2020 4:02:07 AM
1,2,3-Trichloropropane	ND	0.0286		mg/Kg-dry	1	6/13/2020 4:02:07 AM
1,2,4-Trichlorobenzene	ND	0.0286		mg/Kg-dry	1	6/13/2020 4:02:07 AM
1,3-Dichlorobenzene	ND	0.0229		mg/Kg-dry	1	6/13/2020 4:02:07 AM
1,4-Dichlorobenzene	ND	0.0229		mg/Kg-dry	1	6/13/2020 4:02:07 AM
1,2-Dichlorobenzene	ND	0.0229		mg/Kg-dry	1	6/13/2020 4:02:07 AM

Analytical Report

Work Order: **2006220**
Date Reported: **6/15/2020**

Client: O'Neill Service Group
Collection Date: 6/11/2020 5:20:00 PM
Project: F200
Lab ID: 2006220-005
Matrix: Soil
Client Sample ID: 358-B13-10

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28646		Analyst: KT
1,2-Dibromo-3-chloropropane	ND	0.571		mg/Kg-dry	1	6/13/2020 4:02:07 AM
Hexachloro-1,3-butadiene	ND	0.0571		mg/Kg-dry	1	6/13/2020 4:02:07 AM
1,2,3-Trichlorobenzene	ND	0.0229		mg/Kg-dry	1	6/13/2020 4:02:07 AM
Surr: Dibromofluoromethane	96.9	83.3 - 111		%Rec	1	6/13/2020 4:02:07 AM
Surr: Toluene-d8	94.9	87.9 - 111		%Rec	1	6/13/2020 4:02:07 AM
Surr: 1-Bromo-4-fluorobenzene	98.5	85.1 - 111		%Rec	1	6/13/2020 4:02:07 AM
Sample Moisture (Percent Moisture)				Batch ID: R59818		Analyst: CJ
Percent Moisture	10.8	0.500		wt%	1	6/15/2020 8:41:21 AM

Analytical Report

Work Order: **2006220**
Date Reported: **6/15/2020**

Client: O'Neill Service Group
Collection Date: 6/11/2020 5:45:00 PM
Project: F200
Lab ID: 2006220-007
Matrix: Soil
Client Sample ID: 358-B13-20

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28646 Analyst: KT

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0187		mg/Kg-dry	1	6/13/2020 4:32:19 AM
Chloromethane	ND	0.0467		mg/Kg-dry	1	6/13/2020 4:32:19 AM
Vinyl chloride	ND	0.0233		mg/Kg-dry	1	6/13/2020 4:32:19 AM
Bromomethane	ND	0.0467		mg/Kg-dry	1	6/13/2020 4:32:19 AM
Trichlorofluoromethane (CFC-11)	ND	0.0187		mg/Kg-dry	1	6/13/2020 4:32:19 AM
Chloroethane	ND	0.0467		mg/Kg-dry	1	6/13/2020 4:32:19 AM
1,1-Dichloroethene	ND	0.0187		mg/Kg-dry	1	6/13/2020 4:32:19 AM
Methylene chloride	ND	0.0187		mg/Kg-dry	1	6/13/2020 4:32:19 AM
trans-1,2-Dichloroethene	ND	0.0187		mg/Kg-dry	1	6/13/2020 4:32:19 AM
1,1-Dichloroethane	ND	0.0187		mg/Kg-dry	1	6/13/2020 4:32:19 AM
cis-1,2-Dichloroethene	ND	0.0187		mg/Kg-dry	1	6/13/2020 4:32:19 AM
Chloroform	ND	0.0187		mg/Kg-dry	1	6/13/2020 4:32:19 AM
1,1,1-Trichloroethane (TCA)	ND	0.0233		mg/Kg-dry	1	6/13/2020 4:32:19 AM
1,1-Dichloropropene	ND	0.0187		mg/Kg-dry	1	6/13/2020 4:32:19 AM
Carbon tetrachloride	ND	0.0233		mg/Kg-dry	1	6/13/2020 4:32:19 AM
1,2-Dichloroethane (EDC)	ND	0.0187		mg/Kg-dry	1	6/13/2020 4:32:19 AM
Trichloroethene (TCE)	ND	0.0187		mg/Kg-dry	1	6/13/2020 4:32:19 AM
1,2-Dichloropropane	ND	0.0187		mg/Kg-dry	1	6/13/2020 4:32:19 AM
Bromodichloromethane	ND	0.0187		mg/Kg-dry	1	6/13/2020 4:32:19 AM
Dibromomethane	ND	0.0187		mg/Kg-dry	1	6/13/2020 4:32:19 AM
cis-1,3-Dichloropropene	ND	0.0187		mg/Kg-dry	1	6/13/2020 4:32:19 AM
trans-1,3-Dichloropropylene	ND	0.0187		mg/Kg-dry	1	6/13/2020 4:32:19 AM
1,1,2-Trichloroethane	ND	0.0187		mg/Kg-dry	1	6/13/2020 4:32:19 AM
1,3-Dichloropropane	ND	0.0233		mg/Kg-dry	1	6/13/2020 4:32:19 AM
Tetrachloroethene (PCE)	ND	0.0233		mg/Kg-dry	1	6/13/2020 4:32:19 AM
Dibromochloromethane	ND	0.0233		mg/Kg-dry	1	6/13/2020 4:32:19 AM
1,2-Dibromoethane (EDB)	ND	0.00467		mg/Kg-dry	1	6/13/2020 4:32:19 AM
Chlorobenzene	ND	0.0233		mg/Kg-dry	1	6/13/2020 4:32:19 AM
1,1,1,2-Tetrachloroethane	ND	0.0233		mg/Kg-dry	1	6/13/2020 4:32:19 AM
Bromoform	ND	0.0467		mg/Kg-dry	1	6/13/2020 4:32:19 AM
1,1,2,2-Tetrachloroethane	ND	0.0187		mg/Kg-dry	1	6/13/2020 4:32:19 AM
Bromobenzene	ND	0.0187		mg/Kg-dry	1	6/13/2020 4:32:19 AM
2-Chlorotoluene	ND	0.0233		mg/Kg-dry	1	6/13/2020 4:32:19 AM
4-Chlorotoluene	ND	0.0233		mg/Kg-dry	1	6/13/2020 4:32:19 AM
1,2,3-Trichloropropane	ND	0.0233		mg/Kg-dry	1	6/13/2020 4:32:19 AM
1,2,4-Trichlorobenzene	ND	0.0233		mg/Kg-dry	1	6/13/2020 4:32:19 AM
1,3-Dichlorobenzene	ND	0.0187		mg/Kg-dry	1	6/13/2020 4:32:19 AM
1,4-Dichlorobenzene	ND	0.0187		mg/Kg-dry	1	6/13/2020 4:32:19 AM
1,2-Dichlorobenzene	ND	0.0187		mg/Kg-dry	1	6/13/2020 4:32:19 AM

Analytical Report

Work Order: **2006220**
Date Reported: **6/15/2020**

Client: O'Neill Service Group
Collection Date: 6/11/2020 5:45:00 PM
Project: F200
Lab ID: 2006220-007
Matrix: Soil
Client Sample ID: 358-B13-20

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28646		Analyst: KT
1,2-Dibromo-3-chloropropane	ND	0.467		mg/Kg-dry	1	6/13/2020 4:32:19 AM
Hexachloro-1,3-butadiene	ND	0.0467		mg/Kg-dry	1	6/13/2020 4:32:19 AM
1,2,3-Trichlorobenzene	ND	0.0187		mg/Kg-dry	1	6/13/2020 4:32:19 AM
Surr: Dibromofluoromethane	96.3	83.3 - 111		%Rec	1	6/13/2020 4:32:19 AM
Surr: Toluene-d8	94.9	87.9 - 111		%Rec	1	6/13/2020 4:32:19 AM
Surr: 1-Bromo-4-fluorobenzene	97.7	85.1 - 111		%Rec	1	6/13/2020 4:32:19 AM
Sample Moisture (Percent Moisture)				Batch ID: R59818		Analyst: CJ
Percent Moisture	9.83	0.500		wt%	1	6/15/2020 8:41:21 AM

Analytical Report

Work Order: **2006220**
Date Reported: **6/15/2020**

Client: O'Neill Service Group
Collection Date: 6/11/2020 5:50:00 PM
Project: F200
Lab ID: 2006220-008
Matrix: Soil
Client Sample ID: 358-B13-25

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28646 Analyst: KT

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0182		mg/Kg-dry	1	6/13/2020 5:02:22 AM
Chloromethane	ND	0.0454		mg/Kg-dry	1	6/13/2020 5:02:22 AM
Vinyl chloride	ND	0.0227		mg/Kg-dry	1	6/13/2020 5:02:22 AM
Bromomethane	ND	0.0454		mg/Kg-dry	1	6/13/2020 5:02:22 AM
Trichlorofluoromethane (CFC-11)	ND	0.0182		mg/Kg-dry	1	6/13/2020 5:02:22 AM
Chloroethane	ND	0.0454		mg/Kg-dry	1	6/13/2020 5:02:22 AM
1,1-Dichloroethene	ND	0.0182		mg/Kg-dry	1	6/13/2020 5:02:22 AM
Methylene chloride	ND	0.0182		mg/Kg-dry	1	6/13/2020 5:02:22 AM
trans-1,2-Dichloroethene	ND	0.0182		mg/Kg-dry	1	6/13/2020 5:02:22 AM
1,1-Dichloroethane	ND	0.0182		mg/Kg-dry	1	6/13/2020 5:02:22 AM
cis-1,2-Dichloroethene	ND	0.0182		mg/Kg-dry	1	6/13/2020 5:02:22 AM
Chloroform	ND	0.0182		mg/Kg-dry	1	6/13/2020 5:02:22 AM
1,1,1-Trichloroethane (TCA)	ND	0.0227		mg/Kg-dry	1	6/13/2020 5:02:22 AM
1,1-Dichloropropene	ND	0.0182		mg/Kg-dry	1	6/13/2020 5:02:22 AM
Carbon tetrachloride	ND	0.0227		mg/Kg-dry	1	6/13/2020 5:02:22 AM
1,2-Dichloroethane (EDC)	ND	0.0182		mg/Kg-dry	1	6/13/2020 5:02:22 AM
Trichloroethene (TCE)	ND	0.0182		mg/Kg-dry	1	6/13/2020 5:02:22 AM
1,2-Dichloropropane	ND	0.0182		mg/Kg-dry	1	6/13/2020 5:02:22 AM
Bromodichloromethane	ND	0.0182		mg/Kg-dry	1	6/13/2020 5:02:22 AM
Dibromomethane	ND	0.0182		mg/Kg-dry	1	6/13/2020 5:02:22 AM
cis-1,3-Dichloropropene	ND	0.0182		mg/Kg-dry	1	6/13/2020 5:02:22 AM
trans-1,3-Dichloropropylene	ND	0.0182		mg/Kg-dry	1	6/13/2020 5:02:22 AM
1,1,2-Trichloroethane	ND	0.0182		mg/Kg-dry	1	6/13/2020 5:02:22 AM
1,3-Dichloropropane	ND	0.0227		mg/Kg-dry	1	6/13/2020 5:02:22 AM
Tetrachloroethene (PCE)	ND	0.0227		mg/Kg-dry	1	6/13/2020 5:02:22 AM
Dibromochloromethane	ND	0.0227		mg/Kg-dry	1	6/13/2020 5:02:22 AM
1,2-Dibromoethane (EDB)	ND	0.00454		mg/Kg-dry	1	6/13/2020 5:02:22 AM
Chlorobenzene	ND	0.0227		mg/Kg-dry	1	6/13/2020 5:02:22 AM
1,1,1,2-Tetrachloroethane	ND	0.0227		mg/Kg-dry	1	6/13/2020 5:02:22 AM
Bromoform	ND	0.0454		mg/Kg-dry	1	6/13/2020 5:02:22 AM
1,1,2,2-Tetrachloroethane	ND	0.0182		mg/Kg-dry	1	6/13/2020 5:02:22 AM
Bromobenzene	ND	0.0182		mg/Kg-dry	1	6/13/2020 5:02:22 AM
2-Chlorotoluene	ND	0.0227		mg/Kg-dry	1	6/13/2020 5:02:22 AM
4-Chlorotoluene	ND	0.0227		mg/Kg-dry	1	6/13/2020 5:02:22 AM
1,2,3-Trichloropropane	ND	0.0227		mg/Kg-dry	1	6/13/2020 5:02:22 AM
1,2,4-Trichlorobenzene	ND	0.0227		mg/Kg-dry	1	6/13/2020 5:02:22 AM
1,3-Dichlorobenzene	ND	0.0182		mg/Kg-dry	1	6/13/2020 5:02:22 AM
1,4-Dichlorobenzene	ND	0.0182		mg/Kg-dry	1	6/13/2020 5:02:22 AM
1,2-Dichlorobenzene	ND	0.0182		mg/Kg-dry	1	6/13/2020 5:02:22 AM

Analytical Report

Work Order: **2006220**
Date Reported: **6/15/2020**

Client: O'Neill Service Group
Collection Date: 6/11/2020 5:50:00 PM
Project: F200
Lab ID: 2006220-008
Matrix: Soil
Client Sample ID: 358-B13-25

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28646		Analyst: KT
1,2-Dibromo-3-chloropropane	ND	0.454		mg/Kg-dry	1	6/13/2020 5:02:22 AM
Hexachloro-1,3-butadiene	ND	0.0454		mg/Kg-dry	1	6/13/2020 5:02:22 AM
1,2,3-Trichlorobenzene	ND	0.0182		mg/Kg-dry	1	6/13/2020 5:02:22 AM
Surr: Dibromofluoromethane	96.5	83.3 - 111		%Rec	1	6/13/2020 5:02:22 AM
Surr: Toluene-d8	90.9	87.9 - 111		%Rec	1	6/13/2020 5:02:22 AM
Surr: 1-Bromo-4-fluorobenzene	98.4	85.1 - 111		%Rec	1	6/13/2020 5:02:22 AM
Sample Moisture (Percent Moisture)				Batch ID: R59818		Analyst: CJ
Percent Moisture	9.69	0.500		wt%	1	6/15/2020 8:41:21 AM

Date: *6/15/2020*

Work Order: 2006220
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **LCS-28646** SampType: **LCS** Units: **mg/Kg** Prep Date: **6/12/2020** RunNo: **59824**
Client ID: **LCSS** Batch ID: **28646** Analysis Date: **6/12/2020** SeqNo: **1197273**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	0.901	0.0200	1.000	0	90.1	13.4	185				
Chloromethane	0.886	0.0500	1.000	0	88.6	38.5	158				
Vinyl chloride	0.895	0.0250	1.000	0	89.5	53.6	138				
Bromomethane	0.951	0.0500	1.000	0	95.1	56.6	151				
Trichlorofluoromethane (CFC-11)	0.915	0.0200	1.000	0	91.5	64.2	137				
Chloroethane	1.01	0.0500	1.000	0	101	54.1	134				
1,1-Dichloroethene	0.899	0.0200	1.000	0	89.9	66	133				
Methylene chloride	0.873	0.0200	1.000	0	87.3	74.3	117				
trans-1,2-Dichloroethene	0.891	0.0200	1.000	0	89.1	79.6	115				
1,1-Dichloroethane	0.880	0.0200	1.000	0	88.0	75.8	117				
cis-1,2-Dichloroethene	0.885	0.0200	1.000	0	88.5	77.8	115				
Chloroform	0.884	0.0200	1.000	0	88.4	78.2	115				
1,1,1-Trichloroethane (TCA)	0.903	0.0250	1.000	0	90.3	76	121				
1,1-Dichloropropene	0.909	0.0200	1.000	0	90.9	77.2	120				
Carbon tetrachloride	0.881	0.0250	1.000	0	88.1	74	122				
1,2-Dichloroethane (EDC)	0.864	0.0200	1.000	0	86.4	74.7	115				
Trichloroethene (TCE)	0.900	0.0200	1.000	0	90.0	79.6	118				
1,2-Dichloropropane	0.880	0.0200	1.000	0	88.0	78.2	115				
Bromodichloromethane	0.977	0.0200	1.000	0	97.7	76.6	116				
Dibromomethane	0.898	0.0200	1.000	0	89.8	77.9	115				
cis-1,3-Dichloropropene	0.894	0.0200	1.000	0	89.4	74.6	119				
trans-1,3-Dichloropropylene	0.980	0.0200	1.000	0	98.0	70.6	124				
1,1,2-Trichloroethane	0.866	0.0200	1.000	0	86.6	75.6	116				
1,3-Dichloropropane	0.857	0.0250	1.000	0	85.7	75.3	116				
Tetrachloroethene (PCE)	0.888	0.0250	1.000	0	88.8	78.8	119				
Dibromochloromethane	1.01	0.0250	1.000	0	101	72.5	123				
1,2-Dibromoethane (EDB)	0.874	0.00500	1.000	0	87.4	75	116				
Chlorobenzene	0.889	0.0250	1.000	0	88.9	83.4	113				
1,1,1,2-Tetrachloroethane	0.986	0.0250	1.000	0	98.6	80.8	117				
Bromoform	1.05	0.0500	1.000	0	105	71	129				
1,1,2,2-Tetrachloroethane	0.947	0.0200	1.000	0	94.7	71.3	119				

Date: *6/15/2020*

Work Order: 2006220
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **LCS-28646** SampType: **LCS** Units: **mg/Kg** Prep Date: **6/12/2020** RunNo: **59824**
Client ID: **LCSS** Batch ID: **28646** Analysis Date: **6/12/2020** SeqNo: **1197273**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromobenzene	0.903	0.0200	1.000	0	90.3	78.6	115				
2-Chlorotoluene	0.892	0.0250	1.000	0	89.2	78.6	116				
4-Chlorotoluene	0.891	0.0250	1.000	0	89.1	78.8	117				
1,2,3-Trichloropropane	0.969	0.0250	1.000	0	96.9	67.5	129				
1,2,4-Trichlorobenzene	0.874	0.0250	1.000	0	87.4	79.6	124				
1,3-Dichlorobenzene	0.942	0.0200	1.000	0	94.2	87.1	117				
1,4-Dichlorobenzene	0.941	0.0200	1.000	0	94.1	87.6	115				
1,2-Dichlorobenzene	0.934	0.0200	1.000	0	93.4	87.9	115				
1,2-Dibromo-3-chloropropane	1.07	0.500	1.000	0	107	65.6	132				
Hexachloro-1,3-butadiene	0.932	0.0500	1.000	0	93.2	75	130				
1,2,3-Trichlorobenzene	0.848	0.0200	1.000	0	84.8	74.3	128				
Surr: Dibromofluoromethane	1.32		1.250		106	83.3	111				
Surr: Toluene-d8	1.26		1.250		101	87.9	111				
Surr: 1-Bromo-4-fluorobenzene	1.29		1.250		103	85.1	111				

Sample ID: **MB-28646** SampType: **MBLK** Units: **mg/Kg** Prep Date: **6/12/2020** RunNo: **59824**
Client ID: **MBLKS** Batch ID: **28646** Analysis Date: **6/12/2020** SeqNo: **1197274**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	0.0200									
Chloromethane	ND	0.0500									
Vinyl chloride	ND	0.0250									
Bromomethane	ND	0.0500									
Trichlorofluoromethane (CFC-11)	ND	0.0200									
Chloroethane	ND	0.0500									
1,1-Dichloroethene	ND	0.0200									
Methylene chloride	ND	0.0200									
trans-1,2-Dichloroethene	ND	0.0200									
1,1-Dichloroethane	ND	0.0200									
cis-1,2-Dichloroethene	ND	0.0200									

Date: *6/15/2020*

Work Order: 2006220
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **MB-28646** SampType: **MBLK** Units: **mg/Kg** Prep Date: **6/12/2020** RunNo: **59824**
Client ID: **MBLKS** Batch ID: **28646** Analysis Date: **6/12/2020** SeqNo: **1197274**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloroform	ND	0.0200									
1,1,1-Trichloroethane (TCA)	ND	0.0250									
1,1-Dichloropropene	ND	0.0200									
Carbon tetrachloride	ND	0.0250									
1,2-Dichloroethane (EDC)	ND	0.0200									
Trichloroethene (TCE)	ND	0.0200									
1,2-Dichloropropane	ND	0.0200									
Bromodichloromethane	ND	0.0200									
Dibromomethane	ND	0.0200									
cis-1,3-Dichloropropene	ND	0.0200									
trans-1,3-Dichloropropylene	ND	0.0200									
1,1,2-Trichloroethane	ND	0.0200									
1,3-Dichloropropane	ND	0.0250									
Tetrachloroethene (PCE)	ND	0.0250									
Dibromochloromethane	ND	0.0250									
1,2-Dibromoethane (EDB)	ND	0.00500									
Chlorobenzene	ND	0.0250									
1,1,1,2-Tetrachloroethane	ND	0.0250									
Bromoform	ND	0.0500									
1,1,2,2-Tetrachloroethane	ND	0.0200									
Bromobenzene	ND	0.0200									
2-Chlorotoluene	ND	0.0250									
4-Chlorotoluene	ND	0.0250									
1,2,3-Trichloropropane	ND	0.0250									
1,2,4-Trichlorobenzene	ND	0.0250									
1,3-Dichlorobenzene	ND	0.0200									
1,4-Dichlorobenzene	ND	0.0200									
1,2-Dichlorobenzene	ND	0.0200									
1,2-Dibromo-3-chloropropane	ND	0.500									
Hexachloro-1,3-butadiene	ND	0.0500									
1,2,3-Trichlorobenzene	ND	0.0200									

Date: *6/15/2020*

Work Order: 2006220
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **MB-28646** SampType: **MBLK** Units: **mg/Kg** Prep Date: **6/12/2020** RunNo: **59824**
Client ID: **MBLKS** Batch ID: **28646** Analysis Date: **6/12/2020** SeqNo: **1197274**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	1.22		1.250		98.0	83.3	111				
Surr: Toluene-d8	1.25		1.250		99.6	87.9	111				
Surr: 1-Bromo-4-fluorobenzene	1.25		1.250		99.6	85.1	111				

Sample ID: **2006164-003BDUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **6/12/2020** RunNo: **59824**
Client ID: **BATCH** Batch ID: **28646** Analysis Date: **6/12/2020** SeqNo: **1197251**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	0.0288						0		30	
Chloromethane	ND	0.0720						0		30	
Vinyl chloride	ND	0.0360						0		30	
Bromomethane	ND	0.0720						0		30	
Trichlorofluoromethane (CFC-11)	ND	0.0288						0		30	
Chloroethane	ND	0.0720						0		30	
1,1-Dichloroethene	ND	0.0288						0		30	
Methylene chloride	ND	0.0288						0		30	
trans-1,2-Dichloroethene	ND	0.0288						0		30	
1,1-Dichloroethane	ND	0.0288						0		30	
cis-1,2-Dichloroethene	ND	0.0288						0		30	
Chloroform	ND	0.0288						0		30	
1,1,1-Trichloroethane (TCA)	ND	0.0360						0		30	
1,1-Dichloropropene	ND	0.0288						0		30	
Carbon tetrachloride	ND	0.0360						0		30	
1,2-Dichloroethane (EDC)	ND	0.0288						0		30	
Trichloroethene (TCE)	ND	0.0288						0		30	
1,2-Dichloropropane	ND	0.0288						0		30	
Bromodichloromethane	ND	0.0288						0		30	
Dibromomethane	ND	0.0288						0		30	
cis-1,3-Dichloropropene	ND	0.0288						0		30	
trans-1,3-Dichloropropylene	ND	0.0288						0		30	

Date: *6/15/2020*

Work Order: 2006220
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2006164-003BDUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **6/12/2020** RunNo: **59824**
Client ID: **BATCH** Batch ID: **28646** Analysis Date: **6/12/2020** SeqNo: **1197251**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,2-Trichloroethane	ND	0.0288						0		30	
1,3-Dichloropropane	ND	0.0360						0		30	
Tetrachloroethene (PCE)	ND	0.0360						0		30	
Dibromochloromethane	ND	0.0360						0		30	
1,2-Dibromoethane (EDB)	ND	0.00720						0		30	
Chlorobenzene	ND	0.0360						0		30	
1,1,1,2-Tetrachloroethane	ND	0.0360						0		30	
Bromoform	ND	0.0720						0		30	
1,1,2,2-Tetrachloroethane	ND	0.0288						0		30	
Bromobenzene	ND	0.0288						0		30	
2-Chlorotoluene	ND	0.0360						0		30	
4-Chlorotoluene	ND	0.0360						0		30	
1,2,3-Trichloropropane	ND	0.0360						0		30	
1,2,4-Trichlorobenzene	ND	0.0360						0		30	
1,3-Dichlorobenzene	ND	0.0288						0		30	
1,4-Dichlorobenzene	ND	0.0288						0		30	
1,2-Dichlorobenzene	ND	0.0288						0		30	
1,2-Dibromo-3-chloropropane	ND	0.720						0		30	
Hexachloro-1,3-butadiene	ND	0.0720						0		30	
1,2,3-Trichlorobenzene	ND	0.0288						0		30	
Surr: Dibromofluoromethane	1.74		1.800		96.5	83.3	111		0		
Surr: Toluene-d8	1.78		1.800		98.8	87.9	111		0		
Surr: 1-Bromo-4-fluorobenzene	1.80		1.800		100	85.1	111		0		

Sample ID: **2006198-001BDUP** SampType: **DUP** Units: **mg/Kg** Prep Date: **6/12/2020** RunNo: **59824**
Client ID: **BATCH** Batch ID: **28646** Analysis Date: **6/12/2020** SeqNo: **1197253**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	0.0139						0		30	
Chloromethane	ND	0.0347						0		30	

Date: *6/15/2020*

Work Order: 2006220
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2006198-001BDUP** SampType: **DUP** Units: **mg/Kg** Prep Date: **6/12/2020** RunNo: **59824**
Client ID: **BATCH** Batch ID: **28646** Analysis Date: **6/12/2020** SeqNo: **1197253**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	ND	0.0173						0		30	
Bromomethane	ND	0.0347						0		30	
Trichlorofluoromethane (CFC-11)	ND	0.0139						0		30	
Chloroethane	ND	0.0347						0		30	
1,1-Dichloroethene	ND	0.0139						0		30	
Methylene chloride	ND	0.0139						0		30	
trans-1,2-Dichloroethene	ND	0.0139						0		30	
1,1-Dichloroethane	ND	0.0139						0		30	
cis-1,2-Dichloroethene	ND	0.0139						0		30	
Chloroform	ND	0.0139						0		30	
1,1,1-Trichloroethane (TCA)	ND	0.0173						0		30	
1,1-Dichloropropene	ND	0.0139						0		30	
Carbon tetrachloride	ND	0.0173						0		30	
1,2-Dichloroethane (EDC)	ND	0.0139						0		30	
Trichloroethene (TCE)	ND	0.0139						0		30	
1,2-Dichloropropane	ND	0.0139						0		30	
Bromodichloromethane	ND	0.0139						0		30	
Dibromomethane	ND	0.0139						0		30	
cis-1,3-Dichloropropene	ND	0.0139						0		30	
trans-1,3-Dichloropropylene	ND	0.0139						0		30	
1,1,2-Trichloroethane	ND	0.0139						0		30	
1,3-Dichloropropane	ND	0.0173						0		30	
Tetrachloroethene (PCE)	ND	0.0173						0		30	
Dibromochloromethane	ND	0.0173						0		30	
1,2-Dibromoethane (EDB)	ND	0.00347						0		30	
Chlorobenzene	ND	0.0173						0		30	
1,1,1,2-Tetrachloroethane	ND	0.0173						0		30	
Bromoform	ND	0.0347						0		30	
1,1,2,2-Tetrachloroethane	ND	0.0139						0		30	
Bromobenzene	ND	0.0139						0		30	
2-Chlorotoluene	ND	0.0173						0		30	

Date: *6/15/2020*

Work Order: 2006220
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2006198-001BDUP** SampType: **DUP** Units: **mg/Kg** Prep Date: **6/12/2020** RunNo: **59824**
Client ID: **BATCH** Batch ID: **28646** Analysis Date: **6/12/2020** SeqNo: **1197253**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4-Chlorotoluene	ND	0.0173						0		30	
1,2,3-Trichloropropane	ND	0.0173						0		30	
1,2,4-Trichlorobenzene	ND	0.0173						0		30	
1,3-Dichlorobenzene	ND	0.0139						0		30	
1,4-Dichlorobenzene	ND	0.0139						0		30	
1,2-Dichlorobenzene	ND	0.0139						0		30	
1,2-Dibromo-3-chloropropane	ND	0.347						0		30	
Hexachloro-1,3-butadiene	ND	0.0347						0		30	
1,2,3-Trichlorobenzene	ND	0.0139						0		30	
Surr: Dibromofluoromethane	0.841		0.8674		96.9	83.3	111		0		
Surr: Toluene-d8	0.831		0.8674		95.8	87.9	111		0		
Surr: 1-Bromo-4-fluorobenzene	0.871		0.8674		100	85.1	111		0		

Sample ID: **2006164-002BMS** SampType: **MS** Units: **mg/Kg-dry** Prep Date: **6/12/2020** RunNo: **59824**
Client ID: **BATCH** Batch ID: **28646** Analysis Date: **6/12/2020** SeqNo: **1197248**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	0.686	0.0184	0.9209	0	74.5	5.73	173				
Chloromethane	0.862	0.0460	0.9209	0	93.6	41.3	150				
Vinyl chloride	0.819	0.0230	0.9209	0	88.9	49.5	138				
Bromomethane	0.731	0.0460	0.9209	0	79.4	48.5	158				
Trichlorofluoromethane (CFC-11)	0.805	0.0184	0.9209	0	87.4	40.6	159				
Chloroethane	0.629	0.0460	0.9209	0	68.3	30.4	166				
1,1-Dichloroethene	0.913	0.0184	0.9209	0	99.2	55	138				
Methylene chloride	0.897	0.0184	0.9209	0	97.4	70.3	123				
trans-1,2-Dichloroethene	0.860	0.0184	0.9209	0	93.4	73.1	121				
1,1-Dichloroethane	0.867	0.0184	0.9209	0	94.1	70.8	122				
cis-1,2-Dichloroethene	0.883	0.0184	0.9209	0	95.9	71.8	122				
Chloroform	0.888	0.0184	0.9209	0	96.4	72.9	122				
1,1,1-Trichloroethane (TCA)	0.846	0.0230	0.9209	0	91.8	69.6	125				

Date: *6/15/2020*

Work Order: 2006220
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2006164-002BMS** SampType: **MS** Units: **mg/Kg-dry** Prep Date: **6/12/2020** RunNo: **59824**
Client ID: **BATCH** Batch ID: **28646** Analysis Date: **6/12/2020** SeqNo: **1197248**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloropropene	0.829	0.0184	0.9209	0	90.0	69.3	126				
Carbon tetrachloride	0.787	0.0230	0.9209	0	85.5	65	127				
1,2-Dichloroethane (EDC)	0.896	0.0184	0.9209	0	97.3	70.1	121				
Trichloroethene (TCE)	0.876	0.0184	0.9209	0	95.2	70.1	129				
1,2-Dichloropropane	0.898	0.0184	0.9209	0	97.6	74.6	120				
Bromodichloromethane	0.951	0.0184	0.9209	0	103	70.9	122				
Dibromomethane	0.910	0.0184	0.9209	0	98.8	75.6	120				
cis-1,3-Dichloropropene	0.851	0.0184	0.9209	0	92.4	68.3	120				
trans-1,3-Dichloropropylene	0.950	0.0184	0.9209	0	103	62.2	127				
1,1,2-Trichloroethane	0.875	0.0184	0.9209	0	95.0	72.9	120				
1,3-Dichloropropane	0.870	0.0230	0.9209	0	94.5	71.9	119				
Tetrachloroethene (PCE)	0.843	0.0230	0.9209	0	91.5	71.1	122				
Dibromochloromethane	0.973	0.0230	0.9209	0	106	65.9	126				
1,2-Dibromoethane (EDB)	0.886	0.00460	0.9209	0	96.2	72	119				
Chlorobenzene	0.887	0.0230	0.9209	0	96.4	81.4	116				
1,1,1,2-Tetrachloroethane	0.962	0.0230	0.9209	0	104	72.9	125				
Bromoform	1.00	0.0460	0.9209	0	109	63.4	133				
1,1,2,2-Tetrachloroethane	0.949	0.0184	0.9209	0	103	61	128				
Bromobenzene	0.903	0.0184	0.9209	0	98.0	77	120				
2-Chlorotoluene	0.895	0.0230	0.9209	0	97.2	71.4	126				
4-Chlorotoluene	0.901	0.0230	0.9209	0	97.9	73.6	124				
1,2,3-Trichloropropane	0.969	0.0230	0.9209	0	105	65.7	132				
1,2,4-Trichlorobenzene	0.954	0.0230	0.9209	0	104	70.5	130				
1,3-Dichlorobenzene	0.924	0.0184	0.9209	0	100	83.8	121				
1,4-Dichlorobenzene	0.911	0.0184	0.9209	0	99.0	85.7	117				
1,2-Dichlorobenzene	0.917	0.0184	0.9209	0	99.5	81.8	120				
1,2-Dibromo-3-chloropropane	1.03	0.460	0.9209	0	112	56.9	139				
Hexachloro-1,3-butadiene	0.949	0.0460	0.9209	0	103	61.1	140				
1,2,3-Trichlorobenzene	0.872	0.0184	0.9209	0	94.7	67.8	132				
Surr: Dibromofluoromethane	1.19		1.151		104	83.3	111				
Surr: Toluene-d8	1.10		1.151		96.0	87.9	111				

Date: *6/15/2020*

Work Order: 2006220
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2006164-002BMS** SampType: **MS** Units: **mg/Kg-dry** Prep Date: **6/12/2020** RunNo: **59824**
Client ID: **BATCH** Batch ID: **28646** Analysis Date: **6/12/2020** SeqNo: **1197248**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: 1-Bromo-4-fluorobenzene	1.19		1.151		104	85.1	111				

Sample ID: **2006164-002BMSD** SampType: **MSD** Units: **mg/Kg-dry** Prep Date: **6/12/2020** RunNo: **59824**
Client ID: **BATCH** Batch ID: **28646** Analysis Date: **6/12/2020** SeqNo: **1197249**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	0.809	0.0184	0.9209	0	87.8	5.73	173	0.6862	16.4	30	
Chloromethane	0.965	0.0460	0.9209	0	105	41.3	150	0.8617	11.3	30	
Vinyl chloride	0.939	0.0230	0.9209	0	102	49.5	138	0.8189	13.7	30	
Bromomethane	1.04	0.0460	0.9209	0	112	48.5	158	0.7308	34.5	30	R
Trichlorofluoromethane (CFC-11)	0.838	0.0184	0.9209	0	91.0	40.6	159	0.8050	3.99	30	
Chloroethane	1.02	0.0460	0.9209	0	111	30.4	166	0.6292	47.7	30	R
1,1-Dichloroethene	0.915	0.0184	0.9209	0	99.4	55	138	0.9135	0.194	30	
Methylene chloride	0.970	0.0184	0.9209	0	105	70.3	123	0.8967	7.82	30	
trans-1,2-Dichloroethene	0.988	0.0184	0.9209	0	107	73.1	121	0.8598	13.9	30	
1,1-Dichloroethane	0.996	0.0184	0.9209	0	108	70.8	122	0.8669	13.8	30	
cis-1,2-Dichloroethene	1.00	0.0184	0.9209	0	109	71.8	122	0.8835	12.4	30	
Chloroform	1.00	0.0184	0.9209	0	109	72.9	122	0.8877	12.0	30	
1,1,1-Trichloroethane (TCA)	0.969	0.0230	0.9209	0	105	69.6	125	0.8457	13.6	30	
1,1-Dichloropropene	0.952	0.0184	0.9209	0	103	69.3	126	0.8289	13.8	30	
Carbon tetrachloride	0.905	0.0230	0.9209	0	98.3	65	127	0.7874	13.9	30	
1,2-Dichloroethane (EDC)	0.991	0.0184	0.9209	0	108	70.1	121	0.8959	10.1	30	
Trichloroethene (TCE)	0.984	0.0184	0.9209	0	107	70.1	129	0.8762	11.6	30	
1,2-Dichloropropane	0.991	0.0184	0.9209	0	108	74.6	120	0.8983	9.78	30	
Bromodichloromethane	1.05	0.0184	0.9209	0	114	70.9	122	0.9513	10.0	30	
Dibromomethane	1.01	0.0184	0.9209	0	109	75.6	120	0.9096	10.0	30	
cis-1,3-Dichloropropene	0.971	0.0184	0.9209	0	105	68.3	120	0.8507	13.2	30	
trans-1,3-Dichloropropylene	1.07	0.0184	0.9209	0	116	62.2	127	0.9499	12.0	30	
1,1,2-Trichloroethane	1.00	0.0184	0.9209	0	109	72.9	120	0.8751	13.3	30	
1,3-Dichloropropane	0.987	0.0230	0.9209	0	107	71.9	119	0.8704	12.6	30	

Fremont Analytical

Date: *6/15/2020*

Work Order: 2006220
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2006164-002BMSD** SampType: **MSD** Units: **mg/Kg-dry** Prep Date: **6/12/2020** RunNo: **59824**
Client ID: **BATCH** Batch ID: **28646** Analysis Date: **6/12/2020** SeqNo: **1197249**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tetrachloroethene (PCE)	0.956	0.0230	0.9209	0	104	71.1	122	0.8429	12.6	30	
Dibromochloromethane	1.04	0.0230	0.9209	0	113	65.9	126	0.9733	6.75	30	
1,2-Dibromoethane (EDB)	0.977	0.00460	0.9209	0	106	72	119	0.8855	9.87	30	
Chlorobenzene	1.00	0.0230	0.9209	0	109	81.4	116	0.8874	12.2	30	
1,1,1,2-Tetrachloroethane	1.06	0.0230	0.9209	0	115	72.9	125	0.9619	9.95	30	
Bromoform	1.11	0.0460	0.9209	0	120	63.4	133	1.004	9.92	30	
1,1,2,2-Tetrachloroethane	1.06	0.0184	0.9209	0	115	61	128	0.9488	11.3	30	
Bromobenzene	1.01	0.0184	0.9209	0	110	77	120	0.9025	11.5	30	
2-Chlorotoluene	1.01	0.0230	0.9209	0	110	71.4	126	0.8955	12.1	30	
4-Chlorotoluene	1.01	0.0230	0.9209	0	110	73.6	124	0.9012	11.4	30	
1,2,3-Trichloropropane	1.06	0.0230	0.9209	0	115	65.7	132	0.9690	9.12	30	
1,2,4-Trichlorobenzene	1.01	0.0230	0.9209	0	110	70.5	130	0.9541	5.53	30	
1,3-Dichlorobenzene	1.04	0.0184	0.9209	0	113	83.8	121	0.9244	11.6	30	
1,4-Dichlorobenzene	1.04	0.0184	0.9209	0	113	85.7	117	0.9114	13.0	30	
1,2-Dichlorobenzene	1.03	0.0184	0.9209	0	112	81.8	120	0.9165	11.9	30	
1,2-Dibromo-3-chloropropane	1.14	0.460	0.9209	0	124	56.9	139	1.030	10.4	30	
Hexachloro-1,3-butadiene	1.01	0.0460	0.9209	0	109	61.1	140	0.9493	6.01	30	
1,2,3-Trichlorobenzene	0.981	0.0184	0.9209	0	107	67.8	132	0.8718	11.8	30	
Surr: Dibromofluoromethane	1.20		1.151		104	83.3	111		0		
Surr: Toluene-d8	1.13		1.151		98.4	87.9	111		0		
Surr: 1-Bromo-4-fluorobenzene	1.17		1.151		102	85.1	111		0		

NOTES:
R - High RPD observed, spike recovery is within range.

Sample Log-In Check List

Client Name:	**ONEILL**	Work Order Number:	**2006220**
Logged by:	**Carissa True**	Date Received:	**6/12/2020 8:11:00 AM**

Chain of Custody

1.	Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
2.	How was the sample delivered?	Client		

Log In

3.	Coolers are present?	Yes ☑	No ☐	NA ☐
4.	Shipping container/cooler in good condition?	Yes ☑	No ☐	
5.	Custody Seals present on shipping container/cooler? (Refer to comments for Custody Seals not intact)	Yes ☐	No ☐	Not Present ☑
6.	Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
7.	Were all items received at a temperature of >2°C to 6°C *	Yes ☑	No ☐	NA ☐
8.	Sample(s) in proper container(s)?	Yes ☑	No ☐	
9.	Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
10.	Are samples properly preserved?	Yes ☑	No ☐	
11.	Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
12.	Is there headspace in the VOA vials?	Yes ☐	No ☐	NA ☑
13.	Did all samples containers arrive in good condition(unbroken)?	Yes ☑	No ☐	
14.	Does paperwork match bottle labels?	Yes ☑	No ☐	
15.	Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
16.	Is it clear what analyses were requested?	Yes ☑	No ☐	
17.	Were all holding times able to be met?	Yes ☑	No ☐	

Special Handling (if applicable)

18.	Was client notified of all discrepancies with this order?	Yes ☑	No ☐	NA ☐

Person Notified:	Vance t ins	Date:	
By Whom:	Carissa rue	Via:	☑ eMail ☑ Phone ☐ Fax ☐ In Person
Regarding:	am le discre ancy		
Client Instructions:	B to only ha e oa		

19. Additional remarks:

Item Information

Item #	Temp ºC
Cooler 1	4.4
Sample 1	5.4
Temp blank 1	0.2

* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C

Chain of Custody Record & Laboratory Services Agreement

Fremont Analytical
3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790
Fax: 206-352-7178

Date: 6/11/20 Page: 1 of: 1

Laboratory Project No (internal): 2006220

Special Remarks:

Sample Disposal: ☐ Return to client ☐ Disposal by lab (after 30 days)

Client: OSI

Address:

City, State, Zip:

Telephone:

Fax:

Project Name: F400

Project No: 2021

Collected by: Atkins

Location: FL358

Report To (PM): Atkins

PM Email:

	Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	VOCs (EPA 8260 / 624)	GX/BTEX	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (Dx)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T) | Dissolved (D)	Anions (IC)***	EDB (8011)					Comments
1	~~358-B13-25~~		~~1615~~																			
2	358-B13-1	6/11/20	Next																			
3	-2.5		1700		X																	
4	-5		1710																			
5	-7.5		1715																			
6	-10		1720		X																	
7	-15		1730																			
8	-20		1745		X																	
9	-25		1750		X																	
10																						

*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

**Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL *Individual:* Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti Tl U V Zn

***Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above and that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished	Date/Time	Received	Date/Time
x [signature]	6/11/20 1935	x [signature]	6/12/20 @ 0811
Relinquished	Date/Time	Received	Date/Time
x		x	

Turn-around Time:

- ☐ Standard
- ☐ 3 Day
- ☐ 2 Day
- ☑ Next Day
- Same Day ____ (specify)

3600 Fremont Ave. N.
Seattle, WA 98103
T: (206) 352-3790
F: (206) 352-7178
info@fremontanalytical.com

O'Neill Service Group
Vance Atkins
17619 NE 67th Court, Suite 100
Redmond, WA 98052

RE: F200
Work Order Number: 2006216

June 15, 2020

Attention Vance Atkins:

Fremont Analytical, Inc. received 16 sample(s) on 6/11/2020 for the analyses presented in the following report.

Sample Moisture (Percent Moisture)
Volatile Organic Compounds by EPA Method 8260D

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Brianna Barnes
Project Manager

Date: *06/15/2020*

CLIENT: O'Neill Service Group
Project: F200
Work Order: 2006216

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
2006216-001	358-B15-1	06/11/2020 10:15 AM	06/11/2020 4:25 PM
2006216-002	358-B15-2.5	06/11/2020 10:20 AM	06/11/2020 4:25 PM
2006216-003	358-B15-5	06/11/2020 10:30 AM	06/11/2020 4:25 PM
2006216-004	358-B15-7.5	06/11/2020 10:35 AM	06/11/2020 4:25 PM
2006216-005	358-B15-10	06/11/2020 10:45 AM	06/11/2020 4:25 PM
2006216-006	358-B15-15	06/11/2020 10:50 AM	06/11/2020 4:25 PM
2006216-007	358-B15-20	06/11/2020 11:00 AM	06/11/2020 4:25 PM
2006216-008	358-B15-25	06/11/2020 11:05 AM	06/11/2020 4:25 PM
2006216-009	358-B14-5	06/11/2020 1:10 PM	06/11/2020 4:25 PM
2006216-010	358-B14-7.5	06/11/2020 1:15 PM	06/11/2020 4:25 PM
2006216-011	358-B14-10	06/11/2020 1:20 PM	06/11/2020 4:25 PM
2006216-012	358-B14-12.5	06/11/2020 1:25 PM	06/11/2020 4:25 PM
2006216-013	358-B14-15	06/11/2020 1:30 PM	06/11/2020 4:25 PM
2006216-014	358-B14-20	06/11/2020 1:50 PM	06/11/2020 4:25 PM
2006216-015	358-B14-25	06/11/2020 2:05 PM	06/11/2020 4:25 PM
2006216-016	358-B14-30	06/11/2020 2:25 PM	06/11/2020 4:25 PM

Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned

Case Narrative

WO#: **2006216**

Date: **6/15/2020**

CLIENT: O'Neill Service Group

Project: F200

I. SAMPLE RECEIPT:
Samples receipt information is recorded on the attached Sample Receipt Checklist.

II. GENERAL REPORTING COMMENTS:
Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

III. ANALYSES AND EXCEPTIONS:
Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

6/15/2020: Revision 1 includes sample ID edits requested by client.

Qualifiers:

* - Flagged value is not within established control limits
B - Analyte detected in the associated Method Blank
D - Dilution was required
E - Value above quantitation range
H - Holding times for preparation or analysis exceeded
I - Analyte with an internal standard that does not meet established acceptance criteria
J - Analyte detected below Reporting Limit
N - Tentatively Identified Compound (TIC)
Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF)
S - Spike recovery outside accepted recovery limits
ND - Not detected at the Reporting Limit
R - High relative percent difference observed

Acronyms:

%Rec - Percent Recovery
CCB - Continued Calibration Blank
CCV - Continued Calibration Verification
DF - Dilution Factor
HEM - Hexane Extractable Material
ICV - Initial Calibration Verification
LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
MB or MBLANK - Method Blank
MDL - Method Detection Limit
MS/MSD - Matrix Spike / Matrix Spike Duplicate
PDS - Post Digestion Spike
Ref Val - Reference Value
RL - Reporting Limit
RPD - Relative Percent Difference
SD - Serial Dilution
SGT - Silica Gel Treatment
SPK - Spike
Surr - Surrogate

Analytical Report

Work Order: **2006216**
Date Reported: **6/15/2020**

Client: O'Neill Service Group
Collection Date: 6/11/2020 10:15:00 AM
Project: F200
Lab ID: 2006216-001
Matrix: Soil
Client Sample ID: 358-B15-1

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28646 Analyst: KT

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0200		mg/Kg-dry	1	6/12/2020 10:00:15 PM
Chloromethane	ND	0.0501		mg/Kg-dry	1	6/12/2020 10:00:15 PM
Vinyl chloride	ND	0.0251		mg/Kg-dry	1	6/12/2020 10:00:15 PM
Bromomethane	ND	0.0501		mg/Kg-dry	1	6/12/2020 10:00:15 PM
Trichlorofluoromethane (CFC-11)	ND	0.0200		mg/Kg-dry	1	6/12/2020 10:00:15 PM
Chloroethane	ND	0.0501		mg/Kg-dry	1	6/12/2020 10:00:15 PM
1,1-Dichloroethene	ND	0.0200		mg/Kg-dry	1	6/12/2020 10:00:15 PM
Methylene chloride	ND	0.0200		mg/Kg-dry	1	6/12/2020 10:00:15 PM
trans-1,2-Dichloroethene	ND	0.0200		mg/Kg-dry	1	6/12/2020 10:00:15 PM
1,1-Dichloroethane	ND	0.0200		mg/Kg-dry	1	6/12/2020 10:00:15 PM
cis-1,2-Dichloroethene	ND	0.0200		mg/Kg-dry	1	6/12/2020 10:00:15 PM
Chloroform	ND	0.0200		mg/Kg-dry	1	6/12/2020 10:00:15 PM
1,1,1-Trichloroethane (TCA)	ND	0.0251		mg/Kg-dry	1	6/12/2020 10:00:15 PM
1,1-Dichloropropene	ND	0.0200		mg/Kg-dry	1	6/12/2020 10:00:15 PM
Carbon tetrachloride	ND	0.0251		mg/Kg-dry	1	6/12/2020 10:00:15 PM
1,2-Dichloroethane (EDC)	ND	0.0200		mg/Kg-dry	1	6/12/2020 10:00:15 PM
Trichloroethene (TCE)	ND	0.0200		mg/Kg-dry	1	6/12/2020 10:00:15 PM
1,2-Dichloropropane	ND	0.0200		mg/Kg-dry	1	6/12/2020 10:00:15 PM
Bromodichloromethane	ND	0.0200		mg/Kg-dry	1	6/12/2020 10:00:15 PM
Dibromomethane	ND	0.0200		mg/Kg-dry	1	6/12/2020 10:00:15 PM
cis-1,3-Dichloropropene	ND	0.0200		mg/Kg-dry	1	6/12/2020 10:00:15 PM
trans-1,3-Dichloropropylene	ND	0.0200		mg/Kg-dry	1	6/12/2020 10:00:15 PM
1,1,2-Trichloroethane	ND	0.0200		mg/Kg-dry	1	6/12/2020 10:00:15 PM
1,3-Dichloropropane	ND	0.0251		mg/Kg-dry	1	6/12/2020 10:00:15 PM
Tetrachloroethene (PCE)	ND	0.0251		mg/Kg-dry	1	6/12/2020 10:00:15 PM
Dibromochloromethane	ND	0.0251		mg/Kg-dry	1	6/12/2020 10:00:15 PM
1,2-Dibromoethane (EDB)	ND	0.00501		mg/Kg-dry	1	6/12/2020 10:00:15 PM
Chlorobenzene	ND	0.0251		mg/Kg-dry	1	6/12/2020 10:00:15 PM
1,1,1,2-Tetrachloroethane	ND	0.0251		mg/Kg-dry	1	6/12/2020 10:00:15 PM
Bromoform	ND	0.0501		mg/Kg-dry	1	6/12/2020 10:00:15 PM
1,1,2,2-Tetrachloroethane	ND	0.0200		mg/Kg-dry	1	6/12/2020 10:00:15 PM
Bromobenzene	ND	0.0200		mg/Kg-dry	1	6/12/2020 10:00:15 PM
2-Chlorotoluene	ND	0.0251		mg/Kg-dry	1	6/12/2020 10:00:15 PM
4-Chlorotoluene	ND	0.0251		mg/Kg-dry	1	6/12/2020 10:00:15 PM
1,2,3-Trichloropropane	ND	0.0251		mg/Kg-dry	1	6/12/2020 10:00:15 PM
1,2,4-Trichlorobenzene	ND	0.0251		mg/Kg-dry	1	6/12/2020 10:00:15 PM
1,3-Dichlorobenzene	ND	0.0200		mg/Kg-dry	1	6/12/2020 10:00:15 PM
1,4-Dichlorobenzene	ND	0.0200		mg/Kg-dry	1	6/12/2020 10:00:15 PM
1,2-Dichlorobenzene	ND	0.0200		mg/Kg-dry	1	6/12/2020 10:00:15 PM

Analytical Report

Work Order: **2006216**
Date Reported: **6/15/2020**

Client: O'Neill Service Group
Collection Date: 6/11/2020 10:15:00 AM
Project: F200
Lab ID: 2006216-001
Matrix: Soil
Client Sample ID: 358-B15-1

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28646		Analyst: KT
1,2-Dibromo-3-chloropropane	ND	0.501		mg/Kg-dry	1	6/12/2020 10:00:15 PM
Hexachloro-1,3-butadiene	ND	0.0501		mg/Kg-dry	1	6/12/2020 10:00:15 PM
1,2,3-Trichlorobenzene	ND	0.0200		mg/Kg-dry	1	6/12/2020 10:00:15 PM
Surr: Dibromofluoromethane	99.0	83.3 - 111		%Rec	1	6/12/2020 10:00:15 PM
Surr: Toluene-d8	99.1	87.9 - 111		%Rec	1	6/12/2020 10:00:15 PM
Surr: 1-Bromo-4-fluorobenzene	100	85.1 - 111		%Rec	1	6/12/2020 10:00:15 PM
Sample Moisture (Percent Moisture)				Batch ID: R59778		Analyst: CG
Percent Moisture	9.28	0.500		wt%	1	6/12/2020 6:37:43 AM

Analytical Report

Work Order: **2006216**
Date Reported: **6/15/2020**

Client: O'Neill Service Group
Collection Date: 6/11/2020 10:30:00 AM
Project: F200
Lab ID: 2006216-003
Matrix: Soil
Client Sample ID: 358-B15-5

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28646 Analyst: KT

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0274		mg/Kg-dry	1	6/12/2020 10:30:21 PM
Chloromethane	ND	0.0684		mg/Kg-dry	1	6/12/2020 10:30:21 PM
Vinyl chloride	ND	0.0342		mg/Kg-dry	1	6/12/2020 10:30:21 PM
Bromomethane	ND	0.0684		mg/Kg-dry	1	6/12/2020 10:30:21 PM
Trichlorofluoromethane (CFC-11)	ND	0.0274		mg/Kg-dry	1	6/12/2020 10:30:21 PM
Chloroethane	ND	0.0684		mg/Kg-dry	1	6/12/2020 10:30:21 PM
1,1-Dichloroethene	ND	0.0274		mg/Kg-dry	1	6/12/2020 10:30:21 PM
Methylene chloride	ND	0.0274		mg/Kg-dry	1	6/12/2020 10:30:21 PM
trans-1,2-Dichloroethene	ND	0.0274		mg/Kg-dry	1	6/12/2020 10:30:21 PM
1,1-Dichloroethane	ND	0.0274		mg/Kg-dry	1	6/12/2020 10:30:21 PM
cis-1,2-Dichloroethene	ND	0.0274		mg/Kg-dry	1	6/12/2020 10:30:21 PM
Chloroform	ND	0.0274		mg/Kg-dry	1	6/12/2020 10:30:21 PM
1,1,1-Trichloroethane (TCA)	ND	0.0342		mg/Kg-dry	1	6/12/2020 10:30:21 PM
1,1-Dichloropropene	ND	0.0274		mg/Kg-dry	1	6/12/2020 10:30:21 PM
Carbon tetrachloride	ND	0.0342		mg/Kg-dry	1	6/12/2020 10:30:21 PM
1,2-Dichloroethane (EDC)	ND	0.0274		mg/Kg-dry	1	6/12/2020 10:30:21 PM
Trichloroethene (TCE)	ND	0.0274		mg/Kg-dry	1	6/12/2020 10:30:21 PM
1,2-Dichloropropane	ND	0.0274		mg/Kg-dry	1	6/12/2020 10:30:21 PM
Bromodichloromethane	ND	0.0274		mg/Kg-dry	1	6/12/2020 10:30:21 PM
Dibromomethane	ND	0.0274		mg/Kg-dry	1	6/12/2020 10:30:21 PM
cis-1,3-Dichloropropene	ND	0.0274		mg/Kg-dry	1	6/12/2020 10:30:21 PM
trans-1,3-Dichloropropylene	ND	0.0274		mg/Kg-dry	1	6/12/2020 10:30:21 PM
1,1,2-Trichloroethane	ND	0.0274		mg/Kg-dry	1	6/12/2020 10:30:21 PM
1,3-Dichloropropane	ND	0.0342		mg/Kg-dry	1	6/12/2020 10:30:21 PM
Tetrachloroethene (PCE)	ND	0.0342		mg/Kg-dry	1	6/12/2020 10:30:21 PM
Dibromochloromethane	ND	0.0342		mg/Kg-dry	1	6/12/2020 10:30:21 PM
1,2-Dibromoethane (EDB)	ND	0.00684		mg/Kg-dry	1	6/12/2020 10:30:21 PM
Chlorobenzene	ND	0.0342		mg/Kg-dry	1	6/12/2020 10:30:21 PM
1,1,1,2-Tetrachloroethane	ND	0.0342		mg/Kg-dry	1	6/12/2020 10:30:21 PM
Bromoform	ND	0.0684		mg/Kg-dry	1	6/12/2020 10:30:21 PM
1,1,2,2-Tetrachloroethane	ND	0.0274		mg/Kg-dry	1	6/12/2020 10:30:21 PM
Bromobenzene	ND	0.0274		mg/Kg-dry	1	6/12/2020 10:30:21 PM
2-Chlorotoluene	ND	0.0342		mg/Kg-dry	1	6/12/2020 10:30:21 PM
4-Chlorotoluene	ND	0.0342		mg/Kg-dry	1	6/12/2020 10:30:21 PM
1,2,3-Trichloropropane	ND	0.0342		mg/Kg-dry	1	6/12/2020 10:30:21 PM
1,2,4-Trichlorobenzene	ND	0.0342		mg/Kg-dry	1	6/12/2020 10:30:21 PM
1,3-Dichlorobenzene	ND	0.0274		mg/Kg-dry	1	6/12/2020 10:30:21 PM
1,4-Dichlorobenzene	ND	0.0274		mg/Kg-dry	1	6/12/2020 10:30:21 PM
1,2-Dichlorobenzene	ND	0.0274		mg/Kg-dry	1	6/12/2020 10:30:21 PM

Analytical Report

Work Order: **2006216**
Date Reported: **6/15/2020**

Client: O'Neill Service Group
Collection Date: 6/11/2020 10:30:00 AM
Project: F200
Lab ID: 2006216-003
Matrix: Soil
Client Sample ID: 358-B15-5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28646		Analyst: KT
1,2-Dibromo-3-chloropropane	ND	0.684		mg/Kg-dry	1	6/12/2020 10:30:21 PM
Hexachloro-1,3-butadiene	ND	0.0684		mg/Kg-dry	1	6/12/2020 10:30:21 PM
1,2,3-Trichlorobenzene	ND	0.0274		mg/Kg-dry	1	6/12/2020 10:30:21 PM
Surr: Dibromofluoromethane	97.2	83.3 - 111		%Rec	1	6/12/2020 10:30:21 PM
Surr: Toluene-d8	99.6	87.9 - 111		%Rec	1	6/12/2020 10:30:21 PM
Surr: 1-Bromo-4-fluorobenzene	99.2	85.1 - 111		%Rec	1	6/12/2020 10:30:21 PM
Sample Moisture (Percent Moisture)				Batch ID: R59778		Analyst: CG
Percent Moisture	15.6	0.500		wt%	1	6/12/2020 6:37:43 AM

Analytical Report

Work Order: **2006216**
Date Reported: **6/15/2020**

Client: O'Neill Service Group
Collection Date: 6/11/2020 10:45:00 AM
Project: F200
Lab ID: 2006216-005
Matrix: Soil
Client Sample ID: 358-B15-10

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28646 Analyst: KT

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0174		mg/Kg-dry	1	6/12/2020 11:00:28 PM
Chloromethane	ND	0.0434		mg/Kg-dry	1	6/12/2020 11:00:28 PM
Vinyl chloride	ND	0.0217		mg/Kg-dry	1	6/12/2020 11:00:28 PM
Bromomethane	ND	0.0434		mg/Kg-dry	1	6/12/2020 11:00:28 PM
Trichlorofluoromethane (CFC-11)	ND	0.0174		mg/Kg-dry	1	6/12/2020 11:00:28 PM
Chloroethane	ND	0.0434		mg/Kg-dry	1	6/12/2020 11:00:28 PM
1,1-Dichloroethene	ND	0.0174		mg/Kg-dry	1	6/12/2020 11:00:28 PM
Methylene chloride	ND	0.0174		mg/Kg-dry	1	6/12/2020 11:00:28 PM
trans-1,2-Dichloroethene	ND	0.0174		mg/Kg-dry	1	6/12/2020 11:00:28 PM
1,1-Dichloroethane	ND	0.0174		mg/Kg-dry	1	6/12/2020 11:00:28 PM
cis-1,2-Dichloroethene	ND	0.0174		mg/Kg-dry	1	6/12/2020 11:00:28 PM
Chloroform	ND	0.0174		mg/Kg-dry	1	6/12/2020 11:00:28 PM
1,1,1-Trichloroethane (TCA)	ND	0.0217		mg/Kg-dry	1	6/12/2020 11:00:28 PM
1,1-Dichloropropene	ND	0.0174		mg/Kg-dry	1	6/12/2020 11:00:28 PM
Carbon tetrachloride	ND	0.0217		mg/Kg-dry	1	6/12/2020 11:00:28 PM
1,2-Dichloroethane (EDC)	ND	0.0174		mg/Kg-dry	1	6/12/2020 11:00:28 PM
Trichloroethene (TCE)	ND	0.0174		mg/Kg-dry	1	6/12/2020 11:00:28 PM
1,2-Dichloropropane	ND	0.0174		mg/Kg-dry	1	6/12/2020 11:00:28 PM
Bromodichloromethane	ND	0.0174		mg/Kg-dry	1	6/12/2020 11:00:28 PM
Dibromomethane	ND	0.0174		mg/Kg-dry	1	6/12/2020 11:00:28 PM
cis-1,3-Dichloropropene	ND	0.0174		mg/Kg-dry	1	6/12/2020 11:00:28 PM
trans-1,3-Dichloropropylene	ND	0.0174		mg/Kg-dry	1	6/12/2020 11:00:28 PM
1,1,2-Trichloroethane	ND	0.0174		mg/Kg-dry	1	6/12/2020 11:00:28 PM
1,3-Dichloropropane	ND	0.0217		mg/Kg-dry	1	6/12/2020 11:00:28 PM
Tetrachloroethene (PCE)	ND	0.0217		mg/Kg-dry	1	6/12/2020 11:00:28 PM
Dibromochloromethane	ND	0.0217		mg/Kg-dry	1	6/12/2020 11:00:28 PM
1,2-Dibromoethane (EDB)	ND	0.00434		mg/Kg-dry	1	6/12/2020 11:00:28 PM
Chlorobenzene	ND	0.0217		mg/Kg-dry	1	6/12/2020 11:00:28 PM
1,1,1,2-Tetrachloroethane	ND	0.0217		mg/Kg-dry	1	6/12/2020 11:00:28 PM
Bromoform	ND	0.0434		mg/Kg-dry	1	6/12/2020 11:00:28 PM
1,1,2,2-Tetrachloroethane	ND	0.0174		mg/Kg-dry	1	6/12/2020 11:00:28 PM
Bromobenzene	ND	0.0174		mg/Kg-dry	1	6/12/2020 11:00:28 PM
2-Chlorotoluene	ND	0.0217		mg/Kg-dry	1	6/12/2020 11:00:28 PM
4-Chlorotoluene	ND	0.0217		mg/Kg-dry	1	6/12/2020 11:00:28 PM
1,2,3-Trichloropropane	ND	0.0217		mg/Kg-dry	1	6/12/2020 11:00:28 PM
1,2,4-Trichlorobenzene	ND	0.0217		mg/Kg-dry	1	6/12/2020 11:00:28 PM
1,3-Dichlorobenzene	ND	0.0174		mg/Kg-dry	1	6/12/2020 11:00:28 PM
1,4-Dichlorobenzene	ND	0.0174		mg/Kg-dry	1	6/12/2020 11:00:28 PM
1,2-Dichlorobenzene	ND	0.0174		mg/Kg-dry	1	6/12/2020 11:00:28 PM

Analytical Report

Work Order: **2006216**
Date Reported: **6/15/2020**

Client: O'Neill Service Group
Collection Date: 6/11/2020 10:45:00 AM
Project: F200
Lab ID: 2006216-005
Matrix: Soil
Client Sample ID: 358-B15-10

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28646		Analyst: KT
1,2-Dibromo-3-chloropropane	ND	0.434		mg/Kg-dry	1	6/12/2020 11:00:28 PM
Hexachloro-1,3-butadiene	ND	0.0434		mg/Kg-dry	1	6/12/2020 11:00:28 PM
1,2,3-Trichlorobenzene	ND	0.0174		mg/Kg-dry	1	6/12/2020 11:00:28 PM
Surr: Dibromofluoromethane	97.9	83.3 - 111		%Rec	1	6/12/2020 11:00:28 PM
Surr: Toluene-d8	96.8	87.9 - 111		%Rec	1	6/12/2020 11:00:28 PM
Surr: 1-Bromo-4-fluorobenzene	99.5	85.1 - 111		%Rec	1	6/12/2020 11:00:28 PM
Sample Moisture (Percent Moisture)				Batch ID: R59778		Analyst: CG
Percent Moisture	9.63	0.500		wt%	1	6/12/2020 6:37:43 AM

Analytical Report

Work Order: **2006216**
Date Reported: **6/15/2020**

Client: O'Neill Service Group
Collection Date: 6/11/2020 11:00:00 AM
Project: F200
Lab ID: 2006216-007
Matrix: Soil
Client Sample ID: 358-B15-20

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28646 Analyst: KT

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0134		mg/Kg-dry	1	6/12/2020 11:30:39 PM
Chloromethane	ND	0.0336		mg/Kg-dry	1	6/12/2020 11:30:39 PM
Vinyl chloride	ND	0.0168		mg/Kg-dry	1	6/12/2020 11:30:39 PM
Bromomethane	ND	0.0336		mg/Kg-dry	1	6/12/2020 11:30:39 PM
Trichlorofluoromethane (CFC-11)	ND	0.0134		mg/Kg-dry	1	6/12/2020 11:30:39 PM
Chloroethane	ND	0.0336		mg/Kg-dry	1	6/12/2020 11:30:39 PM
1,1-Dichloroethene	ND	0.0134		mg/Kg-dry	1	6/12/2020 11:30:39 PM
Methylene chloride	ND	0.0134		mg/Kg-dry	1	6/12/2020 11:30:39 PM
trans-1,2-Dichloroethene	ND	0.0134		mg/Kg-dry	1	6/12/2020 11:30:39 PM
1,1-Dichloroethane	ND	0.0134		mg/Kg-dry	1	6/12/2020 11:30:39 PM
cis-1,2-Dichloroethene	ND	0.0134		mg/Kg-dry	1	6/12/2020 11:30:39 PM
Chloroform	ND	0.0134		mg/Kg-dry	1	6/12/2020 11:30:39 PM
1,1,1-Trichloroethane (TCA)	ND	0.0168		mg/Kg-dry	1	6/12/2020 11:30:39 PM
1,1-Dichloropropene	ND	0.0134		mg/Kg-dry	1	6/12/2020 11:30:39 PM
Carbon tetrachloride	ND	0.0168		mg/Kg-dry	1	6/12/2020 11:30:39 PM
1,2-Dichloroethane (EDC)	ND	0.0134		mg/Kg-dry	1	6/12/2020 11:30:39 PM
Trichloroethene (TCE)	ND	0.0134		mg/Kg-dry	1	6/12/2020 11:30:39 PM
1,2-Dichloropropane	ND	0.0134		mg/Kg-dry	1	6/12/2020 11:30:39 PM
Bromodichloromethane	ND	0.0134		mg/Kg-dry	1	6/12/2020 11:30:39 PM
Dibromomethane	ND	0.0134		mg/Kg-dry	1	6/12/2020 11:30:39 PM
cis-1,3-Dichloropropene	ND	0.0134		mg/Kg-dry	1	6/12/2020 11:30:39 PM
trans-1,3-Dichloropropylene	ND	0.0134		mg/Kg-dry	1	6/12/2020 11:30:39 PM
1,1,2-Trichloroethane	ND	0.0134		mg/Kg-dry	1	6/12/2020 11:30:39 PM
1,3-Dichloropropane	ND	0.0168		mg/Kg-dry	1	6/12/2020 11:30:39 PM
Tetrachloroethene (PCE)	ND	0.0168		mg/Kg-dry	1	6/12/2020 11:30:39 PM
Dibromochloromethane	ND	0.0168		mg/Kg-dry	1	6/12/2020 11:30:39 PM
1,2-Dibromoethane (EDB)	ND	0.00336		mg/Kg-dry	1	6/12/2020 11:30:39 PM
Chlorobenzene	ND	0.0168		mg/Kg-dry	1	6/12/2020 11:30:39 PM
1,1,1,2-Tetrachloroethane	ND	0.0168		mg/Kg-dry	1	6/12/2020 11:30:39 PM
Bromoform	ND	0.0336		mg/Kg-dry	1	6/12/2020 11:30:39 PM
1,1,2,2-Tetrachloroethane	ND	0.0134		mg/Kg-dry	1	6/12/2020 11:30:39 PM
Bromobenzene	ND	0.0134		mg/Kg-dry	1	6/12/2020 11:30:39 PM
2-Chlorotoluene	ND	0.0168		mg/Kg-dry	1	6/12/2020 11:30:39 PM
4-Chlorotoluene	ND	0.0168		mg/Kg-dry	1	6/12/2020 11:30:39 PM
1,2,3-Trichloropropane	ND	0.0168		mg/Kg-dry	1	6/12/2020 11:30:39 PM
1,2,4-Trichlorobenzene	ND	0.0168		mg/Kg-dry	1	6/12/2020 11:30:39 PM
1,3-Dichlorobenzene	ND	0.0134		mg/Kg-dry	1	6/12/2020 11:30:39 PM
1,4-Dichlorobenzene	ND	0.0134		mg/Kg-dry	1	6/12/2020 11:30:39 PM
1,2-Dichlorobenzene	ND	0.0134		mg/Kg-dry	1	6/12/2020 11:30:39 PM

Analytical Report

Work Order: **2006216**
Date Reported: **6/15/2020**

Client: O'Neill Service Group
Collection Date: 6/11/2020 11:00:00 AM
Project: F200
Lab ID: 2006216-007
Matrix: Soil
Client Sample ID: 358-B15-20

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28646		Analyst: KT
1,2-Dibromo-3-chloropropane	ND	0.336		mg/Kg-dry	1	6/12/2020 11:30:39 PM
Hexachloro-1,3-butadiene	ND	0.0336		mg/Kg-dry	1	6/12/2020 11:30:39 PM
1,2,3-Trichlorobenzene	ND	0.0134		mg/Kg-dry	1	6/12/2020 11:30:39 PM
Surr: Dibromofluoromethane	96.5	83.3 - 111		%Rec	1	6/12/2020 11:30:39 PM
Surr: Toluene-d8	98.0	87.9 - 111		%Rec	1	6/12/2020 11:30:39 PM
Surr: 1-Bromo-4-fluorobenzene	98.2	85.1 - 111		%Rec	1	6/12/2020 11:30:39 PM
Sample Moisture (Percent Moisture)				Batch ID: R59778		Analyst: CG
Percent Moisture	18.9	0.500		wt%	1	6/12/2020 6:37:43 AM

Analytical Report

Work Order: **2006216**
Date Reported: **6/15/2020**

Client: O'Neill Service Group
Collection Date: 6/11/2020 11:05:00 AM
Project: F200
Lab ID: 2006216-008
Matrix: Soil
Client Sample ID: 358-B15-25

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28646 Analyst: KT

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0220		mg/Kg-dry	1	6/13/2020 12:00:49 AM
Chloromethane	ND	0.0549		mg/Kg-dry	1	6/13/2020 12:00:49 AM
Vinyl chloride	ND	0.0275		mg/Kg-dry	1	6/13/2020 12:00:49 AM
Bromomethane	ND	0.0549		mg/Kg-dry	1	6/13/2020 12:00:49 AM
Trichlorofluoromethane (CFC-11)	ND	0.0220		mg/Kg-dry	1	6/13/2020 12:00:49 AM
Chloroethane	ND	0.0549		mg/Kg-dry	1	6/13/2020 12:00:49 AM
1,1-Dichloroethene	ND	0.0220		mg/Kg-dry	1	6/13/2020 12:00:49 AM
Methylene chloride	ND	0.0220		mg/Kg-dry	1	6/13/2020 12:00:49 AM
trans-1,2-Dichloroethene	ND	0.0220		mg/Kg-dry	1	6/13/2020 12:00:49 AM
1,1-Dichloroethane	ND	0.0220		mg/Kg-dry	1	6/13/2020 12:00:49 AM
cis-1,2-Dichloroethene	0.0380	0.0220		mg/Kg-dry	1	6/13/2020 12:00:49 AM
Chloroform	ND	0.0220		mg/Kg-dry	1	6/13/2020 12:00:49 AM
1,1,1-Trichloroethane (TCA)	ND	0.0275		mg/Kg-dry	1	6/13/2020 12:00:49 AM
1,1-Dichloropropene	ND	0.0220		mg/Kg-dry	1	6/13/2020 12:00:49 AM
Carbon tetrachloride	ND	0.0275		mg/Kg-dry	1	6/13/2020 12:00:49 AM
1,2-Dichloroethane (EDC)	ND	0.0220		mg/Kg-dry	1	6/13/2020 12:00:49 AM
Trichloroethene (TCE)	ND	0.0220		mg/Kg-dry	1	6/13/2020 12:00:49 AM
1,2-Dichloropropane	ND	0.0220		mg/Kg-dry	1	6/13/2020 12:00:49 AM
Bromodichloromethane	ND	0.0220		mg/Kg-dry	1	6/13/2020 12:00:49 AM
Dibromomethane	ND	0.0220		mg/Kg-dry	1	6/13/2020 12:00:49 AM
cis-1,3-Dichloropropene	ND	0.0220		mg/Kg-dry	1	6/13/2020 12:00:49 AM
trans-1,3-Dichloropropylene	ND	0.0220		mg/Kg-dry	1	6/13/2020 12:00:49 AM
1,1,2-Trichloroethane	ND	0.0220		mg/Kg-dry	1	6/13/2020 12:00:49 AM
1,3-Dichloropropane	ND	0.0275		mg/Kg-dry	1	6/13/2020 12:00:49 AM
Tetrachloroethene (PCE)	ND	0.0275		mg/Kg-dry	1	6/13/2020 12:00:49 AM
Dibromochloromethane	ND	0.0275		mg/Kg-dry	1	6/13/2020 12:00:49 AM
1,2-Dibromoethane (EDB)	ND	0.00549		mg/Kg-dry	1	6/13/2020 12:00:49 AM
Chlorobenzene	ND	0.0275		mg/Kg-dry	1	6/13/2020 12:00:49 AM
1,1,1,2-Tetrachloroethane	ND	0.0275		mg/Kg-dry	1	6/13/2020 12:00:49 AM
Bromoform	ND	0.0549		mg/Kg-dry	1	6/13/2020 12:00:49 AM
1,1,2,2-Tetrachloroethane	ND	0.0220		mg/Kg-dry	1	6/13/2020 12:00:49 AM
Bromobenzene	ND	0.0220		mg/Kg-dry	1	6/13/2020 12:00:49 AM
2-Chlorotoluene	ND	0.0275		mg/Kg-dry	1	6/13/2020 12:00:49 AM
4-Chlorotoluene	ND	0.0275		mg/Kg-dry	1	6/13/2020 12:00:49 AM
1,2,3-Trichloropropane	ND	0.0275		mg/Kg-dry	1	6/13/2020 12:00:49 AM
1,2,4-Trichlorobenzene	ND	0.0275		mg/Kg-dry	1	6/13/2020 12:00:49 AM
1,3-Dichlorobenzene	ND	0.0220		mg/Kg-dry	1	6/13/2020 12:00:49 AM
1,4-Dichlorobenzene	ND	0.0220		mg/Kg-dry	1	6/13/2020 12:00:49 AM
1,2-Dichlorobenzene	ND	0.0220		mg/Kg-dry	1	6/13/2020 12:00:49 AM

Analytical Report

Work Order: **2006216**
Date Reported: **6/15/2020**

Client: O'Neill Service Group
Collection Date: 6/11/2020 11:05:00 AM
Project: F200
Lab ID: 2006216-008
Matrix: Soil
Client Sample ID: 358-B15-25

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28646		Analyst: KT
1,2-Dibromo-3-chloropropane	ND	0.549		mg/Kg-dry	1	6/13/2020 12:00:49 AM
Hexachloro-1,3-butadiene	ND	0.0549		mg/Kg-dry	1	6/13/2020 12:00:49 AM
1,2,3-Trichlorobenzene	ND	0.0220		mg/Kg-dry	1	6/13/2020 12:00:49 AM
Surr: Dibromofluoromethane	96.5	83.3 - 111		%Rec	1	6/13/2020 12:00:49 AM
Surr: Toluene-d8	99.0	87.9 - 111		%Rec	1	6/13/2020 12:00:49 AM
Surr: 1-Bromo-4-fluorobenzene	98.6	85.1 - 111		%Rec	1	6/13/2020 12:00:49 AM
Sample Moisture (Percent Moisture)				Batch ID: R59778		Analyst: CG
Percent Moisture	11.6	0.500		wt%	1	6/12/2020 6:37:43 AM

Analytical Report

Work Order: **2006216**
Date Reported: **6/15/2020**

Client: O'Neill Service Group
Collection Date: 6/11/2020 1:15:00 PM
Project: F200
Lab ID: 2006216-010
Matrix: Soil
Client Sample ID: 358-B14-7.5

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28646 Analyst: KT

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0173		mg/Kg-dry	1	6/13/2020 12:31:01 AM
Chloromethane	ND	0.0432		mg/Kg-dry	1	6/13/2020 12:31:01 AM
Vinyl chloride	ND	0.0216		mg/Kg-dry	1	6/13/2020 12:31:01 AM
Bromomethane	ND	0.0432		mg/Kg-dry	1	6/13/2020 12:31:01 AM
Trichlorofluoromethane (CFC-11)	ND	0.0173		mg/Kg-dry	1	6/13/2020 12:31:01 AM
Chloroethane	ND	0.0432		mg/Kg-dry	1	6/13/2020 12:31:01 AM
1,1-Dichloroethene	ND	0.0173		mg/Kg-dry	1	6/13/2020 12:31:01 AM
Methylene chloride	ND	0.0173		mg/Kg-dry	1	6/13/2020 12:31:01 AM
trans-1,2-Dichloroethene	ND	0.0173		mg/Kg-dry	1	6/13/2020 12:31:01 AM
1,1-Dichloroethane	ND	0.0173		mg/Kg-dry	1	6/13/2020 12:31:01 AM
cis-1,2-Dichloroethene	ND	0.0173		mg/Kg-dry	1	6/13/2020 12:31:01 AM
Chloroform	ND	0.0173		mg/Kg-dry	1	6/13/2020 12:31:01 AM
1,1,1-Trichloroethane (TCA)	ND	0.0216		mg/Kg-dry	1	6/13/2020 12:31:01 AM
1,1-Dichloropropene	ND	0.0173		mg/Kg-dry	1	6/13/2020 12:31:01 AM
Carbon tetrachloride	ND	0.0216		mg/Kg-dry	1	6/13/2020 12:31:01 AM
1,2-Dichloroethane (EDC)	ND	0.0173		mg/Kg-dry	1	6/13/2020 12:31:01 AM
Trichloroethene (TCE)	ND	0.0173		mg/Kg-dry	1	6/13/2020 12:31:01 AM
1,2-Dichloropropane	ND	0.0173		mg/Kg-dry	1	6/13/2020 12:31:01 AM
Bromodichloromethane	ND	0.0173		mg/Kg-dry	1	6/13/2020 12:31:01 AM
Dibromomethane	ND	0.0173		mg/Kg-dry	1	6/13/2020 12:31:01 AM
cis-1,3-Dichloropropene	ND	0.0173		mg/Kg-dry	1	6/13/2020 12:31:01 AM
trans-1,3-Dichloropropylene	ND	0.0173		mg/Kg-dry	1	6/13/2020 12:31:01 AM
1,1,2-Trichloroethane	ND	0.0173		mg/Kg-dry	1	6/13/2020 12:31:01 AM
1,3-Dichloropropane	ND	0.0216		mg/Kg-dry	1	6/13/2020 12:31:01 AM
Tetrachloroethene (PCE)	ND	0.0216		mg/Kg-dry	1	6/13/2020 12:31:01 AM
Dibromochloromethane	ND	0.0216		mg/Kg-dry	1	6/13/2020 12:31:01 AM
1,2-Dibromoethane (EDB)	ND	0.00432		mg/Kg-dry	1	6/13/2020 12:31:01 AM
Chlorobenzene	ND	0.0216		mg/Kg-dry	1	6/13/2020 12:31:01 AM
1,1,1,2-Tetrachloroethane	ND	0.0216		mg/Kg-dry	1	6/13/2020 12:31:01 AM
Bromoform	ND	0.0432		mg/Kg-dry	1	6/13/2020 12:31:01 AM
1,1,2,2-Tetrachloroethane	ND	0.0173		mg/Kg-dry	1	6/13/2020 12:31:01 AM
Bromobenzene	ND	0.0173		mg/Kg-dry	1	6/13/2020 12:31:01 AM
2-Chlorotoluene	ND	0.0216		mg/Kg-dry	1	6/13/2020 12:31:01 AM
4-Chlorotoluene	ND	0.0216		mg/Kg-dry	1	6/13/2020 12:31:01 AM
1,2,3-Trichloropropane	ND	0.0216		mg/Kg-dry	1	6/13/2020 12:31:01 AM
1,2,4-Trichlorobenzene	ND	0.0216		mg/Kg-dry	1	6/13/2020 12:31:01 AM
1,3-Dichlorobenzene	ND	0.0173		mg/Kg-dry	1	6/13/2020 12:31:01 AM
1,4-Dichlorobenzene	ND	0.0173		mg/Kg-dry	1	6/13/2020 12:31:01 AM
1,2-Dichlorobenzene	ND	0.0173		mg/Kg-dry	1	6/13/2020 12:31:01 AM

Analytical Report

Work Order: **2006216**
Date Reported: **6/15/2020**

Client: O'Neill Service Group
Collection Date: 6/11/2020 1:15:00 PM
Project: F200
Lab ID: 2006216-010
Matrix: Soil
Client Sample ID: 358-B14-7.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28646		Analyst: KT
1,2-Dibromo-3-chloropropane	ND	0.432		mg/Kg-dry	1	6/13/2020 12:31:01 AM
Hexachloro-1,3-butadiene	ND	0.0432		mg/Kg-dry	1	6/13/2020 12:31:01 AM
1,2,3-Trichlorobenzene	ND	0.0173		mg/Kg-dry	1	6/13/2020 12:31:01 AM
Surr: Dibromofluoromethane	96.4	83.3 - 111		%Rec	1	6/13/2020 12:31:01 AM
Surr: Toluene-d8	97.8	87.9 - 111		%Rec	1	6/13/2020 12:31:01 AM
Surr: 1-Bromo-4-fluorobenzene	98.4	85.1 - 111		%Rec	1	6/13/2020 12:31:01 AM
Sample Moisture (Percent Moisture)				Batch ID: R59778		Analyst: CG
Percent Moisture	11.7	0.500		wt%	1	6/12/2020 6:37:43 AM

Analytical Report

Work Order: **2006216**
Date Reported: **6/15/2020**

Client: O'Neill Service Group
Collection Date: 6/11/2020 1:20:00 PM
Project: F200
Lab ID: 2006216-011
Matrix: Soil
Client Sample ID: 358-B14-10

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28646 Analyst: KT

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0180		mg/Kg-dry	1	6/13/2020 1:01:13 AM
Chloromethane	ND	0.0450		mg/Kg-dry	1	6/13/2020 1:01:13 AM
Vinyl chloride	ND	0.0225		mg/Kg-dry	1	6/13/2020 1:01:13 AM
Bromomethane	ND	0.0450		mg/Kg-dry	1	6/13/2020 1:01:13 AM
Trichlorofluoromethane (CFC-11)	ND	0.0180		mg/Kg-dry	1	6/13/2020 1:01:13 AM
Chloroethane	ND	0.0450		mg/Kg-dry	1	6/13/2020 1:01:13 AM
1,1-Dichloroethene	ND	0.0180		mg/Kg-dry	1	6/13/2020 1:01:13 AM
Methylene chloride	ND	0.0180		mg/Kg-dry	1	6/13/2020 1:01:13 AM
trans-1,2-Dichloroethene	ND	0.0180		mg/Kg-dry	1	6/13/2020 1:01:13 AM
1,1-Dichloroethane	ND	0.0180		mg/Kg-dry	1	6/13/2020 1:01:13 AM
cis-1,2-Dichloroethene	ND	0.0180		mg/Kg-dry	1	6/13/2020 1:01:13 AM
Chloroform	ND	0.0180		mg/Kg-dry	1	6/13/2020 1:01:13 AM
1,1,1-Trichloroethane (TCA)	ND	0.0225		mg/Kg-dry	1	6/13/2020 1:01:13 AM
1,1-Dichloropropene	ND	0.0180		mg/Kg-dry	1	6/13/2020 1:01:13 AM
Carbon tetrachloride	ND	0.0225		mg/Kg-dry	1	6/13/2020 1:01:13 AM
1,2-Dichloroethane (EDC)	ND	0.0180		mg/Kg-dry	1	6/13/2020 1:01:13 AM
Trichloroethene (TCE)	ND	0.0180		mg/Kg-dry	1	6/13/2020 1:01:13 AM
1,2-Dichloropropane	ND	0.0180		mg/Kg-dry	1	6/13/2020 1:01:13 AM
Bromodichloromethane	ND	0.0180		mg/Kg-dry	1	6/13/2020 1:01:13 AM
Dibromomethane	ND	0.0180		mg/Kg-dry	1	6/13/2020 1:01:13 AM
cis-1,3-Dichloropropene	ND	0.0180		mg/Kg-dry	1	6/13/2020 1:01:13 AM
trans-1,3-Dichloropropylene	ND	0.0180		mg/Kg-dry	1	6/13/2020 1:01:13 AM
1,1,2-Trichloroethane	ND	0.0180		mg/Kg-dry	1	6/13/2020 1:01:13 AM
1,3-Dichloropropane	ND	0.0225		mg/Kg-dry	1	6/13/2020 1:01:13 AM
Tetrachloroethene (PCE)	ND	0.0225		mg/Kg-dry	1	6/13/2020 1:01:13 AM
Dibromochloromethane	ND	0.0225		mg/Kg-dry	1	6/13/2020 1:01:13 AM
1,2-Dibromoethane (EDB)	ND	0.00450		mg/Kg-dry	1	6/13/2020 1:01:13 AM
Chlorobenzene	ND	0.0225		mg/Kg-dry	1	6/13/2020 1:01:13 AM
1,1,1,2-Tetrachloroethane	ND	0.0225		mg/Kg-dry	1	6/13/2020 1:01:13 AM
Bromoform	ND	0.0450		mg/Kg-dry	1	6/13/2020 1:01:13 AM
1,1,2,2-Tetrachloroethane	ND	0.0180		mg/Kg-dry	1	6/13/2020 1:01:13 AM
Bromobenzene	ND	0.0180		mg/Kg-dry	1	6/13/2020 1:01:13 AM
2-Chlorotoluene	ND	0.0225		mg/Kg-dry	1	6/13/2020 1:01:13 AM
4-Chlorotoluene	ND	0.0225		mg/Kg-dry	1	6/13/2020 1:01:13 AM
1,2,3-Trichloropropane	ND	0.0225		mg/Kg-dry	1	6/13/2020 1:01:13 AM
1,2,4-Trichlorobenzene	ND	0.0225		mg/Kg-dry	1	6/13/2020 1:01:13 AM
1,3-Dichlorobenzene	ND	0.0180		mg/Kg-dry	1	6/13/2020 1:01:13 AM
1,4-Dichlorobenzene	ND	0.0180		mg/Kg-dry	1	6/13/2020 1:01:13 AM
1,2-Dichlorobenzene	ND	0.0180		mg/Kg-dry	1	6/13/2020 1:01:13 AM

Analytical Report

Work Order: **2006216**
Date Reported: **6/15/2020**

Client: O'Neill Service Group
Collection Date: 6/11/2020 1:20:00 PM
Project: F200
Lab ID: 2006216-011
Matrix: Soil
Client Sample ID: 358-B14-10

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28646		Analyst: KT
1,2-Dibromo-3-chloropropane	ND	0.450		mg/Kg-dry	1	6/13/2020 1:01:13 AM
Hexachloro-1,3-butadiene	ND	0.0450		mg/Kg-dry	1	6/13/2020 1:01:13 AM
1,2,3-Trichlorobenzene	ND	0.0180		mg/Kg-dry	1	6/13/2020 1:01:13 AM
Surr: Dibromofluoromethane	96.5	83.3 - 111		%Rec	1	6/13/2020 1:01:13 AM
Surr: Toluene-d8	93.7	87.9 - 111		%Rec	1	6/13/2020 1:01:13 AM
Surr: 1-Bromo-4-fluorobenzene	99.7	85.1 - 111		%Rec	1	6/13/2020 1:01:13 AM
Sample Moisture (Percent Moisture)				Batch ID: R59778		Analyst: CG
Percent Moisture	14.9	0.500		wt%	1	6/12/2020 6:37:43 AM

Analytical Report

Work Order: **2006216**
Date Reported: **6/15/2020**

Client: O'Neill Service Group
Collection Date: 6/11/2020 1:25:00 PM
Project: F200
Lab ID: 2006216-012
Matrix: Soil
Client Sample ID: 358-B14-12.5

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28646 Analyst: KT

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0253		mg/Kg-dry	1	6/13/2020 1:31:21 AM
Chloromethane	ND	0.0632		mg/Kg-dry	1	6/13/2020 1:31:21 AM
Vinyl chloride	ND	0.0316		mg/Kg-dry	1	6/13/2020 1:31:21 AM
Bromomethane	ND	0.0632		mg/Kg-dry	1	6/13/2020 1:31:21 AM
Trichlorofluoromethane (CFC-11)	ND	0.0253		mg/Kg-dry	1	6/13/2020 1:31:21 AM
Chloroethane	ND	0.0632		mg/Kg-dry	1	6/13/2020 1:31:21 AM
1,1-Dichloroethene	ND	0.0253		mg/Kg-dry	1	6/13/2020 1:31:21 AM
Methylene chloride	ND	0.0253		mg/Kg-dry	1	6/13/2020 1:31:21 AM
trans-1,2-Dichloroethene	ND	0.0253		mg/Kg-dry	1	6/13/2020 1:31:21 AM
1,1-Dichloroethane	ND	0.0253		mg/Kg-dry	1	6/13/2020 1:31:21 AM
cis-1,2-Dichloroethene	ND	0.0253		mg/Kg-dry	1	6/13/2020 1:31:21 AM
Chloroform	ND	0.0253		mg/Kg-dry	1	6/13/2020 1:31:21 AM
1,1,1-Trichloroethane (TCA)	ND	0.0316		mg/Kg-dry	1	6/13/2020 1:31:21 AM
1,1-Dichloropropene	ND	0.0253		mg/Kg-dry	1	6/13/2020 1:31:21 AM
Carbon tetrachloride	ND	0.0316		mg/Kg-dry	1	6/13/2020 1:31:21 AM
1,2-Dichloroethane (EDC)	ND	0.0253		mg/Kg-dry	1	6/13/2020 1:31:21 AM
Trichloroethene (TCE)	ND	0.0253		mg/Kg-dry	1	6/13/2020 1:31:21 AM
1,2-Dichloropropane	ND	0.0253		mg/Kg-dry	1	6/13/2020 1:31:21 AM
Bromodichloromethane	ND	0.0253		mg/Kg-dry	1	6/13/2020 1:31:21 AM
Dibromomethane	ND	0.0253		mg/Kg-dry	1	6/13/2020 1:31:21 AM
cis-1,3-Dichloropropene	ND	0.0253		mg/Kg-dry	1	6/13/2020 1:31:21 AM
trans-1,3-Dichloropropylene	ND	0.0253		mg/Kg-dry	1	6/13/2020 1:31:21 AM
1,1,2-Trichloroethane	ND	0.0253		mg/Kg-dry	1	6/13/2020 1:31:21 AM
1,3-Dichloropropane	ND	0.0316		mg/Kg-dry	1	6/13/2020 1:31:21 AM
Tetrachloroethene (PCE)	ND	0.0316		mg/Kg-dry	1	6/13/2020 1:31:21 AM
Dibromochloromethane	ND	0.0316		mg/Kg-dry	1	6/13/2020 1:31:21 AM
1,2-Dibromoethane (EDB)	ND	0.00632		mg/Kg-dry	1	6/13/2020 1:31:21 AM
Chlorobenzene	ND	0.0316		mg/Kg-dry	1	6/13/2020 1:31:21 AM
1,1,1,2-Tetrachloroethane	ND	0.0316		mg/Kg-dry	1	6/13/2020 1:31:21 AM
Bromoform	ND	0.0632		mg/Kg-dry	1	6/13/2020 1:31:21 AM
1,1,2,2-Tetrachloroethane	ND	0.0253		mg/Kg-dry	1	6/13/2020 1:31:21 AM
Bromobenzene	ND	0.0253		mg/Kg-dry	1	6/13/2020 1:31:21 AM
2-Chlorotoluene	ND	0.0316		mg/Kg-dry	1	6/13/2020 1:31:21 AM
4-Chlorotoluene	ND	0.0316		mg/Kg-dry	1	6/13/2020 1:31:21 AM
1,2,3-Trichloropropane	ND	0.0316		mg/Kg-dry	1	6/13/2020 1:31:21 AM
1,2,4-Trichlorobenzene	ND	0.0316		mg/Kg-dry	1	6/13/2020 1:31:21 AM
1,3-Dichlorobenzene	ND	0.0253		mg/Kg-dry	1	6/13/2020 1:31:21 AM
1,4-Dichlorobenzene	ND	0.0253		mg/Kg-dry	1	6/13/2020 1:31:21 AM
1,2-Dichlorobenzene	ND	0.0253		mg/Kg-dry	1	6/13/2020 1:31:21 AM

Analytical Report

Work Order: **2006216**
Date Reported: **6/15/2020**

Client: O'Neill Service Group
Collection Date: 6/11/2020 1:25:00 PM
Project: F200
Lab ID: 2006216-012
Matrix: Soil
Client Sample ID: 358-B14-12.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28646		Analyst: KT
1,2-Dibromo-3-chloropropane	ND	0.632		mg/Kg-dry	1	6/13/2020 1:31:21 AM
Hexachloro-1,3-butadiene	ND	0.0632		mg/Kg-dry	1	6/13/2020 1:31:21 AM
1,2,3-Trichlorobenzene	ND	0.0253		mg/Kg-dry	1	6/13/2020 1:31:21 AM
Surr: Dibromofluoromethane	97.0	83.3 - 111		%Rec	1	6/13/2020 1:31:21 AM
Surr: Toluene-d8	92.7	87.9 - 111		%Rec	1	6/13/2020 1:31:21 AM
Surr: 1-Bromo-4-fluorobenzene	98.9	85.1 - 111		%Rec	1	6/13/2020 1:31:21 AM
Sample Moisture (Percent Moisture)				Batch ID: R59778		Analyst: CG
Percent Moisture	16.0	0.500		wt%	1	6/12/2020 6:37:43 AM

Analytical Report

Work Order: **2006216**
Date Reported: **6/15/2020**

Client: O'Neill Service Group
Collection Date: 6/11/2020 1:30:00 PM
Project: F200
Lab ID: 2006216-013
Matrix: Soil
Client Sample ID: 358-B14-15

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28646 Analyst: KT

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0310		mg/Kg-dry	1	6/13/2020 2:01:31 AM
Chloromethane	ND	0.0774		mg/Kg-dry	1	6/13/2020 2:01:31 AM
Vinyl chloride	ND	0.0387		mg/Kg-dry	1	6/13/2020 2:01:31 AM
Bromomethane	ND	0.0774		mg/Kg-dry	1	6/13/2020 2:01:31 AM
Trichlorofluoromethane (CFC-11)	ND	0.0310		mg/Kg-dry	1	6/13/2020 2:01:31 AM
Chloroethane	ND	0.0774		mg/Kg-dry	1	6/13/2020 2:01:31 AM
1,1-Dichloroethene	ND	0.0310		mg/Kg-dry	1	6/13/2020 2:01:31 AM
Methylene chloride	ND	0.0310		mg/Kg-dry	1	6/13/2020 2:01:31 AM
trans-1,2-Dichloroethene	ND	0.0310		mg/Kg-dry	1	6/13/2020 2:01:31 AM
1,1-Dichloroethane	ND	0.0310		mg/Kg-dry	1	6/13/2020 2:01:31 AM
cis-1,2-Dichloroethene	ND	0.0310		mg/Kg-dry	1	6/13/2020 2:01:31 AM
Chloroform	ND	0.0310		mg/Kg-dry	1	6/13/2020 2:01:31 AM
1,1,1-Trichloroethane (TCA)	ND	0.0387		mg/Kg-dry	1	6/13/2020 2:01:31 AM
1,1-Dichloropropene	ND	0.0310		mg/Kg-dry	1	6/13/2020 2:01:31 AM
Carbon tetrachloride	ND	0.0387		mg/Kg-dry	1	6/13/2020 2:01:31 AM
1,2-Dichloroethane (EDC)	ND	0.0310		mg/Kg-dry	1	6/13/2020 2:01:31 AM
Trichloroethene (TCE)	ND	0.0310		mg/Kg-dry	1	6/13/2020 2:01:31 AM
1,2-Dichloropropane	ND	0.0310		mg/Kg-dry	1	6/13/2020 2:01:31 AM
Bromodichloromethane	ND	0.0310		mg/Kg-dry	1	6/13/2020 2:01:31 AM
Dibromomethane	ND	0.0310		mg/Kg-dry	1	6/13/2020 2:01:31 AM
cis-1,3-Dichloropropene	ND	0.0310		mg/Kg-dry	1	6/13/2020 2:01:31 AM
trans-1,3-Dichloropropylene	ND	0.0310		mg/Kg-dry	1	6/13/2020 2:01:31 AM
1,1,2-Trichloroethane	ND	0.0310		mg/Kg-dry	1	6/13/2020 2:01:31 AM
1,3-Dichloropropane	ND	0.0387		mg/Kg-dry	1	6/13/2020 2:01:31 AM
Tetrachloroethene (PCE)	ND	0.0387		mg/Kg-dry	1	6/13/2020 2:01:31 AM
Dibromochloromethane	ND	0.0387		mg/Kg-dry	1	6/13/2020 2:01:31 AM
1,2-Dibromoethane (EDB)	ND	0.00774		mg/Kg-dry	1	6/13/2020 2:01:31 AM
Chlorobenzene	ND	0.0387		mg/Kg-dry	1	6/13/2020 2:01:31 AM
1,1,1,2-Tetrachloroethane	ND	0.0387		mg/Kg-dry	1	6/13/2020 2:01:31 AM
Bromoform	ND	0.0774		mg/Kg-dry	1	6/13/2020 2:01:31 AM
1,1,2,2-Tetrachloroethane	ND	0.0310		mg/Kg-dry	1	6/13/2020 2:01:31 AM
Bromobenzene	ND	0.0310		mg/Kg-dry	1	6/13/2020 2:01:31 AM
2-Chlorotoluene	ND	0.0387		mg/Kg-dry	1	6/13/2020 2:01:31 AM
4-Chlorotoluene	ND	0.0387		mg/Kg-dry	1	6/13/2020 2:01:31 AM
1,2,3-Trichloropropane	ND	0.0387		mg/Kg-dry	1	6/13/2020 2:01:31 AM
1,2,4-Trichlorobenzene	ND	0.0387		mg/Kg-dry	1	6/13/2020 2:01:31 AM
1,3-Dichlorobenzene	ND	0.0310		mg/Kg-dry	1	6/13/2020 2:01:31 AM
1,4-Dichlorobenzene	ND	0.0310		mg/Kg-dry	1	6/13/2020 2:01:31 AM
1,2-Dichlorobenzene	ND	0.0310		mg/Kg-dry	1	6/13/2020 2:01:31 AM

Analytical Report

Work Order: **2006216**
Date Reported: **6/15/2020**

Client: O'Neill Service Group
Collection Date: 6/11/2020 1:30:00 PM
Project: F200
Lab ID: 2006216-013
Matrix: Soil
Client Sample ID: 358-B14-15

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28646		Analyst: KT
1,2-Dibromo-3-chloropropane	ND	0.774		mg/Kg-dry	1	6/13/2020 2:01:31 AM
Hexachloro-1,3-butadiene	ND	0.0774		mg/Kg-dry	1	6/13/2020 2:01:31 AM
1,2,3-Trichlorobenzene	ND	0.0310		mg/Kg-dry	1	6/13/2020 2:01:31 AM
Surr: Dibromofluoromethane	97.1	83.3 - 111		%Rec	1	6/13/2020 2:01:31 AM
Surr: Toluene-d8	98.3	87.9 - 111		%Rec	1	6/13/2020 2:01:31 AM
Surr: 1-Bromo-4-fluorobenzene	99.1	85.1 - 111		%Rec	1	6/13/2020 2:01:31 AM
Sample Moisture (Percent Moisture)				Batch ID: R59778		Analyst: CG
Percent Moisture	7.24	0.500		wt%	1	6/12/2020 6:37:43 AM

Analytical Report

Work Order: **2006216**
Date Reported: **6/15/2020**

Client: O'Neill Service Group
Collection Date: 6/11/2020 1:50:00 PM
Project: F200
Lab ID: 2006216-014
Matrix: Soil
Client Sample ID: 358-B14-20

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28646 Analyst: KT

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0199		mg/Kg-dry	1	6/13/2020 2:31:44 AM
Chloromethane	ND	0.0498		mg/Kg-dry	1	6/13/2020 2:31:44 AM
Vinyl chloride	ND	0.0249		mg/Kg-dry	1	6/13/2020 2:31:44 AM
Bromomethane	ND	0.0498		mg/Kg-dry	1	6/13/2020 2:31:44 AM
Trichlorofluoromethane (CFC-11)	ND	0.0199		mg/Kg-dry	1	6/13/2020 2:31:44 AM
Chloroethane	ND	0.0498		mg/Kg-dry	1	6/13/2020 2:31:44 AM
1,1-Dichloroethene	ND	0.0199		mg/Kg-dry	1	6/13/2020 2:31:44 AM
Methylene chloride	ND	0.0199		mg/Kg-dry	1	6/13/2020 2:31:44 AM
trans-1,2-Dichloroethene	ND	0.0199		mg/Kg-dry	1	6/13/2020 2:31:44 AM
1,1-Dichloroethane	ND	0.0199		mg/Kg-dry	1	6/13/2020 2:31:44 AM
cis-1,2-Dichloroethene	ND	0.0199		mg/Kg-dry	1	6/13/2020 2:31:44 AM
Chloroform	ND	0.0199		mg/Kg-dry	1	6/13/2020 2:31:44 AM
1,1,1-Trichloroethane (TCA)	ND	0.0249		mg/Kg-dry	1	6/13/2020 2:31:44 AM
1,1-Dichloropropene	ND	0.0199		mg/Kg-dry	1	6/13/2020 2:31:44 AM
Carbon tetrachloride	ND	0.0249		mg/Kg-dry	1	6/13/2020 2:31:44 AM
1,2-Dichloroethane (EDC)	ND	0.0199		mg/Kg-dry	1	6/13/2020 2:31:44 AM
Trichloroethene (TCE)	ND	0.0199		mg/Kg-dry	1	6/13/2020 2:31:44 AM
1,2-Dichloropropane	ND	0.0199		mg/Kg-dry	1	6/13/2020 2:31:44 AM
Bromodichloromethane	ND	0.0199		mg/Kg-dry	1	6/13/2020 2:31:44 AM
Dibromomethane	ND	0.0199		mg/Kg-dry	1	6/13/2020 2:31:44 AM
cis-1,3-Dichloropropene	ND	0.0199		mg/Kg-dry	1	6/13/2020 2:31:44 AM
trans-1,3-Dichloropropylene	ND	0.0199		mg/Kg-dry	1	6/13/2020 2:31:44 AM
1,1,2-Trichloroethane	ND	0.0199		mg/Kg-dry	1	6/13/2020 2:31:44 AM
1,3-Dichloropropane	ND	0.0249		mg/Kg-dry	1	6/13/2020 2:31:44 AM
Tetrachloroethene (PCE)	ND	0.0249		mg/Kg-dry	1	6/13/2020 2:31:44 AM
Dibromochloromethane	ND	0.0249		mg/Kg-dry	1	6/13/2020 2:31:44 AM
1,2-Dibromoethane (EDB)	ND	0.00498		mg/Kg-dry	1	6/13/2020 2:31:44 AM
Chlorobenzene	ND	0.0249		mg/Kg-dry	1	6/13/2020 2:31:44 AM
1,1,1,2-Tetrachloroethane	ND	0.0249		mg/Kg-dry	1	6/13/2020 2:31:44 AM
Bromoform	ND	0.0498		mg/Kg-dry	1	6/13/2020 2:31:44 AM
1,1,2,2-Tetrachloroethane	ND	0.0199		mg/Kg-dry	1	6/13/2020 2:31:44 AM
Bromobenzene	ND	0.0199		mg/Kg-dry	1	6/13/2020 2:31:44 AM
2-Chlorotoluene	ND	0.0249		mg/Kg-dry	1	6/13/2020 2:31:44 AM
4-Chlorotoluene	ND	0.0249		mg/Kg-dry	1	6/13/2020 2:31:44 AM
1,2,3-Trichloropropane	ND	0.0249		mg/Kg-dry	1	6/13/2020 2:31:44 AM
1,2,4-Trichlorobenzene	ND	0.0249		mg/Kg-dry	1	6/13/2020 2:31:44 AM
1,3-Dichlorobenzene	ND	0.0199		mg/Kg-dry	1	6/13/2020 2:31:44 AM
1,4-Dichlorobenzene	ND	0.0199		mg/Kg-dry	1	6/13/2020 2:31:44 AM
1,2-Dichlorobenzene	ND	0.0199		mg/Kg-dry	1	6/13/2020 2:31:44 AM

Analytical Report

Work Order: **2006216**
Date Reported: **6/15/2020**

Client: O'Neill Service Group
Collection Date: 6/11/2020 1:50:00 PM
Project: F200
Lab ID: 2006216-014
Matrix: Soil
Client Sample ID: 358-B14-20

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28646		Analyst: KT
1,2-Dibromo-3-chloropropane	ND	0.498		mg/Kg-dry	1	6/13/2020 2:31:44 AM
Hexachloro-1,3-butadiene	ND	0.0498		mg/Kg-dry	1	6/13/2020 2:31:44 AM
1,2,3-Trichlorobenzene	ND	0.0199		mg/Kg-dry	1	6/13/2020 2:31:44 AM
Surr: Dibromofluoromethane	96.4	83.3 - 111		%Rec	1	6/13/2020 2:31:44 AM
Surr: Toluene-d8	96.6	87.9 - 111		%Rec	1	6/13/2020 2:31:44 AM
Surr: 1-Bromo-4-fluorobenzene	99.1	85.1 - 111		%Rec	1	6/13/2020 2:31:44 AM
Sample Moisture (Percent Moisture)				Batch ID: R59778		Analyst: CG
Percent Moisture	11.1	0.500		wt%	1	6/12/2020 6:37:43 AM

Analytical Report

Work Order: **2006216**
Date Reported: **6/15/2020**

Client: O'Neill Service Group
Collection Date: 6/11/2020 2:05:00 PM
Project: F200
Lab ID: 2006216-015
Matrix: Soil
Client Sample ID: 358-B14-25

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28646 Analyst: KT

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0233		mg/Kg-dry	1	6/13/2020 3:01:48 AM
Chloromethane	ND	0.0583		mg/Kg-dry	1	6/13/2020 3:01:48 AM
Vinyl chloride	ND	0.0292		mg/Kg-dry	1	6/13/2020 3:01:48 AM
Bromomethane	ND	0.0583		mg/Kg-dry	1	6/13/2020 3:01:48 AM
Trichlorofluoromethane (CFC-11)	ND	0.0233		mg/Kg-dry	1	6/13/2020 3:01:48 AM
Chloroethane	ND	0.0583		mg/Kg-dry	1	6/13/2020 3:01:48 AM
1,1-Dichloroethene	ND	0.0233		mg/Kg-dry	1	6/13/2020 3:01:48 AM
Methylene chloride	ND	0.0233		mg/Kg-dry	1	6/13/2020 3:01:48 AM
trans-1,2-Dichloroethene	ND	0.0233		mg/Kg-dry	1	6/13/2020 3:01:48 AM
1,1-Dichloroethane	ND	0.0233		mg/Kg-dry	1	6/13/2020 3:01:48 AM
cis-1,2-Dichloroethene	ND	0.0233		mg/Kg-dry	1	6/13/2020 3:01:48 AM
Chloroform	ND	0.0233		mg/Kg-dry	1	6/13/2020 3:01:48 AM
1,1,1-Trichloroethane (TCA)	ND	0.0292		mg/Kg-dry	1	6/13/2020 3:01:48 AM
1,1-Dichloropropene	ND	0.0233		mg/Kg-dry	1	6/13/2020 3:01:48 AM
Carbon tetrachloride	ND	0.0292		mg/Kg-dry	1	6/13/2020 3:01:48 AM
1,2-Dichloroethane (EDC)	ND	0.0233		mg/Kg-dry	1	6/13/2020 3:01:48 AM
Trichloroethene (TCE)	ND	0.0233		mg/Kg-dry	1	6/13/2020 3:01:48 AM
1,2-Dichloropropane	ND	0.0233		mg/Kg-dry	1	6/13/2020 3:01:48 AM
Bromodichloromethane	ND	0.0233		mg/Kg-dry	1	6/13/2020 3:01:48 AM
Dibromomethane	ND	0.0233		mg/Kg-dry	1	6/13/2020 3:01:48 AM
cis-1,3-Dichloropropene	ND	0.0233		mg/Kg-dry	1	6/13/2020 3:01:48 AM
trans-1,3-Dichloropropylene	ND	0.0233		mg/Kg-dry	1	6/13/2020 3:01:48 AM
1,1,2-Trichloroethane	ND	0.0233		mg/Kg-dry	1	6/13/2020 3:01:48 AM
1,3-Dichloropropane	ND	0.0292		mg/Kg-dry	1	6/13/2020 3:01:48 AM
Tetrachloroethene (PCE)	ND	0.0292		mg/Kg-dry	1	6/13/2020 3:01:48 AM
Dibromochloromethane	ND	0.0292		mg/Kg-dry	1	6/13/2020 3:01:48 AM
1,2-Dibromoethane (EDB)	ND	0.00583		mg/Kg-dry	1	6/13/2020 3:01:48 AM
Chlorobenzene	ND	0.0292		mg/Kg-dry	1	6/13/2020 3:01:48 AM
1,1,1,2-Tetrachloroethane	ND	0.0292		mg/Kg-dry	1	6/13/2020 3:01:48 AM
Bromoform	ND	0.0583		mg/Kg-dry	1	6/13/2020 3:01:48 AM
1,1,2,2-Tetrachloroethane	ND	0.0233		mg/Kg-dry	1	6/13/2020 3:01:48 AM
Bromobenzene	ND	0.0233		mg/Kg-dry	1	6/13/2020 3:01:48 AM
2-Chlorotoluene	ND	0.0292		mg/Kg-dry	1	6/13/2020 3:01:48 AM
4-Chlorotoluene	ND	0.0292		mg/Kg-dry	1	6/13/2020 3:01:48 AM
1,2,3-Trichloropropane	ND	0.0292		mg/Kg-dry	1	6/13/2020 3:01:48 AM
1,2,4-Trichlorobenzene	ND	0.0292		mg/Kg-dry	1	6/13/2020 3:01:48 AM
1,3-Dichlorobenzene	ND	0.0233		mg/Kg-dry	1	6/13/2020 3:01:48 AM
1,4-Dichlorobenzene	ND	0.0233		mg/Kg-dry	1	6/13/2020 3:01:48 AM
1,2-Dichlorobenzene	ND	0.0233		mg/Kg-dry	1	6/13/2020 3:01:48 AM

Analytical Report

Work Order: **2006216**
Date Reported: **6/15/2020**

Client: O'Neill Service Group
Collection Date: 6/11/2020 2:05:00 PM
Project: F200
Lab ID: 2006216-015
Matrix: Soil
Client Sample ID: 358-B14-25

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28646		Analyst: KT
1,2-Dibromo-3-chloropropane	ND	0.583		mg/Kg-dry	1	6/13/2020 3:01:48 AM
Hexachloro-1,3-butadiene	ND	0.0583		mg/Kg-dry	1	6/13/2020 3:01:48 AM
1,2,3-Trichlorobenzene	ND	0.0233		mg/Kg-dry	1	6/13/2020 3:01:48 AM
Surr: Dibromofluoromethane	96.9	83.3 - 111		%Rec	1	6/13/2020 3:01:48 AM
Surr: Toluene-d8	89.6	87.9 - 111		%Rec	1	6/13/2020 3:01:48 AM
Surr: 1-Bromo-4-fluorobenzene	98.8	85.1 - 111		%Rec	1	6/13/2020 3:01:48 AM
Sample Moisture (Percent Moisture)				Batch ID: R59778		Analyst: CG
Percent Moisture	12.3	0.500		wt%	1	6/12/2020 6:37:43 AM

Date: *6/15/2020*

Work Order: 2006216
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **LCS-28646** SampType: **LCS** Units: **mg/Kg** Prep Date: **6/12/2020** RunNo: **59824**
Client ID: **LCSS** Batch ID: **28646** Analysis Date: **6/12/2020** SeqNo: **1197273**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	0.901	0.0200	1.000	0	90.1	13.4	185				
Chloromethane	0.886	0.0500	1.000	0	88.6	38.5	158				
Vinyl chloride	0.895	0.0250	1.000	0	89.5	53.6	138				
Bromomethane	0.951	0.0500	1.000	0	95.1	56.6	151				
Trichlorofluoromethane (CFC-11)	0.915	0.0200	1.000	0	91.5	64.2	137				
Chloroethane	1.01	0.0500	1.000	0	101	54.1	134				
1,1-Dichloroethene	0.899	0.0200	1.000	0	89.9	66	133				
Methylene chloride	0.873	0.0200	1.000	0	87.3	74.3	117				
trans-1,2-Dichloroethene	0.891	0.0200	1.000	0	89.1	79.6	115				
1,1-Dichloroethane	0.880	0.0200	1.000	0	88.0	75.8	117				
cis-1,2-Dichloroethene	0.885	0.0200	1.000	0	88.5	77.8	115				
Chloroform	0.884	0.0200	1.000	0	88.4	78.2	115				
1,1,1-Trichloroethane (TCA)	0.903	0.0250	1.000	0	90.3	76	121				
1,1-Dichloropropene	0.909	0.0200	1.000	0	90.9	77.2	120				
Carbon tetrachloride	0.881	0.0250	1.000	0	88.1	74	122				
1,2-Dichloroethane (EDC)	0.864	0.0200	1.000	0	86.4	74.7	115				
Trichloroethene (TCE)	0.900	0.0200	1.000	0	90.0	79.6	118				
1,2-Dichloropropane	0.880	0.0200	1.000	0	88.0	78.2	115				
Bromodichloromethane	0.977	0.0200	1.000	0	97.7	76.6	116				
Dibromomethane	0.898	0.0200	1.000	0	89.8	77.9	115				
cis-1,3-Dichloropropene	0.894	0.0200	1.000	0	89.4	74.6	119				
trans-1,3-Dichloropropylene	0.980	0.0200	1.000	0	98.0	70.6	124				
1,1,2-Trichloroethane	0.866	0.0200	1.000	0	86.6	75.6	116				
1,3-Dichloropropane	0.857	0.0250	1.000	0	85.7	75.3	116				
Tetrachloroethene (PCE)	0.888	0.0250	1.000	0	88.8	78.8	119				
Dibromochloromethane	1.01	0.0250	1.000	0	101	72.5	123				
1,2-Dibromoethane (EDB)	0.874	0.00500	1.000	0	87.4	75	116				
Chlorobenzene	0.889	0.0250	1.000	0	88.9	83.4	113				
1,1,1,2-Tetrachloroethane	0.986	0.0250	1.000	0	98.6	80.8	117				
Bromoform	1.05	0.0500	1.000	0	105	71	129				
1,1,2,2-Tetrachloroethane	0.947	0.0200	1.000	0	94.7	71.3	119				

Date: *6/15/2020*

Work Order: 2006216
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **LCS-28646** SampType: **LCS** Units: **mg/Kg** Prep Date: **6/12/2020** RunNo: **59824**
Client ID: **LCSS** Batch ID: **28646** Analysis Date: **6/12/2020** SeqNo: **1197273**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromobenzene	0.903	0.0200	1.000	0	90.3	78.6	115				
2-Chlorotoluene	0.892	0.0250	1.000	0	89.2	78.6	116				
4-Chlorotoluene	0.891	0.0250	1.000	0	89.1	78.8	117				
1,2,3-Trichloropropane	0.969	0.0250	1.000	0	96.9	67.5	129				
1,2,4-Trichlorobenzene	0.874	0.0250	1.000	0	87.4	79.6	124				
1,3-Dichlorobenzene	0.942	0.0200	1.000	0	94.2	87.1	117				
1,4-Dichlorobenzene	0.941	0.0200	1.000	0	94.1	87.6	115				
1,2-Dichlorobenzene	0.934	0.0200	1.000	0	93.4	87.9	115				
1,2-Dibromo-3-chloropropane	1.07	0.500	1.000	0	107	65.6	132				
Hexachloro-1,3-butadiene	0.932	0.0500	1.000	0	93.2	75	130				
1,2,3-Trichlorobenzene	0.848	0.0200	1.000	0	84.8	74.3	128				
Surr: Dibromofluoromethane	1.32		1.250		106	83.3	111				
Surr: Toluene-d8	1.26		1.250		101	87.9	111				
Surr: 1-Bromo-4-fluorobenzene	1.29		1.250		103	85.1	111				

Sample ID: **MB-28646** SampType: **MBLK** Units: **mg/Kg** Prep Date: **6/12/2020** RunNo: **59824**
Client ID: **MBLKS** Batch ID: **28646** Analysis Date: **6/12/2020** SeqNo: **1197274**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	0.0200									
Chloromethane	ND	0.0500									
Vinyl chloride	ND	0.0250									
Bromomethane	ND	0.0500									
Trichlorofluoromethane (CFC-11)	ND	0.0200									
Chloroethane	ND	0.0500									
1,1-Dichloroethene	ND	0.0200									
Methylene chloride	ND	0.0200									
trans-1,2-Dichloroethene	ND	0.0200									
1,1-Dichloroethane	ND	0.0200									
cis-1,2-Dichloroethene	ND	0.0200									

Date: *6/15/2020*

Work Order: 2006216
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **MB-28646**	SampType: **MBLK**	Units: **mg/Kg**	Prep Date: **6/12/2020**	RunNo: **59824**
Client ID: **MBLKS**	Batch ID: **28646**		Analysis Date: **6/12/2020**	SeqNo: **1197274**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloroform	ND	0.0200									
1,1,1-Trichloroethane (TCA)	ND	0.0250									
1,1-Dichloropropene	ND	0.0200									
Carbon tetrachloride	ND	0.0250									
1,2-Dichloroethane (EDC)	ND	0.0200									
Trichloroethene (TCE)	ND	0.0200									
1,2-Dichloropropane	ND	0.0200									
Bromodichloromethane	ND	0.0200									
Dibromomethane	ND	0.0200									
cis-1,3-Dichloropropene	ND	0.0200									
trans-1,3-Dichloropropylene	ND	0.0200									
1,1,2-Trichloroethane	ND	0.0200									
1,3-Dichloropropane	ND	0.0250									
Tetrachloroethene (PCE)	ND	0.0250									
Dibromochloromethane	ND	0.0250									
1,2-Dibromoethane (EDB)	ND	0.00500									
Chlorobenzene	ND	0.0250									
1,1,1,2-Tetrachloroethane	ND	0.0250									
Bromoform	ND	0.0500									
1,1,2,2-Tetrachloroethane	ND	0.0200									
Bromobenzene	ND	0.0200									
2-Chlorotoluene	ND	0.0250									
4-Chlorotoluene	ND	0.0250									
1,2,3-Trichloropropane	ND	0.0250									
1,2,4-Trichlorobenzene	ND	0.0250									
1,3-Dichlorobenzene	ND	0.0200									
1,4-Dichlorobenzene	ND	0.0200									
1,2-Dichlorobenzene	ND	0.0200									
1,2-Dibromo-3-chloropropane	ND	0.500									
Hexachloro-1,3-butadiene	ND	0.0500									
1,2,3-Trichlorobenzene	ND	0.0200									

Date: *6/15/2020*

Work Order: 2006216
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **MB-28646** SampType: **MBLK** Units: **mg/Kg** Prep Date: **6/12/2020** RunNo: **59824**
Client ID: **MBLKS** Batch ID: **28646** Analysis Date: **6/12/2020** SeqNo: **1197274**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	1.22		1.250		98.0	83.3	111				
Surr: Toluene-d8	1.25		1.250		99.6	87.9	111				
Surr: 1-Bromo-4-fluorobenzene	1.25		1.250		99.6	85.1	111				

Sample ID: **2006164-003BDUP** SampType: **DUP** Units: **mg/Kg** Prep Date: **6/12/2020** RunNo: **59824**
Client ID: **BATCH** Batch ID: **28646** Analysis Date: **6/12/2020** SeqNo: **1197251**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	0.0237						0		30	
Chloromethane	ND	0.0593						0		30	
Vinyl chloride	ND	0.0296						0		30	
Bromomethane	ND	0.0593						0		30	
Trichlorofluoromethane (CFC-11)	ND	0.0237						0		30	
Chloroethane	ND	0.0593						0		30	
1,1-Dichloroethene	ND	0.0237						0		30	
Methylene chloride	ND	0.0237						0		30	
trans-1,2-Dichloroethene	ND	0.0237						0		30	
1,1-Dichloroethane	ND	0.0237						0		30	
cis-1,2-Dichloroethene	ND	0.0237						0		30	
Chloroform	ND	0.0237						0		30	
1,1,1-Trichloroethane (TCA)	ND	0.0296						0		30	
1,1-Dichloropropene	ND	0.0237						0		30	
Carbon tetrachloride	ND	0.0296						0		30	
1,2-Dichloroethane (EDC)	ND	0.0237						0		30	
Trichloroethene (TCE)	ND	0.0237						0		30	
1,2-Dichloropropane	ND	0.0237						0		30	
Bromodichloromethane	ND	0.0237						0		30	
Dibromomethane	ND	0.0237						0		30	
cis-1,3-Dichloropropene	ND	0.0237						0		30	
trans-1,3-Dichloropropylene	ND	0.0237						0		30	

Date: *6/15/2020*

Work Order: 2006216
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2006164-003BDUP** SampType: **DUP** Units: **mg/Kg** Prep Date: **6/12/2020** RunNo: **59824**
Client ID: **BATCH** Batch ID: **28646** Analysis Date: **6/12/2020** SeqNo: **1197251**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,2-Trichloroethane	ND	0.0237						0		30	
1,3-Dichloropropane	ND	0.0296						0		30	
Tetrachloroethene (PCE)	ND	0.0296						0		30	
Dibromochloromethane	ND	0.0296						0		30	
1,2-Dibromoethane (EDB)	ND	0.00593						0		30	
Chlorobenzene	ND	0.0296						0		30	
1,1,1,2-Tetrachloroethane	ND	0.0296						0		30	
Bromoform	ND	0.0593						0		30	
1,1,2,2-Tetrachloroethane	ND	0.0237						0		30	
Bromobenzene	ND	0.0237						0		30	
2-Chlorotoluene	ND	0.0296						0		30	
4-Chlorotoluene	ND	0.0296						0		30	
1,2,3-Trichloropropane	ND	0.0296						0		30	
1,2,4-Trichlorobenzene	ND	0.0296						0		30	
1,3-Dichlorobenzene	ND	0.0237						0		30	
1,4-Dichlorobenzene	ND	0.0237						0		30	
1,2-Dichlorobenzene	ND	0.0237						0		30	
1,2-Dibromo-3-chloropropane	ND	0.593						0		30	
Hexachloro-1,3-butadiene	ND	0.0593						0		30	
1,2,3-Trichlorobenzene	ND	0.0237						0		30	
Surr: Dibromofluoromethane	1.43		1.482		96.5	83.3	111		0		
Surr: Toluene-d8	1.46		1.482		98.8	87.9	111		0		
Surr: 1-Bromo-4-fluorobenzene	1.48		1.482		100	85.1	111		0		

Sample ID: **2006198-001BDUP** SampType: **DUP** Units: **mg/Kg** Prep Date: **6/12/2020** RunNo: **59824**
Client ID: **BATCH** Batch ID: **28646** Analysis Date: **6/12/2020** SeqNo: **1197253**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	0.0139						0		30	
Chloromethane	ND	0.0347						0		30	

Date: *6/15/2020*

Work Order: 2006216
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2006198-001BDUP** SampType: **DUP** Units: **mg/Kg** Prep Date: **6/12/2020** RunNo: **59824**
Client ID: **BATCH** Batch ID: **28646** Analysis Date: **6/12/2020** SeqNo: **1197253**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	ND	0.0173						0		30	
Bromomethane	ND	0.0347						0		30	
Trichlorofluoromethane (CFC-11)	ND	0.0139						0		30	
Chloroethane	ND	0.0347						0		30	
1,1-Dichloroethene	ND	0.0139						0		30	
Methylene chloride	ND	0.0139						0		30	
trans-1,2-Dichloroethene	ND	0.0139						0		30	
1,1-Dichloroethane	ND	0.0139						0		30	
cis-1,2-Dichloroethene	ND	0.0139						0		30	
Chloroform	ND	0.0139						0		30	
1,1,1-Trichloroethane (TCA)	ND	0.0173						0		30	
1,1-Dichloropropene	ND	0.0139						0		30	
Carbon tetrachloride	ND	0.0173						0		30	
1,2-Dichloroethane (EDC)	ND	0.0139						0		30	
Trichloroethene (TCE)	ND	0.0139						0		30	
1,2-Dichloropropane	ND	0.0139						0		30	
Bromodichloromethane	ND	0.0139						0		30	
Dibromomethane	ND	0.0139						0		30	
cis-1,3-Dichloropropene	ND	0.0139						0		30	
trans-1,3-Dichloropropylene	ND	0.0139						0		30	
1,1,2-Trichloroethane	ND	0.0139						0		30	
1,3-Dichloropropane	ND	0.0173						0		30	
Tetrachloroethene (PCE)	ND	0.0173						0		30	
Dibromochloromethane	ND	0.0173						0		30	
1,2-Dibromoethane (EDB)	ND	0.00347						0		30	
Chlorobenzene	ND	0.0173						0		30	
1,1,1,2-Tetrachloroethane	ND	0.0173						0		30	
Bromoform	ND	0.0347						0		30	
1,1,2,2-Tetrachloroethane	ND	0.0139						0		30	
Bromobenzene	ND	0.0139						0		30	
2-Chlorotoluene	ND	0.0173						0		30	

Date: *6/15/2020*

Work Order: 2006216
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2006198-001BDUP** SampType: **DUP** Units: **mg/Kg** Prep Date: **6/12/2020** RunNo: **59824**
Client ID: **BATCH** Batch ID: **28646** Analysis Date: **6/12/2020** SeqNo: **1197253**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4-Chlorotoluene	ND	0.0173						0		30	
1,2,3-Trichloropropane	ND	0.0173						0		30	
1,2,4-Trichlorobenzene	ND	0.0173						0		30	
1,3-Dichlorobenzene	ND	0.0139						0		30	
1,4-Dichlorobenzene	ND	0.0139						0		30	
1,2-Dichlorobenzene	ND	0.0139						0		30	
1,2-Dibromo-3-chloropropane	ND	0.347						0		30	
Hexachloro-1,3-butadiene	ND	0.0347						0		30	
1,2,3-Trichlorobenzene	ND	0.0139						0		30	
Surr: Dibromofluoromethane	0.841		0.8674		96.9	83.3	111		0		
Surr: Toluene-d8	0.831		0.8674		95.8	87.9	111		0		
Surr: 1-Bromo-4-fluorobenzene	0.871		0.8674		100	85.1	111		0		

Sample ID: **2006164-002BMS** SampType: **MS** Units: **mg/Kg** Prep Date: **6/12/2020** RunNo: **59824**
Client ID: **BATCH** Batch ID: **28646** Analysis Date: **6/12/2020** SeqNo: **1197248**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	0.588	0.0158	0.7889	0	74.5	5.73	173				
Chloromethane	0.738	0.0394	0.7889	0	93.6	41.3	150				
Vinyl chloride	0.702	0.0197	0.7889	0	88.9	49.5	138				
Bromomethane	0.626	0.0394	0.7889	0	79.4	48.5	158				
Trichlorofluoromethane (CFC-11)	0.690	0.0158	0.7889	0	87.4	40.6	159				
Chloroethane	0.539	0.0394	0.7889	0	68.3	30.4	166				
1,1-Dichloroethene	0.783	0.0158	0.7889	0	99.2	55	138				
Methylene chloride	0.768	0.0158	0.7889	0	97.4	70.3	123				
trans-1,2-Dichloroethene	0.737	0.0158	0.7889	0	93.4	73.1	121				
1,1-Dichloroethane	0.743	0.0158	0.7889	0	94.1	70.8	122				
cis-1,2-Dichloroethene	0.757	0.0158	0.7889	0	95.9	71.8	122				
Chloroform	0.761	0.0158	0.7889	0	96.4	72.9	122				
1,1,1-Trichloroethane (TCA)	0.725	0.0197	0.7889	0	91.8	69.6	125				

Date: *6/15/2020*

Work Order: 2006216
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2006164-002BMS** SampType: **MS** Units: **mg/Kg** Prep Date: **6/12/2020** RunNo: **59824**
Client ID: **BATCH** Batch ID: **28646** Analysis Date: **6/12/2020** SeqNo: **1197248**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloropropene	0.710	0.0158	0.7889	0	90.0	69.3	126				
Carbon tetrachloride	0.675	0.0197	0.7889	0	85.5	65	127				
1,2-Dichloroethane (EDC)	0.768	0.0158	0.7889	0	97.3	70.1	121				
Trichloroethene (TCE)	0.751	0.0158	0.7889	0	95.2	70.1	129				
1,2-Dichloropropane	0.770	0.0158	0.7889	0	97.6	74.6	120				
Bromodichloromethane	0.815	0.0158	0.7889	0	103	70.9	122				
Dibromomethane	0.779	0.0158	0.7889	0	98.8	75.6	120				
cis-1,3-Dichloropropene	0.729	0.0158	0.7889	0	92.4	68.3	120				
trans-1,3-Dichloropropylene	0.814	0.0158	0.7889	0	103	62.2	127				
1,1,2-Trichloroethane	0.750	0.0158	0.7889	0	95.0	72.9	120				
1,3-Dichloropropane	0.746	0.0197	0.7889	0	94.5	71.9	119				
Tetrachloroethene (PCE)	0.722	0.0197	0.7889	0	91.5	71.1	122				
Dibromochloromethane	0.834	0.0197	0.7889	0	106	65.9	126				
1,2-Dibromoethane (EDB)	0.759	0.00394	0.7889	0	96.2	72	119				
Chlorobenzene	0.760	0.0197	0.7889	0	96.4	81.4	116				
1,1,1,2-Tetrachloroethane	0.824	0.0197	0.7889	0	104	72.9	125				
Bromoform	0.860	0.0394	0.7889	0	109	63.4	133				
1,1,2,2-Tetrachloroethane	0.813	0.0158	0.7889	0	103	61	128				
Bromobenzene	0.773	0.0158	0.7889	0	98.0	77	120				
2-Chlorotoluene	0.767	0.0197	0.7889	0	97.2	71.4	126				
4-Chlorotoluene	0.772	0.0197	0.7889	0	97.9	73.6	124				
1,2,3-Trichloropropane	0.830	0.0197	0.7889	0	105	65.7	132				
1,2,4-Trichlorobenzene	0.817	0.0197	0.7889	0	104	70.5	130				
1,3-Dichlorobenzene	0.792	0.0158	0.7889	0	100	83.8	121				
1,4-Dichlorobenzene	0.781	0.0158	0.7889	0	99.0	85.7	117				
1,2-Dichlorobenzene	0.785	0.0158	0.7889	0	99.5	81.8	120				
1,2-Dibromo-3-chloropropane	0.882	0.394	0.7889	0	112	56.9	139				
Hexachloro-1,3-butadiene	0.813	0.0394	0.7889	0	103	61.1	140				
1,2,3-Trichlorobenzene	0.747	0.0158	0.7889	0	94.7	67.8	132				
Surr: Dibromofluoromethane	1.02		0.9862		104	83.3	111				
Surr: Toluene-d8	0.947		0.9862		96.0	87.9	111				

Date: *6/15/2020*

Work Order: 2006216
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2006164-002BMS** SampType: **MS** Units: **mg/Kg** Prep Date: **6/12/2020** RunNo: **59824**
Client ID: **BATCH** Batch ID: **28646** Analysis Date: **6/12/2020** SeqNo: **1197248**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: 1-Bromo-4-fluorobenzene	1.02		0.9862		104	85.1	111				

Sample ID: **2006164-002BMSD** SampType: **MSD** Units: **mg/Kg** Prep Date: **6/12/2020** RunNo: **59824**
Client ID: **BATCH** Batch ID: **28646** Analysis Date: **6/12/2020** SeqNo: **1197249**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	0.693	0.0158	0.7889	0	87.8	5.73	173	0.5879	16.4	30	
Chloromethane	0.827	0.0394	0.7889	0	105	41.3	150	0.7382	11.3	30	
Vinyl chloride	0.805	0.0197	0.7889	0	102	49.5	138	0.7016	13.7	30	
Bromomethane	0.887	0.0394	0.7889	0	112	48.5	158	0.6261	34.5	30	R
Trichlorofluoromethane (CFC-11)	0.718	0.0158	0.7889	0	91.0	40.6	159	0.6897	3.99	30	
Chloroethane	0.876	0.0394	0.7889	0	111	30.4	166	0.5391	47.7	30	R
1,1-Dichloroethene	0.784	0.0158	0.7889	0	99.4	55	138	0.7826	0.194	30	
Methylene chloride	0.831	0.0158	0.7889	0	105	70.3	123	0.7682	7.82	30	
trans-1,2-Dichloroethene	0.846	0.0158	0.7889	0	107	73.1	121	0.7366	13.9	30	
1,1-Dichloroethane	0.853	0.0158	0.7889	0	108	70.8	122	0.7427	13.8	30	
cis-1,2-Dichloroethene	0.857	0.0158	0.7889	0	109	71.8	122	0.7569	12.4	30	
Chloroform	0.858	0.0158	0.7889	0	109	72.9	122	0.7605	12.0	30	
1,1,1-Trichloroethane (TCA)	0.830	0.0197	0.7889	0	105	69.6	125	0.7245	13.6	30	
1,1-Dichloropropene	0.815	0.0158	0.7889	0	103	69.3	126	0.7102	13.8	30	
Carbon tetrachloride	0.776	0.0197	0.7889	0	98.3	65	127	0.6746	13.9	30	
1,2-Dichloroethane (EDC)	0.849	0.0158	0.7889	0	108	70.1	121	0.7676	10.1	30	
Trichloroethene (TCE)	0.843	0.0158	0.7889	0	107	70.1	129	0.7507	11.6	30	
1,2-Dichloropropane	0.849	0.0158	0.7889	0	108	74.6	120	0.7696	9.78	30	
Bromodichloromethane	0.901	0.0158	0.7889	0	114	70.9	122	0.8150	10.0	30	
Dibromomethane	0.862	0.0158	0.7889	0	109	75.6	120	0.7793	10.0	30	
cis-1,3-Dichloropropene	0.832	0.0158	0.7889	0	105	68.3	120	0.7289	13.2	30	
trans-1,3-Dichloropropylene	0.918	0.0158	0.7889	0	116	62.2	127	0.8138	12.0	30	
1,1,2-Trichloroethane	0.857	0.0158	0.7889	0	109	72.9	120	0.7497	13.3	30	
1,3-Dichloropropane	0.846	0.0197	0.7889	0	107	71.9	119	0.7457	12.6	30	

Fremont Analytical

Date: *6/15/2020*

Work Order: 2006216
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2006164-002BMSD** SampType: **MSD** Units: **mg/Kg** Prep Date: **6/12/2020** RunNo: **59824**
Client ID: **BATCH** Batch ID: **28646** Analysis Date: **6/12/2020** SeqNo: **1197249**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tetrachloroethene (PCE)	0.819	0.0197	0.7889	0	104	71.1	122	0.7221	12.6	30	
Dibromochloromethane	0.892	0.0197	0.7889	0	113	65.9	126	0.8339	6.75	30	
1,2-Dibromoethane (EDB)	0.837	0.00394	0.7889	0	106	72	119	0.7587	9.87	30	
Chlorobenzene	0.859	0.0197	0.7889	0	109	81.4	116	0.7603	12.2	30	
1,1,1,2-Tetrachloroethane	0.910	0.0197	0.7889	0	115	72.9	125	0.8241	9.95	30	
Bromoform	0.950	0.0394	0.7889	0	120	63.4	133	0.8604	9.92	30	
1,1,2,2-Tetrachloroethane	0.911	0.0158	0.7889	0	115	61	128	0.8129	11.3	30	
Bromobenzene	0.867	0.0158	0.7889	0	110	77	120	0.7732	11.5	30	
2-Chlorotoluene	0.866	0.0197	0.7889	0	110	71.4	126	0.7672	12.1	30	
4-Chlorotoluene	0.865	0.0197	0.7889	0	110	73.6	124	0.7721	11.4	30	
1,2,3-Trichloropropane	0.910	0.0197	0.7889	0	115	65.7	132	0.8302	9.12	30	
1,2,4-Trichlorobenzene	0.864	0.0197	0.7889	0	110	70.5	130	0.8174	5.53	30	
1,3-Dichlorobenzene	0.890	0.0158	0.7889	0	113	83.8	121	0.7920	11.6	30	
1,4-Dichlorobenzene	0.889	0.0158	0.7889	0	113	85.7	117	0.7809	13.0	30	
1,2-Dichlorobenzene	0.884	0.0158	0.7889	0	112	81.8	120	0.7852	11.9	30	
1,2-Dibromo-3-chloropropane	0.979	0.394	0.7889	0	124	56.9	139	0.8821	10.4	30	
Hexachloro-1,3-butadiene	0.864	0.0394	0.7889	0	109	61.1	140	0.8133	6.01	30	
1,2,3-Trichlorobenzene	0.841	0.0158	0.7889	0	107	67.8	132	0.7469	11.8	30	
Surr: Dibromofluoromethane	1.03		0.9862		104	83.3	111		0		
Surr: Toluene-d8	0.970		0.9862		98.4	87.9	111		0		
Surr: 1-Bromo-4-fluorobenzene	1.01		0.9862		102	85.1	111		0		

NOTES:
R - High RPD observed, spike recovery is within range.

Sample Log-In Check List

Client Name:	**ONEILL**	Work Order Number:	**2006216**
Logged by:	**Clare Griggs**	Date Received:	**6/11/2020 4:25:00 PM**

Chain of Custody

1.	Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
2.	How was the sample delivered?	Client		

Log In

3.	Coolers are present?	Yes ☑	No ☐	NA ☐
4.	Shipping container/cooler in good condition?	Yes ☑	No ☐	
5.	Custody Seals present on shipping container/cooler? (Refer to comments for Custody Seals not intact)	Yes ☐	No ☐	Not Present ☑
6.	Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
7.	Were all items received at a temperature of >2°C to 6°C *	Yes ☑	No ☐	NA ☐
8.	Sample(s) in proper container(s)?	Yes ☑	No ☐	
9.	Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
10.	Are samples properly preserved?	Yes ☑	No ☐	
11.	Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
12.	Is there headspace in the VOA vials?	Yes ☐	No ☐	NA ☑
13.	Did all samples containers arrive in good condition(unbroken)?	Yes ☑	No ☐	
14.	Does paperwork match bottle labels?	Yes ☑	No ☐	
15.	Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
16.	Is it clear what analyses were requested?	Yes ☑	No ☐	
17.	Were all holding times able to be met?	Yes ☑	No ☐	

Special Handling (if applicable)

18.	Was client notified of all discrepancies with this order?	Yes ☑	No ☐	NA ☐

Person Notified:	Vance tins	Date:	
By Whom:	Clare riggs	Via:	☑ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:	Confirming la elsing discre ancies		
Client Instructions:	ee additional information email attachment		

19. Additional remarks:

Item Information

Item #	Temp ºC
Cooler	5.4
Sample	0.8

* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C

Fremont Analytical
3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790
Fax: 206-352-7178

Chain of Custody Record & Laboratory Services Agreement

Date: 6/11/20 Page: 1 of: 2

Laboratory Project No (internal): 2006216

Project Name: F200

Project No: 2024

Collected by: Atkins

Location: FL358

Report To (PM): Atkins

PM Email:

Client: OSG

Address:

City, State, Zip:

Telephone:

Fax:

Special Remarks:

Sample Disposal: ☐ Return to client ☐ Disposal by lab (after 30 days)

	Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	HVOCs (EPA 8260 / 624)	GX/BTEX	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DX)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T) | Dissolved (D)	Anions (IC)***	EDB (8011)					Comments
1	358-B9-1		1015		X																	
2	-2.5		1020																			
3	-5		1030		X																	
4	-7.5		1035																			
5	-10		1045		X																	
6	-15		1050																			
7	-20		1100		X																	
8	-25		1105		X																	
9	358-B14-5		1310																			
10	-7.5		1315		X																	

*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

**Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL *Individual:* Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti Tl U V Zn

***Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above and that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished	Date/Time	Received	Date/Time
x [signature]	6/11/2020 1420	x [signature]	6/11/20 1625
Relinquished	Date/Time	Received	Date/Time
x		x	

Turn-around Time:
- ☐ Standard
- ☐ 3 Day
- ☐ 2 Day
- ☒ Next Day
- Same Day ____ (specify)

Fremont Analytical
3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790
Fax: 206-352-7178

Chain of Custody Record & Laboratory Services Agreement

Date: 6/11/20 Page: 2 of: 2

Laboratory Project No (internal): 2006216

Project Name: F200

Project No: 2021

Collected by: ATKINS

Location: FL358

Report To (PM): ATKINS

PM Email:

Client: OSG

Address:

City, State, Zip:

Telephone:

Fax:

Special Remarks:

Sample Disposal: ☐ Return to client ☐ Disposal by lab (after 30 days)

	Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	VOCs (EPA 8260 / 624)	GX/BTEX	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DX)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T) | Dissolved (D)	Anions (IC)***	EDB (8011)	Comments
1	358-B14-10	6/11/20	1320		X													
2	358-B14-12.5		1325		X													
3	-15		1330		X													
4	-20		1350		X													
5	-25		1405		X													
6	-30		1425															
7																		
8																		
9																		
10																		

*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

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x [signature]	6/11/2020 1420	x [signature]	6/11/20 1625
Relinquished	Date/Time	Received	Date/Time
x		x	

Turn-around Time:

- ☐ Standard
- ☐ 3 Day
- ☐ 2 Day
- ☒ Next Day
- Same Day _____ (specify)

Fremont Analytical
3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790
Fax: 206-352-7178

Chain of Custody Record & Laboratory Services Agreement

Date: 6/11/20 Page: 1 of: 2

Laboratory Project No (internal): 20062116

Project Name: F200

Project No: 2024

Collected by: Atkins

Location: FL358

Report To (PM): Atkins

PM Email:

Client: OSG

Address:

City, State, Zip:

Telephone:

Fax:

Special Remarks:

Sample ID revision per V.A. 6/15/2020 -BB

Sample Disposal: ☐ Return to client ☐ Disposal by lab (after 30 days)

	Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	SVOCs (EPA 8260 / 624)	GX/BTEX	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DX)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T) | Dissolved (D)	Anions (IC)***	EDB (8011)						Comments
1	358-B-15-1		1015		X																		
2	-2.5		1020																				
3	-5		1030		X																		
4	-7.5		1035																				
5	-10		1045		X																		
6	-15		1050																				
7	-20		1100		X																		
8	-25		1105		X																		
9	358-B14-5		1310																				
10	-7.5		1315		X																		

*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

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x [signature]	6/11/2020 1420	x [signature]	6/11/20 1625
Relinquished	Date/Time	Received	Date/Time
x		x	

Turn-around Time:
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- ☐ 3 Day
- ☐ 2 Day
- ☒ Next Day
- Same Day ____ (specify)

Fremont Analytical
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Seattle, WA 98103
Tel: 206-352-3790
Fax: 206-352-7178

Chain of Custody Record & Laboratory Services Agreement

Date: 6/11/20 Page: 2 of: 2

Laboratory Project No (internal): 2006216

Project Name: F200

Project No: 2021

Collected by: ATKINS

Location: FL358

Report To (PM): ATKINS

PM Email:

Client: OSG

Address:

City, State, Zip:

Telephone:

Fax:

Special Remarks:

Sample Disposal: ☐ Return to client ☐ Disposal by lab (after 30 days)

	Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	SVOCs (EPA 8260 / 624)	GX/BTEX	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DX)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T) | Dissolved (D)	Anions (IC)***	EDB (8011)	Comments
1	358-B14-10	6/11/20	1320		X													
2	358-B14-12.5		1325		X													
3	-15		1330		X													
4	-20		1350		X													
5	-25		1405		X													
6	-30		1425															
7																		
8																		
9																		
10																		

*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

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x [signature]	6/11/2020 1420	x [signature]	6/11/20 1625
Relinquished	Date/Time	Received	Date/Time
x		x	

Turn-around Time:

- ☐ Standard
- ☐ 3 Day
- ☐ 2 Day
- ☒ Next Day
- Same Day _____ (specify)

3600 Fremont Ave. N.
Seattle, WA 98103
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F: (206) 352-7178
info@fremontanalytical.com

O'Neill Service Group
Vance Atkins
17619 NE 67th Court, Suite 100
Redmond, WA 98052

RE: F200
Work Order Number: 2006155

June 10, 2020

Attention Vance Atkins:

Fremont Analytical, Inc. received 15 sample(s) on 6/9/2020 for the analyses presented in the following report.

Sample Moisture (Percent Moisture)
Volatile Organic Compounds by EPA Method 8260D

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Brianna Barnes
Project Manager

Date: *06/10/2020*

CLIENT: O'Neill Service Group
Project: F200
Work Order: 2006155

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
2006155-001	358-PH1-1	06/09/2020 1:45 PM	06/09/2020 4:28 PM
2006155-002	358-PH1-2	06/09/2020 1:45 PM	06/09/2020 4:28 PM
2006155-003	358-PH1-4	06/09/2020 1:50 PM	06/09/2020 4:28 PM
2006155-004	358-PH1-7	06/09/2020 1:55 PM	06/09/2020 4:28 PM
2006155-005	358-PH1-10	06/09/2020 2:00 PM	06/09/2020 4:28 PM
2006155-006	358-PH3-1	06/09/2020 2:15 PM	06/09/2020 4:28 PM
2006155-007	358-PH3-2	06/09/2020 2:15 PM	06/09/2020 4:28 PM
2006155-008	358-PH3-4	06/09/2020 2:20 PM	06/09/2020 4:28 PM
2006155-009	358-PH3-7	06/09/2020 2:25 PM	06/09/2020 4:28 PM
2006155-010	358-PH3-10	06/09/2020 2:30 PM	06/09/2020 4:28 PM
2006155-011	358-PH4-1	06/09/2020 2:35 PM	06/09/2020 4:28 PM
2006155-012	358-PH4-2	06/09/2020 2:35 PM	06/09/2020 4:28 PM
2006155-013	358-PH4-4	06/09/2020 2:40 PM	06/09/2020 4:28 PM
2006155-014	358-PH4-7	06/09/2020 2:45 PM	06/09/2020 4:28 PM
2006155-015	358-PH4-10	06/09/2020 2:50 PM	06/09/2020 4:28 PM

Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned

Case Narrative

WO#: **2006155**

Date: **6/10/2020**

CLIENT: O'Neill Service Group

Project: F200

I. SAMPLE RECEIPT:
Samples receipt information is recorded on the attached Sample Receipt Checklist.

II. GENERAL REPORTING COMMENTS:
Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

III. ANALYSES AND EXCEPTIONS:
Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

Qualifiers:

* - Flagged value is not within established control limits
B - Analyte detected in the associated Method Blank
D - Dilution was required
E - Value above quantitation range
H - Holding times for preparation or analysis exceeded
I - Analyte with an internal standard that does not meet established acceptance criteria
J - Analyte detected below Reporting Limit
N - Tentatively Identified Compound (TIC)
Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF)
S - Spike recovery outside accepted recovery limits
ND - Not detected at the Reporting Limit
R - High relative percent difference observed

Acronyms:

%Rec - Percent Recovery
CCB - Continued Calibration Blank
CCV - Continued Calibration Verification
DF - Dilution Factor
HEM - Hexane Extractable Material
ICV - Initial Calibration Verification
LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
MB or MBLANK - Method Blank
MDL - Method Detection Limit
MS/MSD - Matrix Spike / Matrix Spike Duplicate
PDS - Post Digestion Spike
Ref Val - Reference Value
RL - Reporting Limit
RPD - Relative Percent Difference
SD - Serial Dilution
SGT - Silica Gel Treatment
SPK - Spike
Surr - Surrogate

Analytical Report

Work Order: **2006155**
Date Reported: **6/10/2020**

Client: O'Neill Service Group
Collection Date: 6/9/2020 1:45:00 PM
Project: F200
Lab ID: 2006155-001
Matrix: Soil
Client Sample ID: 358-PH1-1

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28609 Analyst: CR

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0220		mg/Kg-dry	1	6/9/2020 7:58:55 PM
Chloromethane	ND	0.0550		mg/Kg-dry	1	6/9/2020 7:58:55 PM
Vinyl chloride	ND	0.0275		mg/Kg-dry	1	6/9/2020 7:58:55 PM
Bromomethane	ND	0.0550		mg/Kg-dry	1	6/9/2020 7:58:55 PM
Trichlorofluoromethane (CFC-11)	ND	0.0220		mg/Kg-dry	1	6/9/2020 7:58:55 PM
Chloroethane	ND	0.0550		mg/Kg-dry	1	6/9/2020 7:58:55 PM
1,1-Dichloroethene	ND	0.0220		mg/Kg-dry	1	6/9/2020 7:58:55 PM
Methylene chloride	ND	0.0220		mg/Kg-dry	1	6/9/2020 7:58:55 PM
trans-1,2-Dichloroethene	ND	0.0220		mg/Kg-dry	1	6/9/2020 7:58:55 PM
1,1-Dichloroethane	ND	0.0220		mg/Kg-dry	1	6/9/2020 7:58:55 PM
cis-1,2-Dichloroethene	ND	0.0220		mg/Kg-dry	1	6/9/2020 7:58:55 PM
Chloroform	ND	0.0220		mg/Kg-dry	1	6/9/2020 7:58:55 PM
1,1,1-Trichloroethane (TCA)	ND	0.0275		mg/Kg-dry	1	6/9/2020 7:58:55 PM
1,1-Dichloropropene	ND	0.0220		mg/Kg-dry	1	6/9/2020 7:58:55 PM
Carbon tetrachloride	ND	0.0275		mg/Kg-dry	1	6/9/2020 7:58:55 PM
1,2-Dichloroethane (EDC)	ND	0.0220		mg/Kg-dry	1	6/9/2020 7:58:55 PM
Trichloroethene (TCE)	ND	0.0220		mg/Kg-dry	1	6/9/2020 7:58:55 PM
1,2-Dichloropropane	ND	0.0220		mg/Kg-dry	1	6/9/2020 7:58:55 PM
Bromodichloromethane	ND	0.0220		mg/Kg-dry	1	6/9/2020 7:58:55 PM
Dibromomethane	ND	0.0220		mg/Kg-dry	1	6/9/2020 7:58:55 PM
cis-1,3-Dichloropropene	ND	0.0220		mg/Kg-dry	1	6/9/2020 7:58:55 PM
trans-1,3-Dichloropropylene	ND	0.0220		mg/Kg-dry	1	6/9/2020 7:58:55 PM
1,1,2-Trichloroethane	ND	0.0220		mg/Kg-dry	1	6/9/2020 7:58:55 PM
1,3-Dichloropropane	ND	0.0275		mg/Kg-dry	1	6/9/2020 7:58:55 PM
Tetrachloroethene (PCE)	ND	0.0275		mg/Kg-dry	1	6/9/2020 7:58:55 PM
Dibromochloromethane	ND	0.0275		mg/Kg-dry	1	6/9/2020 7:58:55 PM
1,2-Dibromoethane (EDB)	ND	0.00550		mg/Kg-dry	1	6/9/2020 7:58:55 PM
Chlorobenzene	ND	0.0275		mg/Kg-dry	1	6/9/2020 7:58:55 PM
1,1,1,2-Tetrachloroethane	ND	0.0275		mg/Kg-dry	1	6/9/2020 7:58:55 PM
Bromoform	ND	0.0550		mg/Kg-dry	1	6/9/2020 7:58:55 PM
1,1,2,2-Tetrachloroethane	ND	0.0220		mg/Kg-dry	1	6/9/2020 7:58:55 PM
Bromobenzene	ND	0.0220		mg/Kg-dry	1	6/9/2020 7:58:55 PM
2-Chlorotoluene	ND	0.0275		mg/Kg-dry	1	6/9/2020 7:58:55 PM
4-Chlorotoluene	ND	0.0275		mg/Kg-dry	1	6/9/2020 7:58:55 PM
1,2,3-Trichloropropane	ND	0.0275		mg/Kg-dry	1	6/9/2020 7:58:55 PM
1,2,4-Trichlorobenzene	ND	0.0275		mg/Kg-dry	1	6/9/2020 7:58:55 PM
1,3-Dichlorobenzene	ND	0.0220		mg/Kg-dry	1	6/9/2020 7:58:55 PM
1,4-Dichlorobenzene	ND	0.0220		mg/Kg-dry	1	6/9/2020 7:58:55 PM
1,2-Dichlorobenzene	ND	0.0220		mg/Kg-dry	1	6/9/2020 7:58:55 PM

Analytical Report

Work Order: **2006155**
Date Reported: **6/10/2020**

Client: O'Neill Service Group
Collection Date: 6/9/2020 1:45:00 PM
Project: F200
Lab ID: 2006155-001
Matrix: Soil
Client Sample ID: 358-PH1-1

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28609		Analyst: CR
1,2-Dibromo-3-chloropropane	ND	0.550		mg/Kg-dry	1	6/9/2020 7:58:55 PM
Hexachloro-1,3-butadiene	ND	0.0550		mg/Kg-dry	1	6/9/2020 7:58:55 PM
1,2,3-Trichlorobenzene	ND	0.0220		mg/Kg-dry	1	6/9/2020 7:58:55 PM
Surr: Dibromofluoromethane	97.6	83.3 - 111		%Rec	1	6/9/2020 7:58:55 PM
Surr: Toluene-d8	92.6	87.9 - 111		%Rec	1	6/9/2020 7:58:55 PM
Surr: 1-Bromo-4-fluorobenzene	99.1	85.1 - 111		%Rec	1	6/9/2020 7:58:55 PM
Sample Moisture (Percent Moisture)				Batch ID: R59723		Analyst: CG
Percent Moisture	9.82	0.500		wt%	1	6/10/2020 12:42:46 PM

Analytical Report

Work Order: **2006155**
Date Reported: **6/10/2020**

Client: O'Neill Service Group
Collection Date: 6/9/2020 1:45:00 PM
Project: F200
Lab ID: 2006155-002
Matrix: Soil
Client Sample ID: 358-PH1-2

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28609 Analyst: CR

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0196		mg/Kg-dry	1	6/9/2020 8:29:03 PM
Chloromethane	ND	0.0489		mg/Kg-dry	1	6/9/2020 8:29:03 PM
Vinyl chloride	ND	0.0244		mg/Kg-dry	1	6/9/2020 8:29:03 PM
Bromomethane	ND	0.0489		mg/Kg-dry	1	6/9/2020 8:29:03 PM
Trichlorofluoromethane (CFC-11)	ND	0.0196		mg/Kg-dry	1	6/9/2020 8:29:03 PM
Chloroethane	ND	0.0489		mg/Kg-dry	1	6/9/2020 8:29:03 PM
1,1-Dichloroethene	ND	0.0196		mg/Kg-dry	1	6/9/2020 8:29:03 PM
Methylene chloride	ND	0.0196		mg/Kg-dry	1	6/9/2020 8:29:03 PM
trans-1,2-Dichloroethene	ND	0.0196		mg/Kg-dry	1	6/9/2020 8:29:03 PM
1,1-Dichloroethane	ND	0.0196		mg/Kg-dry	1	6/9/2020 8:29:03 PM
cis-1,2-Dichloroethene	ND	0.0196		mg/Kg-dry	1	6/9/2020 8:29:03 PM
Chloroform	ND	0.0196		mg/Kg-dry	1	6/9/2020 8:29:03 PM
1,1,1-Trichloroethane (TCA)	ND	0.0244		mg/Kg-dry	1	6/9/2020 8:29:03 PM
1,1-Dichloropropene	ND	0.0196		mg/Kg-dry	1	6/9/2020 8:29:03 PM
Carbon tetrachloride	ND	0.0244		mg/Kg-dry	1	6/9/2020 8:29:03 PM
1,2-Dichloroethane (EDC)	ND	0.0196		mg/Kg-dry	1	6/9/2020 8:29:03 PM
Trichloroethene (TCE)	ND	0.0196		mg/Kg-dry	1	6/9/2020 8:29:03 PM
1,2-Dichloropropane	ND	0.0196		mg/Kg-dry	1	6/9/2020 8:29:03 PM
Bromodichloromethane	ND	0.0196		mg/Kg-dry	1	6/9/2020 8:29:03 PM
Dibromomethane	ND	0.0196		mg/Kg-dry	1	6/9/2020 8:29:03 PM
cis-1,3-Dichloropropene	ND	0.0196		mg/Kg-dry	1	6/9/2020 8:29:03 PM
trans-1,3-Dichloropropylene	ND	0.0196		mg/Kg-dry	1	6/9/2020 8:29:03 PM
1,1,2-Trichloroethane	ND	0.0196		mg/Kg-dry	1	6/9/2020 8:29:03 PM
1,3-Dichloropropane	ND	0.0244		mg/Kg-dry	1	6/9/2020 8:29:03 PM
Tetrachloroethene (PCE)	ND	0.0244		mg/Kg-dry	1	6/9/2020 8:29:03 PM
Dibromochloromethane	ND	0.0244		mg/Kg-dry	1	6/9/2020 8:29:03 PM
1,2-Dibromoethane (EDB)	ND	0.00489		mg/Kg-dry	1	6/9/2020 8:29:03 PM
Chlorobenzene	ND	0.0244		mg/Kg-dry	1	6/9/2020 8:29:03 PM
1,1,1,2-Tetrachloroethane	ND	0.0244		mg/Kg-dry	1	6/9/2020 8:29:03 PM
Bromoform	ND	0.0489		mg/Kg-dry	1	6/9/2020 8:29:03 PM
1,1,2,2-Tetrachloroethane	ND	0.0196		mg/Kg-dry	1	6/9/2020 8:29:03 PM
Bromobenzene	ND	0.0196		mg/Kg-dry	1	6/9/2020 8:29:03 PM
2-Chlorotoluene	ND	0.0244		mg/Kg-dry	1	6/9/2020 8:29:03 PM
4-Chlorotoluene	ND	0.0244		mg/Kg-dry	1	6/9/2020 8:29:03 PM
1,2,3-Trichloropropane	ND	0.0244		mg/Kg-dry	1	6/9/2020 8:29:03 PM
1,2,4-Trichlorobenzene	ND	0.0244		mg/Kg-dry	1	6/9/2020 8:29:03 PM
1,3-Dichlorobenzene	ND	0.0196		mg/Kg-dry	1	6/9/2020 8:29:03 PM
1,4-Dichlorobenzene	ND	0.0196		mg/Kg-dry	1	6/9/2020 8:29:03 PM
1,2-Dichlorobenzene	ND	0.0196		mg/Kg-dry	1	6/9/2020 8:29:03 PM

Analytical Report

Work Order: **2006155**
Date Reported: **6/10/2020**

Client: O'Neill Service Group
Collection Date: 6/9/2020 1:45:00 PM
Project: F200
Lab ID: 2006155-002
Matrix: Soil
Client Sample ID: 358-PH1-2

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28609		Analyst: CR
1,2-Dibromo-3-chloropropane	ND	0.489		mg/Kg-dry	1	6/9/2020 8:29:03 PM
Hexachloro-1,3-butadiene	ND	0.0489		mg/Kg-dry	1	6/9/2020 8:29:03 PM
1,2,3-Trichlorobenzene	ND	0.0196		mg/Kg-dry	1	6/9/2020 8:29:03 PM
Surr: Dibromofluoromethane	97.0	83.3 - 111		%Rec	1	6/9/2020 8:29:03 PM
Surr: Toluene-d8	93.4	87.9 - 111		%Rec	1	6/9/2020 8:29:03 PM
Surr: 1-Bromo-4-fluorobenzene	98.5	85.1 - 111		%Rec	1	6/9/2020 8:29:03 PM
Sample Moisture (Percent Moisture)				Batch ID: R59723		Analyst: CG
Percent Moisture	9.22	0.500		wt%	1	6/10/2020 12:42:46 PM

Analytical Report

Work Order: **2006155**
Date Reported: **6/10/2020**

Client: O'Neill Service Group
Collection Date: 6/9/2020 1:50:00 PM
Project: F200
Lab ID: 2006155-003
Matrix: Soil
Client Sample ID: 358-PH1-4

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28609 Analyst: CR

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0204		mg/Kg-dry	1	6/9/2020 8:59:14 PM
Chloromethane	ND	0.0509		mg/Kg-dry	1	6/9/2020 8:59:14 PM
Vinyl chloride	ND	0.0255		mg/Kg-dry	1	6/9/2020 8:59:14 PM
Bromomethane	ND	0.0509		mg/Kg-dry	1	6/9/2020 8:59:14 PM
Trichlorofluoromethane (CFC-11)	ND	0.0204		mg/Kg-dry	1	6/9/2020 8:59:14 PM
Chloroethane	ND	0.0509		mg/Kg-dry	1	6/9/2020 8:59:14 PM
1,1-Dichloroethene	ND	0.0204		mg/Kg-dry	1	6/9/2020 8:59:14 PM
Methylene chloride	ND	0.0204		mg/Kg-dry	1	6/9/2020 8:59:14 PM
trans-1,2-Dichloroethene	ND	0.0204		mg/Kg-dry	1	6/9/2020 8:59:14 PM
1,1-Dichloroethane	ND	0.0204		mg/Kg-dry	1	6/9/2020 8:59:14 PM
cis-1,2-Dichloroethene	0.0233	0.0204		mg/Kg-dry	1	6/9/2020 8:59:14 PM
Chloroform	ND	0.0204		mg/Kg-dry	1	6/9/2020 8:59:14 PM
1,1,1-Trichloroethane (TCA)	ND	0.0255		mg/Kg-dry	1	6/9/2020 8:59:14 PM
1,1-Dichloropropene	ND	0.0204		mg/Kg-dry	1	6/9/2020 8:59:14 PM
Carbon tetrachloride	ND	0.0255		mg/Kg-dry	1	6/9/2020 8:59:14 PM
1,2-Dichloroethane (EDC)	ND	0.0204		mg/Kg-dry	1	6/9/2020 8:59:14 PM
Trichloroethene (TCE)	ND	0.0204		mg/Kg-dry	1	6/9/2020 8:59:14 PM
1,2-Dichloropropane	ND	0.0204		mg/Kg-dry	1	6/9/2020 8:59:14 PM
Bromodichloromethane	ND	0.0204		mg/Kg-dry	1	6/9/2020 8:59:14 PM
Dibromomethane	ND	0.0204		mg/Kg-dry	1	6/9/2020 8:59:14 PM
cis-1,3-Dichloropropene	ND	0.0204		mg/Kg-dry	1	6/9/2020 8:59:14 PM
trans-1,3-Dichloropropylene	ND	0.0204		mg/Kg-dry	1	6/9/2020 8:59:14 PM
1,1,2-Trichloroethane	ND	0.0204		mg/Kg-dry	1	6/9/2020 8:59:14 PM
1,3-Dichloropropane	ND	0.0255		mg/Kg-dry	1	6/9/2020 8:59:14 PM
Tetrachloroethene (PCE)	ND	0.0255		mg/Kg-dry	1	6/9/2020 8:59:14 PM
Dibromochloromethane	ND	0.0255		mg/Kg-dry	1	6/9/2020 8:59:14 PM
1,2-Dibromoethane (EDB)	ND	0.00509		mg/Kg-dry	1	6/9/2020 8:59:14 PM
Chlorobenzene	ND	0.0255		mg/Kg-dry	1	6/9/2020 8:59:14 PM
1,1,1,2-Tetrachloroethane	ND	0.0255		mg/Kg-dry	1	6/9/2020 8:59:14 PM
Bromoform	ND	0.0509		mg/Kg-dry	1	6/9/2020 8:59:14 PM
1,1,2,2-Tetrachloroethane	ND	0.0204		mg/Kg-dry	1	6/9/2020 8:59:14 PM
Bromobenzene	ND	0.0204		mg/Kg-dry	1	6/9/2020 8:59:14 PM
2-Chlorotoluene	ND	0.0255		mg/Kg-dry	1	6/9/2020 8:59:14 PM
4-Chlorotoluene	ND	0.0255		mg/Kg-dry	1	6/9/2020 8:59:14 PM
1,2,3-Trichloropropane	ND	0.0255		mg/Kg-dry	1	6/9/2020 8:59:14 PM
1,2,4-Trichlorobenzene	ND	0.0255		mg/Kg-dry	1	6/9/2020 8:59:14 PM
1,3-Dichlorobenzene	ND	0.0204		mg/Kg-dry	1	6/9/2020 8:59:14 PM
1,4-Dichlorobenzene	ND	0.0204		mg/Kg-dry	1	6/9/2020 8:59:14 PM
1,2-Dichlorobenzene	ND	0.0204		mg/Kg-dry	1	6/9/2020 8:59:14 PM

Analytical Report

Work Order: **2006155**
Date Reported: **6/10/2020**

Client: O'Neill Service Group
Collection Date: 6/9/2020 1:50:00 PM
Project: F200
Lab ID: 2006155-003
Matrix: Soil
Client Sample ID: 358-PH1-4

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28609		Analyst: CR
1,2-Dibromo-3-chloropropane	ND	0.509		mg/Kg-dry	1	6/9/2020 8:59:14 PM
Hexachloro-1,3-butadiene	ND	0.0509		mg/Kg-dry	1	6/9/2020 8:59:14 PM
1,2,3-Trichlorobenzene	ND	0.0204		mg/Kg-dry	1	6/9/2020 8:59:14 PM
Surr: Dibromofluoromethane	97.4	83.3 - 111		%Rec	1	6/9/2020 8:59:14 PM
Surr: Toluene-d8	98.1	87.9 - 111		%Rec	1	6/9/2020 8:59:14 PM
Surr: 1-Bromo-4-fluorobenzene	98.2	85.1 - 111		%Rec	1	6/9/2020 8:59:14 PM
Sample Moisture (Percent Moisture)				Batch ID: R59723		Analyst: CG
Percent Moisture	9.57	0.500		wt%	1	6/10/2020 12:42:46 PM

Analytical Report

Work Order: **2006155**
Date Reported: **6/10/2020**

Client: O'Neill Service Group
Collection Date: 6/9/2020 1:55:00 PM
Project: F200
Lab ID: 2006155-004
Matrix: Soil
Client Sample ID: 358-PH1-7

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28609 Analyst: CR

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0224		mg/Kg-dry	1	6/9/2020 9:29:20 PM
Chloromethane	ND	0.0561		mg/Kg-dry	1	6/9/2020 9:29:20 PM
Vinyl chloride	ND	0.0280		mg/Kg-dry	1	6/9/2020 9:29:20 PM
Bromomethane	ND	0.0561		mg/Kg-dry	1	6/9/2020 9:29:20 PM
Trichlorofluoromethane (CFC-11)	ND	0.0224		mg/Kg-dry	1	6/9/2020 9:29:20 PM
Chloroethane	ND	0.0561		mg/Kg-dry	1	6/9/2020 9:29:20 PM
1,1-Dichloroethene	ND	0.0224		mg/Kg-dry	1	6/9/2020 9:29:20 PM
Methylene chloride	ND	0.0224		mg/Kg-dry	1	6/9/2020 9:29:20 PM
trans-1,2-Dichloroethene	ND	0.0224		mg/Kg-dry	1	6/9/2020 9:29:20 PM
1,1-Dichloroethane	ND	0.0224		mg/Kg-dry	1	6/9/2020 9:29:20 PM
cis-1,2-Dichloroethene	ND	0.0224		mg/Kg-dry	1	6/9/2020 9:29:20 PM
Chloroform	ND	0.0224		mg/Kg-dry	1	6/9/2020 9:29:20 PM
1,1,1-Trichloroethane (TCA)	ND	0.0280		mg/Kg-dry	1	6/9/2020 9:29:20 PM
1,1-Dichloropropene	ND	0.0224		mg/Kg-dry	1	6/9/2020 9:29:20 PM
Carbon tetrachloride	ND	0.0280		mg/Kg-dry	1	6/9/2020 9:29:20 PM
1,2-Dichloroethane (EDC)	ND	0.0224		mg/Kg-dry	1	6/9/2020 9:29:20 PM
Trichloroethene (TCE)	ND	0.0224		mg/Kg-dry	1	6/9/2020 9:29:20 PM
1,2-Dichloropropane	ND	0.0224		mg/Kg-dry	1	6/9/2020 9:29:20 PM
Bromodichloromethane	ND	0.0224		mg/Kg-dry	1	6/9/2020 9:29:20 PM
Dibromomethane	ND	0.0224		mg/Kg-dry	1	6/9/2020 9:29:20 PM
cis-1,3-Dichloropropene	ND	0.0224		mg/Kg-dry	1	6/9/2020 9:29:20 PM
trans-1,3-Dichloropropylene	ND	0.0224		mg/Kg-dry	1	6/9/2020 9:29:20 PM
1,1,2-Trichloroethane	ND	0.0224		mg/Kg-dry	1	6/9/2020 9:29:20 PM
1,3-Dichloropropane	ND	0.0280		mg/Kg-dry	1	6/9/2020 9:29:20 PM
Tetrachloroethene (PCE)	ND	0.0280		mg/Kg-dry	1	6/9/2020 9:29:20 PM
Dibromochloromethane	ND	0.0280		mg/Kg-dry	1	6/9/2020 9:29:20 PM
1,2-Dibromoethane (EDB)	ND	0.00561		mg/Kg-dry	1	6/9/2020 9:29:20 PM
Chlorobenzene	ND	0.0280		mg/Kg-dry	1	6/9/2020 9:29:20 PM
1,1,1,2-Tetrachloroethane	ND	0.0280		mg/Kg-dry	1	6/9/2020 9:29:20 PM
Bromoform	ND	0.0561		mg/Kg-dry	1	6/9/2020 9:29:20 PM
1,1,2,2-Tetrachloroethane	ND	0.0224		mg/Kg-dry	1	6/9/2020 9:29:20 PM
Bromobenzene	ND	0.0224		mg/Kg-dry	1	6/9/2020 9:29:20 PM
2-Chlorotoluene	ND	0.0280		mg/Kg-dry	1	6/9/2020 9:29:20 PM
4-Chlorotoluene	ND	0.0280		mg/Kg-dry	1	6/9/2020 9:29:20 PM
1,2,3-Trichloropropane	ND	0.0280		mg/Kg-dry	1	6/9/2020 9:29:20 PM
1,2,4-Trichlorobenzene	ND	0.0280		mg/Kg-dry	1	6/9/2020 9:29:20 PM
1,3-Dichlorobenzene	ND	0.0224		mg/Kg-dry	1	6/9/2020 9:29:20 PM
1,4-Dichlorobenzene	ND	0.0224		mg/Kg-dry	1	6/9/2020 9:29:20 PM
1,2-Dichlorobenzene	ND	0.0224		mg/Kg-dry	1	6/9/2020 9:29:20 PM

Analytical Report

Work Order: **2006155**
Date Reported: **6/10/2020**

Client: O'Neill Service Group
Collection Date: 6/9/2020 1:55:00 PM
Project: F200
Lab ID: 2006155-004
Matrix: Soil
Client Sample ID: 358-PH1-7

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28609		Analyst: CR
1,2-Dibromo-3-chloropropane	ND	0.561		mg/Kg-dry	1	6/9/2020 9:29:20 PM
Hexachloro-1,3-butadiene	ND	0.0561		mg/Kg-dry	1	6/9/2020 9:29:20 PM
1,2,3-Trichlorobenzene	ND	0.0224		mg/Kg-dry	1	6/9/2020 9:29:20 PM
Surr: Dibromofluoromethane	97.5	83.3 - 111		%Rec	1	6/9/2020 9:29:20 PM
Surr: Toluene-d8	93.6	87.9 - 111		%Rec	1	6/9/2020 9:29:20 PM
Surr: 1-Bromo-4-fluorobenzene	99.2	85.1 - 111		%Rec	1	6/9/2020 9:29:20 PM
Sample Moisture (Percent Moisture)				Batch ID: R59723		Analyst: CG
Percent Moisture	10.4	0.500		wt%	1	6/10/2020 12:42:46 PM

Analytical Report

Work Order: **2006155**
Date Reported: **6/10/2020**

Client: O'Neill Service Group
Collection Date: 6/9/2020 2:00:00 PM
Project: F200
Lab ID: 2006155-005
Matrix: Soil
Client Sample ID: 358-PH1-10

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28609 Analyst: CR

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0180		mg/Kg-dry	1	6/9/2020 9:59:27 PM
Chloromethane	ND	0.0451		mg/Kg-dry	1	6/9/2020 9:59:27 PM
Vinyl chloride	ND	0.0226		mg/Kg-dry	1	6/9/2020 9:59:27 PM
Bromomethane	ND	0.0451		mg/Kg-dry	1	6/9/2020 9:59:27 PM
Trichlorofluoromethane (CFC-11)	ND	0.0180		mg/Kg-dry	1	6/9/2020 9:59:27 PM
Chloroethane	ND	0.0451		mg/Kg-dry	1	6/9/2020 9:59:27 PM
1,1-Dichloroethene	ND	0.0180		mg/Kg-dry	1	6/9/2020 9:59:27 PM
Methylene chloride	ND	0.0180		mg/Kg-dry	1	6/9/2020 9:59:27 PM
trans-1,2-Dichloroethene	ND	0.0180		mg/Kg-dry	1	6/9/2020 9:59:27 PM
1,1-Dichloroethane	ND	0.0180		mg/Kg-dry	1	6/9/2020 9:59:27 PM
cis-1,2-Dichloroethene	ND	0.0180		mg/Kg-dry	1	6/9/2020 9:59:27 PM
Chloroform	ND	0.0180		mg/Kg-dry	1	6/9/2020 9:59:27 PM
1,1,1-Trichloroethane (TCA)	ND	0.0226		mg/Kg-dry	1	6/9/2020 9:59:27 PM
1,1-Dichloropropene	ND	0.0180		mg/Kg-dry	1	6/9/2020 9:59:27 PM
Carbon tetrachloride	ND	0.0226		mg/Kg-dry	1	6/9/2020 9:59:27 PM
1,2-Dichloroethane (EDC)	ND	0.0180		mg/Kg-dry	1	6/9/2020 9:59:27 PM
Trichloroethene (TCE)	ND	0.0180		mg/Kg-dry	1	6/9/2020 9:59:27 PM
1,2-Dichloropropane	ND	0.0180		mg/Kg-dry	1	6/9/2020 9:59:27 PM
Bromodichloromethane	ND	0.0180		mg/Kg-dry	1	6/9/2020 9:59:27 PM
Dibromomethane	ND	0.0180		mg/Kg-dry	1	6/9/2020 9:59:27 PM
cis-1,3-Dichloropropene	ND	0.0180		mg/Kg-dry	1	6/9/2020 9:59:27 PM
trans-1,3-Dichloropropylene	ND	0.0180		mg/Kg-dry	1	6/9/2020 9:59:27 PM
1,1,2-Trichloroethane	ND	0.0180		mg/Kg-dry	1	6/9/2020 9:59:27 PM
1,3-Dichloropropane	ND	0.0226		mg/Kg-dry	1	6/9/2020 9:59:27 PM
Tetrachloroethene (PCE)	ND	0.0226		mg/Kg-dry	1	6/9/2020 9:59:27 PM
Dibromochloromethane	ND	0.0226		mg/Kg-dry	1	6/9/2020 9:59:27 PM
1,2-Dibromoethane (EDB)	ND	0.00451		mg/Kg-dry	1	6/9/2020 9:59:27 PM
Chlorobenzene	ND	0.0226		mg/Kg-dry	1	6/9/2020 9:59:27 PM
1,1,1,2-Tetrachloroethane	ND	0.0226		mg/Kg-dry	1	6/9/2020 9:59:27 PM
Bromoform	ND	0.0451		mg/Kg-dry	1	6/9/2020 9:59:27 PM
1,1,2,2-Tetrachloroethane	ND	0.0180		mg/Kg-dry	1	6/9/2020 9:59:27 PM
Bromobenzene	ND	0.0180		mg/Kg-dry	1	6/9/2020 9:59:27 PM
2-Chlorotoluene	ND	0.0226		mg/Kg-dry	1	6/9/2020 9:59:27 PM
4-Chlorotoluene	ND	0.0226		mg/Kg-dry	1	6/9/2020 9:59:27 PM
1,2,3-Trichloropropane	ND	0.0226		mg/Kg-dry	1	6/9/2020 9:59:27 PM
1,2,4-Trichlorobenzene	ND	0.0226		mg/Kg-dry	1	6/9/2020 9:59:27 PM
1,3-Dichlorobenzene	ND	0.0180		mg/Kg-dry	1	6/9/2020 9:59:27 PM
1,4-Dichlorobenzene	ND	0.0180		mg/Kg-dry	1	6/9/2020 9:59:27 PM
1,2-Dichlorobenzene	ND	0.0180		mg/Kg-dry	1	6/9/2020 9:59:27 PM

Analytical Report

Work Order: **2006155**
Date Reported: **6/10/2020**

Client: O'Neill Service Group
Collection Date: 6/9/2020 2:00:00 PM
Project: F200
Lab ID: 2006155-005
Matrix: Soil
Client Sample ID: 358-PH1-10

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28609		Analyst: CR
1,2-Dibromo-3-chloropropane	ND	0.451		mg/Kg-dry	1	6/9/2020 9:59:27 PM
Hexachloro-1,3-butadiene	ND	0.0451		mg/Kg-dry	1	6/9/2020 9:59:27 PM
1,2,3-Trichlorobenzene	ND	0.0180		mg/Kg-dry	1	6/9/2020 9:59:27 PM
Surr: Dibromofluoromethane	95.9	83.3 - 111		%Rec	1	6/9/2020 9:59:27 PM
Surr: Toluene-d8	93.5	87.9 - 111		%Rec	1	6/9/2020 9:59:27 PM
Surr: 1-Bromo-4-fluorobenzene	98.5	85.1 - 111		%Rec	1	6/9/2020 9:59:27 PM
Sample Moisture (Percent Moisture)				Batch ID: R59723		Analyst: CG
Percent Moisture	8.97	0.500		wt%	1	6/10/2020 12:42:46 PM

Analytical Report

Work Order: **2006155**
Date Reported: **6/10/2020**

Client: O'Neill Service Group
Collection Date: 6/9/2020 2:15:00 PM
Project: F200
Lab ID: 2006155-006
Matrix: Soil
Client Sample ID: 358-PH3-1

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28609 Analyst: CR

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0244		mg/Kg-dry	1	6/9/2020 10:29:38 PM
Chloromethane	ND	0.0610		mg/Kg-dry	1	6/9/2020 10:29:38 PM
Vinyl chloride	ND	0.0305		mg/Kg-dry	1	6/9/2020 10:29:38 PM
Bromomethane	ND	0.0610		mg/Kg-dry	1	6/9/2020 10:29:38 PM
Trichlorofluoromethane (CFC-11)	ND	0.0244		mg/Kg-dry	1	6/9/2020 10:29:38 PM
Chloroethane	ND	0.0610		mg/Kg-dry	1	6/9/2020 10:29:38 PM
1,1-Dichloroethene	ND	0.0244		mg/Kg-dry	1	6/9/2020 10:29:38 PM
Methylene chloride	ND	0.0244		mg/Kg-dry	1	6/9/2020 10:29:38 PM
trans-1,2-Dichloroethene	ND	0.0244		mg/Kg-dry	1	6/9/2020 10:29:38 PM
1,1-Dichloroethane	ND	0.0244		mg/Kg-dry	1	6/9/2020 10:29:38 PM
cis-1,2-Dichloroethene	ND	0.0244		mg/Kg-dry	1	6/9/2020 10:29:38 PM
Chloroform	ND	0.0244		mg/Kg-dry	1	6/9/2020 10:29:38 PM
1,1,1-Trichloroethane (TCA)	ND	0.0305		mg/Kg-dry	1	6/9/2020 10:29:38 PM
1,1-Dichloropropene	ND	0.0244		mg/Kg-dry	1	6/9/2020 10:29:38 PM
Carbon tetrachloride	ND	0.0305		mg/Kg-dry	1	6/9/2020 10:29:38 PM
1,2-Dichloroethane (EDC)	ND	0.0244		mg/Kg-dry	1	6/9/2020 10:29:38 PM
Trichloroethene (TCE)	ND	0.0244		mg/Kg-dry	1	6/9/2020 10:29:38 PM
1,2-Dichloropropane	ND	0.0244		mg/Kg-dry	1	6/9/2020 10:29:38 PM
Bromodichloromethane	ND	0.0244		mg/Kg-dry	1	6/9/2020 10:29:38 PM
Dibromomethane	ND	0.0244		mg/Kg-dry	1	6/9/2020 10:29:38 PM
cis-1,3-Dichloropropene	ND	0.0244		mg/Kg-dry	1	6/9/2020 10:29:38 PM
trans-1,3-Dichloropropylene	ND	0.0244		mg/Kg-dry	1	6/9/2020 10:29:38 PM
1,1,2-Trichloroethane	ND	0.0244		mg/Kg-dry	1	6/9/2020 10:29:38 PM
1,3-Dichloropropane	ND	0.0305		mg/Kg-dry	1	6/9/2020 10:29:38 PM
Tetrachloroethene (PCE)	ND	0.0305		mg/Kg-dry	1	6/9/2020 10:29:38 PM
Dibromochloromethane	ND	0.0305		mg/Kg-dry	1	6/9/2020 10:29:38 PM
1,2-Dibromoethane (EDB)	ND	0.00610		mg/Kg-dry	1	6/9/2020 10:29:38 PM
Chlorobenzene	ND	0.0305		mg/Kg-dry	1	6/9/2020 10:29:38 PM
1,1,1,2-Tetrachloroethane	ND	0.0305		mg/Kg-dry	1	6/9/2020 10:29:38 PM
Bromoform	ND	0.0610		mg/Kg-dry	1	6/9/2020 10:29:38 PM
1,1,2,2-Tetrachloroethane	ND	0.0244		mg/Kg-dry	1	6/9/2020 10:29:38 PM
Bromobenzene	ND	0.0244		mg/Kg-dry	1	6/9/2020 10:29:38 PM
2-Chlorotoluene	ND	0.0305		mg/Kg-dry	1	6/9/2020 10:29:38 PM
4-Chlorotoluene	ND	0.0305		mg/Kg-dry	1	6/9/2020 10:29:38 PM
1,2,3-Trichloropropane	ND	0.0305		mg/Kg-dry	1	6/9/2020 10:29:38 PM
1,2,4-Trichlorobenzene	ND	0.0305		mg/Kg-dry	1	6/9/2020 10:29:38 PM
1,3-Dichlorobenzene	ND	0.0244		mg/Kg-dry	1	6/9/2020 10:29:38 PM
1,4-Dichlorobenzene	ND	0.0244		mg/Kg-dry	1	6/9/2020 10:29:38 PM
1,2-Dichlorobenzene	ND	0.0244		mg/Kg-dry	1	6/9/2020 10:29:38 PM

Analytical Report

Work Order: **2006155**
Date Reported: **6/10/2020**

Client: O'Neill Service Group
Collection Date: 6/9/2020 2:15:00 PM
Project: F200
Lab ID: 2006155-006
Matrix: Soil
Client Sample ID: 358-PH3-1

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28609		Analyst: CR
1,2-Dibromo-3-chloropropane	ND	0.610		mg/Kg-dry	1	6/9/2020 10:29:38 PM
Hexachloro-1,3-butadiene	ND	0.0610		mg/Kg-dry	1	6/9/2020 10:29:38 PM
1,2,3-Trichlorobenzene	ND	0.0244		mg/Kg-dry	1	6/9/2020 10:29:38 PM
Surr: Dibromofluoromethane	94.6	83.3 - 111		%Rec	1	6/9/2020 10:29:38 PM
Surr: Toluene-d8	92.0	87.9 - 111		%Rec	1	6/9/2020 10:29:38 PM
Surr: 1-Bromo-4-fluorobenzene	98.3	85.1 - 111		%Rec	1	6/9/2020 10:29:38 PM
Sample Moisture (Percent Moisture)				Batch ID: R59723		Analyst: CG
Percent Moisture	8.99	0.500		wt%	1	6/10/2020 12:42:46 PM

Analytical Report

Work Order: **2006155**
Date Reported: **6/10/2020**

Client: O'Neill Service Group
Collection Date: 6/9/2020 2:15:00 PM
Project: F200
Lab ID: 2006155-007
Matrix: Soil
Client Sample ID: 358-PH3-2

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28609 Analyst: CR

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0237		mg/Kg-dry	1	6/9/2020 10:59:46 PM
Chloromethane	ND	0.0592		mg/Kg-dry	1	6/9/2020 10:59:46 PM
Vinyl chloride	ND	0.0296		mg/Kg-dry	1	6/9/2020 10:59:46 PM
Bromomethane	ND	0.0592		mg/Kg-dry	1	6/9/2020 10:59:46 PM
Trichlorofluoromethane (CFC-11)	ND	0.0237		mg/Kg-dry	1	6/9/2020 10:59:46 PM
Chloroethane	ND	0.0592		mg/Kg-dry	1	6/9/2020 10:59:46 PM
1,1-Dichloroethene	ND	0.0237		mg/Kg-dry	1	6/9/2020 10:59:46 PM
Methylene chloride	ND	0.0237		mg/Kg-dry	1	6/9/2020 10:59:46 PM
trans-1,2-Dichloroethene	ND	0.0237		mg/Kg-dry	1	6/9/2020 10:59:46 PM
1,1-Dichloroethane	ND	0.0237		mg/Kg-dry	1	6/9/2020 10:59:46 PM
cis-1,2-Dichloroethene	ND	0.0237		mg/Kg-dry	1	6/9/2020 10:59:46 PM
Chloroform	ND	0.0237		mg/Kg-dry	1	6/9/2020 10:59:46 PM
1,1,1-Trichloroethane (TCA)	ND	0.0296		mg/Kg-dry	1	6/9/2020 10:59:46 PM
1,1-Dichloropropene	ND	0.0237		mg/Kg-dry	1	6/9/2020 10:59:46 PM
Carbon tetrachloride	ND	0.0296		mg/Kg-dry	1	6/9/2020 10:59:46 PM
1,2-Dichloroethane (EDC)	ND	0.0237		mg/Kg-dry	1	6/9/2020 10:59:46 PM
Trichloroethene (TCE)	ND	0.0237		mg/Kg-dry	1	6/9/2020 10:59:46 PM
1,2-Dichloropropane	ND	0.0237		mg/Kg-dry	1	6/9/2020 10:59:46 PM
Bromodichloromethane	ND	0.0237		mg/Kg-dry	1	6/9/2020 10:59:46 PM
Dibromomethane	ND	0.0237		mg/Kg-dry	1	6/9/2020 10:59:46 PM
cis-1,3-Dichloropropene	ND	0.0237		mg/Kg-dry	1	6/9/2020 10:59:46 PM
trans-1,3-Dichloropropylene	ND	0.0237		mg/Kg-dry	1	6/9/2020 10:59:46 PM
1,1,2-Trichloroethane	ND	0.0237		mg/Kg-dry	1	6/9/2020 10:59:46 PM
1,3-Dichloropropane	ND	0.0296		mg/Kg-dry	1	6/9/2020 10:59:46 PM
Tetrachloroethene (PCE)	ND	0.0296		mg/Kg-dry	1	6/9/2020 10:59:46 PM
Dibromochloromethane	ND	0.0296		mg/Kg-dry	1	6/9/2020 10:59:46 PM
1,2-Dibromoethane (EDB)	ND	0.00592		mg/Kg-dry	1	6/9/2020 10:59:46 PM
Chlorobenzene	ND	0.0296		mg/Kg-dry	1	6/9/2020 10:59:46 PM
1,1,1,2-Tetrachloroethane	ND	0.0296		mg/Kg-dry	1	6/9/2020 10:59:46 PM
Bromoform	ND	0.0592		mg/Kg-dry	1	6/9/2020 10:59:46 PM
1,1,2,2-Tetrachloroethane	ND	0.0237		mg/Kg-dry	1	6/9/2020 10:59:46 PM
Bromobenzene	ND	0.0237		mg/Kg-dry	1	6/9/2020 10:59:46 PM
2-Chlorotoluene	ND	0.0296		mg/Kg-dry	1	6/9/2020 10:59:46 PM
4-Chlorotoluene	ND	0.0296		mg/Kg-dry	1	6/9/2020 10:59:46 PM
1,2,3-Trichloropropane	ND	0.0296		mg/Kg-dry	1	6/9/2020 10:59:46 PM
1,2,4-Trichlorobenzene	ND	0.0296		mg/Kg-dry	1	6/9/2020 10:59:46 PM
1,3-Dichlorobenzene	ND	0.0237		mg/Kg-dry	1	6/9/2020 10:59:46 PM
1,4-Dichlorobenzene	ND	0.0237		mg/Kg-dry	1	6/9/2020 10:59:46 PM
1,2-Dichlorobenzene	ND	0.0237		mg/Kg-dry	1	6/9/2020 10:59:46 PM

Analytical Report

Work Order: **2006155**
Date Reported: **6/10/2020**

Client: O'Neill Service Group
Collection Date: 6/9/2020 2:15:00 PM
Project: F200
Lab ID: 2006155-007
Matrix: Soil
Client Sample ID: 358-PH3-2

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28609		Analyst: CR
1,2-Dibromo-3-chloropropane	ND	0.592		mg/Kg-dry	1	6/9/2020 10:59:46 PM
Hexachloro-1,3-butadiene	ND	0.0592		mg/Kg-dry	1	6/9/2020 10:59:46 PM
1,2,3-Trichlorobenzene	ND	0.0237		mg/Kg-dry	1	6/9/2020 10:59:46 PM
Surr: Dibromofluoromethane	95.6	83.3 - 111		%Rec	1	6/9/2020 10:59:46 PM
Surr: Toluene-d8	92.2	87.9 - 111		%Rec	1	6/9/2020 10:59:46 PM
Surr: 1-Bromo-4-fluorobenzene	98.9	85.1 - 111		%Rec	1	6/9/2020 10:59:46 PM
Sample Moisture (Percent Moisture)				Batch ID: R59723		Analyst: CG
Percent Moisture	9.47	0.500		wt%	1	6/10/2020 12:42:46 PM

Analytical Report

Work Order: **2006155**
Date Reported: **6/10/2020**

Client: O'Neill Service Group
Collection Date: 6/9/2020 2:20:00 PM
Project: F200
Lab ID: 2006155-008
Matrix: Soil
Client Sample ID: 358-PH3-4

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28609 Analyst: CR

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0224		mg/Kg-dry	1	6/9/2020 11:29:56 PM
Chloromethane	ND	0.0560		mg/Kg-dry	1	6/9/2020 11:29:56 PM
Vinyl chloride	0.120	0.0280		mg/Kg-dry	1	6/9/2020 11:29:56 PM
Bromomethane	ND	0.0560		mg/Kg-dry	1	6/9/2020 11:29:56 PM
Trichlorofluoromethane (CFC-11)	ND	0.0224		mg/Kg-dry	1	6/9/2020 11:29:56 PM
Chloroethane	ND	0.0560		mg/Kg-dry	1	6/9/2020 11:29:56 PM
1,1-Dichloroethene	ND	0.0224		mg/Kg-dry	1	6/9/2020 11:29:56 PM
Methylene chloride	ND	0.0224		mg/Kg-dry	1	6/9/2020 11:29:56 PM
trans-1,2-Dichloroethene	0.153	0.0224		mg/Kg-dry	1	6/9/2020 11:29:56 PM
1,1-Dichloroethane	ND	0.0224		mg/Kg-dry	1	6/9/2020 11:29:56 PM
cis-1,2-Dichloroethene	5.71	0.224	D	mg/Kg-dry	10	6/10/2020 7:40:43 AM
Chloroform	ND	0.0224		mg/Kg-dry	1	6/9/2020 11:29:56 PM
1,1,1-Trichloroethane (TCA)	ND	0.0280		mg/Kg-dry	1	6/9/2020 11:29:56 PM
1,1-Dichloropropene	ND	0.0224		mg/Kg-dry	1	6/9/2020 11:29:56 PM
Carbon tetrachloride	ND	0.0280		mg/Kg-dry	1	6/9/2020 11:29:56 PM
1,2-Dichloroethane (EDC)	ND	0.0224		mg/Kg-dry	1	6/9/2020 11:29:56 PM
Trichloroethene (TCE)	0.124	0.0224		mg/Kg-dry	1	6/9/2020 11:29:56 PM
1,2-Dichloropropane	ND	0.0224		mg/Kg-dry	1	6/9/2020 11:29:56 PM
Bromodichloromethane	ND	0.0224		mg/Kg-dry	1	6/9/2020 11:29:56 PM
Dibromomethane	ND	0.0224		mg/Kg-dry	1	6/9/2020 11:29:56 PM
cis-1,3-Dichloropropene	ND	0.0224		mg/Kg-dry	1	6/9/2020 11:29:56 PM
trans-1,3-Dichloropropylene	ND	0.0224		mg/Kg-dry	1	6/9/2020 11:29:56 PM
1,1,2-Trichloroethane	ND	0.0224		mg/Kg-dry	1	6/9/2020 11:29:56 PM
1,3-Dichloropropane	ND	0.0280		mg/Kg-dry	1	6/9/2020 11:29:56 PM
Tetrachloroethene (PCE)	0.269	0.0280		mg/Kg-dry	1	6/9/2020 11:29:56 PM
Dibromochloromethane	ND	0.0280		mg/Kg-dry	1	6/9/2020 11:29:56 PM
1,2-Dibromoethane (EDB)	ND	0.00560		mg/Kg-dry	1	6/9/2020 11:29:56 PM
Chlorobenzene	ND	0.0280		mg/Kg-dry	1	6/9/2020 11:29:56 PM
1,1,1,2-Tetrachloroethane	ND	0.0280		mg/Kg-dry	1	6/9/2020 11:29:56 PM
Bromoform	ND	0.0560		mg/Kg-dry	1	6/9/2020 11:29:56 PM
1,1,2,2-Tetrachloroethane	ND	0.0224		mg/Kg-dry	1	6/9/2020 11:29:56 PM
Bromobenzene	ND	0.0224		mg/Kg-dry	1	6/9/2020 11:29:56 PM
2-Chlorotoluene	ND	0.0280		mg/Kg-dry	1	6/9/2020 11:29:56 PM
4-Chlorotoluene	ND	0.0280		mg/Kg-dry	1	6/9/2020 11:29:56 PM
1,2,3-Trichloropropane	ND	0.0280		mg/Kg-dry	1	6/9/2020 11:29:56 PM
1,2,4-Trichlorobenzene	ND	0.0280		mg/Kg-dry	1	6/9/2020 11:29:56 PM
1,3-Dichlorobenzene	ND	0.0224		mg/Kg-dry	1	6/9/2020 11:29:56 PM
1,4-Dichlorobenzene	ND	0.0224		mg/Kg-dry	1	6/9/2020 11:29:56 PM
1,2-Dichlorobenzene	ND	0.0224		mg/Kg-dry	1	6/9/2020 11:29:56 PM

Analytical Report

Work Order: **2006155**
Date Reported: **6/10/2020**

Client: O'Neill Service Group
Collection Date: 6/9/2020 2:20:00 PM
Project: F200
Lab ID: 2006155-008
Matrix: Soil
Client Sample ID: 358-PH3-4

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28609		Analyst: CR
1,2-Dibromo-3-chloropropane	ND	0.560		mg/Kg-dry	1	6/9/2020 11:29:56 PM
Hexachloro-1,3-butadiene	ND	0.0560		mg/Kg-dry	1	6/9/2020 11:29:56 PM
1,2,3-Trichlorobenzene	ND	0.0224		mg/Kg-dry	1	6/9/2020 11:29:56 PM
Surr: Dibromofluoromethane	96.5	83.3 - 111		%Rec	1	6/9/2020 11:29:56 PM
Surr: Toluene-d8	94.3	87.9 - 111		%Rec	1	6/9/2020 11:29:56 PM
Surr: 1-Bromo-4-fluorobenzene	98.9	85.1 - 111		%Rec	1	6/9/2020 11:29:56 PM
Sample Moisture (Percent Moisture)				Batch ID: R59723		Analyst: CG
Percent Moisture	9.58	0.500		wt%	1	6/10/2020 12:42:46 PM

Analytical Report

Work Order: **2006155**
Date Reported: **6/10/2020**

Client: O'Neill Service Group
Collection Date: 6/9/2020 2:25:00 PM
Project: F200
Lab ID: 2006155-009
Matrix: Soil
Client Sample ID: 358-PH3-7

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28609 Analyst: CR

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0293		mg/Kg-dry	1	6/10/2020 12:00:07 AM
Chloromethane	ND	0.0732		mg/Kg-dry	1	6/10/2020 12:00:07 AM
Vinyl chloride	0.190	0.0366		mg/Kg-dry	1	6/10/2020 12:00:07 AM
Bromomethane	ND	0.0732		mg/Kg-dry	1	6/10/2020 12:00:07 AM
Trichlorofluoromethane (CFC-11)	ND	0.0293		mg/Kg-dry	1	6/10/2020 12:00:07 AM
Chloroethane	ND	0.0732		mg/Kg-dry	1	6/10/2020 12:00:07 AM
1,1-Dichloroethene	ND	0.0293		mg/Kg-dry	1	6/10/2020 12:00:07 AM
Methylene chloride	ND	0.0293		mg/Kg-dry	1	6/10/2020 12:00:07 AM
trans-1,2-Dichloroethene	0.219	0.0293		mg/Kg-dry	1	6/10/2020 12:00:07 AM
1,1-Dichloroethane	ND	0.0293		mg/Kg-dry	1	6/10/2020 12:00:07 AM
cis-1,2-Dichloroethene	10.7	0.293	D	mg/Kg-dry	10	6/10/2020 8:10:54 AM
Chloroform	ND	0.0293		mg/Kg-dry	1	6/10/2020 12:00:07 AM
1,1,1-Trichloroethane (TCA)	ND	0.0366		mg/Kg-dry	1	6/10/2020 12:00:07 AM
1,1-Dichloropropene	ND	0.0293		mg/Kg-dry	1	6/10/2020 12:00:07 AM
Carbon tetrachloride	ND	0.0366		mg/Kg-dry	1	6/10/2020 12:00:07 AM
1,2-Dichloroethane (EDC)	ND	0.0293		mg/Kg-dry	1	6/10/2020 12:00:07 AM
Trichloroethene (TCE)	ND	0.0293		mg/Kg-dry	1	6/10/2020 12:00:07 AM
1,2-Dichloropropane	ND	0.0293		mg/Kg-dry	1	6/10/2020 12:00:07 AM
Bromodichloromethane	ND	0.0293		mg/Kg-dry	1	6/10/2020 12:00:07 AM
Dibromomethane	ND	0.0293		mg/Kg-dry	1	6/10/2020 12:00:07 AM
cis-1,3-Dichloropropene	ND	0.0293		mg/Kg-dry	1	6/10/2020 12:00:07 AM
trans-1,3-Dichloropropylene	ND	0.0293		mg/Kg-dry	1	6/10/2020 12:00:07 AM
1,1,2-Trichloroethane	ND	0.0293		mg/Kg-dry	1	6/10/2020 12:00:07 AM
1,3-Dichloropropane	ND	0.0366		mg/Kg-dry	1	6/10/2020 12:00:07 AM
Tetrachloroethene (PCE)	ND	0.0366		mg/Kg-dry	1	6/10/2020 12:00:07 AM
Dibromochloromethane	ND	0.0366		mg/Kg-dry	1	6/10/2020 12:00:07 AM
1,2-Dibromoethane (EDB)	ND	0.00732		mg/Kg-dry	1	6/10/2020 12:00:07 AM
Chlorobenzene	ND	0.0366		mg/Kg-dry	1	6/10/2020 12:00:07 AM
1,1,1,2-Tetrachloroethane	ND	0.0366		mg/Kg-dry	1	6/10/2020 12:00:07 AM
Bromoform	ND	0.0732		mg/Kg-dry	1	6/10/2020 12:00:07 AM
1,1,2,2-Tetrachloroethane	ND	0.0293		mg/Kg-dry	1	6/10/2020 12:00:07 AM
Bromobenzene	ND	0.0293		mg/Kg-dry	1	6/10/2020 12:00:07 AM
2-Chlorotoluene	ND	0.0366		mg/Kg-dry	1	6/10/2020 12:00:07 AM
4-Chlorotoluene	ND	0.0366		mg/Kg-dry	1	6/10/2020 12:00:07 AM
1,2,3-Trichloropropane	ND	0.0366		mg/Kg-dry	1	6/10/2020 12:00:07 AM
1,2,4-Trichlorobenzene	ND	0.0366		mg/Kg-dry	1	6/10/2020 12:00:07 AM
1,3-Dichlorobenzene	ND	0.0293		mg/Kg-dry	1	6/10/2020 12:00:07 AM
1,4-Dichlorobenzene	ND	0.0293		mg/Kg-dry	1	6/10/2020 12:00:07 AM
1,2-Dichlorobenzene	ND	0.0293		mg/Kg-dry	1	6/10/2020 12:00:07 AM

Analytical Report

Work Order: **2006155**
Date Reported: **6/10/2020**

Client: O'Neill Service Group
Collection Date: 6/9/2020 2:25:00 PM
Project: F200
Lab ID: 2006155-009
Matrix: Soil
Client Sample ID: 358-PH3-7

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28609		Analyst: CR
1,2-Dibromo-3-chloropropane	ND	0.732		mg/Kg-dry	1	6/10/2020 12:00:07 AM
Hexachloro-1,3-butadiene	ND	0.0732		mg/Kg-dry	1	6/10/2020 12:00:07 AM
1,2,3-Trichlorobenzene	ND	0.0293		mg/Kg-dry	1	6/10/2020 12:00:07 AM
Surr: Dibromofluoromethane	96.1	83.3 - 111		%Rec	1	6/10/2020 12:00:07 AM
Surr: Toluene-d8	91.0	87.9 - 111		%Rec	1	6/10/2020 12:00:07 AM
Surr: 1-Bromo-4-fluorobenzene	98.3	85.1 - 111		%Rec	1	6/10/2020 12:00:07 AM
Sample Moisture (Percent Moisture)				Batch ID: R59723		Analyst: CG
Percent Moisture	14.7	0.500		wt%	1	6/10/2020 12:42:46 PM

Analytical Report

Work Order: **2006155**
Date Reported: **6/10/2020**

Client: O'Neill Service Group
Collection Date: 6/9/2020 2:30:00 PM
Project: F200
Lab ID: 2006155-010
Matrix: Soil
Client Sample ID: 358-PH3-10

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28609 Analyst: CR

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0209		mg/Kg-dry	1	6/10/2020 12:30:20 AM
Chloromethane	ND	0.0522		mg/Kg-dry	1	6/10/2020 12:30:20 AM
Vinyl chloride	ND	0.0261		mg/Kg-dry	1	6/10/2020 12:30:20 AM
Bromomethane	ND	0.0522		mg/Kg-dry	1	6/10/2020 12:30:20 AM
Trichlorofluoromethane (CFC-11)	ND	0.0209		mg/Kg-dry	1	6/10/2020 12:30:20 AM
Chloroethane	ND	0.0522		mg/Kg-dry	1	6/10/2020 12:30:20 AM
1,1-Dichloroethene	ND	0.0209		mg/Kg-dry	1	6/10/2020 12:30:20 AM
Methylene chloride	ND	0.0209		mg/Kg-dry	1	6/10/2020 12:30:20 AM
trans-1,2-Dichloroethene	ND	0.0209		mg/Kg-dry	1	6/10/2020 12:30:20 AM
1,1-Dichloroethane	ND	0.0209		mg/Kg-dry	1	6/10/2020 12:30:20 AM
cis-1,2-Dichloroethene	0.0407	0.0209		mg/Kg-dry	1	6/10/2020 7:10:36 AM
Chloroform	ND	0.0209		mg/Kg-dry	1	6/10/2020 12:30:20 AM
1,1,1-Trichloroethane (TCA)	ND	0.0261		mg/Kg-dry	1	6/10/2020 12:30:20 AM
1,1-Dichloropropene	ND	0.0209		mg/Kg-dry	1	6/10/2020 12:30:20 AM
Carbon tetrachloride	ND	0.0261		mg/Kg-dry	1	6/10/2020 12:30:20 AM
1,2-Dichloroethane (EDC)	ND	0.0209		mg/Kg-dry	1	6/10/2020 12:30:20 AM
Trichloroethene (TCE)	ND	0.0209		mg/Kg-dry	1	6/10/2020 12:30:20 AM
1,2-Dichloropropane	ND	0.0209		mg/Kg-dry	1	6/10/2020 12:30:20 AM
Bromodichloromethane	ND	0.0209		mg/Kg-dry	1	6/10/2020 12:30:20 AM
Dibromomethane	ND	0.0209		mg/Kg-dry	1	6/10/2020 12:30:20 AM
cis-1,3-Dichloropropene	ND	0.0209		mg/Kg-dry	1	6/10/2020 12:30:20 AM
trans-1,3-Dichloropropylene	ND	0.0209		mg/Kg-dry	1	6/10/2020 12:30:20 AM
1,1,2-Trichloroethane	ND	0.0209		mg/Kg-dry	1	6/10/2020 12:30:20 AM
1,3-Dichloropropane	ND	0.0261		mg/Kg-dry	1	6/10/2020 12:30:20 AM
Tetrachloroethene (PCE)	ND	0.0261		mg/Kg-dry	1	6/10/2020 12:30:20 AM
Dibromochloromethane	ND	0.0261		mg/Kg-dry	1	6/10/2020 12:30:20 AM
1,2-Dibromoethane (EDB)	ND	0.00522		mg/Kg-dry	1	6/10/2020 12:30:20 AM
Chlorobenzene	ND	0.0261		mg/Kg-dry	1	6/10/2020 12:30:20 AM
1,1,1,2-Tetrachloroethane	ND	0.0261		mg/Kg-dry	1	6/10/2020 12:30:20 AM
Bromoform	ND	0.0522		mg/Kg-dry	1	6/10/2020 12:30:20 AM
1,1,2,2-Tetrachloroethane	ND	0.0209		mg/Kg-dry	1	6/10/2020 12:30:20 AM
Bromobenzene	ND	0.0209		mg/Kg-dry	1	6/10/2020 12:30:20 AM
2-Chlorotoluene	ND	0.0261		mg/Kg-dry	1	6/10/2020 12:30:20 AM
4-Chlorotoluene	ND	0.0261		mg/Kg-dry	1	6/10/2020 12:30:20 AM
1,2,3-Trichloropropane	ND	0.0261		mg/Kg-dry	1	6/10/2020 12:30:20 AM
1,2,4-Trichlorobenzene	ND	0.0261		mg/Kg-dry	1	6/10/2020 12:30:20 AM
1,3-Dichlorobenzene	ND	0.0209		mg/Kg-dry	1	6/10/2020 12:30:20 AM
1,4-Dichlorobenzene	ND	0.0209		mg/Kg-dry	1	6/10/2020 12:30:20 AM
1,2-Dichlorobenzene	ND	0.0209		mg/Kg-dry	1	6/10/2020 12:30:20 AM

Analytical Report

Work Order: **2006155**
Date Reported: **6/10/2020**

Client: O'Neill Service Group
Collection Date: 6/9/2020 2:30:00 PM
Project: F200
Lab ID: 2006155-010
Matrix: Soil
Client Sample ID: 358-PH3-10

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28609		Analyst: CR
1,2-Dibromo-3-chloropropane	ND	0.522		mg/Kg-dry	1	6/10/2020 12:30:20 AM
Hexachloro-1,3-butadiene	ND	0.0522		mg/Kg-dry	1	6/10/2020 12:30:20 AM
1,2,3-Trichlorobenzene	ND	0.0209		mg/Kg-dry	1	6/10/2020 12:30:20 AM
Surr: Dibromofluoromethane	95.2	83.3 - 111		%Rec	1	6/10/2020 12:30:20 AM
Surr: Toluene-d8	95.6	87.9 - 111		%Rec	1	6/10/2020 12:30:20 AM
Surr: 1-Bromo-4-fluorobenzene	97.3	85.1 - 111		%Rec	1	6/10/2020 12:30:20 AM
Sample Moisture (Percent Moisture)				Batch ID: R59723		Analyst: CG
Percent Moisture	11.8	0.500		wt%	1	6/10/2020 12:42:46 PM

Analytical Report

Work Order: **2006155**
Date Reported: **6/10/2020**

Client: O'Neill Service Group
Collection Date: 6/9/2020 2:35:00 PM
Project: F200
Lab ID: 2006155-011
Matrix: Soil
Client Sample ID: 358-PH4-1

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28609 Analyst: CR

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0198		mg/Kg-dry	1	6/10/2020 1:00:25 AM
Chloromethane	ND	0.0495		mg/Kg-dry	1	6/10/2020 1:00:25 AM
Vinyl chloride	ND	0.0248		mg/Kg-dry	1	6/10/2020 1:00:25 AM
Bromomethane	ND	0.0495		mg/Kg-dry	1	6/10/2020 1:00:25 AM
Trichlorofluoromethane (CFC-11)	ND	0.0198		mg/Kg-dry	1	6/10/2020 1:00:25 AM
Chloroethane	ND	0.0495		mg/Kg-dry	1	6/10/2020 1:00:25 AM
1,1-Dichloroethene	ND	0.0198		mg/Kg-dry	1	6/10/2020 1:00:25 AM
Methylene chloride	ND	0.0198		mg/Kg-dry	1	6/10/2020 1:00:25 AM
trans-1,2-Dichloroethene	ND	0.0198		mg/Kg-dry	1	6/10/2020 1:00:25 AM
1,1-Dichloroethane	ND	0.0198		mg/Kg-dry	1	6/10/2020 1:00:25 AM
cis-1,2-Dichloroethene	ND	0.0198		mg/Kg-dry	1	6/10/2020 1:00:25 AM
Chloroform	ND	0.0198		mg/Kg-dry	1	6/10/2020 1:00:25 AM
1,1,1-Trichloroethane (TCA)	ND	0.0248		mg/Kg-dry	1	6/10/2020 1:00:25 AM
1,1-Dichloropropene	ND	0.0198		mg/Kg-dry	1	6/10/2020 1:00:25 AM
Carbon tetrachloride	ND	0.0248		mg/Kg-dry	1	6/10/2020 1:00:25 AM
1,2-Dichloroethane (EDC)	ND	0.0198		mg/Kg-dry	1	6/10/2020 1:00:25 AM
Trichloroethene (TCE)	ND	0.0198		mg/Kg-dry	1	6/10/2020 1:00:25 AM
1,2-Dichloropropane	ND	0.0198		mg/Kg-dry	1	6/10/2020 1:00:25 AM
Bromodichloromethane	ND	0.0198		mg/Kg-dry	1	6/10/2020 1:00:25 AM
Dibromomethane	ND	0.0198		mg/Kg-dry	1	6/10/2020 1:00:25 AM
cis-1,3-Dichloropropene	ND	0.0198		mg/Kg-dry	1	6/10/2020 1:00:25 AM
trans-1,3-Dichloropropylene	ND	0.0198		mg/Kg-dry	1	6/10/2020 1:00:25 AM
1,1,2-Trichloroethane	ND	0.0198		mg/Kg-dry	1	6/10/2020 1:00:25 AM
1,3-Dichloropropane	ND	0.0248		mg/Kg-dry	1	6/10/2020 1:00:25 AM
Tetrachloroethene (PCE)	0.0351	0.0248		mg/Kg-dry	1	6/10/2020 1:00:25 AM
Dibromochloromethane	ND	0.0248		mg/Kg-dry	1	6/10/2020 1:00:25 AM
1,2-Dibromoethane (EDB)	ND	0.00495		mg/Kg-dry	1	6/10/2020 1:00:25 AM
Chlorobenzene	ND	0.0248		mg/Kg-dry	1	6/10/2020 1:00:25 AM
1,1,1,2-Tetrachloroethane	ND	0.0248		mg/Kg-dry	1	6/10/2020 1:00:25 AM
Bromoform	ND	0.0495		mg/Kg-dry	1	6/10/2020 1:00:25 AM
1,1,2,2-Tetrachloroethane	ND	0.0198		mg/Kg-dry	1	6/10/2020 1:00:25 AM
Bromobenzene	ND	0.0198		mg/Kg-dry	1	6/10/2020 1:00:25 AM
2-Chlorotoluene	ND	0.0248		mg/Kg-dry	1	6/10/2020 1:00:25 AM
4-Chlorotoluene	ND	0.0248		mg/Kg-dry	1	6/10/2020 1:00:25 AM
1,2,3-Trichloropropane	ND	0.0248		mg/Kg-dry	1	6/10/2020 1:00:25 AM
1,2,4-Trichlorobenzene	ND	0.0248		mg/Kg-dry	1	6/10/2020 1:00:25 AM
1,3-Dichlorobenzene	ND	0.0198		mg/Kg-dry	1	6/10/2020 1:00:25 AM
1,4-Dichlorobenzene	ND	0.0198		mg/Kg-dry	1	6/10/2020 1:00:25 AM
1,2-Dichlorobenzene	ND	0.0198		mg/Kg-dry	1	6/10/2020 1:00:25 AM

Analytical Report

Work Order: **2006155**
Date Reported: **6/10/2020**

Client: O'Neill Service Group
Collection Date: 6/9/2020 2:35:00 PM
Project: F200
Lab ID: 2006155-011
Matrix: Soil
Client Sample ID: 358-PH4-1

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28609		Analyst: CR
1,2-Dibromo-3-chloropropane	ND	0.495		mg/Kg-dry	1	6/10/2020 1:00:25 AM
Hexachloro-1,3-butadiene	ND	0.0495		mg/Kg-dry	1	6/10/2020 1:00:25 AM
1,2,3-Trichlorobenzene	ND	0.0198		mg/Kg-dry	1	6/10/2020 1:00:25 AM
Surr: Dibromofluoromethane	93.8	83.3 - 111		%Rec	1	6/10/2020 1:00:25 AM
Surr: Toluene-d8	90.4	87.9 - 111		%Rec	1	6/10/2020 1:00:25 AM
Surr: 1-Bromo-4-fluorobenzene	98.9	85.1 - 111		%Rec	1	6/10/2020 1:00:25 AM
Sample Moisture (Percent Moisture)				Batch ID: R59723		Analyst: CG
Percent Moisture	9.08	0.500		wt%	1	6/10/2020 12:42:46 PM

Analytical Report

Work Order: **2006155**
Date Reported: **6/10/2020**

Client: O'Neill Service Group
Collection Date: 6/9/2020 2:35:00 PM
Project: F200
Lab ID: 2006155-012
Matrix: Soil
Client Sample ID: 358-PH4-2

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28609 Analyst: CR

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0219		mg/Kg-dry	1	6/10/2020 1:30:38 AM
Chloromethane	ND	0.0547		mg/Kg-dry	1	6/10/2020 1:30:38 AM
Vinyl chloride	ND	0.0273		mg/Kg-dry	1	6/10/2020 1:30:38 AM
Bromomethane	ND	0.0547		mg/Kg-dry	1	6/10/2020 1:30:38 AM
Trichlorofluoromethane (CFC-11)	ND	0.0219		mg/Kg-dry	1	6/10/2020 1:30:38 AM
Chloroethane	ND	0.0547		mg/Kg-dry	1	6/10/2020 1:30:38 AM
1,1-Dichloroethene	ND	0.0219		mg/Kg-dry	1	6/10/2020 1:30:38 AM
Methylene chloride	ND	0.0219		mg/Kg-dry	1	6/10/2020 1:30:38 AM
trans-1,2-Dichloroethene	ND	0.0219		mg/Kg-dry	1	6/10/2020 1:30:38 AM
1,1-Dichloroethane	ND	0.0219		mg/Kg-dry	1	6/10/2020 1:30:38 AM
cis-1,2-Dichloroethene	ND	0.0219		mg/Kg-dry	1	6/10/2020 1:30:38 AM
Chloroform	ND	0.0219		mg/Kg-dry	1	6/10/2020 1:30:38 AM
1,1,1-Trichloroethane (TCA)	ND	0.0273		mg/Kg-dry	1	6/10/2020 1:30:38 AM
1,1-Dichloropropene	ND	0.0219		mg/Kg-dry	1	6/10/2020 1:30:38 AM
Carbon tetrachloride	ND	0.0273		mg/Kg-dry	1	6/10/2020 1:30:38 AM
1,2-Dichloroethane (EDC)	ND	0.0219		mg/Kg-dry	1	6/10/2020 1:30:38 AM
Trichloroethene (TCE)	ND	0.0219		mg/Kg-dry	1	6/10/2020 1:30:38 AM
1,2-Dichloropropane	ND	0.0219		mg/Kg-dry	1	6/10/2020 1:30:38 AM
Bromodichloromethane	ND	0.0219		mg/Kg-dry	1	6/10/2020 1:30:38 AM
Dibromomethane	ND	0.0219		mg/Kg-dry	1	6/10/2020 1:30:38 AM
cis-1,3-Dichloropropene	ND	0.0219		mg/Kg-dry	1	6/10/2020 1:30:38 AM
trans-1,3-Dichloropropylene	ND	0.0219		mg/Kg-dry	1	6/10/2020 1:30:38 AM
1,1,2-Trichloroethane	ND	0.0219		mg/Kg-dry	1	6/10/2020 1:30:38 AM
1,3-Dichloropropane	ND	0.0273		mg/Kg-dry	1	6/10/2020 1:30:38 AM
Tetrachloroethene (PCE)	0.0758	0.0273		mg/Kg-dry	1	6/10/2020 1:30:38 AM
Dibromochloromethane	ND	0.0273		mg/Kg-dry	1	6/10/2020 1:30:38 AM
1,2-Dibromoethane (EDB)	ND	0.00547		mg/Kg-dry	1	6/10/2020 1:30:38 AM
Chlorobenzene	ND	0.0273		mg/Kg-dry	1	6/10/2020 1:30:38 AM
1,1,1,2-Tetrachloroethane	ND	0.0273		mg/Kg-dry	1	6/10/2020 1:30:38 AM
Bromoform	ND	0.0547		mg/Kg-dry	1	6/10/2020 1:30:38 AM
1,1,2,2-Tetrachloroethane	ND	0.0219		mg/Kg-dry	1	6/10/2020 1:30:38 AM
Bromobenzene	ND	0.0219		mg/Kg-dry	1	6/10/2020 1:30:38 AM
2-Chlorotoluene	ND	0.0273		mg/Kg-dry	1	6/10/2020 1:30:38 AM
4-Chlorotoluene	ND	0.0273		mg/Kg-dry	1	6/10/2020 1:30:38 AM
1,2,3-Trichloropropane	ND	0.0273		mg/Kg-dry	1	6/10/2020 1:30:38 AM
1,2,4-Trichlorobenzene	ND	0.0273		mg/Kg-dry	1	6/10/2020 1:30:38 AM
1,3-Dichlorobenzene	ND	0.0219		mg/Kg-dry	1	6/10/2020 1:30:38 AM
1,4-Dichlorobenzene	ND	0.0219		mg/Kg-dry	1	6/10/2020 1:30:38 AM
1,2-Dichlorobenzene	ND	0.0219		mg/Kg-dry	1	6/10/2020 1:30:38 AM

Analytical Report

Work Order: **2006155**
Date Reported: **6/10/2020**

Client: O'Neill Service Group
Collection Date: 6/9/2020 2:35:00 PM
Project: F200
Lab ID: 2006155-012
Matrix: Soil
Client Sample ID: 358-PH4-2

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28609		Analyst: CR
1,2-Dibromo-3-chloropropane	ND	0.547		mg/Kg-dry	1	6/10/2020 1:30:38 AM
Hexachloro-1,3-butadiene	ND	0.0547		mg/Kg-dry	1	6/10/2020 1:30:38 AM
1,2,3-Trichlorobenzene	ND	0.0219		mg/Kg-dry	1	6/10/2020 1:30:38 AM
Surr: Dibromofluoromethane	93.6	83.3 - 111		%Rec	1	6/10/2020 1:30:38 AM
Surr: Toluene-d8	89.9	87.9 - 111		%Rec	1	6/10/2020 1:30:38 AM
Surr: 1-Bromo-4-fluorobenzene	97.8	85.1 - 111		%Rec	1	6/10/2020 1:30:38 AM
Sample Moisture (Percent Moisture)				Batch ID: R59723		Analyst: CG
Percent Moisture	8.41	0.500		wt%	1	6/10/2020 12:42:46 PM

Analytical Report

Work Order: **2006155**
Date Reported: **6/10/2020**

Client: O'Neill Service Group
Collection Date: 6/9/2020 2:40:00 PM
Project: F200
Lab ID: 2006155-013
Matrix: Soil
Client Sample ID: 358-PH4-4

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28609 Analyst: CR

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0197		mg/Kg-dry	1	6/10/2020 2:00:48 AM
Chloromethane	ND	0.0492		mg/Kg-dry	1	6/10/2020 2:00:48 AM
Vinyl chloride	ND	0.0246		mg/Kg-dry	1	6/10/2020 2:00:48 AM
Bromomethane	ND	0.0492		mg/Kg-dry	1	6/10/2020 2:00:48 AM
Trichlorofluoromethane (CFC-11)	ND	0.0197		mg/Kg-dry	1	6/10/2020 2:00:48 AM
Chloroethane	ND	0.0492		mg/Kg-dry	1	6/10/2020 2:00:48 AM
1,1-Dichloroethene	ND	0.0197		mg/Kg-dry	1	6/10/2020 2:00:48 AM
Methylene chloride	ND	0.0197		mg/Kg-dry	1	6/10/2020 2:00:48 AM
trans-1,2-Dichloroethene	ND	0.0197		mg/Kg-dry	1	6/10/2020 2:00:48 AM
1,1-Dichloroethane	ND	0.0197		mg/Kg-dry	1	6/10/2020 2:00:48 AM
cis-1,2-Dichloroethene	0.0993	0.0197		mg/Kg-dry	1	6/10/2020 2:00:48 AM
Chloroform	ND	0.0197		mg/Kg-dry	1	6/10/2020 2:00:48 AM
1,1,1-Trichloroethane (TCA)	ND	0.0246		mg/Kg-dry	1	6/10/2020 2:00:48 AM
1,1-Dichloropropene	ND	0.0197		mg/Kg-dry	1	6/10/2020 2:00:48 AM
Carbon tetrachloride	ND	0.0246		mg/Kg-dry	1	6/10/2020 2:00:48 AM
1,2-Dichloroethane (EDC)	ND	0.0197		mg/Kg-dry	1	6/10/2020 2:00:48 AM
Trichloroethene (TCE)	ND	0.0197		mg/Kg-dry	1	6/10/2020 2:00:48 AM
1,2-Dichloropropane	ND	0.0197		mg/Kg-dry	1	6/10/2020 2:00:48 AM
Bromodichloromethane	ND	0.0197		mg/Kg-dry	1	6/10/2020 2:00:48 AM
Dibromomethane	ND	0.0197		mg/Kg-dry	1	6/10/2020 2:00:48 AM
cis-1,3-Dichloropropene	ND	0.0197		mg/Kg-dry	1	6/10/2020 2:00:48 AM
trans-1,3-Dichloropropylene	ND	0.0197		mg/Kg-dry	1	6/10/2020 2:00:48 AM
1,1,2-Trichloroethane	ND	0.0197		mg/Kg-dry	1	6/10/2020 2:00:48 AM
1,3-Dichloropropane	ND	0.0246		mg/Kg-dry	1	6/10/2020 2:00:48 AM
Tetrachloroethene (PCE)	0.0286	0.0246		mg/Kg-dry	1	6/10/2020 2:00:48 AM
Dibromochloromethane	ND	0.0246		mg/Kg-dry	1	6/10/2020 2:00:48 AM
1,2-Dibromoethane (EDB)	ND	0.00492		mg/Kg-dry	1	6/10/2020 2:00:48 AM
Chlorobenzene	ND	0.0246		mg/Kg-dry	1	6/10/2020 2:00:48 AM
1,1,1,2-Tetrachloroethane	ND	0.0246		mg/Kg-dry	1	6/10/2020 2:00:48 AM
Bromoform	ND	0.0492		mg/Kg-dry	1	6/10/2020 2:00:48 AM
1,1,2,2-Tetrachloroethane	ND	0.0197		mg/Kg-dry	1	6/10/2020 2:00:48 AM
Bromobenzene	ND	0.0197		mg/Kg-dry	1	6/10/2020 2:00:48 AM
2-Chlorotoluene	ND	0.0246		mg/Kg-dry	1	6/10/2020 2:00:48 AM
4-Chlorotoluene	ND	0.0246		mg/Kg-dry	1	6/10/2020 2:00:48 AM
1,2,3-Trichloropropane	ND	0.0246		mg/Kg-dry	1	6/10/2020 2:00:48 AM
1,2,4-Trichlorobenzene	ND	0.0246		mg/Kg-dry	1	6/10/2020 2:00:48 AM
1,3-Dichlorobenzene	ND	0.0197		mg/Kg-dry	1	6/10/2020 2:00:48 AM
1,4-Dichlorobenzene	ND	0.0197		mg/Kg-dry	1	6/10/2020 2:00:48 AM
1,2-Dichlorobenzene	ND	0.0197		mg/Kg-dry	1	6/10/2020 2:00:48 AM

Analytical Report

Work Order: **2006155**
Date Reported: **6/10/2020**

Client: O'Neill Service Group
Collection Date: 6/9/2020 2:40:00 PM
Project: F200
Lab ID: 2006155-013
Matrix: Soil
Client Sample ID: 358-PH4-4

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28609		Analyst: CR
1,2-Dibromo-3-chloropropane	ND	0.492		mg/Kg-dry	1	6/10/2020 2:00:48 AM
Hexachloro-1,3-butadiene	ND	0.0492		mg/Kg-dry	1	6/10/2020 2:00:48 AM
1,2,3-Trichlorobenzene	ND	0.0197		mg/Kg-dry	1	6/10/2020 2:00:48 AM
Surr: Dibromofluoromethane	94.7	83.3 - 111		%Rec	1	6/10/2020 2:00:48 AM
Surr: Toluene-d8	95.2	87.9 - 111		%Rec	1	6/10/2020 2:00:48 AM
Surr: 1-Bromo-4-fluorobenzene	98.0	85.1 - 111		%Rec	1	6/10/2020 2:00:48 AM
Sample Moisture (Percent Moisture)				Batch ID: R59723		Analyst: CG
Percent Moisture	10.5	0.500		wt%	1	6/10/2020 12:42:46 PM

Analytical Report

Work Order: **2006155**
Date Reported: **6/10/2020**

Client: O'Neill Service Group
Collection Date: 6/9/2020 2:45:00 PM
Project: F200
Lab ID: 2006155-014
Matrix: Soil
Client Sample ID: 358-PH4-7

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28609 Analyst: CR

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0259		mg/Kg-dry	1	6/10/2020 2:31:00 AM
Chloromethane	ND	0.0649		mg/Kg-dry	1	6/10/2020 2:31:00 AM
Vinyl chloride	ND	0.0324		mg/Kg-dry	1	6/10/2020 2:31:00 AM
Bromomethane	ND	0.0649		mg/Kg-dry	1	6/10/2020 2:31:00 AM
Trichlorofluoromethane (CFC-11)	ND	0.0259		mg/Kg-dry	1	6/10/2020 2:31:00 AM
Chloroethane	ND	0.0649		mg/Kg-dry	1	6/10/2020 2:31:00 AM
1,1-Dichloroethene	ND	0.0259		mg/Kg-dry	1	6/10/2020 2:31:00 AM
Methylene chloride	ND	0.0259		mg/Kg-dry	1	6/10/2020 2:31:00 AM
trans-1,2-Dichloroethene	ND	0.0259		mg/Kg-dry	1	6/10/2020 2:31:00 AM
1,1-Dichloroethane	ND	0.0259		mg/Kg-dry	1	6/10/2020 2:31:00 AM
cis-1,2-Dichloroethene	ND	0.0259		mg/Kg-dry	1	6/10/2020 2:31:00 AM
Chloroform	ND	0.0259		mg/Kg-dry	1	6/10/2020 2:31:00 AM
1,1,1-Trichloroethane (TCA)	ND	0.0324		mg/Kg-dry	1	6/10/2020 2:31:00 AM
1,1-Dichloropropene	ND	0.0259		mg/Kg-dry	1	6/10/2020 2:31:00 AM
Carbon tetrachloride	ND	0.0324		mg/Kg-dry	1	6/10/2020 2:31:00 AM
1,2-Dichloroethane (EDC)	ND	0.0259		mg/Kg-dry	1	6/10/2020 2:31:00 AM
Trichloroethene (TCE)	ND	0.0259		mg/Kg-dry	1	6/10/2020 2:31:00 AM
1,2-Dichloropropane	ND	0.0259		mg/Kg-dry	1	6/10/2020 2:31:00 AM
Bromodichloromethane	ND	0.0259		mg/Kg-dry	1	6/10/2020 2:31:00 AM
Dibromomethane	ND	0.0259		mg/Kg-dry	1	6/10/2020 2:31:00 AM
cis-1,3-Dichloropropene	ND	0.0259		mg/Kg-dry	1	6/10/2020 2:31:00 AM
trans-1,3-Dichloropropylene	ND	0.0259		mg/Kg-dry	1	6/10/2020 2:31:00 AM
1,1,2-Trichloroethane	ND	0.0259		mg/Kg-dry	1	6/10/2020 2:31:00 AM
1,3-Dichloropropane	ND	0.0324		mg/Kg-dry	1	6/10/2020 2:31:00 AM
Tetrachloroethene (PCE)	ND	0.0324		mg/Kg-dry	1	6/10/2020 2:31:00 AM
Dibromochloromethane	ND	0.0324		mg/Kg-dry	1	6/10/2020 2:31:00 AM
1,2-Dibromoethane (EDB)	ND	0.00649		mg/Kg-dry	1	6/10/2020 2:31:00 AM
Chlorobenzene	ND	0.0324		mg/Kg-dry	1	6/10/2020 2:31:00 AM
1,1,1,2-Tetrachloroethane	ND	0.0324		mg/Kg-dry	1	6/10/2020 2:31:00 AM
Bromoform	ND	0.0649		mg/Kg-dry	1	6/10/2020 2:31:00 AM
1,1,2,2-Tetrachloroethane	ND	0.0259		mg/Kg-dry	1	6/10/2020 2:31:00 AM
Bromobenzene	ND	0.0259		mg/Kg-dry	1	6/10/2020 2:31:00 AM
2-Chlorotoluene	ND	0.0324		mg/Kg-dry	1	6/10/2020 2:31:00 AM
4-Chlorotoluene	ND	0.0324		mg/Kg-dry	1	6/10/2020 2:31:00 AM
1,2,3-Trichloropropane	ND	0.0324		mg/Kg-dry	1	6/10/2020 2:31:00 AM
1,2,4-Trichlorobenzene	ND	0.0324		mg/Kg-dry	1	6/10/2020 2:31:00 AM
1,3-Dichlorobenzene	ND	0.0259		mg/Kg-dry	1	6/10/2020 2:31:00 AM
1,4-Dichlorobenzene	ND	0.0259		mg/Kg-dry	1	6/10/2020 2:31:00 AM
1,2-Dichlorobenzene	ND	0.0259		mg/Kg-dry	1	6/10/2020 2:31:00 AM

Analytical Report

Work Order: **2006155**
Date Reported: **6/10/2020**

Client: O'Neill Service Group
Collection Date: 6/9/2020 2:45:00 PM
Project: F200
Lab ID: 2006155-014
Matrix: Soil
Client Sample ID: 358-PH4-7

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28609		Analyst: CR
1,2-Dibromo-3-chloropropane	ND	0.649		mg/Kg-dry	1	6/10/2020 2:31:00 AM
Hexachloro-1,3-butadiene	ND	0.0649		mg/Kg-dry	1	6/10/2020 2:31:00 AM
1,2,3-Trichlorobenzene	ND	0.0259		mg/Kg-dry	1	6/10/2020 2:31:00 AM
Surr: Dibromofluoromethane	95.8	83.3 - 111		%Rec	1	6/10/2020 2:31:00 AM
Surr: Toluene-d8	95.6	87.9 - 111		%Rec	1	6/10/2020 2:31:00 AM
Surr: 1-Bromo-4-fluorobenzene	97.7	85.1 - 111		%Rec	1	6/10/2020 2:31:00 AM
Sample Moisture (Percent Moisture)				Batch ID: R59723		Analyst: CG
Percent Moisture	20.5	0.500		wt%	1	6/10/2020 12:42:46 PM

Analytical Report

Work Order: **2006155**
Date Reported: **6/10/2020**

Client: O'Neill Service Group
Collection Date: 6/9/2020 2:50:00 PM
Project: F200
Lab ID: 2006155-015
Matrix: Soil
Client Sample ID: 358-PH4-10

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28609 Analyst: CR

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0230		mg/Kg-dry	1	6/10/2020 3:31:24 AM
Chloromethane	ND	0.0575		mg/Kg-dry	1	6/10/2020 3:31:24 AM
Vinyl chloride	ND	0.0287		mg/Kg-dry	1	6/10/2020 3:31:24 AM
Bromomethane	ND	0.0575		mg/Kg-dry	1	6/10/2020 3:31:24 AM
Trichlorofluoromethane (CFC-11)	ND	0.0230		mg/Kg-dry	1	6/10/2020 3:31:24 AM
Chloroethane	ND	0.0575		mg/Kg-dry	1	6/10/2020 3:31:24 AM
1,1-Dichloroethene	ND	0.0230		mg/Kg-dry	1	6/10/2020 3:31:24 AM
Methylene chloride	ND	0.0230		mg/Kg-dry	1	6/10/2020 3:31:24 AM
trans-1,2-Dichloroethene	ND	0.0230		mg/Kg-dry	1	6/10/2020 3:31:24 AM
1,1-Dichloroethane	ND	0.0230		mg/Kg-dry	1	6/10/2020 3:31:24 AM
cis-1,2-Dichloroethene	ND	0.0230		mg/Kg-dry	1	6/10/2020 3:31:24 AM
Chloroform	ND	0.0230		mg/Kg-dry	1	6/10/2020 3:31:24 AM
1,1,1-Trichloroethane (TCA)	ND	0.0287		mg/Kg-dry	1	6/10/2020 3:31:24 AM
1,1-Dichloropropene	ND	0.0230		mg/Kg-dry	1	6/10/2020 3:31:24 AM
Carbon tetrachloride	ND	0.0287		mg/Kg-dry	1	6/10/2020 3:31:24 AM
1,2-Dichloroethane (EDC)	ND	0.0230		mg/Kg-dry	1	6/10/2020 3:31:24 AM
Trichloroethene (TCE)	ND	0.0230		mg/Kg-dry	1	6/10/2020 3:31:24 AM
1,2-Dichloropropane	ND	0.0230		mg/Kg-dry	1	6/10/2020 3:31:24 AM
Bromodichloromethane	ND	0.0230		mg/Kg-dry	1	6/10/2020 3:31:24 AM
Dibromomethane	ND	0.0230		mg/Kg-dry	1	6/10/2020 3:31:24 AM
cis-1,3-Dichloropropene	ND	0.0230		mg/Kg-dry	1	6/10/2020 3:31:24 AM
trans-1,3-Dichloropropylene	ND	0.0230		mg/Kg-dry	1	6/10/2020 3:31:24 AM
1,1,2-Trichloroethane	ND	0.0230		mg/Kg-dry	1	6/10/2020 3:31:24 AM
1,3-Dichloropropane	ND	0.0287		mg/Kg-dry	1	6/10/2020 3:31:24 AM
Tetrachloroethene (PCE)	ND	0.0287		mg/Kg-dry	1	6/10/2020 3:31:24 AM
Dibromochloromethane	ND	0.0287		mg/Kg-dry	1	6/10/2020 3:31:24 AM
1,2-Dibromoethane (EDB)	ND	0.00575		mg/Kg-dry	1	6/10/2020 3:31:24 AM
Chlorobenzene	ND	0.0287		mg/Kg-dry	1	6/10/2020 3:31:24 AM
1,1,1,2-Tetrachloroethane	ND	0.0287		mg/Kg-dry	1	6/10/2020 3:31:24 AM
Bromoform	ND	0.0575		mg/Kg-dry	1	6/10/2020 3:31:24 AM
1,1,2,2-Tetrachloroethane	ND	0.0230		mg/Kg-dry	1	6/10/2020 3:31:24 AM
Bromobenzene	ND	0.0230		mg/Kg-dry	1	6/10/2020 3:31:24 AM
2-Chlorotoluene	ND	0.0287		mg/Kg-dry	1	6/10/2020 3:31:24 AM
4-Chlorotoluene	ND	0.0287		mg/Kg-dry	1	6/10/2020 3:31:24 AM
1,2,3-Trichloropropane	ND	0.0287		mg/Kg-dry	1	6/10/2020 3:31:24 AM
1,2,4-Trichlorobenzene	ND	0.0287		mg/Kg-dry	1	6/10/2020 3:31:24 AM
1,3-Dichlorobenzene	ND	0.0230		mg/Kg-dry	1	6/10/2020 3:31:24 AM
1,4-Dichlorobenzene	ND	0.0230		mg/Kg-dry	1	6/10/2020 3:31:24 AM
1,2-Dichlorobenzene	ND	0.0230		mg/Kg-dry	1	6/10/2020 3:31:24 AM

Analytical Report

Work Order: **2006155**
Date Reported: **6/10/2020**

Client: O'Neill Service Group
Collection Date: 6/9/2020 2:50:00 PM
Project: F200
Lab ID: 2006155-015
Matrix: Soil
Client Sample ID: 358-PH4-10

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28609		Analyst: CR
1,2-Dibromo-3-chloropropane	ND	0.575		mg/Kg-dry	1	6/10/2020 3:31:24 AM
Hexachloro-1,3-butadiene	ND	0.0575		mg/Kg-dry	1	6/10/2020 3:31:24 AM
1,2,3-Trichlorobenzene	ND	0.0230		mg/Kg-dry	1	6/10/2020 3:31:24 AM
Surr: Dibromofluoromethane	94.2	83.3 - 111		%Rec	1	6/10/2020 3:31:24 AM
Surr: Toluene-d8	93.2	87.9 - 111		%Rec	1	6/10/2020 3:31:24 AM
Surr: 1-Bromo-4-fluorobenzene	98.4	85.1 - 111		%Rec	1	6/10/2020 3:31:24 AM
Sample Moisture (Percent Moisture)				Batch ID: R59723		Analyst: CG
Percent Moisture	14.1	0.500		wt%	1	6/10/2020 12:42:46 PM

Date: *6/10/2020*

Work Order: 2006155
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **LCS-28609** SampType: **LCS** Units: **mg/Kg** Prep Date: **6/9/2020** RunNo: **59716**
Client ID: **LCSS** Batch ID: **28609** Analysis Date: **6/9/2020** SeqNo: **1194981**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	0.850	0.0200	1.000	0	85.0	13.4	185				
Chloromethane	0.897	0.0500	1.000	0	89.7	38.5	158				
Vinyl chloride	0.886	0.0250	1.000	0	88.6	53.6	138				
Bromomethane	0.876	0.0500	1.000	0	87.6	56.6	151				
Trichlorofluoromethane (CFC-11)	0.835	0.0200	1.000	0	83.5	64.2	137				
Chloroethane	0.910	0.0500	1.000	0	91.0	54.1	134				
1,1-Dichloroethene	0.812	0.0200	1.000	0	81.2	66	133				
Methylene chloride	0.904	0.0200	1.000	0	90.4	74.3	117				
trans-1,2-Dichloroethene	0.900	0.0200	1.000	0	90.0	79.6	115				
1,1-Dichloroethane	0.893	0.0200	1.000	0	89.3	75.8	117				
cis-1,2-Dichloroethene	0.895	0.0200	1.000	0	89.5	77.8	115				
Chloroform	0.895	0.0200	1.000	0	89.5	78.2	115				
1,1,1-Trichloroethane (TCA)	0.887	0.0250	1.000	0	88.7	76	121				
1,1-Dichloropropene	0.887	0.0200	1.000	0	88.7	77.2	120				
Carbon tetrachloride	0.864	0.0500	1.000	0	86.4	74	122				
1,2-Dichloroethane (EDC)	0.906	0.0200	1.000	0	90.6	74.7	115				
Trichloroethene (TCE)	0.893	0.0200	1.000	0	89.3	79.6	118				
1,2-Dichloropropane	0.881	0.0200	1.000	0	88.1	78.2	115				
Bromodichloromethane	0.969	0.0200	1.000	0	96.9	76.6	116				
Dibromomethane	0.909	0.0200	1.000	0	90.9	77.9	115				
cis-1,3-Dichloropropene	0.875	0.0200	1.000	0	87.5	74.6	119				
trans-1,3-Dichloropropylene	0.979	0.0200	1.000	0	97.9	70.6	124				
1,1,2-Trichloroethane	0.898	0.0200	1.000	0	89.8	75.6	116				
1,3-Dichloropropane	0.877	0.0250	1.000	0	87.7	75.3	116				
Tetrachloroethene (PCE)	0.879	0.0250	1.000	0	87.9	78.8	119				
Dibromochloromethane	0.987	0.0250	1.000	0	98.7	72.5	123				
1,2-Dibromoethane (EDB)	0.904	0.00500	1.000	0	90.4	75	116				
Chlorobenzene	0.897	0.0250	1.000	0	89.7	83.4	113				
1,1,1,2-Tetrachloroethane	0.978	0.0250	1.000	0	97.8	80.8	117				
Bromoform	1.04	0.0500	1.000	0	104	71	129				
1,1,2,2-Tetrachloroethane	0.998	0.0200	1.000	0	99.8	71.3	119				

Date: *6/10/2020*

Work Order: 2006155
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **LCS-28609** SampType: **LCS** Units: **mg/Kg** Prep Date: **6/9/2020** RunNo: **59716**
Client ID: **LCSS** Batch ID: **28609** Analysis Date: **6/9/2020** SeqNo: **1194981**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromobenzene	0.914	0.0200	1.000	0	91.4	78.6	115				
2-Chlorotoluene	0.899	0.0250	1.000	0	89.9	78.6	116				
4-Chlorotoluene	0.904	0.0250	1.000	0	90.4	78.8	117				
1,2,3-Trichloropropane	1.00	0.0250	1.000	0	100	67.5	129				
1,2,4-Trichlorobenzene	0.939	0.0250	1.000	0	93.9	79.6	124				
1,3-Dichlorobenzene	0.964	0.0200	1.000	0	96.4	87.1	117				
1,4-Dichlorobenzene	0.959	0.0200	1.000	0	95.9	87.6	115				
1,2-Dichlorobenzene	0.955	0.0200	1.000	0	95.5	87.9	115				
1,2-Dibromo-3-chloropropane	1.07	0.500	1.000	0	107	65.6	132				
Hexachloro-1,3-butadiene	0.957	0.0500	1.000	0	95.7	75	130				
1,2,3-Trichlorobenzene	0.925	0.0200	1.000	0	92.5	74.3	128				
Surr: Dibromofluoromethane	1.33		1.250		107	83.3	111				
Surr: Toluene-d8	1.26		1.250		101	87.9	111				
Surr: 1-Bromo-4-fluorobenzene	1.29		1.250		103	85.1	111				

Sample ID: **MB-28609** SampType: **MBLK** Units: **mg/Kg** Prep Date: **6/9/2020** RunNo: **59716**
Client ID: **MBLKS** Batch ID: **28609** Analysis Date: **6/9/2020** SeqNo: **1194982**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	0.0200									
Chloromethane	ND	0.0500									
Vinyl chloride	ND	0.0250									
Bromomethane	ND	0.0500									
Trichlorofluoromethane (CFC-11)	ND	0.0200									
Chloroethane	ND	0.0500									
1,1-Dichloroethene	ND	0.0200									
Methylene chloride	ND	0.0200									
trans-1,2-Dichloroethene	ND	0.0200									
1,1-Dichloroethane	ND	0.0200									
cis-1,2-Dichloroethene	ND	0.0200									

Date: *6/10/2020*

Work Order: 2006155
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **MB-28609** SampType: **MBLK** Units: **mg/Kg** Prep Date: **6/9/2020** RunNo: **59716**
Client ID: **MBLKS** Batch ID: **28609** Analysis Date: **6/9/2020** SeqNo: **1194982**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloroform	ND	0.0200									
1,1,1-Trichloroethane (TCA)	ND	0.0250									
1,1-Dichloropropene	ND	0.0200									
Carbon tetrachloride	ND	0.0500									
1,2-Dichloroethane (EDC)	ND	0.0200									
Trichloroethene (TCE)	ND	0.0200									
1,2-Dichloropropane	ND	0.0200									
Bromodichloromethane	ND	0.0200									
Dibromomethane	ND	0.0200									
cis-1,3-Dichloropropene	ND	0.0200									
trans-1,3-Dichloropropylene	ND	0.0200									
1,1,2-Trichloroethane	ND	0.0200									
1,3-Dichloropropane	ND	0.0250									
Tetrachloroethene (PCE)	ND	0.0250									
Dibromochloromethane	ND	0.0250									
1,2-Dibromoethane (EDB)	ND	0.00500									
Chlorobenzene	ND	0.0250									
1,1,1,2-Tetrachloroethane	ND	0.0250									
Bromoform	ND	0.0500									
1,1,2,2-Tetrachloroethane	ND	0.0200									
Bromobenzene	ND	0.0200									
2-Chlorotoluene	ND	0.0250									
4-Chlorotoluene	ND	0.0250									
1,2,3-Trichloropropane	ND	0.0250									
1,2,4-Trichlorobenzene	ND	0.0250									
1,3-Dichlorobenzene	ND	0.0200									
1,4-Dichlorobenzene	ND	0.0200									
1,2-Dichlorobenzene	ND	0.0200									
1,2-Dibromo-3-chloropropane	ND	0.500									
Hexachloro-1,3-butadiene	ND	0.0500									
1,2,3-Trichlorobenzene	ND	0.0200									

Date: *6/10/2020*

Work Order: 2006155
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **MB-28609** SampType: **MBLK** Units: **mg/Kg** Prep Date: **6/9/2020** RunNo: **59716**
Client ID: **MBLKS** Batch ID: **28609** Analysis Date: **6/9/2020** SeqNo: **1194982**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	1.23		1.250		98.5	83.3	111				
Surr: Toluene-d8	1.17		1.250		93.8	87.9	111				
Surr: 1-Bromo-4-fluorobenzene	1.23		1.250		98.7	85.1	111				

Sample ID: **2006155-014BDUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **6/9/2020** RunNo: **59716**
Client ID: **358-PH4-7** Batch ID: **28609** Analysis Date: **6/10/2020** SeqNo: **1194973**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	0.0259						0		30	
Chloromethane	ND	0.0649						0		30	
Vinyl chloride	ND	0.0324						0		30	
Bromomethane	ND	0.0649						0		30	
Trichlorofluoromethane (CFC-11)	ND	0.0259						0		30	
Chloroethane	ND	0.0649						0		30	
1,1-Dichloroethene	ND	0.0259						0		30	
Methylene chloride	ND	0.0259						0		30	
trans-1,2-Dichloroethene	ND	0.0259						0		30	
1,1-Dichloroethane	ND	0.0259						0		30	
cis-1,2-Dichloroethene	ND	0.0259						0		30	
Chloroform	ND	0.0259						0		30	
1,1,1-Trichloroethane (TCA)	ND	0.0324						0		30	
1,1-Dichloropropene	ND	0.0259						0		30	
Carbon tetrachloride	ND	0.0649						0		30	
1,2-Dichloroethane (EDC)	ND	0.0259						0		30	
Trichloroethene (TCE)	ND	0.0259						0		30	
1,2-Dichloropropane	ND	0.0259						0		30	
Bromodichloromethane	ND	0.0259						0		30	
Dibromomethane	ND	0.0259						0		30	
cis-1,3-Dichloropropene	ND	0.0259						0		30	
trans-1,3-Dichloropropylene	ND	0.0259						0		30	

Date: *6/10/2020*

Work Order: 2006155
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2006155-014BDUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **6/9/2020** RunNo: **59716**
Client ID: **358-PH4-7** Batch ID: **28609** Analysis Date: **6/10/2020** SeqNo: **1194973**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,2-Trichloroethane	ND	0.0259						0		30	
1,3-Dichloropropane	ND	0.0324						0		30	
Tetrachloroethene (PCE)	ND	0.0324						0		30	
Dibromochloromethane	ND	0.0324						0		30	
1,2-Dibromoethane (EDB)	ND	0.00649						0		30	
Chlorobenzene	ND	0.0324						0		30	
1,1,1,2-Tetrachloroethane	ND	0.0324						0		30	
Bromoform	ND	0.0649						0		30	
1,1,2,2-Tetrachloroethane	ND	0.0259						0		30	
Bromobenzene	ND	0.0259						0		30	
2-Chlorotoluene	ND	0.0324						0		30	
4-Chlorotoluene	ND	0.0324						0		30	
1,2,3-Trichloropropane	ND	0.0324						0		30	
1,2,4-Trichlorobenzene	ND	0.0324						0		30	
1,3-Dichlorobenzene	ND	0.0259						0		30	
1,4-Dichlorobenzene	ND	0.0259						0		30	
1,2-Dichlorobenzene	ND	0.0259						0		30	
1,2-Dibromo-3-chloropropane	ND	0.649						0		30	
Hexachloro-1,3-butadiene	ND	0.0649						0		30	
1,2,3-Trichlorobenzene	ND	0.0259						0		30	
Surr: Dibromofluoromethane	1.53		1.622		94.3	83.3	111		0		
Surr: Toluene-d8	1.45		1.622		89.6	87.9	111		0		
Surr: 1-Bromo-4-fluorobenzene	1.59		1.622		98.0	85.1	111		0		

Sample ID: **2006155-015BMS** SampType: **MS** Units: **mg/Kg-dry** Prep Date: **6/9/2020** RunNo: **59716**
Client ID: **358-PH4-10** Batch ID: **28609** Analysis Date: **6/10/2020** SeqNo: **1194976**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	1.15	0.0230	1.150	0	100	5.73	173				
Chloromethane	1.16	0.0575	1.150	0	101	41.3	150				

Date: *6/10/2020*

Work Order: 2006155
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2006155-015BMS** SampType: **MS** Units: **mg/Kg-dry** Prep Date: **6/9/2020** RunNo: **59716**
Client ID: **358-PH4-10** Batch ID: **28609** Analysis Date: **6/10/2020** SeqNo: **1194976**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	1.02	0.0287	1.150	0	88.7	49.5	138				
Bromomethane	0.792	0.0575	1.150	0	68.9	48.5	158				
Trichlorofluoromethane (CFC-11)	0.912	0.0230	1.150	0	79.3	40.6	159				
Chloroethane	0.693	0.0575	1.150	0	60.3	30.4	166				
1,1-Dichloroethene	1.04	0.0230	1.150	0	90.3	55	138				
Methylene chloride	1.06	0.0230	1.150	0	92.4	70.3	123				
trans-1,2-Dichloroethene	0.967	0.0230	1.150	0	84.1	73.1	121				
1,1-Dichloroethane	1.00	0.0230	1.150	0	87.3	70.8	122				
cis-1,2-Dichloroethene	0.993	0.0230	1.150	0	86.4	71.8	122				
Chloroform	1.00	0.0230	1.150	0	87.2	72.9	122				
1,1,1-Trichloroethane (TCA)	0.926	0.0287	1.150	0	80.5	69.6	125				
1,1-Dichloropropene	0.898	0.0230	1.150	0	78.1	69.3	126				
Carbon tetrachloride	0.859	0.0575	1.150	0	74.7	65	127				
1,2-Dichloroethane (EDC)	1.07	0.0230	1.150	0	93.4	70.1	121				
Trichloroethene (TCE)	0.958	0.0230	1.150	0	83.4	70.1	129				
1,2-Dichloropropane	1.01	0.0230	1.150	0	87.7	74.6	120				
Bromodichloromethane	1.07	0.0230	1.150	0	92.7	70.9	122				
Dibromomethane	1.04	0.0230	1.150	0	90.8	75.6	120				
cis-1,3-Dichloropropene	0.905	0.0230	1.150	0	78.7	68.3	120				
trans-1,3-Dichloropropylene	1.03	0.0230	1.150	0	89.8	62.2	127				
1,1,2-Trichloroethane	1.00	0.0230	1.150	0	87.0	72.9	120				
1,3-Dichloropropane	0.990	0.0287	1.150	0	86.1	71.9	119				
Tetrachloroethene (PCE)	0.923	0.0287	1.150	0	80.2	71.1	122				
Dibromochloromethane	1.10	0.0287	1.150	0	95.3	65.9	126				
1,2-Dibromoethane (EDB)	1.00	0.00575	1.150	0	87.4	72	119				
Chlorobenzene	1.02	0.0287	1.150	0	88.8	81.4	116				
1,1,1,2-Tetrachloroethane	1.12	0.0287	1.150	0	97.6	72.9	125				
Bromoform	1.17	0.0575	1.150	0	102	63.4	133				
1,1,2,2-Tetrachloroethane	1.14	0.0230	1.150	0	98.8	61	128				
Bromobenzene	1.09	0.0230	1.150	0	94.6	77	120				
2-Chlorotoluene	1.04	0.0287	1.150	0	90.6	71.4	126				

Fremont Analytical

Date: *6/10/2020*

Work Order: 2006155
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2006155-015BMS** SampType: **MS** Units: **mg/Kg-dry** Prep Date: **6/9/2020** RunNo: **59716**
Client ID: **358-PH4-10** Batch ID: **28609** Analysis Date: **6/10/2020** SeqNo: **1194976**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4-Chlorotoluene	1.06	0.0287	1.150	0	92.3	73.6	124				
1,2,3-Trichloropropane	1.14	0.0287	1.150	0	99.4	65.7	132				
1,2,4-Trichlorobenzene	1.02	0.0287	1.150	0	88.7	70.5	130				
1,3-Dichlorobenzene	1.05	0.0230	1.150	0	91.0	83.8	121				
1,4-Dichlorobenzene	1.05	0.0230	1.150	0	91.3	85.7	117				
1,2-Dichlorobenzene	1.06	0.0230	1.150	0	92.1	81.8	120				
1,2-Dibromo-3-chloropropane	1.12	0.575	1.150	0	97.0	56.9	139				
Hexachloro-1,3-butadiene	1.01	0.0575	1.150	0	87.9	61.1	140				
1,2,3-Trichlorobenzene	0.975	0.0230	1.150	0	84.8	67.8	132				
Surr: Dibromofluoromethane	1.48		1.437		103	83.3	111				
Surr: Toluene-d8	1.33		1.437		92.5	87.9	111				
Surr: 1-Bromo-4-fluorobenzene	1.50		1.437		105	85.1	111				

Sample ID: **2006155-015BMSD** SampType: **MSD** Units: **mg/Kg-dry** Prep Date: **6/9/2020** RunNo: **59716**
Client ID: **358-PH4-10** Batch ID: **28609** Analysis Date: **6/10/2020** SeqNo: **1194977**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	0.976	0.0230	1.150	0	84.9	5.73	173	1.151	16.5	30	
Chloromethane	1.07	0.0575	1.150	0	93.2	41.3	150	1.165	8.36	30	
Vinyl chloride	0.945	0.0287	1.150	0	82.2	49.5	138	1.020	7.64	30	
Bromomethane	0.979	0.0575	1.150	0	85.2	48.5	158	0.7917	21.2	30	
Trichlorofluoromethane (CFC-11)	0.701	0.0230	1.150	0	61.0	40.6	159	0.9121	26.2	30	
Chloroethane	1.01	0.0575	1.150	0	87.7	30.4	166	0.6935	37.0	30	R
1,1-Dichloroethene	0.835	0.0230	1.150	0	72.6	55	138	1.038	21.6	30	
Methylene chloride	0.997	0.0230	1.150	0	86.7	70.3	123	1.062	6.33	30	
trans-1,2-Dichloroethene	0.907	0.0230	1.150	0	78.9	73.1	121	0.9674	6.40	30	
1,1-Dichloroethane	0.943	0.0230	1.150	0	82.0	70.8	122	1.003	6.22	30	
cis-1,2-Dichloroethene	0.926	0.0230	1.150	0	80.6	71.8	122	0.9933	6.97	30	
Chloroform	0.944	0.0230	1.150	0	82.1	72.9	122	1.002	5.96	30	
1,1,1-Trichloroethane (TCA)	0.851	0.0287	1.150	0	74.0	69.6	125	0.9259	8.43	30	

Date: *6/10/2020*

Work Order: 2006155
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2006155-015BMSD** SampType: **MSD** Units: **mg/Kg-dry** Prep Date: **6/9/2020** RunNo: **59716**
Client ID: **358-PH4-10** Batch ID: **28609** Analysis Date: **6/10/2020** SeqNo: **1194977**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloropropene	0.811	0.0230	1.150	0	70.5	69.3	126	0.8981	10.2	30	
Carbon tetrachloride	0.786	0.0575	1.150	0	68.3	65	127	0.8588	8.89	30	
1,2-Dichloroethane (EDC)	1.02	0.0230	1.150	0	88.4	70.1	121	1.074	5.47	30	
Trichloroethene (TCE)	0.870	0.0230	1.150	0	75.7	70.1	129	0.9583	9.69	30	
1,2-Dichloropropane	0.932	0.0230	1.150	0	81.1	74.6	120	1.009	7.85	30	
Bromodichloromethane	1.02	0.0230	1.150	0	88.9	70.9	122	1.066	4.18	30	
Dibromomethane	0.986	0.0230	1.150	0	85.7	75.6	120	1.044	5.75	30	
cis-1,3-Dichloropropene	0.880	0.0230	1.150	0	76.5	68.3	120	0.9048	2.77	30	
trans-1,3-Dichloropropylene	0.987	0.0230	1.150	0	85.9	62.2	127	1.032	4.47	30	
1,1,2-Trichloroethane	0.950	0.0230	1.150	0	82.7	72.9	120	1.000	5.10	30	
1,3-Dichloropropane	0.925	0.0287	1.150	0	80.5	71.9	119	0.9898	6.71	30	
Tetrachloroethene (PCE)	0.822	0.0287	1.150	0	71.5	71.1	122	0.9226	11.5	30	
Dibromochloromethane	1.04	0.0287	1.150	0	90.5	65.9	126	1.095	5.17	30	
1,2-Dibromoethane (EDB)	0.951	0.00575	1.150	0	82.7	72	119	1.005	5.50	30	
Chlorobenzene	0.963	0.0287	1.150	0	83.7	81.4	116	1.021	5.93	30	
1,1,1,2-Tetrachloroethane	1.07	0.0287	1.150	0	93.2	72.9	125	1.122	4.61	30	
Bromoform	1.16	0.0575	1.150	0	101	63.4	133	1.173	0.878	30	
1,1,2,2-Tetrachloroethane	1.12	0.0230	1.150	0	97.3	61	128	1.136	1.47	30	
Bromobenzene	1.03	0.0230	1.150	0	89.7	77	120	1.087	5.29	30	
2-Chlorotoluene	0.980	0.0287	1.150	0	85.2	71.4	126	1.042	6.15	30	
4-Chlorotoluene	0.982	0.0287	1.150	0	85.4	73.6	124	1.061	7.80	30	
1,2,3-Trichloropropane	1.11	0.0287	1.150	0	96.6	65.7	132	1.143	2.84	30	
1,2,4-Trichlorobenzene	0.962	0.0287	1.150	0	83.7	70.5	130	1.020	5.88	30	
1,3-Dichlorobenzene	0.991	0.0230	1.150	0	86.2	83.8	121	1.046	5.39	30	
1,4-Dichlorobenzene	1.00	0.0230	1.150	0	87.4	85.7	117	1.050	4.46	30	
1,2-Dichlorobenzene	1.01	0.0230	1.150	0	88.3	81.8	120	1.059	4.25	30	
1,2-Dibromo-3-chloropropane	1.12	0.575	1.150	0	97.4	56.9	139	1.115	0.380	30	
Hexachloro-1,3-butadiene	0.899	0.0575	1.150	0	78.2	61.1	140	1.010	11.7	30	
1,2,3-Trichlorobenzene	0.959	0.0230	1.150	0	83.4	67.8	132	0.9747	1.63	30	
Surr: Dibromofluoromethane	1.49		1.437		104	83.3	111		0		
Surr: Toluene-d8	1.35		1.437		94.2	87.9	111		0		

Date: *6/10/2020*

Work Order: 2006155
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2006155-015BMSD** SampType: **MSD** Units: **mg/Kg-dry** Prep Date: **6/9/2020** RunNo: **59716**
Client ID: **358-PH4-10** Batch ID: **28609** Analysis Date: **6/10/2020** SeqNo: **1194977**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: 1-Bromo-4-fluorobenzene	1.51		1.437		105	85.1	111		0		

NOTES:
R - High RPD observed, spike recovery is within range.

Sample Log-In Check List

Client Name:	**ONEILL**	Work Order Number:	**2006155**
Logged by:	**Carissa True**	Date Received:	**6/9/2020 4:28:00 PM**

Chain of Custody

1.	Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
2.	How was the sample delivered?	Client		

Log In

3.	Coolers are present?	Yes ☑	No ☐	NA ☐
4.	Shipping container/cooler in good condition?	Yes ☑	No ☐	
5.	Custody Seals present on shipping container/cooler? (Refer to comments for Custody Seals not intact)	Yes ☐	No ☐	Not Present ☑
6.	Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
7.	Were all items received at a temperature of >2°C to 6°C *	Yes ☑	No ☐	NA ☐
8.	Sample(s) in proper container(s)?	Yes ☑	No ☐	
9.	Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
10.	Are samples properly preserved?	Yes ☑	No ☐	
11.	Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
12.	Is there headspace in the VOA vials?	Yes ☐	No ☐	NA ☑
13.	Did all samples containers arrive in good condition(unbroken)?	Yes ☑	No ☐	
14.	Does paperwork match bottle labels?	Yes ☑	No ☐	
15.	Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
16.	Is it clear what analyses were requested?	Yes ☑	No ☐	
17.	Were all holding times able to be met?	Yes ☑	No ☐	

Special Handling (if applicable)

18.	Was client notified of all discrepancies with this order?	Yes ☐	No ☐	NA ☑

Person Notified: _____ Date: _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

19. Additional remarks:

Item Information

Item #	Temp ºC
Cooler 1	3.6
Sample 1	2.7
Temp Blank 1	4.3

* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C

Fremont Analytical
3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790
Fax: 206-352-7178

Chain of Custody Record & Laboratory Services Agreement

Date: 6/9/2020 Page: 1 of: 2

Laboratory Project No (internal): 2006155

Project Name: FR00

Project No: 2021

Collected by: DL

Location: FL358

Report To (PM): Vance

Client: OSG

Address:

City, State, Zip:

Telephone:

Fax:

PM Email:

Special Remarks:

Sample Disposal: ☐ Return to client ☐ Disposal by lab (after 30 days)

	Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	VOCs (EPA 8260 / 624)	GX/BTEX	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DX)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8) Total (T) | Dissolved (D)	Anions (IC)***	EDB (8011)	HVOC				Comments
1	358-PH1-1	6/9/20	1345	S													X				
2	358-PH1-2	↓	1345	↓													X				
3	358-PH1-4		1350														X				
4	358-PH1-7		1355														X				
5	358-PH1-10		1400														X				
6	358-PH3-1		1415														X				
7	358-PH3-2		1415														X				
8	358-PH3-4		1420														X				
9	358-PH3-7		1425														X				
10	358-PH3-10	↓	1430	↓													X				

*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

**Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL *Individual:* Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti Tl U V Zn

***Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above and that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished	Date/Time	Received	Date/Time
x [signature]	6/9/2020 1600	x [signature]	6/9/2020 1628
Relinquished	Date/Time	Received	Date/Time
x		x	

Turn-around Time:

- ☐ Standard
- ☐ 3 Day
- ☐ 2 Day
- ☒ Next Day
- Same Day ____ (specify)

Chain of Custody Record & Laboratory Services Agreement

Fremont Analytical
3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790
Fax: 206-352-7178

Date: 6/9/2020 Page: 2 of: 2

Laboratory Project No (internal): 2006155

Project Name: F200

Project No: 2021

Collected by: DL

Location: FL358

Report To (PM): Vance

Client: CSG

Address:

City, State, Zip:

Telephone:

Fax:

PM Email:

Special Remarks:

Sample Disposal: ☐ Return to client ☐ Disposal by lab (after 30 days)

	Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	VOCs (EPA 8260 / 624)	GX/BTEX	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DX)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8) Total (T) | Dissolved (D)	Anions (IC)***	EDB (8011)	HVOC				Comments
1	358-PH4-1	6/9/20	1435	S													X				
2	358-PH4-2	↓	1435	↓													X				
3	358-PH4-4		1440														X				
4	358-PH4-7		1445														X				
5	358-PH4-10	↓	1450	↓													X				
6																					
7																					
8																					
9																					
10																					

*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

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Relinquished	Date/Time	Received	Date/Time
x [signature]	6/9/2020 1600	x [signature]	6/9/2020 1628
Relinquished	Date/Time	Received	Date/Time
x		x	

Turn-around Time:

- ☐ Standard
- ☐ 3 Day
- ☐ 2 Day
- ☒ Next Day
- Same Day ____ (specify)

3600 Fremont Ave. N.
Seattle, WA 98103
T: (206) 352-3790
F: (206) 352-7178
info@fremontanalytical.com

O'Neill Service Group
Vance Atkins
17619 NE 67th Court, Suite 100
Redmond, WA 98052

RE: F200
Work Order Number: 2006190

June 23, 2020

Attention Vance Atkins:

Fremont Analytical, Inc. received 23 sample(s) on 6/10/2020 for the analyses presented in the following report.

Organic Matter of Organic Soils by ASTM D2974
Sample Moisture (Percent Moisture)
Volatile Organic Compounds by EPA Method 8260D
Volatile Organic Compounds by SW8260D/TCLP ZHE

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Brianna Barnes
Project Manager

Date: *06/23/2020*

CLIENT: O'Neill Service Group
Project: F200
Work Order: 2006190

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
2006190-001	358-PH8-5	06/10/2020 8:40 AM	06/10/2020 2:49 PM
2006190-002	358-PH2-1	06/10/2020 9:00 AM	06/10/2020 2:49 PM
2006190-003	358-PH2-2	06/10/2020 9:05 AM	06/10/2020 2:49 PM
2006190-004	358-PH2-4	06/10/2020 9:10 AM	06/10/2020 2:49 PM
2006190-005	358-PH2-7	06/10/2020 9:15 AM	06/10/2020 2:49 PM
2006190-006	358-PH2-10	06/10/2020 9:20 AM	06/10/2020 2:49 PM
2006190-007	358-PH5-1	06/10/2020 9:35 AM	06/10/2020 2:49 PM
2006190-008	358-PH5-2	06/10/2020 9:40 AM	06/10/2020 2:49 PM
2006190-009	358-PH5-4	06/10/2020 9:45 AM	06/10/2020 2:49 PM
2006190-010	358-PH5-7	06/10/2020 9:50 AM	06/10/2020 2:49 PM
2006190-011	358-PH5-10	06/10/2020 9:55 AM	06/10/2020 2:49 PM
2006190-012	358-PH6-1	06/10/2020 10:10 AM	06/10/2020 2:49 PM
2006190-013	358-PH6-2	06/10/2020 10:15 AM	06/10/2020 2:49 PM
2006190-014	358-PH6-4	06/10/2020 10:20 AM	06/10/2020 2:49 PM
2006190-015	358-PH6-7	06/10/2020 10:25 AM	06/10/2020 2:49 PM
2006190-016	358-PH6-10	06/10/2020 10:30 AM	06/10/2020 2:49 PM
2006190-017	358-PH7-1	06/10/2020 11:00 AM	06/10/2020 2:49 PM
2006190-018	358-PH7-2	06/10/2020 11:05 AM	06/10/2020 2:49 PM
2006190-019	358-PH7-4	06/10/2020 11:10 AM	06/10/2020 2:49 PM
2006190-020	358-PH7-7	06/10/2020 11:15 AM	06/10/2020 2:49 PM
2006190-021	358-PH7-9	06/10/2020 11:20 AM	06/10/2020 2:49 PM
2006190-022	358-PH7-12	06/10/2020 11:25 AM	06/10/2020 2:49 PM
2006190-023	358-PH7-15	06/10/2020 11:30 AM	06/10/2020 2:49 PM

Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned

Case Narrative

WO#: **2006190**

Date: **6/23/2020**

CLIENT: O'Neill Service Group

Project: F200

I. SAMPLE RECEIPT:
Samples receipt information is recorded on the attached Sample Receipt Checklist.

II. GENERAL REPORTING COMMENTS:
Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

III. ANALYSES AND EXCEPTIONS:
Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

6/23/2020: Revision 1 includes additional analysis requested by client.

Qualifiers:

* - Flagged value is not within established control limits
B - Analyte detected in the associated Method Blank
D - Dilution was required
E - Value above quantitation range
H - Holding times for preparation or analysis exceeded
I - Analyte with an internal standard that does not meet established acceptance criteria
J - Analyte detected below Reporting Limit
N - Tentatively Identified Compound (TIC)
Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF)
S - Spike recovery outside accepted recovery limits
ND - Not detected at the Reporting Limit
R - High relative percent difference observed

Acronyms:

%Rec - Percent Recovery
CCB - Continued Calibration Blank
CCV - Continued Calibration Verification
DF - Dilution Factor
HEM - Hexane Extractable Material
ICV - Initial Calibration Verification
LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
MB or MBLANK - Method Blank
MDL - Method Detection Limit
MS/MSD - Matrix Spike / Matrix Spike Duplicate
PDS - Post Digestion Spike
Ref Val - Reference Value
RL - Reporting Limit
RPD - Relative Percent Difference
SD - Serial Dilution
SGT - Silica Gel Treatment
SPK - Spike
Surr - Surrogate

Analytical Report

Work Order: **2006190**
Date Reported: **6/23/2020**

Client: O'Neill Service Group
Collection Date: 6/10/2020 8:40:00 AM
Project: F200
Lab ID: 2006190-001
Matrix: Soil
Client Sample ID: 358-PH8-5

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28615 Analyst: CR

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0220		mg/Kg-dry	1	6/11/2020 1:32:14 AM
Chloromethane	ND	0.0550		mg/Kg-dry	1	6/11/2020 1:32:14 AM
Vinyl chloride	0.0365	0.0275		mg/Kg-dry	1	6/11/2020 1:32:14 AM
Bromomethane	ND	0.0550		mg/Kg-dry	1	6/11/2020 1:32:14 AM
Trichlorofluoromethane (CFC-11)	ND	0.0220		mg/Kg-dry	1	6/11/2020 1:32:14 AM
Chloroethane	ND	0.0550		mg/Kg-dry	1	6/11/2020 1:32:14 AM
1,1-Dichloroethene	ND	0.0220		mg/Kg-dry	1	6/11/2020 1:32:14 AM
Methylene chloride	ND	0.0220		mg/Kg-dry	1	6/11/2020 1:32:14 AM
trans-1,2-Dichloroethene	0.305	0.0220		mg/Kg-dry	1	6/11/2020 1:32:14 AM
1,1-Dichloroethane	ND	0.0220		mg/Kg-dry	1	6/11/2020 1:32:14 AM
cis-1,2-Dichloroethene	8.91	1.10	D	mg/Kg-dry	50	6/11/2020 7:23:57 AM
Chloroform	ND	0.0220		mg/Kg-dry	1	6/11/2020 1:32:14 AM
1,1,1-Trichloroethane (TCA)	ND	0.0275		mg/Kg-dry	1	6/11/2020 1:32:14 AM
1,1-Dichloropropene	ND	0.0220		mg/Kg-dry	1	6/11/2020 1:32:14 AM
Carbon tetrachloride	ND	0.0275		mg/Kg-dry	1	6/11/2020 1:32:14 AM
1,2-Dichloroethane (EDC)	ND	0.0220		mg/Kg-dry	1	6/11/2020 1:32:14 AM
Trichloroethene (TCE)	16.9	1.10	D	mg/Kg-dry	50	6/11/2020 7:23:57 AM
1,2-Dichloropropane	ND	0.0220		mg/Kg-dry	1	6/11/2020 1:32:14 AM
Bromodichloromethane	ND	0.0220		mg/Kg-dry	1	6/11/2020 1:32:14 AM
Dibromomethane	ND	0.0220		mg/Kg-dry	1	6/11/2020 1:32:14 AM
cis-1,3-Dichloropropene	ND	0.0220		mg/Kg-dry	1	6/11/2020 1:32:14 AM
trans-1,3-Dichloropropylene	ND	0.0220		mg/Kg-dry	1	6/11/2020 1:32:14 AM
1,1,2-Trichloroethane	ND	0.0220		mg/Kg-dry	1	6/11/2020 1:32:14 AM
1,3-Dichloropropane	ND	0.0275		mg/Kg-dry	1	6/11/2020 1:32:14 AM
Tetrachloroethene (PCE)	15.3	1.37	D	mg/Kg-dry	50	6/11/2020 7:23:57 AM
Dibromochloromethane	ND	0.0275		mg/Kg-dry	1	6/11/2020 1:32:14 AM
1,2-Dibromoethane (EDB)	ND	0.00550		mg/Kg-dry	1	6/11/2020 1:32:14 AM
Chlorobenzene	ND	0.0275		mg/Kg-dry	1	6/11/2020 1:32:14 AM
1,1,1,2-Tetrachloroethane	ND	0.0275		mg/Kg-dry	1	6/11/2020 1:32:14 AM
Bromoform	ND	0.0550		mg/Kg-dry	1	6/11/2020 1:32:14 AM
1,1,2,2-Tetrachloroethane	ND	0.0220		mg/Kg-dry	1	6/11/2020 1:32:14 AM
Bromobenzene	ND	0.0220		mg/Kg-dry	1	6/11/2020 1:32:14 AM
2-Chlorotoluene	ND	0.0275		mg/Kg-dry	1	6/11/2020 1:32:14 AM
4-Chlorotoluene	ND	0.0275		mg/Kg-dry	1	6/11/2020 1:32:14 AM
1,2,3-Trichloropropane	ND	0.0275		mg/Kg-dry	1	6/11/2020 1:32:14 AM
1,2,4-Trichlorobenzene	ND	0.0275		mg/Kg-dry	1	6/11/2020 1:32:14 AM
1,3-Dichlorobenzene	ND	0.0220		mg/Kg-dry	1	6/11/2020 1:32:14 AM
1,4-Dichlorobenzene	ND	0.0220		mg/Kg-dry	1	6/11/2020 1:32:14 AM
1,2-Dichlorobenzene	ND	0.0220		mg/Kg-dry	1	6/11/2020 1:32:14 AM

Analytical Report

Work Order: **2006190**
Date Reported: **6/23/2020**

Client: O'Neill Service Group
Collection Date: 6/10/2020 8:40:00 AM
Project: F200
Lab ID: 2006190-001
Matrix: Soil
Client Sample ID: 358-PH8-5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28615		Analyst: CR
1,2-Dibromo-3-chloropropane	ND	0.550		mg/Kg-dry	1	6/11/2020 1:32:14 AM
Hexachloro-1,3-butadiene	ND	0.0550		mg/Kg-dry	1	6/11/2020 1:32:14 AM
1,2,3-Trichlorobenzene	ND	0.0220		mg/Kg-dry	1	6/11/2020 1:32:14 AM
Surr: Dibromofluoromethane	98.9	83.3 - 111		%Rec	1	6/11/2020 1:32:14 AM
Surr: Toluene-d8	97.3	87.9 - 111		%Rec	1	6/11/2020 1:32:14 AM
Surr: 1-Bromo-4-fluorobenzene	99.3	85.1 - 111		%Rec	1	6/11/2020 1:32:14 AM
Volatile Organic Compounds by SW8260D/TCLP ZHE				Batch ID: 28762		Analyst: KT
Dichlorodifluoromethane (CFC-12)	ND	10.0	D	µg/L	10	6/23/2020 12:31:47 PM
Chloromethane	ND	20.0	DQ*	µg/L	10	6/23/2020 12:31:47 PM
Vinyl chloride	ND	2.00	D	µg/L	10	6/23/2020 12:31:47 PM
Bromomethane	ND	10.0	D	µg/L	10	6/23/2020 12:31:47 PM
Trichlorofluoromethane (CFC-11)	ND	10.0	D	µg/L	10	6/23/2020 12:31:47 PM
Chloroethane	ND	10.0	D	µg/L	10	6/23/2020 12:31:47 PM
1,1-Dichloroethylene	ND	10.0	D	µg/L	10	6/23/2020 12:31:47 PM
Methylene chloride	ND	10.0	D	µg/L	10	6/23/2020 12:31:47 PM
trans-1,2-Dichloroethene	ND	10.0	D	µg/L	10	6/23/2020 12:31:47 PM
Methyl tert-butyl ether (MTBE)	ND	10.0	D	µg/L	10	6/23/2020 12:31:47 PM
1,1-Dichloroethane	ND	10.0	D	µg/L	10	6/23/2020 12:31:47 PM
cis-1,2-Dichloroethene	65.0	10.0	D	µg/L	10	6/23/2020 12:31:47 PM
Chloroform	ND	10.0	D	µg/L	10	6/23/2020 12:31:47 PM
1,1,1-Trichloroethane (TCA)	ND	10.0	D	µg/L	10	6/23/2020 12:31:47 PM
1,1-Dichloropropene	ND	10.0	D	µg/L	10	6/23/2020 12:31:47 PM
Carbon tetrachloride	ND	10.0	D	µg/L	10	6/23/2020 12:31:47 PM
1,2-Dichloroethane (EDC)	ND	10.0	D	µg/L	10	6/23/2020 12:31:47 PM
Benzene	ND	10.0	D	µg/L	10	6/23/2020 12:31:47 PM
Trichloroethene (TCE)	175	5.00	D	µg/L	10	6/23/2020 12:31:47 PM
1,2-Dichloropropane	ND	10.0	D	µg/L	10	6/23/2020 12:31:47 PM
Bromodichloromethane	ND	10.0	D	µg/L	10	6/23/2020 12:31:47 PM
Dibromomethane	ND	10.0	D	µg/L	10	6/23/2020 12:31:47 PM
cis-1,3-Dichloropropene	ND	10.0	D	µg/L	10	6/23/2020 12:31:47 PM
Toluene	ND	10.0	D	µg/L	10	6/23/2020 12:31:47 PM
trans-1,3-Dichloropropene	ND	10.0	D	µg/L	10	6/23/2020 12:31:47 PM
1,1,2-Trichloroethane	ND	10.0	D	µg/L	10	6/23/2020 12:31:47 PM
1,3-Dichloropropane	ND	10.0	D	µg/L	10	6/23/2020 12:31:47 PM
Tetrachloroethene (PCE)	202	10.0	D	µg/L	10	6/23/2020 12:31:47 PM
Dibromochloromethane	ND	10.0	D	µg/L	10	6/23/2020 12:31:47 PM
1,2-Dibromoethane (EDB)	ND	2.50	D	µg/L	10	6/23/2020 12:31:47 PM

Analytical Report

Work Order: **2006190**
Date Reported: **6/23/2020**

Client: O'Neill Service Group
Collection Date: 6/10/2020 8:40:00 AM
Project: F200
Lab ID: 2006190-001
Matrix: Soil
Client Sample ID: 358-PH8-5

Volatile Organic Compounds by SW8260D/TCLP ZHE

Batch ID: 28762 Analyst: KT

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Chlorobenzene	ND	10.0	D	µg/L	10	6/23/2020 12:31:47 PM
1,1,1,2-Tetrachloroethane	ND	10.0	D	µg/L	10	6/23/2020 12:31:47 PM
Ethylbenzene	ND	10.0	D	µg/L	10	6/23/2020 12:31:47 PM
m,p-Xylene	ND	10.0	D	µg/L	10	6/23/2020 12:31:47 PM
o-Xylene	ND	10.0	D	µg/L	10	6/23/2020 12:31:47 PM
Styrene	ND	10.0	D	µg/L	10	6/23/2020 12:31:47 PM
Isopropylbenzene	ND	10.0	D	µg/L	10	6/23/2020 12:31:47 PM
Bromoform	ND	20.0	D	µg/L	10	6/23/2020 12:31:47 PM
1,1,2,2-Tetrachloroethane	ND	10.0	D	µg/L	10	6/23/2020 12:31:47 PM
n-Propylbenzene	ND	10.0	D	µg/L	10	6/23/2020 12:31:47 PM
Bromobenzene	ND	10.0	D	µg/L	10	6/23/2020 12:31:47 PM
1,3,5-Trimethylbenzene	ND	10.0	D	µg/L	10	6/23/2020 12:31:47 PM
2-Chlorotoluene	ND	10.0	D	µg/L	10	6/23/2020 12:31:47 PM
4-Chlorotoluene	ND	10.0	D	µg/L	10	6/23/2020 12:31:47 PM
tert-Butylbenzene	ND	10.0	D	µg/L	10	6/23/2020 12:31:47 PM
1,2,3-Trichloropropane	ND	10.0	D	µg/L	10	6/23/2020 12:31:47 PM
1,2,4-Trichlorobenzene	ND	20.0	D	µg/L	10	6/23/2020 12:31:47 PM
sec-Butylbenzene	ND	10.0	D	µg/L	10	6/23/2020 12:31:47 PM
4-Isopropyltoluene	ND	10.0	D	µg/L	10	6/23/2020 12:31:47 PM
1,3-Dichlorobenzene	ND	10.0	D	µg/L	10	6/23/2020 12:31:47 PM
1,4-Dichlorobenzene	ND	10.0	D	µg/L	10	6/23/2020 12:31:47 PM
n-Butylbenzene	ND	10.0	D	µg/L	10	6/23/2020 12:31:47 PM
1,2-Dichlorobenzene	ND	10.0	D	µg/L	10	6/23/2020 12:31:47 PM
1,2-Dibromo-3-chloropropane	ND	10.0	D	µg/L	10	6/23/2020 12:31:47 PM
1,2,4-Trimethylbenzene	ND	10.0	D	µg/L	10	6/23/2020 12:31:47 PM
Hexachloro-1,3-butadiene	ND	40.0	D	µg/L	10	6/23/2020 12:31:47 PM
Naphthalene	ND	10.0	D	µg/L	10	6/23/2020 12:31:47 PM
1,2,3-Trichlorobenzene	ND	40.0	D	µg/L	10	6/23/2020 12:31:47 PM
Surr: Dibromofluoromethane	95.6	83.7 - 117	D	%Rec	10	6/23/2020 12:31:47 PM
Surr: Toluene-d8	95.8	87.6 - 113	D	%Rec	10	6/23/2020 12:31:47 PM
Surr: 1-Bromo-4-fluorobenzene	97.7	81.2 - 113	D	%Rec	10	6/23/2020 12:31:47 PM

NOTES:
Q - Indicates an analyte with a continuing calibration that does not meet established acceptance criteria
* - Flagged value is not within established control limits.

Sample Moisture (Percent Moisture)

Batch ID: R59751 Analyst: CG

Percent Moisture	12.1	0.500		wt%	1	6/11/2020 9:58:39 AM

Analytical Report

Work Order: **2006190**
Date Reported: **6/23/2020**

Client: O'Neill Service Group
Collection Date: 6/10/2020 9:00:00 AM
Project: F200
Lab ID: 2006190-002
Matrix: Soil
Client Sample ID: 358-PH2-1

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28615 Analyst: CR

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0251		mg/Kg-dry	1	6/10/2020 9:01:00 PM
Chloromethane	ND	0.0627		mg/Kg-dry	1	6/10/2020 9:01:00 PM
Vinyl chloride	ND	0.0313		mg/Kg-dry	1	6/10/2020 9:01:00 PM
Bromomethane	ND	0.0627		mg/Kg-dry	1	6/10/2020 9:01:00 PM
Trichlorofluoromethane (CFC-11)	ND	0.0251		mg/Kg-dry	1	6/10/2020 9:01:00 PM
Chloroethane	ND	0.0627		mg/Kg-dry	1	6/10/2020 9:01:00 PM
1,1-Dichloroethene	ND	0.0251		mg/Kg-dry	1	6/10/2020 9:01:00 PM
Methylene chloride	ND	0.0251		mg/Kg-dry	1	6/10/2020 9:01:00 PM
trans-1,2-Dichloroethene	ND	0.0251		mg/Kg-dry	1	6/10/2020 9:01:00 PM
1,1-Dichloroethane	ND	0.0251		mg/Kg-dry	1	6/10/2020 9:01:00 PM
cis-1,2-Dichloroethene	ND	0.0251		mg/Kg-dry	1	6/10/2020 9:01:00 PM
Chloroform	ND	0.0251		mg/Kg-dry	1	6/10/2020 9:01:00 PM
1,1,1-Trichloroethane (TCA)	ND	0.0313		mg/Kg-dry	1	6/10/2020 9:01:00 PM
1,1-Dichloropropene	ND	0.0251		mg/Kg-dry	1	6/10/2020 9:01:00 PM
Carbon tetrachloride	ND	0.0313		mg/Kg-dry	1	6/10/2020 9:01:00 PM
1,2-Dichloroethane (EDC)	ND	0.0251		mg/Kg-dry	1	6/10/2020 9:01:00 PM
Trichloroethene (TCE)	ND	0.0251		mg/Kg-dry	1	6/10/2020 9:01:00 PM
1,2-Dichloropropane	ND	0.0251		mg/Kg-dry	1	6/10/2020 9:01:00 PM
Bromodichloromethane	ND	0.0251		mg/Kg-dry	1	6/10/2020 9:01:00 PM
Dibromomethane	ND	0.0251		mg/Kg-dry	1	6/10/2020 9:01:00 PM
cis-1,3-Dichloropropene	ND	0.0251		mg/Kg-dry	1	6/10/2020 9:01:00 PM
trans-1,3-Dichloropropylene	ND	0.0251		mg/Kg-dry	1	6/10/2020 9:01:00 PM
1,1,2-Trichloroethane	ND	0.0251		mg/Kg-dry	1	6/10/2020 9:01:00 PM
1,3-Dichloropropane	ND	0.0313		mg/Kg-dry	1	6/10/2020 9:01:00 PM
Tetrachloroethene (PCE)	0.0905	0.0313		mg/Kg-dry	1	6/10/2020 9:01:00 PM
Dibromochloromethane	ND	0.0313		mg/Kg-dry	1	6/10/2020 9:01:00 PM
1,2-Dibromoethane (EDB)	ND	0.00627		mg/Kg-dry	1	6/10/2020 9:01:00 PM
Chlorobenzene	ND	0.0313		mg/Kg-dry	1	6/10/2020 9:01:00 PM
1,1,1,2-Tetrachloroethane	ND	0.0313		mg/Kg-dry	1	6/10/2020 9:01:00 PM
Bromoform	ND	0.0627		mg/Kg-dry	1	6/10/2020 9:01:00 PM
1,1,2,2-Tetrachloroethane	ND	0.0251		mg/Kg-dry	1	6/10/2020 9:01:00 PM
Bromobenzene	ND	0.0251		mg/Kg-dry	1	6/10/2020 9:01:00 PM
2-Chlorotoluene	ND	0.0313		mg/Kg-dry	1	6/10/2020 9:01:00 PM
4-Chlorotoluene	ND	0.0313		mg/Kg-dry	1	6/10/2020 9:01:00 PM
1,2,3-Trichloropropane	ND	0.0313		mg/Kg-dry	1	6/10/2020 9:01:00 PM
1,2,4-Trichlorobenzene	ND	0.0313		mg/Kg-dry	1	6/10/2020 9:01:00 PM
1,3-Dichlorobenzene	ND	0.0251		mg/Kg-dry	1	6/10/2020 9:01:00 PM
1,4-Dichlorobenzene	ND	0.0251		mg/Kg-dry	1	6/10/2020 9:01:00 PM
1,2-Dichlorobenzene	ND	0.0251		mg/Kg-dry	1	6/10/2020 9:01:00 PM

Analytical Report

Work Order: **2006190**
Date Reported: **6/23/2020**

Client: O'Neill Service Group
Collection Date: 6/10/2020 9:00:00 AM
Project: F200
Lab ID: 2006190-002
Matrix: Soil
Client Sample ID: 358-PH2-1

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28615		Analyst: CR
1,2-Dibromo-3-chloropropane	ND	0.627		mg/Kg-dry	1	6/10/2020 9:01:00 PM
Hexachloro-1,3-butadiene	ND	0.0627		mg/Kg-dry	1	6/10/2020 9:01:00 PM
1,2,3-Trichlorobenzene	ND	0.0251		mg/Kg-dry	1	6/10/2020 9:01:00 PM
Surr: Dibromofluoromethane	95.6	83.3 - 111		%Rec	1	6/10/2020 9:01:00 PM
Surr: Toluene-d8	95.9	87.9 - 111		%Rec	1	6/10/2020 9:01:00 PM
Surr: 1-Bromo-4-fluorobenzene	98.9	85.1 - 111		%Rec	1	6/10/2020 9:01:00 PM
Sample Moisture (Percent Moisture)				Batch ID: R59751		Analyst: CG
Percent Moisture	7.55	0.500		wt%	1	6/11/2020 9:58:39 AM

Analytical Report

Work Order: **2006190**
Date Reported: **6/23/2020**

Client: O'Neill Service Group
Collection Date: 6/10/2020 9:05:00 AM
Project: F200
Lab ID: 2006190-003
Matrix: Soil
Client Sample ID: 358-PH2-2

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28615 Analyst: CR

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0219		mg/Kg-dry	1	6/10/2020 9:31:14 PM
Chloromethane	ND	0.0549		mg/Kg-dry	1	6/10/2020 9:31:14 PM
Vinyl chloride	ND	0.0274		mg/Kg-dry	1	6/10/2020 9:31:14 PM
Bromomethane	ND	0.0549		mg/Kg-dry	1	6/10/2020 9:31:14 PM
Trichlorofluoromethane (CFC-11)	ND	0.0219		mg/Kg-dry	1	6/10/2020 9:31:14 PM
Chloroethane	ND	0.0549		mg/Kg-dry	1	6/10/2020 9:31:14 PM
1,1-Dichloroethene	ND	0.0219		mg/Kg-dry	1	6/10/2020 9:31:14 PM
Methylene chloride	ND	0.0219		mg/Kg-dry	1	6/10/2020 9:31:14 PM
trans-1,2-Dichloroethene	ND	0.0219		mg/Kg-dry	1	6/10/2020 9:31:14 PM
1,1-Dichloroethane	ND	0.0219		mg/Kg-dry	1	6/10/2020 9:31:14 PM
cis-1,2-Dichloroethene	ND	0.0219		mg/Kg-dry	1	6/10/2020 9:31:14 PM
Chloroform	ND	0.0219		mg/Kg-dry	1	6/10/2020 9:31:14 PM
1,1,1-Trichloroethane (TCA)	ND	0.0274		mg/Kg-dry	1	6/10/2020 9:31:14 PM
1,1-Dichloropropene	ND	0.0219		mg/Kg-dry	1	6/10/2020 9:31:14 PM
Carbon tetrachloride	ND	0.0274		mg/Kg-dry	1	6/10/2020 9:31:14 PM
1,2-Dichloroethane (EDC)	ND	0.0219		mg/Kg-dry	1	6/10/2020 9:31:14 PM
Trichloroethene (TCE)	ND	0.0219		mg/Kg-dry	1	6/10/2020 9:31:14 PM
1,2-Dichloropropane	ND	0.0219		mg/Kg-dry	1	6/10/2020 9:31:14 PM
Bromodichloromethane	ND	0.0219		mg/Kg-dry	1	6/10/2020 9:31:14 PM
Dibromomethane	ND	0.0219		mg/Kg-dry	1	6/10/2020 9:31:14 PM
cis-1,3-Dichloropropene	ND	0.0219		mg/Kg-dry	1	6/10/2020 9:31:14 PM
trans-1,3-Dichloropropylene	ND	0.0219		mg/Kg-dry	1	6/10/2020 9:31:14 PM
1,1,2-Trichloroethane	ND	0.0219		mg/Kg-dry	1	6/10/2020 9:31:14 PM
1,3-Dichloropropane	ND	0.0274		mg/Kg-dry	1	6/10/2020 9:31:14 PM
Tetrachloroethene (PCE)	ND	0.0274		mg/Kg-dry	1	6/10/2020 9:31:14 PM
Dibromochloromethane	ND	0.0274		mg/Kg-dry	1	6/10/2020 9:31:14 PM
1,2-Dibromoethane (EDB)	ND	0.00549		mg/Kg-dry	1	6/10/2020 9:31:14 PM
Chlorobenzene	ND	0.0274		mg/Kg-dry	1	6/10/2020 9:31:14 PM
1,1,1,2-Tetrachloroethane	ND	0.0274		mg/Kg-dry	1	6/10/2020 9:31:14 PM
Bromoform	ND	0.0549		mg/Kg-dry	1	6/10/2020 9:31:14 PM
1,1,2,2-Tetrachloroethane	ND	0.0219		mg/Kg-dry	1	6/10/2020 9:31:14 PM
Bromobenzene	ND	0.0219		mg/Kg-dry	1	6/10/2020 9:31:14 PM
2-Chlorotoluene	ND	0.0274		mg/Kg-dry	1	6/10/2020 9:31:14 PM
4-Chlorotoluene	ND	0.0274		mg/Kg-dry	1	6/10/2020 9:31:14 PM
1,2,3-Trichloropropane	ND	0.0274		mg/Kg-dry	1	6/10/2020 9:31:14 PM
1,2,4-Trichlorobenzene	ND	0.0274		mg/Kg-dry	1	6/10/2020 9:31:14 PM
1,3-Dichlorobenzene	ND	0.0219		mg/Kg-dry	1	6/10/2020 9:31:14 PM
1,4-Dichlorobenzene	ND	0.0219		mg/Kg-dry	1	6/10/2020 9:31:14 PM
1,2-Dichlorobenzene	ND	0.0219		mg/Kg-dry	1	6/10/2020 9:31:14 PM

Analytical Report

Work Order: **2006190**
Date Reported: **6/23/2020**

Client: O'Neill Service Group
Collection Date: 6/10/2020 9:05:00 AM
Project: F200
Lab ID: 2006190-003
Matrix: Soil
Client Sample ID: 358-PH2-2

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28615		Analyst: CR
1,2-Dibromo-3-chloropropane	ND	0.549		mg/Kg-dry	1	6/10/2020 9:31:14 PM
Hexachloro-1,3-butadiene	ND	0.0549		mg/Kg-dry	1	6/10/2020 9:31:14 PM
1,2,3-Trichlorobenzene	ND	0.0219		mg/Kg-dry	1	6/10/2020 9:31:14 PM
Surr: Dibromofluoromethane	97.7	83.3 - 111		%Rec	1	6/10/2020 9:31:14 PM
Surr: Toluene-d8	97.4	87.9 - 111		%Rec	1	6/10/2020 9:31:14 PM
Surr: 1-Bromo-4-fluorobenzene	99.3	85.1 - 111		%Rec	1	6/10/2020 9:31:14 PM
Sample Moisture (Percent Moisture)				Batch ID: R59751		Analyst: CG
Percent Moisture	8.12	0.500		wt%	1	6/11/2020 9:58:39 AM
Organic Matter of Organic Soils by ASTM D2974				Batch ID: R59800		Analyst: SS
Organic Matter	0.536	0.500		%	1	6/10/2020 5:10:00 PM

Analytical Report

Work Order: **2006190**
Date Reported: **6/23/2020**

Client: O'Neill Service Group
Collection Date: 6/10/2020 9:10:00 AM
Project: F200
Lab ID: 2006190-004
Matrix: Soil
Client Sample ID: 358-PH2-4

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28615 Analyst: CR

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0240		mg/Kg-dry	1	6/10/2020 10:01:25 PM
Chloromethane	ND	0.0600		mg/Kg-dry	1	6/10/2020 10:01:25 PM
Vinyl chloride	ND	0.0300		mg/Kg-dry	1	6/10/2020 10:01:25 PM
Bromomethane	ND	0.0600		mg/Kg-dry	1	6/10/2020 10:01:25 PM
Trichlorofluoromethane (CFC-11)	ND	0.0240		mg/Kg-dry	1	6/10/2020 10:01:25 PM
Chloroethane	ND	0.0600		mg/Kg-dry	1	6/10/2020 10:01:25 PM
1,1-Dichloroethene	ND	0.0240		mg/Kg-dry	1	6/10/2020 10:01:25 PM
Methylene chloride	ND	0.0240		mg/Kg-dry	1	6/10/2020 10:01:25 PM
trans-1,2-Dichloroethene	ND	0.0240		mg/Kg-dry	1	6/10/2020 10:01:25 PM
1,1-Dichloroethane	ND	0.0240		mg/Kg-dry	1	6/10/2020 10:01:25 PM
cis-1,2-Dichloroethene	0.136	0.0240		mg/Kg-dry	1	6/10/2020 10:01:25 PM
Chloroform	ND	0.0240		mg/Kg-dry	1	6/10/2020 10:01:25 PM
1,1,1-Trichloroethane (TCA)	ND	0.0300		mg/Kg-dry	1	6/10/2020 10:01:25 PM
1,1-Dichloropropene	ND	0.0240		mg/Kg-dry	1	6/10/2020 10:01:25 PM
Carbon tetrachloride	ND	0.0300		mg/Kg-dry	1	6/10/2020 10:01:25 PM
1,2-Dichloroethane (EDC)	ND	0.0240		mg/Kg-dry	1	6/10/2020 10:01:25 PM
Trichloroethene (TCE)	ND	0.0240		mg/Kg-dry	1	6/10/2020 10:01:25 PM
1,2-Dichloropropane	ND	0.0240		mg/Kg-dry	1	6/10/2020 10:01:25 PM
Bromodichloromethane	ND	0.0240		mg/Kg-dry	1	6/10/2020 10:01:25 PM
Dibromomethane	ND	0.0240		mg/Kg-dry	1	6/10/2020 10:01:25 PM
cis-1,3-Dichloropropene	ND	0.0240		mg/Kg-dry	1	6/10/2020 10:01:25 PM
trans-1,3-Dichloropropylene	ND	0.0240		mg/Kg-dry	1	6/10/2020 10:01:25 PM
1,1,2-Trichloroethane	ND	0.0240		mg/Kg-dry	1	6/10/2020 10:01:25 PM
1,3-Dichloropropane	ND	0.0300		mg/Kg-dry	1	6/10/2020 10:01:25 PM
Tetrachloroethene (PCE)	ND	0.0300		mg/Kg-dry	1	6/10/2020 10:01:25 PM
Dibromochloromethane	ND	0.0300		mg/Kg-dry	1	6/10/2020 10:01:25 PM
1,2-Dibromoethane (EDB)	ND	0.00600		mg/Kg-dry	1	6/10/2020 10:01:25 PM
Chlorobenzene	ND	0.0300		mg/Kg-dry	1	6/10/2020 10:01:25 PM
1,1,1,2-Tetrachloroethane	ND	0.0300		mg/Kg-dry	1	6/10/2020 10:01:25 PM
Bromoform	ND	0.0600		mg/Kg-dry	1	6/10/2020 10:01:25 PM
1,1,2,2-Tetrachloroethane	ND	0.0240		mg/Kg-dry	1	6/10/2020 10:01:25 PM
Bromobenzene	ND	0.0240		mg/Kg-dry	1	6/10/2020 10:01:25 PM
2-Chlorotoluene	ND	0.0300		mg/Kg-dry	1	6/10/2020 10:01:25 PM
4-Chlorotoluene	ND	0.0300		mg/Kg-dry	1	6/10/2020 10:01:25 PM
1,2,3-Trichloropropane	ND	0.0300		mg/Kg-dry	1	6/10/2020 10:01:25 PM
1,2,4-Trichlorobenzene	ND	0.0300		mg/Kg-dry	1	6/10/2020 10:01:25 PM
1,3-Dichlorobenzene	ND	0.0240		mg/Kg-dry	1	6/10/2020 10:01:25 PM
1,4-Dichlorobenzene	ND	0.0240		mg/Kg-dry	1	6/10/2020 10:01:25 PM
1,2-Dichlorobenzene	ND	0.0240		mg/Kg-dry	1	6/10/2020 10:01:25 PM

Analytical Report

Work Order: **2006190**
Date Reported: **6/23/2020**

Client: O'Neill Service Group
Collection Date: 6/10/2020 9:10:00 AM
Project: F200
Lab ID: 2006190-004
Matrix: Soil
Client Sample ID: 358-PH2-4

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28615		Analyst: CR
1,2-Dibromo-3-chloropropane	ND	0.600		mg/Kg-dry	1	6/10/2020 10:01:25 PM
Hexachloro-1,3-butadiene	ND	0.0600		mg/Kg-dry	1	6/10/2020 10:01:25 PM
1,2,3-Trichlorobenzene	ND	0.0240		mg/Kg-dry	1	6/10/2020 10:01:25 PM
Surr: Dibromofluoromethane	96.8	83.3 - 111		%Rec	1	6/10/2020 10:01:25 PM
Surr: Toluene-d8	97.2	87.9 - 111		%Rec	1	6/10/2020 10:01:25 PM
Surr: 1-Bromo-4-fluorobenzene	98.6	85.1 - 111		%Rec	1	6/10/2020 10:01:25 PM
Sample Moisture (Percent Moisture)				Batch ID: R59751		Analyst: CG
Percent Moisture	11.0	0.500		wt%	1	6/11/2020 9:58:39 AM

Analytical Report

Work Order: **2006190**
Date Reported: **6/23/2020**

Client: O'Neill Service Group
Collection Date: 6/10/2020 9:15:00 AM
Project: F200
Lab ID: 2006190-005
Matrix: Soil
Client Sample ID: 358-PH2-7

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28615 Analyst: CR

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0299		mg/Kg-dry	1	6/10/2020 10:31:36 PM
Chloromethane	ND	0.0748		mg/Kg-dry	1	6/10/2020 10:31:36 PM
Vinyl chloride	ND	0.0374		mg/Kg-dry	1	6/10/2020 10:31:36 PM
Bromomethane	ND	0.0748		mg/Kg-dry	1	6/10/2020 10:31:36 PM
Trichlorofluoromethane (CFC-11)	ND	0.0299		mg/Kg-dry	1	6/10/2020 10:31:36 PM
Chloroethane	ND	0.0748		mg/Kg-dry	1	6/10/2020 10:31:36 PM
1,1-Dichloroethene	ND	0.0299		mg/Kg-dry	1	6/10/2020 10:31:36 PM
Methylene chloride	ND	0.0299		mg/Kg-dry	1	6/10/2020 10:31:36 PM
trans-1,2-Dichloroethene	ND	0.0299		mg/Kg-dry	1	6/10/2020 10:31:36 PM
1,1-Dichloroethane	ND	0.0299		mg/Kg-dry	1	6/10/2020 10:31:36 PM
cis-1,2-Dichloroethene	0.551	0.0299		mg/Kg-dry	1	6/10/2020 10:31:36 PM
Chloroform	ND	0.0299		mg/Kg-dry	1	6/10/2020 10:31:36 PM
1,1,1-Trichloroethane (TCA)	ND	0.0374		mg/Kg-dry	1	6/10/2020 10:31:36 PM
1,1-Dichloropropene	ND	0.0299		mg/Kg-dry	1	6/10/2020 10:31:36 PM
Carbon tetrachloride	ND	0.0374		mg/Kg-dry	1	6/10/2020 10:31:36 PM
1,2-Dichloroethane (EDC)	ND	0.0299		mg/Kg-dry	1	6/10/2020 10:31:36 PM
Trichloroethene (TCE)	ND	0.0299		mg/Kg-dry	1	6/10/2020 10:31:36 PM
1,2-Dichloropropane	ND	0.0299		mg/Kg-dry	1	6/10/2020 10:31:36 PM
Bromodichloromethane	ND	0.0299		mg/Kg-dry	1	6/10/2020 10:31:36 PM
Dibromomethane	ND	0.0299		mg/Kg-dry	1	6/10/2020 10:31:36 PM
cis-1,3-Dichloropropene	ND	0.0299		mg/Kg-dry	1	6/10/2020 10:31:36 PM
trans-1,3-Dichloropropylene	ND	0.0299		mg/Kg-dry	1	6/10/2020 10:31:36 PM
1,1,2-Trichloroethane	ND	0.0299		mg/Kg-dry	1	6/10/2020 10:31:36 PM
1,3-Dichloropropane	ND	0.0374		mg/Kg-dry	1	6/10/2020 10:31:36 PM
Tetrachloroethene (PCE)	ND	0.0374		mg/Kg-dry	1	6/10/2020 10:31:36 PM
Dibromochloromethane	ND	0.0374		mg/Kg-dry	1	6/10/2020 10:31:36 PM
1,2-Dibromoethane (EDB)	ND	0.00748		mg/Kg-dry	1	6/10/2020 10:31:36 PM
Chlorobenzene	ND	0.0374		mg/Kg-dry	1	6/10/2020 10:31:36 PM
1,1,1,2-Tetrachloroethane	ND	0.0374		mg/Kg-dry	1	6/10/2020 10:31:36 PM
Bromoform	ND	0.0748		mg/Kg-dry	1	6/10/2020 10:31:36 PM
1,1,2,2-Tetrachloroethane	ND	0.0299		mg/Kg-dry	1	6/10/2020 10:31:36 PM
Bromobenzene	ND	0.0299		mg/Kg-dry	1	6/10/2020 10:31:36 PM
2-Chlorotoluene	ND	0.0374		mg/Kg-dry	1	6/10/2020 10:31:36 PM
4-Chlorotoluene	ND	0.0374		mg/Kg-dry	1	6/10/2020 10:31:36 PM
1,2,3-Trichloropropane	ND	0.0374		mg/Kg-dry	1	6/10/2020 10:31:36 PM
1,2,4-Trichlorobenzene	ND	0.0374		mg/Kg-dry	1	6/10/2020 10:31:36 PM
1,3-Dichlorobenzene	ND	0.0299		mg/Kg-dry	1	6/10/2020 10:31:36 PM
1,4-Dichlorobenzene	ND	0.0299		mg/Kg-dry	1	6/10/2020 10:31:36 PM
1,2-Dichlorobenzene	ND	0.0299		mg/Kg-dry	1	6/10/2020 10:31:36 PM

Analytical Report

Work Order: **2006190**
Date Reported: **6/23/2020**

Client: O'Neill Service Group
Collection Date: 6/10/2020 9:15:00 AM
Project: F200
Lab ID: 2006190-005
Matrix: Soil
Client Sample ID: 358-PH2-7

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28615		Analyst: CR
1,2-Dibromo-3-chloropropane	ND	0.748		mg/Kg-dry	1	6/10/2020 10:31:36 PM
Hexachloro-1,3-butadiene	ND	0.0748		mg/Kg-dry	1	6/10/2020 10:31:36 PM
1,2,3-Trichlorobenzene	ND	0.0299		mg/Kg-dry	1	6/10/2020 10:31:36 PM
Surr: Dibromofluoromethane	97.2	83.3 - 111		%Rec	1	6/10/2020 10:31:36 PM
Surr: Toluene-d8	96.7	87.9 - 111		%Rec	1	6/10/2020 10:31:36 PM
Surr: 1-Bromo-4-fluorobenzene	98.2	85.1 - 111		%Rec	1	6/10/2020 10:31:36 PM
Sample Moisture (Percent Moisture)				Batch ID: R59751		Analyst: CG
Percent Moisture	11.4	0.500		wt%	1	6/11/2020 9:58:39 AM
Organic Matter of Organic Soils by ASTM D2974				Batch ID: R59800		Analyst: SS
Organic Matter	2.56	0.500		%	1	6/10/2020 5:10:00 PM

Analytical Report

Work Order: **2006190**
Date Reported: **6/23/2020**

Client: O'Neill Service Group
Collection Date: 6/10/2020 9:20:00 AM
Project: F200
Lab ID: 2006190-006
Matrix: Soil
Client Sample ID: 358-PH2-10

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28615 Analyst: CR

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0255		mg/Kg-dry	1	6/10/2020 11:01:42 PM
Chloromethane	ND	0.0636		mg/Kg-dry	1	6/10/2020 11:01:42 PM
Vinyl chloride	ND	0.0318		mg/Kg-dry	1	6/10/2020 11:01:42 PM
Bromomethane	ND	0.0636		mg/Kg-dry	1	6/10/2020 11:01:42 PM
Trichlorofluoromethane (CFC-11)	ND	0.0255		mg/Kg-dry	1	6/10/2020 11:01:42 PM
Chloroethane	ND	0.0636		mg/Kg-dry	1	6/10/2020 11:01:42 PM
1,1-Dichloroethene	ND	0.0255		mg/Kg-dry	1	6/10/2020 11:01:42 PM
Methylene chloride	ND	0.0255		mg/Kg-dry	1	6/10/2020 11:01:42 PM
trans-1,2-Dichloroethene	ND	0.0255		mg/Kg-dry	1	6/10/2020 11:01:42 PM
1,1-Dichloroethane	ND	0.0255		mg/Kg-dry	1	6/10/2020 11:01:42 PM
cis-1,2-Dichloroethene	ND	0.0255		mg/Kg-dry	1	6/10/2020 11:01:42 PM
Chloroform	ND	0.0255		mg/Kg-dry	1	6/10/2020 11:01:42 PM
1,1,1-Trichloroethane (TCA)	ND	0.0318		mg/Kg-dry	1	6/10/2020 11:01:42 PM
1,1-Dichloropropene	ND	0.0255		mg/Kg-dry	1	6/10/2020 11:01:42 PM
Carbon tetrachloride	ND	0.0318		mg/Kg-dry	1	6/10/2020 11:01:42 PM
1,2-Dichloroethane (EDC)	ND	0.0255		mg/Kg-dry	1	6/10/2020 11:01:42 PM
Trichloroethene (TCE)	ND	0.0255		mg/Kg-dry	1	6/10/2020 11:01:42 PM
1,2-Dichloropropane	ND	0.0255		mg/Kg-dry	1	6/10/2020 11:01:42 PM
Bromodichloromethane	ND	0.0255		mg/Kg-dry	1	6/10/2020 11:01:42 PM
Dibromomethane	ND	0.0255		mg/Kg-dry	1	6/10/2020 11:01:42 PM
cis-1,3-Dichloropropene	ND	0.0255		mg/Kg-dry	1	6/10/2020 11:01:42 PM
trans-1,3-Dichloropropylene	ND	0.0255		mg/Kg-dry	1	6/10/2020 11:01:42 PM
1,1,2-Trichloroethane	ND	0.0255		mg/Kg-dry	1	6/10/2020 11:01:42 PM
1,3-Dichloropropane	ND	0.0318		mg/Kg-dry	1	6/10/2020 11:01:42 PM
Tetrachloroethene (PCE)	ND	0.0318		mg/Kg-dry	1	6/10/2020 11:01:42 PM
Dibromochloromethane	ND	0.0318		mg/Kg-dry	1	6/10/2020 11:01:42 PM
1,2-Dibromoethane (EDB)	ND	0.00636		mg/Kg-dry	1	6/10/2020 11:01:42 PM
Chlorobenzene	ND	0.0318		mg/Kg-dry	1	6/10/2020 11:01:42 PM
1,1,1,2-Tetrachloroethane	ND	0.0318		mg/Kg-dry	1	6/10/2020 11:01:42 PM
Bromoform	ND	0.0636		mg/Kg-dry	1	6/10/2020 11:01:42 PM
1,1,2,2-Tetrachloroethane	ND	0.0255		mg/Kg-dry	1	6/10/2020 11:01:42 PM
Bromobenzene	ND	0.0255		mg/Kg-dry	1	6/10/2020 11:01:42 PM
2-Chlorotoluene	ND	0.0318		mg/Kg-dry	1	6/10/2020 11:01:42 PM
4-Chlorotoluene	ND	0.0318		mg/Kg-dry	1	6/10/2020 11:01:42 PM
1,2,3-Trichloropropane	ND	0.0318		mg/Kg-dry	1	6/10/2020 11:01:42 PM
1,2,4-Trichlorobenzene	ND	0.0318		mg/Kg-dry	1	6/10/2020 11:01:42 PM
1,3-Dichlorobenzene	ND	0.0255		mg/Kg-dry	1	6/10/2020 11:01:42 PM
1,4-Dichlorobenzene	ND	0.0255		mg/Kg-dry	1	6/10/2020 11:01:42 PM
1,2-Dichlorobenzene	ND	0.0255		mg/Kg-dry	1	6/10/2020 11:01:42 PM

Analytical Report

Work Order: **2006190**
Date Reported: **6/23/2020**

Client: O'Neill Service Group
Collection Date: 6/10/2020 9:20:00 AM
Project: F200
Lab ID: 2006190-006
Matrix: Soil
Client Sample ID: 358-PH2-10

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28615		Analyst: CR
1,2-Dibromo-3-chloropropane	ND	0.636		mg/Kg-dry	1	6/10/2020 11:01:42 PM
Hexachloro-1,3-butadiene	ND	0.0636		mg/Kg-dry	1	6/10/2020 11:01:42 PM
1,2,3-Trichlorobenzene	ND	0.0255		mg/Kg-dry	1	6/10/2020 11:01:42 PM
Surr: Dibromofluoromethane	96.1	83.3 - 111		%Rec	1	6/10/2020 11:01:42 PM
Surr: Toluene-d8	97.1	87.9 - 111		%Rec	1	6/10/2020 11:01:42 PM
Surr: 1-Bromo-4-fluorobenzene	98.1	85.1 - 111		%Rec	1	6/10/2020 11:01:42 PM
Sample Moisture (Percent Moisture)				Batch ID: R59751		Analyst: CG
Percent Moisture	14.9	0.500		wt%	1	6/11/2020 9:58:39 AM
Organic Matter of Organic Soils by ASTM D2974				Batch ID: R59800		Analyst: SS
Organic Matter	0.932	0.500		%	1	6/10/2020 5:10:00 PM

Analytical Report

Work Order: **2006190**
Date Reported: **6/23/2020**

Client: O'Neill Service Group
Collection Date: 6/10/2020 9:35:00 AM
Project: F200
Lab ID: 2006190-007
Matrix: Soil
Client Sample ID: 358-PH5-1

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28615 Analyst: CR

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0238		mg/Kg-dry	1	6/10/2020 11:31:49 PM
Chloromethane	ND	0.0594		mg/Kg-dry	1	6/10/2020 11:31:49 PM
Vinyl chloride	ND	0.0297		mg/Kg-dry	1	6/10/2020 11:31:49 PM
Bromomethane	ND	0.0594		mg/Kg-dry	1	6/10/2020 11:31:49 PM
Trichlorofluoromethane (CFC-11)	ND	0.0238		mg/Kg-dry	1	6/10/2020 11:31:49 PM
Chloroethane	ND	0.0594		mg/Kg-dry	1	6/10/2020 11:31:49 PM
1,1-Dichloroethene	ND	0.0238		mg/Kg-dry	1	6/10/2020 11:31:49 PM
Methylene chloride	ND	0.0238		mg/Kg-dry	1	6/10/2020 11:31:49 PM
trans-1,2-Dichloroethene	ND	0.0238		mg/Kg-dry	1	6/10/2020 11:31:49 PM
1,1-Dichloroethane	ND	0.0238		mg/Kg-dry	1	6/10/2020 11:31:49 PM
cis-1,2-Dichloroethene	ND	0.0238		mg/Kg-dry	1	6/10/2020 11:31:49 PM
Chloroform	ND	0.0238		mg/Kg-dry	1	6/10/2020 11:31:49 PM
1,1,1-Trichloroethane (TCA)	ND	0.0297		mg/Kg-dry	1	6/10/2020 11:31:49 PM
1,1-Dichloropropene	ND	0.0238		mg/Kg-dry	1	6/10/2020 11:31:49 PM
Carbon tetrachloride	ND	0.0297		mg/Kg-dry	1	6/10/2020 11:31:49 PM
1,2-Dichloroethane (EDC)	ND	0.0238		mg/Kg-dry	1	6/10/2020 11:31:49 PM
Trichloroethene (TCE)	ND	0.0238		mg/Kg-dry	1	6/10/2020 11:31:49 PM
1,2-Dichloropropane	ND	0.0238		mg/Kg-dry	1	6/10/2020 11:31:49 PM
Bromodichloromethane	ND	0.0238		mg/Kg-dry	1	6/10/2020 11:31:49 PM
Dibromomethane	ND	0.0238		mg/Kg-dry	1	6/10/2020 11:31:49 PM
cis-1,3-Dichloropropene	ND	0.0238		mg/Kg-dry	1	6/10/2020 11:31:49 PM
trans-1,3-Dichloropropylene	ND	0.0238		mg/Kg-dry	1	6/10/2020 11:31:49 PM
1,1,2-Trichloroethane	ND	0.0238		mg/Kg-dry	1	6/10/2020 11:31:49 PM
1,3-Dichloropropane	ND	0.0297		mg/Kg-dry	1	6/10/2020 11:31:49 PM
Tetrachloroethene (PCE)	0.0471	0.0297		mg/Kg-dry	1	6/10/2020 11:31:49 PM
Dibromochloromethane	ND	0.0297		mg/Kg-dry	1	6/10/2020 11:31:49 PM
1,2-Dibromoethane (EDB)	ND	0.00594		mg/Kg-dry	1	6/10/2020 11:31:49 PM
Chlorobenzene	ND	0.0297		mg/Kg-dry	1	6/10/2020 11:31:49 PM
1,1,1,2-Tetrachloroethane	ND	0.0297		mg/Kg-dry	1	6/10/2020 11:31:49 PM
Bromoform	ND	0.0594		mg/Kg-dry	1	6/10/2020 11:31:49 PM
1,1,2,2-Tetrachloroethane	ND	0.0238		mg/Kg-dry	1	6/10/2020 11:31:49 PM
Bromobenzene	ND	0.0238		mg/Kg-dry	1	6/10/2020 11:31:49 PM
2-Chlorotoluene	ND	0.0297		mg/Kg-dry	1	6/10/2020 11:31:49 PM
4-Chlorotoluene	ND	0.0297		mg/Kg-dry	1	6/10/2020 11:31:49 PM
1,2,3-Trichloropropane	ND	0.0297		mg/Kg-dry	1	6/10/2020 11:31:49 PM
1,2,4-Trichlorobenzene	ND	0.0297		mg/Kg-dry	1	6/10/2020 11:31:49 PM
1,3-Dichlorobenzene	ND	0.0238		mg/Kg-dry	1	6/10/2020 11:31:49 PM
1,4-Dichlorobenzene	ND	0.0238		mg/Kg-dry	1	6/10/2020 11:31:49 PM
1,2-Dichlorobenzene	ND	0.0238		mg/Kg-dry	1	6/10/2020 11:31:49 PM

Analytical Report

Work Order: **2006190**
Date Reported: **6/23/2020**

Client: O'Neill Service Group
Collection Date: 6/10/2020 9:35:00 AM
Project: F200
Lab ID: 2006190-007
Matrix: Soil
Client Sample ID: 358-PH5-1

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28615		Analyst: CR
1,2-Dibromo-3-chloropropane	ND	0.594		mg/Kg-dry	1	6/10/2020 11:31:49 PM
Hexachloro-1,3-butadiene	ND	0.0594		mg/Kg-dry	1	6/10/2020 11:31:49 PM
1,2,3-Trichlorobenzene	ND	0.0238		mg/Kg-dry	1	6/10/2020 11:31:49 PM
Surr: Dibromofluoromethane	96.5	83.3 - 111		%Rec	1	6/10/2020 11:31:49 PM
Surr: Toluene-d8	92.1	87.9 - 111		%Rec	1	6/10/2020 11:31:49 PM
Surr: 1-Bromo-4-fluorobenzene	98.1	85.1 - 111		%Rec	1	6/10/2020 11:31:49 PM
Sample Moisture (Percent Moisture)				Batch ID: R59751		Analyst: CG
Percent Moisture	7.91	0.500		wt%	1	6/11/2020 9:58:39 AM

Analytical Report

Work Order: **2006190**
Date Reported: **6/23/2020**

Client: O'Neill Service Group
Collection Date: 6/10/2020 9:40:00 AM
Project: F200
Lab ID: 2006190-008
Matrix: Soil
Client Sample ID: 358-PH5-2

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28615 Analyst: CR

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0238		mg/Kg-dry	1	6/11/2020 12:02:00 AM
Chloromethane	ND	0.0596		mg/Kg-dry	1	6/11/2020 12:02:00 AM
Vinyl chloride	ND	0.0298		mg/Kg-dry	1	6/11/2020 12:02:00 AM
Bromomethane	ND	0.0596		mg/Kg-dry	1	6/11/2020 12:02:00 AM
Trichlorofluoromethane (CFC-11)	ND	0.0238		mg/Kg-dry	1	6/11/2020 12:02:00 AM
Chloroethane	ND	0.0596		mg/Kg-dry	1	6/11/2020 12:02:00 AM
1,1-Dichloroethene	ND	0.0238		mg/Kg-dry	1	6/11/2020 12:02:00 AM
Methylene chloride	ND	0.0238		mg/Kg-dry	1	6/11/2020 12:02:00 AM
trans-1,2-Dichloroethene	ND	0.0238		mg/Kg-dry	1	6/11/2020 12:02:00 AM
1,1-Dichloroethane	ND	0.0238		mg/Kg-dry	1	6/11/2020 12:02:00 AM
cis-1,2-Dichloroethene	ND	0.0238		mg/Kg-dry	1	6/11/2020 12:02:00 AM
Chloroform	ND	0.0238		mg/Kg-dry	1	6/11/2020 12:02:00 AM
1,1,1-Trichloroethane (TCA)	ND	0.0298		mg/Kg-dry	1	6/11/2020 12:02:00 AM
1,1-Dichloropropene	ND	0.0238		mg/Kg-dry	1	6/11/2020 12:02:00 AM
Carbon tetrachloride	ND	0.0298		mg/Kg-dry	1	6/11/2020 12:02:00 AM
1,2-Dichloroethane (EDC)	ND	0.0238		mg/Kg-dry	1	6/11/2020 12:02:00 AM
Trichloroethene (TCE)	ND	0.0238		mg/Kg-dry	1	6/11/2020 12:02:00 AM
1,2-Dichloropropane	ND	0.0238		mg/Kg-dry	1	6/11/2020 12:02:00 AM
Bromodichloromethane	ND	0.0238		mg/Kg-dry	1	6/11/2020 12:02:00 AM
Dibromomethane	ND	0.0238		mg/Kg-dry	1	6/11/2020 12:02:00 AM
cis-1,3-Dichloropropene	ND	0.0238		mg/Kg-dry	1	6/11/2020 12:02:00 AM
trans-1,3-Dichloropropylene	ND	0.0238		mg/Kg-dry	1	6/11/2020 12:02:00 AM
1,1,2-Trichloroethane	ND	0.0238		mg/Kg-dry	1	6/11/2020 12:02:00 AM
1,3-Dichloropropane	ND	0.0298		mg/Kg-dry	1	6/11/2020 12:02:00 AM
Tetrachloroethene (PCE)	0.0415	0.0298		mg/Kg-dry	1	6/11/2020 12:02:00 AM
Dibromochloromethane	ND	0.0298		mg/Kg-dry	1	6/11/2020 12:02:00 AM
1,2-Dibromoethane (EDB)	ND	0.00596		mg/Kg-dry	1	6/11/2020 12:02:00 AM
Chlorobenzene	ND	0.0298		mg/Kg-dry	1	6/11/2020 12:02:00 AM
1,1,1,2-Tetrachloroethane	ND	0.0298		mg/Kg-dry	1	6/11/2020 12:02:00 AM
Bromoform	ND	0.0596		mg/Kg-dry	1	6/11/2020 12:02:00 AM
1,1,2,2-Tetrachloroethane	ND	0.0238		mg/Kg-dry	1	6/11/2020 12:02:00 AM
Bromobenzene	ND	0.0238		mg/Kg-dry	1	6/11/2020 12:02:00 AM
2-Chlorotoluene	ND	0.0298		mg/Kg-dry	1	6/11/2020 12:02:00 AM
4-Chlorotoluene	ND	0.0298		mg/Kg-dry	1	6/11/2020 12:02:00 AM
1,2,3-Trichloropropane	ND	0.0298		mg/Kg-dry	1	6/11/2020 12:02:00 AM
1,2,4-Trichlorobenzene	ND	0.0298		mg/Kg-dry	1	6/11/2020 12:02:00 AM
1,3-Dichlorobenzene	ND	0.0238		mg/Kg-dry	1	6/11/2020 12:02:00 AM
1,4-Dichlorobenzene	ND	0.0238		mg/Kg-dry	1	6/11/2020 12:02:00 AM
1,2-Dichlorobenzene	ND	0.0238		mg/Kg-dry	1	6/11/2020 12:02:00 AM

Analytical Report

Work Order: **2006190**
Date Reported: **6/23/2020**

Client: O'Neill Service Group
Collection Date: 6/10/2020 9:40:00 AM
Project: F200
Lab ID: 2006190-008
Matrix: Soil
Client Sample ID: 358-PH5-2

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28615		Analyst: CR
1,2-Dibromo-3-chloropropane	ND	0.596		mg/Kg-dry	1	6/11/2020 12:02:00 AM
Hexachloro-1,3-butadiene	ND	0.0596		mg/Kg-dry	1	6/11/2020 12:02:00 AM
1,2,3-Trichlorobenzene	ND	0.0238		mg/Kg-dry	1	6/11/2020 12:02:00 AM
Surr: Dibromofluoromethane	95.4	83.3 - 111		%Rec	1	6/11/2020 12:02:00 AM
Surr: Toluene-d8	96.4	87.9 - 111		%Rec	1	6/11/2020 12:02:00 AM
Surr: 1-Bromo-4-fluorobenzene	98.8	85.1 - 111		%Rec	1	6/11/2020 12:02:00 AM
Sample Moisture (Percent Moisture)				Batch ID: R59751		Analyst: CG
Percent Moisture	7.23	0.500		wt%	1	6/11/2020 9:58:39 AM
Organic Matter of Organic Soils by ASTM D2974				Batch ID: R59872		Analyst: SS
Organic Matter	0.517	0.500		%	1	6/12/2020 12:30:00 PM

Analytical Report

Work Order: **2006190**
Date Reported: **6/23/2020**

Client: O'Neill Service Group
Collection Date: 6/10/2020 9:45:00 AM
Project: F200
Lab ID: 2006190-009
Matrix: Soil
Client Sample ID: 358-PH5-4

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28615 Analyst: CR

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0215		mg/Kg-dry	1	6/11/2020 12:32:06 AM
Chloromethane	ND	0.0538		mg/Kg-dry	1	6/11/2020 12:32:06 AM
Vinyl chloride	ND	0.0269		mg/Kg-dry	1	6/11/2020 12:32:06 AM
Bromomethane	ND	0.0538		mg/Kg-dry	1	6/11/2020 12:32:06 AM
Trichlorofluoromethane (CFC-11)	ND	0.0215		mg/Kg-dry	1	6/11/2020 12:32:06 AM
Chloroethane	ND	0.0538		mg/Kg-dry	1	6/11/2020 12:32:06 AM
1,1-Dichloroethene	ND	0.0215		mg/Kg-dry	1	6/11/2020 12:32:06 AM
Methylene chloride	ND	0.0215		mg/Kg-dry	1	6/11/2020 12:32:06 AM
trans-1,2-Dichloroethene	ND	0.0215		mg/Kg-dry	1	6/11/2020 12:32:06 AM
1,1-Dichloroethane	ND	0.0215		mg/Kg-dry	1	6/11/2020 12:32:06 AM
cis-1,2-Dichloroethene	ND	0.0215		mg/Kg-dry	1	6/11/2020 12:32:06 AM
Chloroform	ND	0.0215		mg/Kg-dry	1	6/11/2020 12:32:06 AM
1,1,1-Trichloroethane (TCA)	ND	0.0269		mg/Kg-dry	1	6/11/2020 12:32:06 AM
1,1-Dichloropropene	ND	0.0215		mg/Kg-dry	1	6/11/2020 12:32:06 AM
Carbon tetrachloride	ND	0.0269		mg/Kg-dry	1	6/11/2020 12:32:06 AM
1,2-Dichloroethane (EDC)	ND	0.0215		mg/Kg-dry	1	6/11/2020 12:32:06 AM
Trichloroethene (TCE)	ND	0.0215		mg/Kg-dry	1	6/11/2020 12:32:06 AM
1,2-Dichloropropane	ND	0.0215		mg/Kg-dry	1	6/11/2020 12:32:06 AM
Bromodichloromethane	ND	0.0215		mg/Kg-dry	1	6/11/2020 12:32:06 AM
Dibromomethane	ND	0.0215		mg/Kg-dry	1	6/11/2020 12:32:06 AM
cis-1,3-Dichloropropene	ND	0.0215		mg/Kg-dry	1	6/11/2020 12:32:06 AM
trans-1,3-Dichloropropylene	ND	0.0215		mg/Kg-dry	1	6/11/2020 12:32:06 AM
1,1,2-Trichloroethane	ND	0.0215		mg/Kg-dry	1	6/11/2020 12:32:06 AM
1,3-Dichloropropane	ND	0.0269		mg/Kg-dry	1	6/11/2020 12:32:06 AM
Tetrachloroethene (PCE)	ND	0.0269		mg/Kg-dry	1	6/11/2020 12:32:06 AM
Dibromochloromethane	ND	0.0269		mg/Kg-dry	1	6/11/2020 12:32:06 AM
1,2-Dibromoethane (EDB)	ND	0.00538		mg/Kg-dry	1	6/11/2020 12:32:06 AM
Chlorobenzene	ND	0.0269		mg/Kg-dry	1	6/11/2020 12:32:06 AM
1,1,1,2-Tetrachloroethane	ND	0.0269		mg/Kg-dry	1	6/11/2020 12:32:06 AM
Bromoform	ND	0.0538		mg/Kg-dry	1	6/11/2020 12:32:06 AM
1,1,2,2-Tetrachloroethane	ND	0.0215		mg/Kg-dry	1	6/11/2020 12:32:06 AM
Bromobenzene	ND	0.0215		mg/Kg-dry	1	6/11/2020 12:32:06 AM
2-Chlorotoluene	ND	0.0269		mg/Kg-dry	1	6/11/2020 12:32:06 AM
4-Chlorotoluene	ND	0.0269		mg/Kg-dry	1	6/11/2020 12:32:06 AM
1,2,3-Trichloropropane	ND	0.0269		mg/Kg-dry	1	6/11/2020 12:32:06 AM
1,2,4-Trichlorobenzene	ND	0.0269		mg/Kg-dry	1	6/11/2020 12:32:06 AM
1,3-Dichlorobenzene	ND	0.0215		mg/Kg-dry	1	6/11/2020 12:32:06 AM
1,4-Dichlorobenzene	ND	0.0215		mg/Kg-dry	1	6/11/2020 12:32:06 AM
1,2-Dichlorobenzene	ND	0.0215		mg/Kg-dry	1	6/11/2020 12:32:06 AM

Analytical Report

Work Order: **2006190**
Date Reported: **6/23/2020**

Client: O'Neill Service Group
Collection Date: 6/10/2020 9:45:00 AM
Project: F200
Lab ID: 2006190-009
Matrix: Soil
Client Sample ID: 358-PH5-4

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28615		Analyst: CR
1,2-Dibromo-3-chloropropane	ND	0.538		mg/Kg-dry	1	6/11/2020 12:32:06 AM
Hexachloro-1,3-butadiene	ND	0.0538		mg/Kg-dry	1	6/11/2020 12:32:06 AM
1,2,3-Trichlorobenzene	ND	0.0215		mg/Kg-dry	1	6/11/2020 12:32:06 AM
Surr: Dibromofluoromethane	96.5	83.3 - 111		%Rec	1	6/11/2020 12:32:06 AM
Surr: Toluene-d8	96.1	87.9 - 111		%Rec	1	6/11/2020 12:32:06 AM
Surr: 1-Bromo-4-fluorobenzene	97.7	85.1 - 111		%Rec	1	6/11/2020 12:32:06 AM
Sample Moisture (Percent Moisture)				Batch ID: R59751		Analyst: CG
Percent Moisture	9.74	0.500		wt%	1	6/11/2020 9:58:39 AM

Analytical Report

Work Order: **2006190**
Date Reported: **6/23/2020**

Client: O'Neill Service Group
Collection Date: 6/10/2020 9:50:00 AM
Project: F200
Lab ID: 2006190-010
Matrix: Soil
Client Sample ID: 358-PH5-7

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28615 Analyst: CR

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0396		mg/Kg-dry	1	6/11/2020 1:02:08 AM
Chloromethane	ND	0.0991		mg/Kg-dry	1	6/11/2020 1:02:08 AM
Vinyl chloride	ND	0.0495		mg/Kg-dry	1	6/11/2020 1:02:08 AM
Bromomethane	ND	0.0991		mg/Kg-dry	1	6/11/2020 1:02:08 AM
Trichlorofluoromethane (CFC-11)	ND	0.0396		mg/Kg-dry	1	6/11/2020 1:02:08 AM
Chloroethane	ND	0.0991		mg/Kg-dry	1	6/11/2020 1:02:08 AM
1,1-Dichloroethene	ND	0.0396		mg/Kg-dry	1	6/11/2020 1:02:08 AM
Methylene chloride	ND	0.0396		mg/Kg-dry	1	6/11/2020 1:02:08 AM
trans-1,2-Dichloroethene	ND	0.0396		mg/Kg-dry	1	6/11/2020 1:02:08 AM
1,1-Dichloroethane	ND	0.0396		mg/Kg-dry	1	6/11/2020 1:02:08 AM
cis-1,2-Dichloroethene	ND	0.0396		mg/Kg-dry	1	6/11/2020 1:02:08 AM
Chloroform	ND	0.0396		mg/Kg-dry	1	6/11/2020 1:02:08 AM
1,1,1-Trichloroethane (TCA)	ND	0.0495		mg/Kg-dry	1	6/11/2020 1:02:08 AM
1,1-Dichloropropene	ND	0.0396		mg/Kg-dry	1	6/11/2020 1:02:08 AM
Carbon tetrachloride	ND	0.0495		mg/Kg-dry	1	6/11/2020 1:02:08 AM
1,2-Dichloroethane (EDC)	ND	0.0396		mg/Kg-dry	1	6/11/2020 1:02:08 AM
Trichloroethene (TCE)	ND	0.0396		mg/Kg-dry	1	6/11/2020 1:02:08 AM
1,2-Dichloropropane	ND	0.0396		mg/Kg-dry	1	6/11/2020 1:02:08 AM
Bromodichloromethane	ND	0.0396		mg/Kg-dry	1	6/11/2020 1:02:08 AM
Dibromomethane	ND	0.0396		mg/Kg-dry	1	6/11/2020 1:02:08 AM
cis-1,3-Dichloropropene	ND	0.0396		mg/Kg-dry	1	6/11/2020 1:02:08 AM
trans-1,3-Dichloropropylene	ND	0.0396		mg/Kg-dry	1	6/11/2020 1:02:08 AM
1,1,2-Trichloroethane	ND	0.0396		mg/Kg-dry	1	6/11/2020 1:02:08 AM
1,3-Dichloropropane	ND	0.0495		mg/Kg-dry	1	6/11/2020 1:02:08 AM
Tetrachloroethene (PCE)	ND	0.0495		mg/Kg-dry	1	6/11/2020 1:02:08 AM
Dibromochloromethane	ND	0.0495		mg/Kg-dry	1	6/11/2020 1:02:08 AM
1,2-Dibromoethane (EDB)	ND	0.00991		mg/Kg-dry	1	6/11/2020 1:02:08 AM
Chlorobenzene	ND	0.0495		mg/Kg-dry	1	6/11/2020 1:02:08 AM
1,1,1,2-Tetrachloroethane	ND	0.0495		mg/Kg-dry	1	6/11/2020 1:02:08 AM
Bromoform	ND	0.0991		mg/Kg-dry	1	6/11/2020 1:02:08 AM
1,1,2,2-Tetrachloroethane	ND	0.0396		mg/Kg-dry	1	6/11/2020 1:02:08 AM
Bromobenzene	ND	0.0396		mg/Kg-dry	1	6/11/2020 1:02:08 AM
2-Chlorotoluene	ND	0.0495		mg/Kg-dry	1	6/11/2020 1:02:08 AM
4-Chlorotoluene	ND	0.0495		mg/Kg-dry	1	6/11/2020 1:02:08 AM
1,2,3-Trichloropropane	ND	0.0495		mg/Kg-dry	1	6/11/2020 1:02:08 AM
1,2,4-Trichlorobenzene	ND	0.0495		mg/Kg-dry	1	6/11/2020 1:02:08 AM
1,3-Dichlorobenzene	ND	0.0396		mg/Kg-dry	1	6/11/2020 1:02:08 AM
1,4-Dichlorobenzene	ND	0.0396		mg/Kg-dry	1	6/11/2020 1:02:08 AM
1,2-Dichlorobenzene	ND	0.0396		mg/Kg-dry	1	6/11/2020 1:02:08 AM

Analytical Report

Work Order: **2006190**
Date Reported: **6/23/2020**

Client: O'Neill Service Group
Collection Date: 6/10/2020 9:50:00 AM
Project: F200
Lab ID: 2006190-010
Matrix: Soil
Client Sample ID: 358-PH5-7

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28615		Analyst: CR
1,2-Dibromo-3-chloropropane	ND	0.991		mg/Kg-dry	1	6/11/2020 1:02:08 AM
Hexachloro-1,3-butadiene	ND	0.0991		mg/Kg-dry	1	6/11/2020 1:02:08 AM
1,2,3-Trichlorobenzene	ND	0.0396		mg/Kg-dry	1	6/11/2020 1:02:08 AM
Surr: Dibromofluoromethane	97.3	83.3 - 111		%Rec	1	6/11/2020 1:02:08 AM
Surr: Toluene-d8	96.0	87.9 - 111		%Rec	1	6/11/2020 1:02:08 AM
Surr: 1-Bromo-4-fluorobenzene	97.3	85.1 - 111		%Rec	1	6/11/2020 1:02:08 AM
Sample Moisture (Percent Moisture)				Batch ID: R59751		Analyst: CG
Percent Moisture	20.7	0.500		wt%	1	6/11/2020 9:58:39 AM
Organic Matter of Organic Soils by ASTM D2974				Batch ID: R59872		Analyst: SS
Organic Matter	8.19	0.500		%	1	6/12/2020 12:30:00 PM

Analytical Report

Work Order: **2006190**
Date Reported: **6/23/2020**

Client: O'Neill Service Group
Collection Date: 6/10/2020 9:55:00 AM
Project: F200
Lab ID: 2006190-011
Matrix: Soil
Client Sample ID: 358-PH5-10

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28623 Analyst: CR

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0225		mg/Kg-dry	1	6/10/2020 7:15:04 PM
Chloromethane	ND	0.0563		mg/Kg-dry	1	6/10/2020 7:15:04 PM
Vinyl chloride	ND	0.0281		mg/Kg-dry	1	6/10/2020 7:15:04 PM
Bromomethane	ND	0.0563		mg/Kg-dry	1	6/10/2020 7:15:04 PM
Trichlorofluoromethane (CFC-11)	ND	0.0225		mg/Kg-dry	1	6/10/2020 7:15:04 PM
Chloroethane	ND	0.0563		mg/Kg-dry	1	6/10/2020 7:15:04 PM
1,1-Dichloroethene	ND	0.0225		mg/Kg-dry	1	6/10/2020 7:15:04 PM
Methylene chloride	ND	0.0225		mg/Kg-dry	1	6/10/2020 7:15:04 PM
trans-1,2-Dichloroethene	ND	0.0225		mg/Kg-dry	1	6/10/2020 7:15:04 PM
1,1-Dichloroethane	ND	0.0225		mg/Kg-dry	1	6/10/2020 7:15:04 PM
cis-1,2-Dichloroethene	ND	0.0225		mg/Kg-dry	1	6/10/2020 7:15:04 PM
Chloroform	ND	0.0225		mg/Kg-dry	1	6/10/2020 7:15:04 PM
1,1,1-Trichloroethane (TCA)	ND	0.0281		mg/Kg-dry	1	6/10/2020 7:15:04 PM
1,1-Dichloropropene	ND	0.0225		mg/Kg-dry	1	6/10/2020 7:15:04 PM
Carbon tetrachloride	ND	0.0281		mg/Kg-dry	1	6/10/2020 7:15:04 PM
1,2-Dichloroethane (EDC)	ND	0.0225		mg/Kg-dry	1	6/10/2020 7:15:04 PM
Trichloroethene (TCE)	ND	0.0225		mg/Kg-dry	1	6/10/2020 7:15:04 PM
1,2-Dichloropropane	ND	0.0225		mg/Kg-dry	1	6/10/2020 7:15:04 PM
Bromodichloromethane	ND	0.0225		mg/Kg-dry	1	6/10/2020 7:15:04 PM
Dibromomethane	ND	0.0225		mg/Kg-dry	1	6/10/2020 7:15:04 PM
cis-1,3-Dichloropropene	ND	0.0225		mg/Kg-dry	1	6/10/2020 7:15:04 PM
trans-1,3-Dichloropropylene	ND	0.0225		mg/Kg-dry	1	6/10/2020 7:15:04 PM
1,1,2-Trichloroethane	ND	0.0225		mg/Kg-dry	1	6/10/2020 7:15:04 PM
1,3-Dichloropropane	ND	0.0281		mg/Kg-dry	1	6/10/2020 7:15:04 PM
Tetrachloroethene (PCE)	ND	0.0281		mg/Kg-dry	1	6/10/2020 7:15:04 PM
Dibromochloromethane	ND	0.0281		mg/Kg-dry	1	6/10/2020 7:15:04 PM
1,2-Dibromoethane (EDB)	ND	0.00563		mg/Kg-dry	1	6/10/2020 7:15:04 PM
Chlorobenzene	ND	0.0281		mg/Kg-dry	1	6/10/2020 7:15:04 PM
1,1,1,2-Tetrachloroethane	ND	0.0281		mg/Kg-dry	1	6/10/2020 7:15:04 PM
Bromoform	ND	0.0563		mg/Kg-dry	1	6/10/2020 7:15:04 PM
1,1,2,2-Tetrachloroethane	ND	0.0225		mg/Kg-dry	1	6/10/2020 7:15:04 PM
Bromobenzene	ND	0.0225		mg/Kg-dry	1	6/10/2020 7:15:04 PM
2-Chlorotoluene	ND	0.0281		mg/Kg-dry	1	6/10/2020 7:15:04 PM
4-Chlorotoluene	ND	0.0281		mg/Kg-dry	1	6/10/2020 7:15:04 PM
1,2,3-Trichloropropane	ND	0.0281		mg/Kg-dry	1	6/10/2020 7:15:04 PM
1,2,4-Trichlorobenzene	ND	0.0281		mg/Kg-dry	1	6/10/2020 7:15:04 PM
1,3-Dichlorobenzene	ND	0.0225		mg/Kg-dry	1	6/10/2020 7:15:04 PM
1,4-Dichlorobenzene	ND	0.0225		mg/Kg-dry	1	6/10/2020 7:15:04 PM
1,2-Dichlorobenzene	ND	0.0225		mg/Kg-dry	1	6/10/2020 7:15:04 PM

Analytical Report

Work Order: **2006190**
Date Reported: **6/23/2020**

Client: O'Neill Service Group
Collection Date: 6/10/2020 9:55:00 AM
Project: F200
Lab ID: 2006190-011
Matrix: Soil
Client Sample ID: 358-PH5-10

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28623		Analyst: CR
1,2-Dibromo-3-chloropropane	ND	0.563		mg/Kg-dry	1	6/10/2020 7:15:04 PM
Hexachloro-1,3-butadiene	ND	0.0563		mg/Kg-dry	1	6/10/2020 7:15:04 PM
1,2,3-Trichlorobenzene	ND	0.0225		mg/Kg-dry	1	6/10/2020 7:15:04 PM
Surr: Dibromofluoromethane	98.8	83.3 - 111		%Rec	1	6/10/2020 7:15:04 PM
Surr: Toluene-d8	96.1	87.9 - 111		%Rec	1	6/10/2020 7:15:04 PM
Surr: 1-Bromo-4-fluorobenzene	100	85.1 - 111		%Rec	1	6/10/2020 7:15:04 PM
Sample Moisture (Percent Moisture)				Batch ID: R59751		Analyst: CG
Percent Moisture	15.3	0.500		wt%	1	6/11/2020 9:58:39 AM
Organic Matter of Organic Soils by ASTM D2974				Batch ID: R59872		Analyst: SS
Organic Matter	1.26	0.500		%	1	6/12/2020 12:30:00 PM

Analytical Report

Work Order: **2006190**
Date Reported: **6/23/2020**

Client: O'Neill Service Group
Collection Date: 6/10/2020 10:10:00 AM
Project: F200
Lab ID: 2006190-012
Matrix: Soil
Client Sample ID: 358-PH6-1

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28623 Analyst: CR

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0233		mg/Kg-dry	1	6/10/2020 7:45:12 PM
Chloromethane	ND	0.0582		mg/Kg-dry	1	6/10/2020 7:45:12 PM
Vinyl chloride	ND	0.0291		mg/Kg-dry	1	6/10/2020 7:45:12 PM
Bromomethane	ND	0.0582		mg/Kg-dry	1	6/10/2020 7:45:12 PM
Trichlorofluoromethane (CFC-11)	ND	0.0233		mg/Kg-dry	1	6/10/2020 7:45:12 PM
Chloroethane	ND	0.0582		mg/Kg-dry	1	6/10/2020 7:45:12 PM
1,1-Dichloroethene	ND	0.0233		mg/Kg-dry	1	6/10/2020 7:45:12 PM
Methylene chloride	ND	0.0233		mg/Kg-dry	1	6/10/2020 7:45:12 PM
trans-1,2-Dichloroethene	ND	0.0233		mg/Kg-dry	1	6/10/2020 7:45:12 PM
1,1-Dichloroethane	ND	0.0233		mg/Kg-dry	1	6/10/2020 7:45:12 PM
cis-1,2-Dichloroethene	ND	0.0233		mg/Kg-dry	1	6/10/2020 7:45:12 PM
Chloroform	ND	0.0233		mg/Kg-dry	1	6/10/2020 7:45:12 PM
1,1,1-Trichloroethane (TCA)	ND	0.0291		mg/Kg-dry	1	6/10/2020 7:45:12 PM
1,1-Dichloropropene	ND	0.0233		mg/Kg-dry	1	6/10/2020 7:45:12 PM
Carbon tetrachloride	ND	0.0291		mg/Kg-dry	1	6/10/2020 7:45:12 PM
1,2-Dichloroethane (EDC)	ND	0.0233		mg/Kg-dry	1	6/10/2020 7:45:12 PM
Trichloroethene (TCE)	ND	0.0233		mg/Kg-dry	1	6/10/2020 7:45:12 PM
1,2-Dichloropropane	ND	0.0233		mg/Kg-dry	1	6/10/2020 7:45:12 PM
Bromodichloromethane	ND	0.0233		mg/Kg-dry	1	6/10/2020 7:45:12 PM
Dibromomethane	ND	0.0233		mg/Kg-dry	1	6/10/2020 7:45:12 PM
cis-1,3-Dichloropropene	ND	0.0233		mg/Kg-dry	1	6/10/2020 7:45:12 PM
trans-1,3-Dichloropropylene	ND	0.0233		mg/Kg-dry	1	6/10/2020 7:45:12 PM
1,1,2-Trichloroethane	ND	0.0233		mg/Kg-dry	1	6/10/2020 7:45:12 PM
1,3-Dichloropropane	ND	0.0291		mg/Kg-dry	1	6/10/2020 7:45:12 PM
Tetrachloroethene (PCE)	ND	0.0291		mg/Kg-dry	1	6/10/2020 7:45:12 PM
Dibromochloromethane	ND	0.0291		mg/Kg-dry	1	6/10/2020 7:45:12 PM
1,2-Dibromoethane (EDB)	ND	0.00582		mg/Kg-dry	1	6/10/2020 7:45:12 PM
Chlorobenzene	ND	0.0291		mg/Kg-dry	1	6/10/2020 7:45:12 PM
1,1,1,2-Tetrachloroethane	ND	0.0291		mg/Kg-dry	1	6/10/2020 7:45:12 PM
Bromoform	ND	0.0582		mg/Kg-dry	1	6/10/2020 7:45:12 PM
1,1,2,2-Tetrachloroethane	ND	0.0233		mg/Kg-dry	1	6/10/2020 7:45:12 PM
Bromobenzene	ND	0.0233		mg/Kg-dry	1	6/10/2020 7:45:12 PM
2-Chlorotoluene	ND	0.0291		mg/Kg-dry	1	6/10/2020 7:45:12 PM
4-Chlorotoluene	ND	0.0291		mg/Kg-dry	1	6/10/2020 7:45:12 PM
1,2,3-Trichloropropane	ND	0.0291		mg/Kg-dry	1	6/10/2020 7:45:12 PM
1,2,4-Trichlorobenzene	ND	0.0291		mg/Kg-dry	1	6/10/2020 7:45:12 PM
1,3-Dichlorobenzene	ND	0.0233		mg/Kg-dry	1	6/10/2020 7:45:12 PM
1,4-Dichlorobenzene	ND	0.0233		mg/Kg-dry	1	6/10/2020 7:45:12 PM
1,2-Dichlorobenzene	ND	0.0233		mg/Kg-dry	1	6/10/2020 7:45:12 PM

Analytical Report

Work Order: **2006190**
Date Reported: **6/23/2020**

Client: O'Neill Service Group
Collection Date: 6/10/2020 10:10:00 AM
Project: F200
Lab ID: 2006190-012
Matrix: Soil
Client Sample ID: 358-PH6-1

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28623		Analyst: CR
1,2-Dibromo-3-chloropropane	ND	0.582		mg/Kg-dry	1	6/10/2020 7:45:12 PM
Hexachloro-1,3-butadiene	ND	0.0582		mg/Kg-dry	1	6/10/2020 7:45:12 PM
1,2,3-Trichlorobenzene	ND	0.0233		mg/Kg-dry	1	6/10/2020 7:45:12 PM
Surr: Dibromofluoromethane	98.3	83.3 - 111		%Rec	1	6/10/2020 7:45:12 PM
Surr: Toluene-d8	97.4	87.9 - 111		%Rec	1	6/10/2020 7:45:12 PM
Surr: 1-Bromo-4-fluorobenzene	98.7	85.1 - 111		%Rec	1	6/10/2020 7:45:12 PM
Sample Moisture (Percent Moisture)				Batch ID: R59751		Analyst: CG
Percent Moisture	6.33	0.500		wt%	1	6/11/2020 9:58:39 AM

Analytical Report

Work Order: **2006190**
Date Reported: **6/23/2020**

Client: O'Neill Service Group
Collection Date: 6/10/2020 10:15:00 AM
Project: F200
Lab ID: 2006190-013
Matrix: Soil
Client Sample ID: 358-PH6-2

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28623 Analyst: CR

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0201		mg/Kg-dry	1	6/10/2020 8:15:20 PM
Chloromethane	ND	0.0503		mg/Kg-dry	1	6/10/2020 8:15:20 PM
Vinyl chloride	ND	0.0251		mg/Kg-dry	1	6/10/2020 8:15:20 PM
Bromomethane	ND	0.0503		mg/Kg-dry	1	6/10/2020 8:15:20 PM
Trichlorofluoromethane (CFC-11)	ND	0.0201		mg/Kg-dry	1	6/10/2020 8:15:20 PM
Chloroethane	ND	0.0503		mg/Kg-dry	1	6/10/2020 8:15:20 PM
1,1-Dichloroethene	ND	0.0201		mg/Kg-dry	1	6/10/2020 8:15:20 PM
Methylene chloride	ND	0.0201		mg/Kg-dry	1	6/10/2020 8:15:20 PM
trans-1,2-Dichloroethene	ND	0.0201		mg/Kg-dry	1	6/10/2020 8:15:20 PM
1,1-Dichloroethane	ND	0.0201		mg/Kg-dry	1	6/10/2020 8:15:20 PM
cis-1,2-Dichloroethene	ND	0.0201		mg/Kg-dry	1	6/10/2020 8:15:20 PM
Chloroform	ND	0.0201		mg/Kg-dry	1	6/10/2020 8:15:20 PM
1,1,1-Trichloroethane (TCA)	ND	0.0251		mg/Kg-dry	1	6/10/2020 8:15:20 PM
1,1-Dichloropropene	ND	0.0201		mg/Kg-dry	1	6/10/2020 8:15:20 PM
Carbon tetrachloride	ND	0.0251		mg/Kg-dry	1	6/10/2020 8:15:20 PM
1,2-Dichloroethane (EDC)	ND	0.0201		mg/Kg-dry	1	6/10/2020 8:15:20 PM
Trichloroethene (TCE)	ND	0.0201		mg/Kg-dry	1	6/10/2020 8:15:20 PM
1,2-Dichloropropane	ND	0.0201		mg/Kg-dry	1	6/10/2020 8:15:20 PM
Bromodichloromethane	ND	0.0201		mg/Kg-dry	1	6/10/2020 8:15:20 PM
Dibromomethane	ND	0.0201		mg/Kg-dry	1	6/10/2020 8:15:20 PM
cis-1,3-Dichloropropene	ND	0.0201		mg/Kg-dry	1	6/10/2020 8:15:20 PM
trans-1,3-Dichloropropylene	ND	0.0201		mg/Kg-dry	1	6/10/2020 8:15:20 PM
1,1,2-Trichloroethane	ND	0.0201		mg/Kg-dry	1	6/10/2020 8:15:20 PM
1,3-Dichloropropane	ND	0.0251		mg/Kg-dry	1	6/10/2020 8:15:20 PM
Tetrachloroethene (PCE)	ND	0.0251		mg/Kg-dry	1	6/10/2020 8:15:20 PM
Dibromochloromethane	ND	0.0251		mg/Kg-dry	1	6/10/2020 8:15:20 PM
1,2-Dibromoethane (EDB)	ND	0.00503		mg/Kg-dry	1	6/10/2020 8:15:20 PM
Chlorobenzene	ND	0.0251		mg/Kg-dry	1	6/10/2020 8:15:20 PM
1,1,1,2-Tetrachloroethane	ND	0.0251		mg/Kg-dry	1	6/10/2020 8:15:20 PM
Bromoform	ND	0.0503		mg/Kg-dry	1	6/10/2020 8:15:20 PM
1,1,2,2-Tetrachloroethane	ND	0.0201		mg/Kg-dry	1	6/10/2020 8:15:20 PM
Bromobenzene	ND	0.0201		mg/Kg-dry	1	6/10/2020 8:15:20 PM
2-Chlorotoluene	ND	0.0251		mg/Kg-dry	1	6/10/2020 8:15:20 PM
4-Chlorotoluene	ND	0.0251		mg/Kg-dry	1	6/10/2020 8:15:20 PM
1,2,3-Trichloropropane	ND	0.0251		mg/Kg-dry	1	6/10/2020 8:15:20 PM
1,2,4-Trichlorobenzene	ND	0.0251		mg/Kg-dry	1	6/10/2020 8:15:20 PM
1,3-Dichlorobenzene	ND	0.0201		mg/Kg-dry	1	6/10/2020 8:15:20 PM
1,4-Dichlorobenzene	ND	0.0201		mg/Kg-dry	1	6/10/2020 8:15:20 PM
1,2-Dichlorobenzene	ND	0.0201		mg/Kg-dry	1	6/10/2020 8:15:20 PM

Analytical Report

Work Order: **2006190**
Date Reported: **6/23/2020**

Client: O'Neill Service Group
Collection Date: 6/10/2020 10:15:00 AM
Project: F200
Lab ID: 2006190-013
Matrix: Soil
Client Sample ID: 358-PH6-2

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28623		Analyst: CR
1,2-Dibromo-3-chloropropane	ND	0.503		mg/Kg-dry	1	6/10/2020 8:15:20 PM
Hexachloro-1,3-butadiene	ND	0.0503		mg/Kg-dry	1	6/10/2020 8:15:20 PM
1,2,3-Trichlorobenzene	ND	0.0201		mg/Kg-dry	1	6/10/2020 8:15:20 PM
Surr: Dibromofluoromethane	98.1	83.3 - 111		%Rec	1	6/10/2020 8:15:20 PM
Surr: Toluene-d8	97.3	87.9 - 111		%Rec	1	6/10/2020 8:15:20 PM
Surr: 1-Bromo-4-fluorobenzene	98.6	85.1 - 111		%Rec	1	6/10/2020 8:15:20 PM
Sample Moisture (Percent Moisture)				Batch ID: R59751		Analyst: CG
Percent Moisture	8.78	0.500		wt%	1	6/11/2020 9:58:39 AM

Analytical Report

Work Order: **2006190**
Date Reported: **6/23/2020**

Client: O'Neill Service Group
Collection Date: 6/10/2020 10:20:00 AM
Project: F200
Lab ID: 2006190-014
Matrix: Soil
Client Sample ID: 358-PH6-4

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28623 Analyst: CR

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0209		mg/Kg-dry	1	6/10/2020 8:45:29 PM
Chloromethane	ND	0.0524		mg/Kg-dry	1	6/10/2020 8:45:29 PM
Vinyl chloride	ND	0.0262		mg/Kg-dry	1	6/10/2020 8:45:29 PM
Bromomethane	ND	0.0524		mg/Kg-dry	1	6/10/2020 8:45:29 PM
Trichlorofluoromethane (CFC-11)	ND	0.0209		mg/Kg-dry	1	6/10/2020 8:45:29 PM
Chloroethane	ND	0.0524		mg/Kg-dry	1	6/10/2020 8:45:29 PM
1,1-Dichloroethene	ND	0.0209		mg/Kg-dry	1	6/10/2020 8:45:29 PM
Methylene chloride	ND	0.0209		mg/Kg-dry	1	6/10/2020 8:45:29 PM
trans-1,2-Dichloroethene	ND	0.0209		mg/Kg-dry	1	6/10/2020 8:45:29 PM
1,1-Dichloroethane	ND	0.0209		mg/Kg-dry	1	6/10/2020 8:45:29 PM
cis-1,2-Dichloroethene	ND	0.0209		mg/Kg-dry	1	6/10/2020 8:45:29 PM
Chloroform	ND	0.0209		mg/Kg-dry	1	6/10/2020 8:45:29 PM
1,1,1-Trichloroethane (TCA)	ND	0.0262		mg/Kg-dry	1	6/10/2020 8:45:29 PM
1,1-Dichloropropene	ND	0.0209		mg/Kg-dry	1	6/10/2020 8:45:29 PM
Carbon tetrachloride	ND	0.0262		mg/Kg-dry	1	6/10/2020 8:45:29 PM
1,2-Dichloroethane (EDC)	ND	0.0209		mg/Kg-dry	1	6/10/2020 8:45:29 PM
Trichloroethene (TCE)	ND	0.0209		mg/Kg-dry	1	6/10/2020 8:45:29 PM
1,2-Dichloropropane	ND	0.0209		mg/Kg-dry	1	6/10/2020 8:45:29 PM
Bromodichloromethane	ND	0.0209		mg/Kg-dry	1	6/10/2020 8:45:29 PM
Dibromomethane	ND	0.0209		mg/Kg-dry	1	6/10/2020 8:45:29 PM
cis-1,3-Dichloropropene	ND	0.0209		mg/Kg-dry	1	6/10/2020 8:45:29 PM
trans-1,3-Dichloropropylene	ND	0.0209		mg/Kg-dry	1	6/10/2020 8:45:29 PM
1,1,2-Trichloroethane	ND	0.0209		mg/Kg-dry	1	6/10/2020 8:45:29 PM
1,3-Dichloropropane	ND	0.0262		mg/Kg-dry	1	6/10/2020 8:45:29 PM
Tetrachloroethene (PCE)	ND	0.0262		mg/Kg-dry	1	6/10/2020 8:45:29 PM
Dibromochloromethane	ND	0.0262		mg/Kg-dry	1	6/10/2020 8:45:29 PM
1,2-Dibromoethane (EDB)	ND	0.00524		mg/Kg-dry	1	6/10/2020 8:45:29 PM
Chlorobenzene	ND	0.0262		mg/Kg-dry	1	6/10/2020 8:45:29 PM
1,1,1,2-Tetrachloroethane	ND	0.0262		mg/Kg-dry	1	6/10/2020 8:45:29 PM
Bromoform	ND	0.0524		mg/Kg-dry	1	6/10/2020 8:45:29 PM
1,1,2,2-Tetrachloroethane	ND	0.0209		mg/Kg-dry	1	6/10/2020 8:45:29 PM
Bromobenzene	ND	0.0209		mg/Kg-dry	1	6/10/2020 8:45:29 PM
2-Chlorotoluene	ND	0.0262		mg/Kg-dry	1	6/10/2020 8:45:29 PM
4-Chlorotoluene	ND	0.0262		mg/Kg-dry	1	6/10/2020 8:45:29 PM
1,2,3-Trichloropropane	ND	0.0262		mg/Kg-dry	1	6/10/2020 8:45:29 PM
1,2,4-Trichlorobenzene	ND	0.0262		mg/Kg-dry	1	6/10/2020 8:45:29 PM
1,3-Dichlorobenzene	ND	0.0209		mg/Kg-dry	1	6/10/2020 8:45:29 PM
1,4-Dichlorobenzene	ND	0.0209		mg/Kg-dry	1	6/10/2020 8:45:29 PM
1,2-Dichlorobenzene	ND	0.0209		mg/Kg-dry	1	6/10/2020 8:45:29 PM

Analytical Report

Work Order: **2006190**
Date Reported: **6/23/2020**

Client: O'Neill Service Group
Collection Date: 6/10/2020 10:20:00 AM
Project: F200
Lab ID: 2006190-014
Matrix: Soil
Client Sample ID: 358-PH6-4

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28623		Analyst: CR
1,2-Dibromo-3-chloropropane	ND	0.524		mg/Kg-dry	1	6/10/2020 8:45:29 PM
Hexachloro-1,3-butadiene	ND	0.0524		mg/Kg-dry	1	6/10/2020 8:45:29 PM
1,2,3-Trichlorobenzene	ND	0.0209		mg/Kg-dry	1	6/10/2020 8:45:29 PM
Surr: Dibromofluoromethane	99.3	83.3 - 111		%Rec	1	6/10/2020 8:45:29 PM
Surr: Toluene-d8	98.1	87.9 - 111		%Rec	1	6/10/2020 8:45:29 PM
Surr: 1-Bromo-4-fluorobenzene	98.2	85.1 - 111		%Rec	1	6/10/2020 8:45:29 PM
Sample Moisture (Percent Moisture)				Batch ID: R59751		Analyst: CG
Percent Moisture	12.0	0.500		wt%	1	6/11/2020 9:58:39 AM

Analytical Report

Work Order: **2006190**
Date Reported: **6/23/2020**

Client: O'Neill Service Group
Collection Date: 6/10/2020 10:25:00 AM
Project: F200
Lab ID: 2006190-015
Matrix: Soil
Client Sample ID: 358-PH6-7

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28623 Analyst: CR

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0235		mg/Kg-dry	1	6/10/2020 9:15:36 PM
Chloromethane	ND	0.0587		mg/Kg-dry	1	6/10/2020 9:15:36 PM
Vinyl chloride	ND	0.0293		mg/Kg-dry	1	6/10/2020 9:15:36 PM
Bromomethane	ND	0.0587		mg/Kg-dry	1	6/10/2020 9:15:36 PM
Trichlorofluoromethane (CFC-11)	ND	0.0235		mg/Kg-dry	1	6/10/2020 9:15:36 PM
Chloroethane	ND	0.0587		mg/Kg-dry	1	6/10/2020 9:15:36 PM
1,1-Dichloroethene	ND	0.0235		mg/Kg-dry	1	6/10/2020 9:15:36 PM
Methylene chloride	ND	0.0235		mg/Kg-dry	1	6/10/2020 9:15:36 PM
trans-1,2-Dichloroethene	ND	0.0235		mg/Kg-dry	1	6/10/2020 9:15:36 PM
1,1-Dichloroethane	ND	0.0235		mg/Kg-dry	1	6/10/2020 9:15:36 PM
cis-1,2-Dichloroethene	ND	0.0235		mg/Kg-dry	1	6/10/2020 9:15:36 PM
Chloroform	ND	0.0235		mg/Kg-dry	1	6/10/2020 9:15:36 PM
1,1,1-Trichloroethane (TCA)	ND	0.0293		mg/Kg-dry	1	6/10/2020 9:15:36 PM
1,1-Dichloropropene	ND	0.0235		mg/Kg-dry	1	6/10/2020 9:15:36 PM
Carbon tetrachloride	ND	0.0293		mg/Kg-dry	1	6/10/2020 9:15:36 PM
1,2-Dichloroethane (EDC)	ND	0.0235		mg/Kg-dry	1	6/10/2020 9:15:36 PM
Trichloroethene (TCE)	ND	0.0235		mg/Kg-dry	1	6/10/2020 9:15:36 PM
1,2-Dichloropropane	ND	0.0235		mg/Kg-dry	1	6/10/2020 9:15:36 PM
Bromodichloromethane	ND	0.0235		mg/Kg-dry	1	6/10/2020 9:15:36 PM
Dibromomethane	ND	0.0235		mg/Kg-dry	1	6/10/2020 9:15:36 PM
cis-1,3-Dichloropropene	ND	0.0235		mg/Kg-dry	1	6/10/2020 9:15:36 PM
trans-1,3-Dichloropropylene	ND	0.0235		mg/Kg-dry	1	6/10/2020 9:15:36 PM
1,1,2-Trichloroethane	ND	0.0235		mg/Kg-dry	1	6/10/2020 9:15:36 PM
1,3-Dichloropropane	ND	0.0293		mg/Kg-dry	1	6/10/2020 9:15:36 PM
Tetrachloroethene (PCE)	ND	0.0293		mg/Kg-dry	1	6/10/2020 9:15:36 PM
Dibromochloromethane	ND	0.0293		mg/Kg-dry	1	6/10/2020 9:15:36 PM
1,2-Dibromoethane (EDB)	ND	0.00587		mg/Kg-dry	1	6/10/2020 9:15:36 PM
Chlorobenzene	ND	0.0293		mg/Kg-dry	1	6/10/2020 9:15:36 PM
1,1,1,2-Tetrachloroethane	ND	0.0293		mg/Kg-dry	1	6/10/2020 9:15:36 PM
Bromoform	ND	0.0587		mg/Kg-dry	1	6/10/2020 9:15:36 PM
1,1,2,2-Tetrachloroethane	ND	0.0235		mg/Kg-dry	1	6/10/2020 9:15:36 PM
Bromobenzene	ND	0.0235		mg/Kg-dry	1	6/10/2020 9:15:36 PM
2-Chlorotoluene	ND	0.0293		mg/Kg-dry	1	6/10/2020 9:15:36 PM
4-Chlorotoluene	ND	0.0293		mg/Kg-dry	1	6/10/2020 9:15:36 PM
1,2,3-Trichloropropane	ND	0.0293		mg/Kg-dry	1	6/10/2020 9:15:36 PM
1,2,4-Trichlorobenzene	ND	0.0293		mg/Kg-dry	1	6/10/2020 9:15:36 PM
1,3-Dichlorobenzene	ND	0.0235		mg/Kg-dry	1	6/10/2020 9:15:36 PM
1,4-Dichlorobenzene	ND	0.0235		mg/Kg-dry	1	6/10/2020 9:15:36 PM
1,2-Dichlorobenzene	ND	0.0235		mg/Kg-dry	1	6/10/2020 9:15:36 PM

Analytical Report

Work Order: **2006190**
Date Reported: **6/23/2020**

Client: O'Neill Service Group
Collection Date: 6/10/2020 10:25:00 AM
Project: F200
Lab ID: 2006190-015
Matrix: Soil
Client Sample ID: 358-PH6-7

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28623		Analyst: CR
1,2-Dibromo-3-chloropropane	ND	0.587		mg/Kg-dry	1	6/10/2020 9:15:36 PM
Hexachloro-1,3-butadiene	ND	0.0587		mg/Kg-dry	1	6/10/2020 9:15:36 PM
1,2,3-Trichlorobenzene	ND	0.0235		mg/Kg-dry	1	6/10/2020 9:15:36 PM
Surr: Dibromofluoromethane	99.6	83.3 - 111		%Rec	1	6/10/2020 9:15:36 PM
Surr: Toluene-d8	98.4	87.9 - 111		%Rec	1	6/10/2020 9:15:36 PM
Surr: 1-Bromo-4-fluorobenzene	99.6	85.1 - 111		%Rec	1	6/10/2020 9:15:36 PM
Sample Moisture (Percent Moisture)				Batch ID: R59751		Analyst: CG
Percent Moisture	15.3	0.500		wt%	1	6/11/2020 9:58:39 AM

Analytical Report

Work Order: **2006190**
Date Reported: **6/23/2020**

Client: O'Neill Service Group
Collection Date: 6/10/2020 10:30:00 AM
Project: F200
Lab ID: 2006190-016
Matrix: Soil
Client Sample ID: 358-PH6-10

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28623 Analyst: CR

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0260		mg/Kg-dry	1	6/10/2020 9:45:47 PM
Chloromethane	ND	0.0651		mg/Kg-dry	1	6/10/2020 9:45:47 PM
Vinyl chloride	ND	0.0326		mg/Kg-dry	1	6/10/2020 9:45:47 PM
Bromomethane	ND	0.0651		mg/Kg-dry	1	6/10/2020 9:45:47 PM
Trichlorofluoromethane (CFC-11)	ND	0.0260		mg/Kg-dry	1	6/10/2020 9:45:47 PM
Chloroethane	ND	0.0651		mg/Kg-dry	1	6/10/2020 9:45:47 PM
1,1-Dichloroethene	ND	0.0260		mg/Kg-dry	1	6/10/2020 9:45:47 PM
Methylene chloride	ND	0.0260		mg/Kg-dry	1	6/10/2020 9:45:47 PM
trans-1,2-Dichloroethene	ND	0.0260		mg/Kg-dry	1	6/10/2020 9:45:47 PM
1,1-Dichloroethane	ND	0.0260		mg/Kg-dry	1	6/10/2020 9:45:47 PM
cis-1,2-Dichloroethene	0.0554	0.0260		mg/Kg-dry	1	6/10/2020 9:45:47 PM
Chloroform	ND	0.0260		mg/Kg-dry	1	6/10/2020 9:45:47 PM
1,1,1-Trichloroethane (TCA)	ND	0.0326		mg/Kg-dry	1	6/10/2020 9:45:47 PM
1,1-Dichloropropene	ND	0.0260		mg/Kg-dry	1	6/10/2020 9:45:47 PM
Carbon tetrachloride	ND	0.0326		mg/Kg-dry	1	6/10/2020 9:45:47 PM
1,2-Dichloroethane (EDC)	ND	0.0260		mg/Kg-dry	1	6/10/2020 9:45:47 PM
Trichloroethene (TCE)	ND	0.0260		mg/Kg-dry	1	6/10/2020 9:45:47 PM
1,2-Dichloropropane	ND	0.0260		mg/Kg-dry	1	6/10/2020 9:45:47 PM
Bromodichloromethane	ND	0.0260		mg/Kg-dry	1	6/10/2020 9:45:47 PM
Dibromomethane	ND	0.0260		mg/Kg-dry	1	6/10/2020 9:45:47 PM
cis-1,3-Dichloropropene	ND	0.0260		mg/Kg-dry	1	6/10/2020 9:45:47 PM
trans-1,3-Dichloropropylene	ND	0.0260		mg/Kg-dry	1	6/10/2020 9:45:47 PM
1,1,2-Trichloroethane	ND	0.0260		mg/Kg-dry	1	6/10/2020 9:45:47 PM
1,3-Dichloropropane	ND	0.0326		mg/Kg-dry	1	6/10/2020 9:45:47 PM
Tetrachloroethene (PCE)	ND	0.0326		mg/Kg-dry	1	6/10/2020 9:45:47 PM
Dibromochloromethane	ND	0.0326		mg/Kg-dry	1	6/10/2020 9:45:47 PM
1,2-Dibromoethane (EDB)	ND	0.00651		mg/Kg-dry	1	6/10/2020 9:45:47 PM
Chlorobenzene	ND	0.0326		mg/Kg-dry	1	6/10/2020 9:45:47 PM
1,1,1,2-Tetrachloroethane	ND	0.0326		mg/Kg-dry	1	6/10/2020 9:45:47 PM
Bromoform	ND	0.0651		mg/Kg-dry	1	6/10/2020 9:45:47 PM
1,1,2,2-Tetrachloroethane	ND	0.0260		mg/Kg-dry	1	6/10/2020 9:45:47 PM
Bromobenzene	ND	0.0260		mg/Kg-dry	1	6/10/2020 9:45:47 PM
2-Chlorotoluene	ND	0.0326		mg/Kg-dry	1	6/10/2020 9:45:47 PM
4-Chlorotoluene	ND	0.0326		mg/Kg-dry	1	6/10/2020 9:45:47 PM
1,2,3-Trichloropropane	ND	0.0326		mg/Kg-dry	1	6/10/2020 9:45:47 PM
1,2,4-Trichlorobenzene	ND	0.0326		mg/Kg-dry	1	6/10/2020 9:45:47 PM
1,3-Dichlorobenzene	ND	0.0260		mg/Kg-dry	1	6/10/2020 9:45:47 PM
1,4-Dichlorobenzene	ND	0.0260		mg/Kg-dry	1	6/10/2020 9:45:47 PM
1,2-Dichlorobenzene	ND	0.0260		mg/Kg-dry	1	6/10/2020 9:45:47 PM

Analytical Report

Work Order: **2006190**
Date Reported: **6/23/2020**

Client: O'Neill Service Group
Collection Date: 6/10/2020 10:30:00 AM
Project: F200
Lab ID: 2006190-016
Matrix: Soil
Client Sample ID: 358-PH6-10

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28623		Analyst: CR
1,2-Dibromo-3-chloropropane	ND	0.651		mg/Kg-dry	1	6/10/2020 9:45:47 PM
Hexachloro-1,3-butadiene	ND	0.0651		mg/Kg-dry	1	6/10/2020 9:45:47 PM
1,2,3-Trichlorobenzene	ND	0.0260		mg/Kg-dry	1	6/10/2020 9:45:47 PM
Surr: Dibromofluoromethane	98.7	83.3 - 111		%Rec	1	6/10/2020 9:45:47 PM
Surr: Toluene-d8	97.4	87.9 - 111		%Rec	1	6/10/2020 9:45:47 PM
Surr: 1-Bromo-4-fluorobenzene	99.4	85.1 - 111		%Rec	1	6/10/2020 9:45:47 PM
Sample Moisture (Percent Moisture)				Batch ID: R59751		Analyst: CG
Percent Moisture	12.0	0.500		wt%	1	6/11/2020 9:58:39 AM

Analytical Report

Work Order: **2006190**
Date Reported: **6/23/2020**

Client: O'Neill Service Group
Collection Date: 6/10/2020 11:00:00 AM
Project: F200
Lab ID: 2006190-017
Matrix: Soil
Client Sample ID: 358-PH7-1

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28623 Analyst: CR

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0278		mg/Kg-dry	1	6/10/2020 10:15:53 PM
Chloromethane	ND	0.0696		mg/Kg-dry	1	6/10/2020 10:15:53 PM
Vinyl chloride	ND	0.0348		mg/Kg-dry	1	6/10/2020 10:15:53 PM
Bromomethane	ND	0.0696		mg/Kg-dry	1	6/10/2020 10:15:53 PM
Trichlorofluoromethane (CFC-11)	ND	0.0278		mg/Kg-dry	1	6/10/2020 10:15:53 PM
Chloroethane	ND	0.0696		mg/Kg-dry	1	6/10/2020 10:15:53 PM
1,1-Dichloroethene	ND	0.0278		mg/Kg-dry	1	6/10/2020 10:15:53 PM
Methylene chloride	ND	0.0278		mg/Kg-dry	1	6/10/2020 10:15:53 PM
trans-1,2-Dichloroethene	ND	0.0278		mg/Kg-dry	1	6/10/2020 10:15:53 PM
1,1-Dichloroethane	ND	0.0278		mg/Kg-dry	1	6/10/2020 10:15:53 PM
cis-1,2-Dichloroethene	ND	0.0278		mg/Kg-dry	1	6/10/2020 10:15:53 PM
Chloroform	ND	0.0278		mg/Kg-dry	1	6/10/2020 10:15:53 PM
1,1,1-Trichloroethane (TCA)	ND	0.0348		mg/Kg-dry	1	6/10/2020 10:15:53 PM
1,1-Dichloropropene	ND	0.0278		mg/Kg-dry	1	6/10/2020 10:15:53 PM
Carbon tetrachloride	ND	0.0348		mg/Kg-dry	1	6/10/2020 10:15:53 PM
1,2-Dichloroethane (EDC)	ND	0.0278		mg/Kg-dry	1	6/10/2020 10:15:53 PM
Trichloroethene (TCE)	ND	0.0278		mg/Kg-dry	1	6/10/2020 10:15:53 PM
1,2-Dichloropropane	ND	0.0278		mg/Kg-dry	1	6/10/2020 10:15:53 PM
Bromodichloromethane	ND	0.0278		mg/Kg-dry	1	6/10/2020 10:15:53 PM
Dibromomethane	ND	0.0278		mg/Kg-dry	1	6/10/2020 10:15:53 PM
cis-1,3-Dichloropropene	ND	0.0278		mg/Kg-dry	1	6/10/2020 10:15:53 PM
trans-1,3-Dichloropropylene	ND	0.0278		mg/Kg-dry	1	6/10/2020 10:15:53 PM
1,1,2-Trichloroethane	ND	0.0278		mg/Kg-dry	1	6/10/2020 10:15:53 PM
1,3-Dichloropropane	ND	0.0348		mg/Kg-dry	1	6/10/2020 10:15:53 PM
Tetrachloroethene (PCE)	ND	0.0348		mg/Kg-dry	1	6/10/2020 10:15:53 PM
Dibromochloromethane	ND	0.0348		mg/Kg-dry	1	6/10/2020 10:15:53 PM
1,2-Dibromoethane (EDB)	ND	0.00696		mg/Kg-dry	1	6/10/2020 10:15:53 PM
Chlorobenzene	ND	0.0348		mg/Kg-dry	1	6/10/2020 10:15:53 PM
1,1,1,2-Tetrachloroethane	ND	0.0348		mg/Kg-dry	1	6/10/2020 10:15:53 PM
Bromoform	ND	0.0696		mg/Kg-dry	1	6/10/2020 10:15:53 PM
1,1,2,2-Tetrachloroethane	ND	0.0278		mg/Kg-dry	1	6/10/2020 10:15:53 PM
Bromobenzene	ND	0.0278		mg/Kg-dry	1	6/10/2020 10:15:53 PM
2-Chlorotoluene	ND	0.0348		mg/Kg-dry	1	6/10/2020 10:15:53 PM
4-Chlorotoluene	ND	0.0348		mg/Kg-dry	1	6/10/2020 10:15:53 PM
1,2,3-Trichloropropane	ND	0.0348		mg/Kg-dry	1	6/10/2020 10:15:53 PM
1,2,4-Trichlorobenzene	ND	0.0348		mg/Kg-dry	1	6/10/2020 10:15:53 PM
1,3-Dichlorobenzene	ND	0.0278		mg/Kg-dry	1	6/10/2020 10:15:53 PM
1,4-Dichlorobenzene	ND	0.0278		mg/Kg-dry	1	6/10/2020 10:15:53 PM
1,2-Dichlorobenzene	ND	0.0278		mg/Kg-dry	1	6/10/2020 10:15:53 PM

Analytical Report

Work Order: **2006190**
Date Reported: **6/23/2020**

Client: O'Neill Service Group
Collection Date: 6/10/2020 11:00:00 AM
Project: F200
Lab ID: 2006190-017
Matrix: Soil
Client Sample ID: 358-PH7-1

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28623		Analyst: CR
1,2-Dibromo-3-chloropropane	ND	0.696		mg/Kg-dry	1	6/10/2020 10:15:53 PM
Hexachloro-1,3-butadiene	ND	0.0696		mg/Kg-dry	1	6/10/2020 10:15:53 PM
1,2,3-Trichlorobenzene	ND	0.0278		mg/Kg-dry	1	6/10/2020 10:15:53 PM
Surr: Dibromofluoromethane	97.6	83.3 - 111		%Rec	1	6/10/2020 10:15:53 PM
Surr: Toluene-d8	98.5	87.9 - 111		%Rec	1	6/10/2020 10:15:53 PM
Surr: 1-Bromo-4-fluorobenzene	99.0	85.1 - 111		%Rec	1	6/10/2020 10:15:53 PM
Sample Moisture (Percent Moisture)				Batch ID: R59751		Analyst: CG
Percent Moisture	13.4	0.500		wt%	1	6/11/2020 9:58:39 AM

Analytical Report

Work Order: **2006190**
Date Reported: **6/23/2020**

Client: O'Neill Service Group
Collection Date: 6/10/2020 11:05:00 AM
Project: F200
Lab ID: 2006190-018
Matrix: Soil
Client Sample ID: 358-PH7-2

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28623 Analyst: CR

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0237		mg/Kg-dry	1	6/10/2020 10:46:01 PM
Chloromethane	ND	0.0593		mg/Kg-dry	1	6/10/2020 10:46:01 PM
Vinyl chloride	ND	0.0296		mg/Kg-dry	1	6/10/2020 10:46:01 PM
Bromomethane	ND	0.0593		mg/Kg-dry	1	6/10/2020 10:46:01 PM
Trichlorofluoromethane (CFC-11)	ND	0.0237		mg/Kg-dry	1	6/10/2020 10:46:01 PM
Chloroethane	ND	0.0593		mg/Kg-dry	1	6/10/2020 10:46:01 PM
1,1-Dichloroethene	ND	0.0237		mg/Kg-dry	1	6/10/2020 10:46:01 PM
Methylene chloride	ND	0.0237		mg/Kg-dry	1	6/10/2020 10:46:01 PM
trans-1,2-Dichloroethene	ND	0.0237		mg/Kg-dry	1	6/10/2020 10:46:01 PM
1,1-Dichloroethane	ND	0.0237		mg/Kg-dry	1	6/10/2020 10:46:01 PM
cis-1,2-Dichloroethene	ND	0.0237		mg/Kg-dry	1	6/10/2020 10:46:01 PM
Chloroform	ND	0.0237		mg/Kg-dry	1	6/10/2020 10:46:01 PM
1,1,1-Trichloroethane (TCA)	ND	0.0296		mg/Kg-dry	1	6/10/2020 10:46:01 PM
1,1-Dichloropropene	ND	0.0237		mg/Kg-dry	1	6/10/2020 10:46:01 PM
Carbon tetrachloride	ND	0.0296		mg/Kg-dry	1	6/10/2020 10:46:01 PM
1,2-Dichloroethane (EDC)	ND	0.0237		mg/Kg-dry	1	6/10/2020 10:46:01 PM
Trichloroethene (TCE)	ND	0.0237		mg/Kg-dry	1	6/10/2020 10:46:01 PM
1,2-Dichloropropane	ND	0.0237		mg/Kg-dry	1	6/10/2020 10:46:01 PM
Bromodichloromethane	ND	0.0237		mg/Kg-dry	1	6/10/2020 10:46:01 PM
Dibromomethane	ND	0.0237		mg/Kg-dry	1	6/10/2020 10:46:01 PM
cis-1,3-Dichloropropene	ND	0.0237		mg/Kg-dry	1	6/10/2020 10:46:01 PM
trans-1,3-Dichloropropylene	ND	0.0237		mg/Kg-dry	1	6/10/2020 10:46:01 PM
1,1,2-Trichloroethane	ND	0.0237		mg/Kg-dry	1	6/10/2020 10:46:01 PM
1,3-Dichloropropane	ND	0.0296		mg/Kg-dry	1	6/10/2020 10:46:01 PM
Tetrachloroethene (PCE)	ND	0.0296		mg/Kg-dry	1	6/10/2020 10:46:01 PM
Dibromochloromethane	ND	0.0296		mg/Kg-dry	1	6/10/2020 10:46:01 PM
1,2-Dibromoethane (EDB)	ND	0.00593		mg/Kg-dry	1	6/10/2020 10:46:01 PM
Chlorobenzene	ND	0.0296		mg/Kg-dry	1	6/10/2020 10:46:01 PM
1,1,1,2-Tetrachloroethane	ND	0.0296		mg/Kg-dry	1	6/10/2020 10:46:01 PM
Bromoform	ND	0.0593		mg/Kg-dry	1	6/10/2020 10:46:01 PM
1,1,2,2-Tetrachloroethane	ND	0.0237		mg/Kg-dry	1	6/10/2020 10:46:01 PM
Bromobenzene	ND	0.0237		mg/Kg-dry	1	6/10/2020 10:46:01 PM
2-Chlorotoluene	ND	0.0296		mg/Kg-dry	1	6/10/2020 10:46:01 PM
4-Chlorotoluene	ND	0.0296		mg/Kg-dry	1	6/10/2020 10:46:01 PM
1,2,3-Trichloropropane	ND	0.0296		mg/Kg-dry	1	6/10/2020 10:46:01 PM
1,2,4-Trichlorobenzene	ND	0.0296		mg/Kg-dry	1	6/10/2020 10:46:01 PM
1,3-Dichlorobenzene	ND	0.0237		mg/Kg-dry	1	6/10/2020 10:46:01 PM
1,4-Dichlorobenzene	ND	0.0237		mg/Kg-dry	1	6/10/2020 10:46:01 PM
1,2-Dichlorobenzene	ND	0.0237		mg/Kg-dry	1	6/10/2020 10:46:01 PM

Analytical Report

Work Order: **2006190**
Date Reported: **6/23/2020**

Client: O'Neill Service Group
Collection Date: 6/10/2020 11:05:00 AM
Project: F200
Lab ID: 2006190-018
Matrix: Soil
Client Sample ID: 358-PH7-2

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28623		Analyst: CR
1,2-Dibromo-3-chloropropane	ND	0.593		mg/Kg-dry	1	6/10/2020 10:46:01 PM
Hexachloro-1,3-butadiene	ND	0.0593		mg/Kg-dry	1	6/10/2020 10:46:01 PM
1,2,3-Trichlorobenzene	ND	0.0237		mg/Kg-dry	1	6/10/2020 10:46:01 PM
Surr: Dibromofluoromethane	99.0	83.3 - 111		%Rec	1	6/10/2020 10:46:01 PM
Surr: Toluene-d8	97.7	87.9 - 111		%Rec	1	6/10/2020 10:46:01 PM
Surr: 1-Bromo-4-fluorobenzene	97.0	85.1 - 111		%Rec	1	6/10/2020 10:46:01 PM
Sample Moisture (Percent Moisture)				Batch ID: R59751		Analyst: CG
Percent Moisture	18.7	0.500		wt%	1	6/11/2020 9:58:39 AM

Analytical Report

Work Order: **2006190**
Date Reported: **6/23/2020**

Client: O'Neill Service Group
Collection Date: 6/10/2020 11:10:00 AM
Project: F200
Lab ID: 2006190-019
Matrix: Soil
Client Sample ID: 358-PH7-4

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28623 Analyst: CR

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0253		mg/Kg-dry	1	6/10/2020 11:16:08 PM
Chloromethane	ND	0.0633		mg/Kg-dry	1	6/10/2020 11:16:08 PM
Vinyl chloride	ND	0.0317		mg/Kg-dry	1	6/10/2020 11:16:08 PM
Bromomethane	ND	0.0633		mg/Kg-dry	1	6/10/2020 11:16:08 PM
Trichlorofluoromethane (CFC-11)	ND	0.0253		mg/Kg-dry	1	6/10/2020 11:16:08 PM
Chloroethane	ND	0.0633		mg/Kg-dry	1	6/10/2020 11:16:08 PM
1,1-Dichloroethene	ND	0.0253		mg/Kg-dry	1	6/10/2020 11:16:08 PM
Methylene chloride	ND	0.0253		mg/Kg-dry	1	6/10/2020 11:16:08 PM
trans-1,2-Dichloroethene	ND	0.0253		mg/Kg-dry	1	6/10/2020 11:16:08 PM
1,1-Dichloroethane	ND	0.0253		mg/Kg-dry	1	6/10/2020 11:16:08 PM
cis-1,2-Dichloroethene	0.0733	0.0253		mg/Kg-dry	1	6/10/2020 11:16:08 PM
Chloroform	ND	0.0253		mg/Kg-dry	1	6/10/2020 11:16:08 PM
1,1,1-Trichloroethane (TCA)	ND	0.0317		mg/Kg-dry	1	6/10/2020 11:16:08 PM
1,1-Dichloropropene	ND	0.0253		mg/Kg-dry	1	6/10/2020 11:16:08 PM
Carbon tetrachloride	ND	0.0317		mg/Kg-dry	1	6/10/2020 11:16:08 PM
1,2-Dichloroethane (EDC)	ND	0.0253		mg/Kg-dry	1	6/10/2020 11:16:08 PM
Trichloroethene (TCE)	0.161	0.0253		mg/Kg-dry	1	6/10/2020 11:16:08 PM
1,2-Dichloropropane	ND	0.0253		mg/Kg-dry	1	6/10/2020 11:16:08 PM
Bromodichloromethane	ND	0.0253		mg/Kg-dry	1	6/10/2020 11:16:08 PM
Dibromomethane	ND	0.0253		mg/Kg-dry	1	6/10/2020 11:16:08 PM
cis-1,3-Dichloropropene	ND	0.0253		mg/Kg-dry	1	6/10/2020 11:16:08 PM
trans-1,3-Dichloropropylene	ND	0.0253		mg/Kg-dry	1	6/10/2020 11:16:08 PM
1,1,2-Trichloroethane	ND	0.0253		mg/Kg-dry	1	6/10/2020 11:16:08 PM
1,3-Dichloropropane	ND	0.0317		mg/Kg-dry	1	6/10/2020 11:16:08 PM
Tetrachloroethene (PCE)	0.683	0.0317		mg/Kg-dry	1	6/10/2020 11:16:08 PM
Dibromochloromethane	ND	0.0317		mg/Kg-dry	1	6/10/2020 11:16:08 PM
1,2-Dibromoethane (EDB)	ND	0.00633		mg/Kg-dry	1	6/10/2020 11:16:08 PM
Chlorobenzene	ND	0.0317		mg/Kg-dry	1	6/10/2020 11:16:08 PM
1,1,1,2-Tetrachloroethane	ND	0.0317		mg/Kg-dry	1	6/10/2020 11:16:08 PM
Bromoform	ND	0.0633		mg/Kg-dry	1	6/10/2020 11:16:08 PM
1,1,2,2-Tetrachloroethane	ND	0.0253		mg/Kg-dry	1	6/10/2020 11:16:08 PM
Bromobenzene	ND	0.0253		mg/Kg-dry	1	6/10/2020 11:16:08 PM
2-Chlorotoluene	ND	0.0317		mg/Kg-dry	1	6/10/2020 11:16:08 PM
4-Chlorotoluene	ND	0.0317		mg/Kg-dry	1	6/10/2020 11:16:08 PM
1,2,3-Trichloropropane	ND	0.0317		mg/Kg-dry	1	6/10/2020 11:16:08 PM
1,2,4-Trichlorobenzene	ND	0.0317		mg/Kg-dry	1	6/10/2020 11:16:08 PM
1,3-Dichlorobenzene	ND	0.0253		mg/Kg-dry	1	6/10/2020 11:16:08 PM
1,4-Dichlorobenzene	ND	0.0253		mg/Kg-dry	1	6/10/2020 11:16:08 PM
1,2-Dichlorobenzene	ND	0.0253		mg/Kg-dry	1	6/10/2020 11:16:08 PM

Analytical Report

Work Order: **2006190**
Date Reported: **6/23/2020**

Client: O'Neill Service Group
Collection Date: 6/10/2020 11:10:00 AM
Project: F200
Lab ID: 2006190-019
Matrix: Soil
Client Sample ID: 358-PH7-4

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28623		Analyst: CR
1,2-Dibromo-3-chloropropane	ND	0.633		mg/Kg-dry	1	6/10/2020 11:16:08 PM
Hexachloro-1,3-butadiene	ND	0.0633		mg/Kg-dry	1	6/10/2020 11:16:08 PM
1,2,3-Trichlorobenzene	ND	0.0253		mg/Kg-dry	1	6/10/2020 11:16:08 PM
Surr: Dibromofluoromethane	99.7	83.3 - 111		%Rec	1	6/10/2020 11:16:08 PM
Surr: Toluene-d8	97.2	87.9 - 111		%Rec	1	6/10/2020 11:16:08 PM
Surr: 1-Bromo-4-fluorobenzene	98.6	85.1 - 111		%Rec	1	6/10/2020 11:16:08 PM
Sample Moisture (Percent Moisture)				Batch ID: R59751		Analyst: CG
Percent Moisture	12.1	0.500		wt%	1	6/11/2020 9:58:39 AM

Analytical Report

Work Order: **2006190**
Date Reported: **6/23/2020**

Client: O'Neill Service Group
Collection Date: 6/10/2020 11:15:00 AM
Project: F200
Lab ID: 2006190-020
Matrix: Soil
Client Sample ID: 358-PH7-7

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28623 Analyst: CR

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0249		mg/Kg-dry	1	6/10/2020 11:46:17 PM
Chloromethane	ND	0.0622		mg/Kg-dry	1	6/10/2020 11:46:17 PM
Vinyl chloride	ND	0.0311		mg/Kg-dry	1	6/10/2020 11:46:17 PM
Bromomethane	ND	0.0622		mg/Kg-dry	1	6/10/2020 11:46:17 PM
Trichlorofluoromethane (CFC-11)	ND	0.0249		mg/Kg-dry	1	6/10/2020 11:46:17 PM
Chloroethane	ND	0.0622		mg/Kg-dry	1	6/10/2020 11:46:17 PM
1,1-Dichloroethene	ND	0.0249		mg/Kg-dry	1	6/10/2020 11:46:17 PM
Methylene chloride	ND	0.0249		mg/Kg-dry	1	6/10/2020 11:46:17 PM
trans-1,2-Dichloroethene	ND	0.0249		mg/Kg-dry	1	6/10/2020 11:46:17 PM
1,1-Dichloroethane	ND	0.0249		mg/Kg-dry	1	6/10/2020 11:46:17 PM
cis-1,2-Dichloroethene	0.124	0.0249		mg/Kg-dry	1	6/10/2020 11:46:17 PM
Chloroform	ND	0.0249		mg/Kg-dry	1	6/10/2020 11:46:17 PM
1,1,1-Trichloroethane (TCA)	ND	0.0311		mg/Kg-dry	1	6/10/2020 11:46:17 PM
1,1-Dichloropropene	ND	0.0249		mg/Kg-dry	1	6/10/2020 11:46:17 PM
Carbon tetrachloride	ND	0.0311		mg/Kg-dry	1	6/10/2020 11:46:17 PM
1,2-Dichloroethane (EDC)	ND	0.0249		mg/Kg-dry	1	6/10/2020 11:46:17 PM
Trichloroethene (TCE)	0.118	0.0249		mg/Kg-dry	1	6/10/2020 11:46:17 PM
1,2-Dichloropropane	ND	0.0249		mg/Kg-dry	1	6/10/2020 11:46:17 PM
Bromodichloromethane	ND	0.0249		mg/Kg-dry	1	6/10/2020 11:46:17 PM
Dibromomethane	ND	0.0249		mg/Kg-dry	1	6/10/2020 11:46:17 PM
cis-1,3-Dichloropropene	ND	0.0249		mg/Kg-dry	1	6/10/2020 11:46:17 PM
trans-1,3-Dichloropropylene	ND	0.0249		mg/Kg-dry	1	6/10/2020 11:46:17 PM
1,1,2-Trichloroethane	ND	0.0249		mg/Kg-dry	1	6/10/2020 11:46:17 PM
1,3-Dichloropropane	ND	0.0311		mg/Kg-dry	1	6/10/2020 11:46:17 PM
Tetrachloroethene (PCE)	1.05	0.0311		mg/Kg-dry	1	6/10/2020 11:46:17 PM
Dibromochloromethane	ND	0.0311		mg/Kg-dry	1	6/10/2020 11:46:17 PM
1,2-Dibromoethane (EDB)	ND	0.00622		mg/Kg-dry	1	6/10/2020 11:46:17 PM
Chlorobenzene	ND	0.0311		mg/Kg-dry	1	6/10/2020 11:46:17 PM
1,1,1,2-Tetrachloroethane	ND	0.0311		mg/Kg-dry	1	6/10/2020 11:46:17 PM
Bromoform	ND	0.0622		mg/Kg-dry	1	6/10/2020 11:46:17 PM
1,1,2,2-Tetrachloroethane	ND	0.0249		mg/Kg-dry	1	6/10/2020 11:46:17 PM
Bromobenzene	ND	0.0249		mg/Kg-dry	1	6/10/2020 11:46:17 PM
2-Chlorotoluene	ND	0.0311		mg/Kg-dry	1	6/10/2020 11:46:17 PM
4-Chlorotoluene	ND	0.0311		mg/Kg-dry	1	6/10/2020 11:46:17 PM
1,2,3-Trichloropropane	ND	0.0311		mg/Kg-dry	1	6/10/2020 11:46:17 PM
1,2,4-Trichlorobenzene	ND	0.0311		mg/Kg-dry	1	6/10/2020 11:46:17 PM
1,3-Dichlorobenzene	ND	0.0249		mg/Kg-dry	1	6/10/2020 11:46:17 PM
1,4-Dichlorobenzene	ND	0.0249		mg/Kg-dry	1	6/10/2020 11:46:17 PM
1,2-Dichlorobenzene	ND	0.0249		mg/Kg-dry	1	6/10/2020 11:46:17 PM

Analytical Report

Work Order: **2006190**
Date Reported: **6/23/2020**

Client: O'Neill Service Group
Collection Date: 6/10/2020 11:15:00 AM
Project: F200
Lab ID: 2006190-020
Matrix: Soil
Client Sample ID: 358-PH7-7

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28623		Analyst: CR
1,2-Dibromo-3-chloropropane	ND	0.622		mg/Kg-dry	1	6/10/2020 11:46:17 PM
Hexachloro-1,3-butadiene	ND	0.0622		mg/Kg-dry	1	6/10/2020 11:46:17 PM
1,2,3-Trichlorobenzene	ND	0.0249		mg/Kg-dry	1	6/10/2020 11:46:17 PM
Surr: Dibromofluoromethane	97.2	83.3 - 111		%Rec	1	6/10/2020 11:46:17 PM
Surr: Toluene-d8	97.4	87.9 - 111		%Rec	1	6/10/2020 11:46:17 PM
Surr: 1-Bromo-4-fluorobenzene	98.4	85.1 - 111		%Rec	1	6/10/2020 11:46:17 PM
Sample Moisture (Percent Moisture)				Batch ID: R59751		Analyst: CG
Percent Moisture	10.1	0.500		wt%	1	6/11/2020 9:58:39 AM

Analytical Report

Work Order: **2006190**
Date Reported: **6/23/2020**

Client: O'Neill Service Group
Collection Date: 6/10/2020 11:20:00 AM
Project: F200
Lab ID: 2006190-021
Matrix: Soil
Client Sample ID: 358-PH7-9

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28623 Analyst: CR

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0236		mg/Kg-dry	1	6/11/2020 12:16:23 AM
Chloromethane	ND	0.0590		mg/Kg-dry	1	6/11/2020 12:16:23 AM
Vinyl chloride	ND	0.0295		mg/Kg-dry	1	6/11/2020 12:16:23 AM
Bromomethane	ND	0.0590		mg/Kg-dry	1	6/11/2020 12:16:23 AM
Trichlorofluoromethane (CFC-11)	ND	0.0236		mg/Kg-dry	1	6/11/2020 12:16:23 AM
Chloroethane	ND	0.0590		mg/Kg-dry	1	6/11/2020 12:16:23 AM
1,1-Dichloroethene	ND	0.0236		mg/Kg-dry	1	6/11/2020 12:16:23 AM
Methylene chloride	ND	0.0236		mg/Kg-dry	1	6/11/2020 12:16:23 AM
trans-1,2-Dichloroethene	ND	0.0236		mg/Kg-dry	1	6/11/2020 12:16:23 AM
1,1-Dichloroethane	ND	0.0236		mg/Kg-dry	1	6/11/2020 12:16:23 AM
cis-1,2-Dichloroethene	0.0747	0.0236		mg/Kg-dry	1	6/11/2020 12:16:23 AM
Chloroform	ND	0.0236		mg/Kg-dry	1	6/11/2020 12:16:23 AM
1,1,1-Trichloroethane (TCA)	ND	0.0295		mg/Kg-dry	1	6/11/2020 12:16:23 AM
1,1-Dichloropropene	ND	0.0236		mg/Kg-dry	1	6/11/2020 12:16:23 AM
Carbon tetrachloride	ND	0.0295		mg/Kg-dry	1	6/11/2020 12:16:23 AM
1,2-Dichloroethane (EDC)	ND	0.0236		mg/Kg-dry	1	6/11/2020 12:16:23 AM
Trichloroethene (TCE)	1.01	0.0236		mg/Kg-dry	1	6/11/2020 12:16:23 AM
1,2-Dichloropropane	ND	0.0236		mg/Kg-dry	1	6/11/2020 12:16:23 AM
Bromodichloromethane	ND	0.0236		mg/Kg-dry	1	6/11/2020 12:16:23 AM
Dibromomethane	ND	0.0236		mg/Kg-dry	1	6/11/2020 12:16:23 AM
cis-1,3-Dichloropropene	ND	0.0236		mg/Kg-dry	1	6/11/2020 12:16:23 AM
trans-1,3-Dichloropropylene	ND	0.0236		mg/Kg-dry	1	6/11/2020 12:16:23 AM
1,1,2-Trichloroethane	ND	0.0236		mg/Kg-dry	1	6/11/2020 12:16:23 AM
1,3-Dichloropropane	ND	0.0295		mg/Kg-dry	1	6/11/2020 12:16:23 AM
Tetrachloroethene (PCE)	400	5.90	D	mg/Kg-dry	200	6/11/2020 7:37:04 AM
Dibromochloromethane	ND	0.0295		mg/Kg-dry	1	6/11/2020 12:16:23 AM
1,2-Dibromoethane (EDB)	ND	0.00590		mg/Kg-dry	1	6/11/2020 12:16:23 AM
Chlorobenzene	ND	0.0295		mg/Kg-dry	1	6/11/2020 12:16:23 AM
1,1,1,2-Tetrachloroethane	ND	0.0295		mg/Kg-dry	1	6/11/2020 12:16:23 AM
Bromoform	ND	0.0590		mg/Kg-dry	1	6/11/2020 12:16:23 AM
1,1,2,2-Tetrachloroethane	ND	0.0236		mg/Kg-dry	1	6/11/2020 12:16:23 AM
Bromobenzene	ND	0.0236		mg/Kg-dry	1	6/11/2020 12:16:23 AM
2-Chlorotoluene	ND	0.0295		mg/Kg-dry	1	6/11/2020 12:16:23 AM
4-Chlorotoluene	ND	0.0295		mg/Kg-dry	1	6/11/2020 12:16:23 AM
1,2,3-Trichloropropane	ND	0.0295		mg/Kg-dry	1	6/11/2020 12:16:23 AM
1,2,4-Trichlorobenzene	ND	0.0295		mg/Kg-dry	1	6/11/2020 12:16:23 AM
1,3-Dichlorobenzene	ND	0.0236		mg/Kg-dry	1	6/11/2020 12:16:23 AM
1,4-Dichlorobenzene	ND	0.0236		mg/Kg-dry	1	6/11/2020 12:16:23 AM
1,2-Dichlorobenzene	ND	0.0236		mg/Kg-dry	1	6/11/2020 12:16:23 AM

Analytical Report

Work Order: **2006190**
Date Reported: **6/23/2020**

Client: O'Neill Service Group
Collection Date: 6/10/2020 11:20:00 AM
Project: F200
Lab ID: 2006190-021
Matrix: Soil
Client Sample ID: 358-PH7-9

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28623		Analyst: CR
1,2-Dibromo-3-chloropropane	ND	0.590		mg/Kg-dry	1	6/11/2020 12:16:23 AM
Hexachloro-1,3-butadiene	ND	0.0590		mg/Kg-dry	1	6/11/2020 12:16:23 AM
1,2,3-Trichlorobenzene	ND	0.0236		mg/Kg-dry	1	6/11/2020 12:16:23 AM
Surr: Dibromofluoromethane	91.9	83.3 - 111		%Rec	1	6/11/2020 12:16:23 AM
Surr: Toluene-d8	94.1	87.9 - 111		%Rec	1	6/11/2020 12:16:23 AM
Surr: 1-Bromo-4-fluorobenzene	91.2	85.1 - 111		%Rec	1	6/11/2020 12:16:23 AM
Sample Moisture (Percent Moisture)				Batch ID: R59752		Analyst: CG
Percent Moisture	14.3	0.500		wt%	1	6/11/2020 10:00:04 AM

Analytical Report

Work Order: **2006190**
Date Reported: **6/23/2020**

Client: O'Neill Service Group
Collection Date: 6/10/2020 11:25:00 AM
Project: F200
Lab ID: 2006190-022
Matrix: Soil
Client Sample ID: 358-PH7-12

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28623 Analyst: CR

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0264		mg/Kg-dry	1	6/11/2020 6:36:47 AM
Chloromethane	ND	0.0661		mg/Kg-dry	1	6/11/2020 6:36:47 AM
Vinyl chloride	ND	0.0331		mg/Kg-dry	1	6/11/2020 6:36:47 AM
Bromomethane	ND	0.0661		mg/Kg-dry	1	6/11/2020 6:36:47 AM
Trichlorofluoromethane (CFC-11)	ND	0.0264		mg/Kg-dry	1	6/11/2020 6:36:47 AM
Chloroethane	ND	0.0661		mg/Kg-dry	1	6/11/2020 6:36:47 AM
1,1-Dichloroethene	ND	0.0264		mg/Kg-dry	1	6/11/2020 6:36:47 AM
Methylene chloride	ND	0.0264		mg/Kg-dry	1	6/11/2020 6:36:47 AM
trans-1,2-Dichloroethene	ND	0.0264		mg/Kg-dry	1	6/11/2020 6:36:47 AM
1,1-Dichloroethane	ND	0.0264		mg/Kg-dry	1	6/11/2020 6:36:47 AM
cis-1,2-Dichloroethene	0.186	0.0264		mg/Kg-dry	1	6/11/2020 6:36:47 AM
Chloroform	ND	0.0264		mg/Kg-dry	1	6/11/2020 6:36:47 AM
1,1,1-Trichloroethane (TCA)	ND	0.0331		mg/Kg-dry	1	6/11/2020 6:36:47 AM
1,1-Dichloropropene	ND	0.0264		mg/Kg-dry	1	6/11/2020 6:36:47 AM
Carbon tetrachloride	ND	0.0331		mg/Kg-dry	1	6/11/2020 6:36:47 AM
1,2-Dichloroethane (EDC)	ND	0.0264		mg/Kg-dry	1	6/11/2020 6:36:47 AM
Trichloroethene (TCE)	0.0968	0.0264		mg/Kg-dry	1	6/11/2020 6:36:47 AM
1,2-Dichloropropane	ND	0.0264		mg/Kg-dry	1	6/11/2020 6:36:47 AM
Bromodichloromethane	ND	0.0264		mg/Kg-dry	1	6/11/2020 6:36:47 AM
Dibromomethane	ND	0.0264		mg/Kg-dry	1	6/11/2020 6:36:47 AM
cis-1,3-Dichloropropene	ND	0.0264		mg/Kg-dry	1	6/11/2020 6:36:47 AM
trans-1,3-Dichloropropylene	ND	0.0264		mg/Kg-dry	1	6/11/2020 6:36:47 AM
1,1,2-Trichloroethane	ND	0.0264		mg/Kg-dry	1	6/11/2020 6:36:47 AM
1,3-Dichloropropane	ND	0.0331		mg/Kg-dry	1	6/11/2020 6:36:47 AM
Tetrachloroethene (PCE)	1.95	0.0331		mg/Kg-dry	1	6/11/2020 6:36:47 AM
Dibromochloromethane	ND	0.0331		mg/Kg-dry	1	6/11/2020 6:36:47 AM
1,2-Dibromoethane (EDB)	ND	0.00661		mg/Kg-dry	1	6/11/2020 6:36:47 AM
Chlorobenzene	ND	0.0331		mg/Kg-dry	1	6/11/2020 6:36:47 AM
1,1,1,2-Tetrachloroethane	ND	0.0331		mg/Kg-dry	1	6/11/2020 6:36:47 AM
Bromoform	ND	0.0661		mg/Kg-dry	1	6/11/2020 6:36:47 AM
1,1,2,2-Tetrachloroethane	ND	0.0264		mg/Kg-dry	1	6/11/2020 6:36:47 AM
Bromobenzene	ND	0.0264		mg/Kg-dry	1	6/11/2020 6:36:47 AM
2-Chlorotoluene	ND	0.0331		mg/Kg-dry	1	6/11/2020 6:36:47 AM
4-Chlorotoluene	ND	0.0331		mg/Kg-dry	1	6/11/2020 6:36:47 AM
1,2,3-Trichloropropane	ND	0.0331		mg/Kg-dry	1	6/11/2020 6:36:47 AM
1,2,4-Trichlorobenzene	ND	0.0331		mg/Kg-dry	1	6/11/2020 6:36:47 AM
1,3-Dichlorobenzene	ND	0.0264		mg/Kg-dry	1	6/11/2020 6:36:47 AM
1,4-Dichlorobenzene	ND	0.0264		mg/Kg-dry	1	6/11/2020 6:36:47 AM
1,2-Dichlorobenzene	ND	0.0264		mg/Kg-dry	1	6/11/2020 6:36:47 AM

Analytical Report

Work Order: **2006190**
Date Reported: **6/23/2020**

Client: O'Neill Service Group
Collection Date: 6/10/2020 11:25:00 AM
Project: F200
Lab ID: 2006190-022
Matrix: Soil
Client Sample ID: 358-PH7-12

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28623		Analyst: CR
1,2-Dibromo-3-chloropropane	ND	0.661		mg/Kg-dry	1	6/11/2020 6:36:47 AM
Hexachloro-1,3-butadiene	ND	0.0661		mg/Kg-dry	1	6/11/2020 6:36:47 AM
1,2,3-Trichlorobenzene	ND	0.0264		mg/Kg-dry	1	6/11/2020 6:36:47 AM
Surr: Dibromofluoromethane	97.3	83.3 - 111		%Rec	1	6/11/2020 6:36:47 AM
Surr: Toluene-d8	96.5	87.9 - 111		%Rec	1	6/11/2020 6:36:47 AM
Surr: 1-Bromo-4-fluorobenzene	99.1	85.1 - 111		%Rec	1	6/11/2020 6:36:47 AM
Sample Moisture (Percent Moisture)				Batch ID: R59752		Analyst: CG
Percent Moisture	10.4	0.500		wt%	1	6/11/2020 10:00:04 AM

Analytical Report

Work Order: **2006190**
Date Reported: **6/23/2020**

Client: O'Neill Service Group
Collection Date: 6/10/2020 11:30:00 AM
Project: F200
Lab ID: 2006190-023
Matrix: Soil
Client Sample ID: 358-PH7-15

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28623 Analyst: CR

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0329		mg/Kg-dry	1	6/11/2020 1:16:40 AM
Chloromethane	ND	0.0822		mg/Kg-dry	1	6/11/2020 1:16:40 AM
Vinyl chloride	ND	0.0411		mg/Kg-dry	1	6/11/2020 1:16:40 AM
Bromomethane	ND	0.0822		mg/Kg-dry	1	6/11/2020 1:16:40 AM
Trichlorofluoromethane (CFC-11)	ND	0.0329		mg/Kg-dry	1	6/11/2020 1:16:40 AM
Chloroethane	ND	0.0822		mg/Kg-dry	1	6/11/2020 1:16:40 AM
1,1-Dichloroethene	ND	0.0329		mg/Kg-dry	1	6/11/2020 1:16:40 AM
Methylene chloride	ND	0.0329		mg/Kg-dry	1	6/11/2020 1:16:40 AM
trans-1,2-Dichloroethene	ND	0.0329		mg/Kg-dry	1	6/11/2020 1:16:40 AM
1,1-Dichloroethane	ND	0.0329		mg/Kg-dry	1	6/11/2020 1:16:40 AM
cis-1,2-Dichloroethene	0.757	0.0329		mg/Kg-dry	1	6/11/2020 1:16:40 AM
Chloroform	ND	0.0329		mg/Kg-dry	1	6/11/2020 1:16:40 AM
1,1,1-Trichloroethane (TCA)	ND	0.0411		mg/Kg-dry	1	6/11/2020 1:16:40 AM
1,1-Dichloropropene	ND	0.0329		mg/Kg-dry	1	6/11/2020 1:16:40 AM
Carbon tetrachloride	ND	0.0411		mg/Kg-dry	1	6/11/2020 1:16:40 AM
1,2-Dichloroethane (EDC)	ND	0.0329		mg/Kg-dry	1	6/11/2020 1:16:40 AM
Trichloroethene (TCE)	0.403	0.0329		mg/Kg-dry	1	6/11/2020 1:16:40 AM
1,2-Dichloropropane	ND	0.0329		mg/Kg-dry	1	6/11/2020 1:16:40 AM
Bromodichloromethane	ND	0.0329		mg/Kg-dry	1	6/11/2020 1:16:40 AM
Dibromomethane	ND	0.0329		mg/Kg-dry	1	6/11/2020 1:16:40 AM
cis-1,3-Dichloropropene	ND	0.0329		mg/Kg-dry	1	6/11/2020 1:16:40 AM
trans-1,3-Dichloropropylene	ND	0.0329		mg/Kg-dry	1	6/11/2020 1:16:40 AM
1,1,2-Trichloroethane	ND	0.0329		mg/Kg-dry	1	6/11/2020 1:16:40 AM
1,3-Dichloropropane	ND	0.0411		mg/Kg-dry	1	6/11/2020 1:16:40 AM
Tetrachloroethene (PCE)	10.1	0.411	D	mg/Kg-dry	10	6/11/2020 7:06:55 AM
Dibromochloromethane	ND	0.0411		mg/Kg-dry	1	6/11/2020 1:16:40 AM
1,2-Dibromoethane (EDB)	ND	0.00822		mg/Kg-dry	1	6/11/2020 1:16:40 AM
Chlorobenzene	ND	0.0411		mg/Kg-dry	1	6/11/2020 1:16:40 AM
1,1,1,2-Tetrachloroethane	ND	0.0411		mg/Kg-dry	1	6/11/2020 1:16:40 AM
Bromoform	ND	0.0822		mg/Kg-dry	1	6/11/2020 1:16:40 AM
1,1,2,2-Tetrachloroethane	ND	0.0329		mg/Kg-dry	1	6/11/2020 1:16:40 AM
Bromobenzene	ND	0.0329		mg/Kg-dry	1	6/11/2020 1:16:40 AM
2-Chlorotoluene	ND	0.0411		mg/Kg-dry	1	6/11/2020 1:16:40 AM
4-Chlorotoluene	ND	0.0411		mg/Kg-dry	1	6/11/2020 1:16:40 AM
1,2,3-Trichloropropane	ND	0.0411		mg/Kg-dry	1	6/11/2020 1:16:40 AM
1,2,4-Trichlorobenzene	ND	0.0411		mg/Kg-dry	1	6/11/2020 1:16:40 AM
1,3-Dichlorobenzene	ND	0.0329		mg/Kg-dry	1	6/11/2020 1:16:40 AM
1,4-Dichlorobenzene	ND	0.0329		mg/Kg-dry	1	6/11/2020 1:16:40 AM
1,2-Dichlorobenzene	ND	0.0329		mg/Kg-dry	1	6/11/2020 1:16:40 AM

Analytical Report

Work Order: **2006190**
Date Reported: **6/23/2020**

Client: O'Neill Service Group
Collection Date: 6/10/2020 11:30:00 AM
Project: F200
Lab ID: 2006190-023
Matrix: Soil
Client Sample ID: 358-PH7-15

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28623		Analyst: CR
1,2-Dibromo-3-chloropropane	ND	0.822		mg/Kg-dry	1	6/11/2020 1:16:40 AM
Hexachloro-1,3-butadiene	ND	0.0822		mg/Kg-dry	1	6/11/2020 1:16:40 AM
1,2,3-Trichlorobenzene	ND	0.0329		mg/Kg-dry	1	6/11/2020 1:16:40 AM
Surr: Dibromofluoromethane	97.3	83.3 - 111		%Rec	1	6/11/2020 1:16:40 AM
Surr: Toluene-d8	97.1	87.9 - 111		%Rec	1	6/11/2020 1:16:40 AM
Surr: 1-Bromo-4-fluorobenzene	97.7	85.1 - 111		%Rec	1	6/11/2020 1:16:40 AM
Sample Moisture (Percent Moisture)				Batch ID: R59752		Analyst: CG
Percent Moisture	18.3	0.500		wt%	1	6/11/2020 10:00:04 AM

Date: *6/23/2020*

Work Order: 2006190
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **LCS-28615** SampType: **LCS** Units: **mg/Kg** Prep Date: **6/10/2020** RunNo: **59748**
Client ID: **LCSS** Batch ID: **28615** Analysis Date: **6/10/2020** SeqNo: **1195659**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	1.28	0.0200	1.000	0	128	13.4	185				
Chloromethane	1.08	0.0500	1.000	0	108	38.5	158				
Vinyl chloride	1.03	0.0250	1.000	0	103	53.6	138				
Bromomethane	0.970	0.0500	1.000	0	97.0	56.6	151				
Trichlorofluoromethane (CFC-11)	0.957	0.0200	1.000	0	95.7	64.2	137				
Chloroethane	1.05	0.0500	1.000	0	105	54.1	134				
1,1-Dichloroethene	0.918	0.0200	1.000	0	91.8	66	133				
Methylene chloride	0.910	0.0200	1.000	0	91.0	74.3	117				
trans-1,2-Dichloroethene	0.910	0.0200	1.000	0	91.0	79.6	115				
1,1-Dichloroethane	0.914	0.0200	1.000	0	91.4	75.8	117				
cis-1,2-Dichloroethene	0.885	0.0200	1.000	0	88.5	77.8	115				
Chloroform	0.894	0.0200	1.000	0	89.4	78.2	115				
1,1,1-Trichloroethane (TCA)	0.911	0.0250	1.000	0	91.1	76	121				
1,1-Dichloropropene	0.910	0.0200	1.000	0	91.0	77.2	120				
Carbon tetrachloride	0.899	0.0500	1.000	0	89.9	74	122				
1,2-Dichloroethane (EDC)	0.917	0.0200	1.000	0	91.7	74.7	115				
Trichloroethene (TCE)	0.877	0.0200	1.000	0	87.7	79.6	118				
1,2-Dichloropropane	0.885	0.0200	1.000	0	88.5	78.2	115				
Bromodichloromethane	0.954	0.0200	1.000	0	95.4	76.6	116				
Dibromomethane	0.873	0.0200	1.000	0	87.3	77.9	115				
cis-1,3-Dichloropropene	0.852	0.0200	1.000	0	85.2	74.6	119				
trans-1,3-Dichloropropylene	0.921	0.0200	1.000	0	92.1	70.6	124				
1,1,2-Trichloroethane	0.840	0.0200	1.000	0	84.0	75.6	116				
1,3-Dichloropropane	0.837	0.0250	1.000	0	83.7	75.3	116				
Tetrachloroethene (PCE)	0.893	0.0250	1.000	0	89.3	78.8	119				
Dibromochloromethane	0.948	0.0250	1.000	0	94.8	72.5	123				
1,2-Dibromoethane (EDB)	0.847	0.00500	1.000	0	84.7	75	116				
Chlorobenzene	0.908	0.0250	1.000	0	90.8	83.4	113				
1,1,1,2-Tetrachloroethane	0.995	0.0250	1.000	0	99.5	80.8	117				
Bromoform	1.05	0.0500	1.000	0	105	71	129				
1,1,2,2-Tetrachloroethane	0.965	0.0200	1.000	0	96.5	71.3	119				

Date: *6/23/2020*

Work Order: 2006190
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **LCS-28615** SampType: **LCS** Units: **mg/Kg** Prep Date: **6/10/2020** RunNo: **59748**
Client ID: **LCSS** Batch ID: **28615** Analysis Date: **6/10/2020** SeqNo: **1195659**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromobenzene	0.948	0.0200	1.000	0	94.8	78.6	115				
2-Chlorotoluene	0.936	0.0250	1.000	0	93.6	78.6	116				
4-Chlorotoluene	0.947	0.0250	1.000	0	94.7	78.8	117				
1,2,3-Trichloropropane	0.973	0.0250	1.000	0	97.3	67.5	129				
1,2,4-Trichlorobenzene	0.842	0.0250	1.000	0	84.2	79.6	124				
1,3-Dichlorobenzene	0.920	0.0200	1.000	0	92.0	87.1	117				
1,4-Dichlorobenzene	0.925	0.0200	1.000	0	92.5	87.6	115				
1,2-Dichlorobenzene	0.912	0.0200	1.000	0	91.2	87.9	115				
1,2-Dibromo-3-chloropropane	0.956	0.500	1.000	0	95.6	65.6	132				
Hexachloro-1,3-butadiene	0.958	0.0500	1.000	0	95.8	75	130				
1,2,3-Trichlorobenzene	0.806	0.0200	1.000	0	80.6	74.3	128				
Surr: Dibromofluoromethane	1.29		1.250		104	83.3	111				
Surr: Toluene-d8	1.15		1.250		92.2	87.9	111				
Surr: 1-Bromo-4-fluorobenzene	1.32		1.250		106	85.1	111				

Sample ID: **MB-28615** SampType: **MBLK** Units: **mg/Kg** Prep Date: **6/10/2020** RunNo: **59748**
Client ID: **MBLKS** Batch ID: **28615** Analysis Date: **6/10/2020** SeqNo: **1195660**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	0.0200									
Chloromethane	ND	0.0500									
Vinyl chloride	ND	0.0250									
Bromomethane	ND	0.0500									Q
Trichlorofluoromethane (CFC-11)	ND	0.0200									
Chloroethane	ND	0.0500									Q
1,1-Dichloroethene	ND	0.0200									
Methylene chloride	ND	0.0200									
trans-1,2-Dichloroethene	ND	0.0200									
1,1-Dichloroethane	ND	0.0200									
cis-1,2-Dichloroethene	ND	0.0200									

Date: *6/23/2020*

Work Order: 2006190
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **MB-28615** SampType: **MBLK** Units: **mg/Kg** Prep Date: **6/10/2020** RunNo: **59748**
Client ID: **MBLKS** Batch ID: **28615** Analysis Date: **6/10/2020** SeqNo: **1195660**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloroform	ND	0.0200									
1,1,1-Trichloroethane (TCA)	ND	0.0250									
1,1-Dichloropropene	ND	0.0200									
Carbon tetrachloride	ND	0.0500									
1,2-Dichloroethane (EDC)	ND	0.0200									
Trichloroethene (TCE)	ND	0.0200									
1,2-Dichloropropane	ND	0.0200									
Bromodichloromethane	ND	0.0200									
Dibromomethane	ND	0.0200									
cis-1,3-Dichloropropene	ND	0.0200									
trans-1,3-Dichloropropylene	ND	0.0200									
1,1,2-Trichloroethane	ND	0.0200									
1,3-Dichloropropane	ND	0.0250									
Tetrachloroethene (PCE)	ND	0.0250									
Dibromochloromethane	ND	0.0250									
1,2-Dibromoethane (EDB)	ND	0.00500									
Chlorobenzene	ND	0.0250									
1,1,1,2-Tetrachloroethane	ND	0.0250									
Bromoform	ND	0.0500									
1,1,2,2-Tetrachloroethane	ND	0.0200									
Bromobenzene	ND	0.0200									
2-Chlorotoluene	ND	0.0250									
4-Chlorotoluene	ND	0.0250									
1,2,3-Trichloropropane	ND	0.0250									
1,2,4-Trichlorobenzene	ND	0.0250									
1,3-Dichlorobenzene	ND	0.0200									
1,4-Dichlorobenzene	ND	0.0200									
1,2-Dichlorobenzene	ND	0.0200									
1,2-Dibromo-3-chloropropane	ND	0.500									
Hexachloro-1,3-butadiene	ND	0.0500									
1,2,3-Trichlorobenzene	ND	0.0200									

Date: *6/23/2020*

Work Order: 2006190
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **MB-28615** SampType: **MBLK** Units: **mg/Kg** Prep Date: **6/10/2020** RunNo: **59748**
Client ID: **MBLKS** Batch ID: **28615** Analysis Date: **6/10/2020** SeqNo: **1195660**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	1.20		1.250		96.4	83.3	111				
Surr: Toluene-d8	1.20		1.250		96.2	87.9	111				
Surr: 1-Bromo-4-fluorobenzene	1.22		1.250		97.9	85.1	111				

NOTES:
Q - Indicates an analyte with a continuing calibration that does not meet established acceptance criteria (Bromomethane; Chloroethane)

Sample ID: **LCS-28623** SampType: **LCS** Units: **mg/Kg** Prep Date: **6/10/2020** RunNo: **59761**
Client ID: **LCSS** Batch ID: **28623** Analysis Date: **6/10/2020** SeqNo: **1195934**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	1.29	0.0200	1.000	0	129	13.4	185				
Chloromethane	1.01	0.0500	1.000	0	101	38.5	158				
Vinyl chloride	0.975	0.0250	1.000	0	97.5	53.6	138				
Bromomethane	1.03	0.0500	1.000	0	103	56.6	151				
Trichlorofluoromethane (CFC-11)	0.920	0.0200	1.000	0	92.0	64.2	137				
Chloroethane	1.04	0.0500	1.000	0	104	54.1	134				
1,1-Dichloroethene	0.904	0.0200	1.000	0	90.4	66	133				
Methylene chloride	0.896	0.0200	1.000	0	89.6	74.3	117				
trans-1,2-Dichloroethene	0.891	0.0200	1.000	0	89.1	79.6	115				
1,1-Dichloroethane	0.866	0.0200	1.000	0	86.6	75.8	117				
cis-1,2-Dichloroethene	0.884	0.0200	1.000	0	88.4	77.8	115				
Chloroform	0.869	0.0200	1.000	0	86.9	78.2	115				
1,1,1-Trichloroethane (TCA)	0.869	0.0250	1.000	0	86.9	76	121				
1,1-Dichloropropene	0.889	0.0200	1.000	0	88.9	77.2	120				
Carbon tetrachloride	0.865	0.0500	1.000	0	86.5	74	122				
1,2-Dichloroethane (EDC)	0.857	0.0200	1.000	0	85.7	74.7	115				
Trichloroethene (TCE)	0.881	0.0200	1.000	0	88.1	79.6	118				
1,2-Dichloropropane	0.849	0.0200	1.000	0	84.9	78.2	115				
Bromodichloromethane	0.868	0.0200	1.000	0	86.8	76.6	116				
Dibromomethane	0.883	0.0200	1.000	0	88.3	77.9	115				
cis-1,3-Dichloropropene	0.880	0.0200	1.000	0	88.0	74.6	119				

Date: *6/23/2020*

Work Order: 2006190
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **LCS-28623** SampType: **LCS** Units: **mg/Kg** Prep Date: **6/10/2020** RunNo: **59761**
Client ID: **LCSS** Batch ID: **28623** Analysis Date: **6/10/2020** SeqNo: **1195934**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
trans-1,3-Dichloropropylene	0.871	0.0200	1.000	0	87.1	70.6	124				
1,1,2-Trichloroethane	0.883	0.0200	1.000	0	88.3	75.6	116				
1,3-Dichloropropane	0.885	0.0250	1.000	0	88.5	75.3	116				
Tetrachloroethene (PCE)	0.906	0.0250	1.000	0	90.6	78.8	119				
Dibromochloromethane	0.879	0.0250	1.000	0	87.9	72.5	123				
1,2-Dibromoethane (EDB)	0.881	0.00500	1.000	0	88.1	75	116				
Chlorobenzene	0.850	0.0250	1.000	0	85.0	83.4	113				
1,1,1,2-Tetrachloroethane	0.834	0.0250	1.000	0	83.4	80.8	117				
Bromoform	0.818	0.0500	1.000	0	81.8	71	129				
1,1,2,2-Tetrachloroethane	0.853	0.0200	1.000	0	85.3	71.3	119				
Bromobenzene	0.855	0.0200	1.000	0	85.5	78.6	115				
2-Chlorotoluene	0.843	0.0250	1.000	0	84.3	78.6	116				
4-Chlorotoluene	0.844	0.0250	1.000	0	84.4	78.8	117				
1,2,3-Trichloropropane	0.837	0.0250	1.000	0	83.7	67.5	129				
1,2,4-Trichlorobenzene	0.902	0.0250	1.000	0	90.2	79.6	124				
1,3-Dichlorobenzene	0.890	0.0200	1.000	0	89.0	87.1	117				
1,4-Dichlorobenzene	0.895	0.0200	1.000	0	89.5	87.6	115				
1,2-Dichlorobenzene	0.888	0.0200	1.000	0	88.8	87.9	115				
1,2-Dibromo-3-chloropropane	0.847	0.500	1.000	0	84.7	65.6	132				
Hexachloro-1,3-butadiene	0.879	0.0500	1.000	0	87.9	75	130				
1,2,3-Trichlorobenzene	0.884	0.0200	1.000	0	88.4	74.3	128				
Surr: Dibromofluoromethane	1.33		1.250		107	83.3	111				
Surr: Toluene-d8	1.30		1.250		104	87.9	111				
Surr: 1-Bromo-4-fluorobenzene	1.20		1.250		95.9	85.1	111				

Sample ID: **2006113-001BDUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **6/10/2020** RunNo: **59748**
Client ID: **BATCH** Batch ID: **28615** Analysis Date: **6/10/2020** SeqNo: **1195634**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	0.0198						0		30	

Date: *6/23/2020*

Work Order: 2006190
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2006113-001BDUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **6/10/2020** RunNo: **59748**
Client ID: **BATCH** Batch ID: **28615** Analysis Date: **6/10/2020** SeqNo: **1195634**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloromethane	ND	0.0495						0		30	
Vinyl chloride	ND	0.0248						0		30	
Bromomethane	ND	0.0495						0		30	Q
Trichlorofluoromethane (CFC-11)	ND	0.0198						0		30	
Chloroethane	ND	0.0495						0		30	Q
1,1-Dichloroethene	ND	0.0198						0		30	
Methylene chloride	ND	0.0198						0		30	
trans-1,2-Dichloroethene	ND	0.0198						0		30	
1,1-Dichloroethane	ND	0.0198						0		30	
cis-1,2-Dichloroethene	ND	0.0198						0		30	
Chloroform	ND	0.0198						0		30	
1,1,1-Trichloroethane (TCA)	ND	0.0248						0		30	
1,1-Dichloropropene	ND	0.0198						0		30	
Carbon tetrachloride	ND	0.0495						0		30	
1,2-Dichloroethane (EDC)	ND	0.0198						0		30	
Trichloroethene (TCE)	ND	0.0198						0		30	
1,2-Dichloropropane	ND	0.0198						0		30	
Bromodichloromethane	ND	0.0198						0		30	
Dibromomethane	ND	0.0198						0		30	
cis-1,3-Dichloropropene	ND	0.0198						0		30	
trans-1,3-Dichloropropylene	ND	0.0198						0		30	
1,1,2-Trichloroethane	ND	0.0198						0		30	
1,3-Dichloropropane	ND	0.0248						0		30	
Tetrachloroethene (PCE)	ND	0.0248						0		30	
Dibromochloromethane	ND	0.0248						0		30	
1,2-Dibromoethane (EDB)	ND	0.00495						0		30	
Chlorobenzene	ND	0.0248						0		30	
1,1,1,2-Tetrachloroethane	ND	0.0248						0		30	
Bromoform	ND	0.0495						0		30	
1,1,2,2-Tetrachloroethane	ND	0.0198						0		30	
Bromobenzene	ND	0.0198						0		30	

Date: *6/23/2020*

Work Order: 2006190
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2006113-001BDUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **6/10/2020** RunNo: **59748**
Client ID: **BATCH** Batch ID: **28615** Analysis Date: **6/10/2020** SeqNo: **1195634**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2-Chlorotoluene	ND	0.0248						0		30	
4-Chlorotoluene	ND	0.0248						0		30	
1,2,3-Trichloropropane	ND	0.0248						0		30	
1,2,4-Trichlorobenzene	ND	0.0248						0		30	
1,3-Dichlorobenzene	ND	0.0198						0		30	
1,4-Dichlorobenzene	ND	0.0198						0		30	
1,2-Dichlorobenzene	ND	0.0198						0		30	
1,2-Dibromo-3-chloropropane	ND	0.495						0		30	
Hexachloro-1,3-butadiene	ND	0.0495						0		30	
1,2,3-Trichlorobenzene	ND	0.0198						0		30	
Surr: Dibromofluoromethane	1.17		1.239		94.7	83.3	111		0		
Surr: Toluene-d8	1.18		1.239		95.1	87.9	111		0		
Surr: 1-Bromo-4-fluorobenzene	1.21		1.239		97.8	85.1	111		0		

NOTES:
Q - Indicates an analyte with a continuing calibration that does not meet established acceptance criteria (Bromomethane; Chloroethane)

Sample ID: **MB-28623** SampType: **MBLK** Units: **mg/Kg** Prep Date: **6/10/2020** RunNo: **59761**
Client ID: **MBLKS** Batch ID: **28623** Analysis Date: **6/10/2020** SeqNo: **1195935**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	0.0200									
Chloromethane	ND	0.0500									
Vinyl chloride	ND	0.0250									
Bromomethane	ND	0.0500									
Trichlorofluoromethane (CFC-11)	ND	0.0200									
Chloroethane	ND	0.0500									
1,1-Dichloroethene	ND	0.0200									
Methylene chloride	ND	0.0200									
trans-1,2-Dichloroethene	ND	0.0200									
1,1-Dichloroethane	ND	0.0200									
cis-1,2-Dichloroethene	ND	0.0200									

Date: *6/23/2020*

Work Order: 2006190
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **MB-28623** SampType: **MBLK** Units: **mg/Kg** Prep Date: **6/10/2020** RunNo: **59761**
Client ID: **MBLKS** Batch ID: **28623** Analysis Date: **6/10/2020** SeqNo: **1195935**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloroform	ND	0.0200									
1,1,1-Trichloroethane (TCA)	ND	0.0250									
1,1-Dichloropropene	ND	0.0200									
Carbon tetrachloride	ND	0.0500									
1,2-Dichloroethane (EDC)	ND	0.0200									
Trichloroethene (TCE)	ND	0.0200									
1,2-Dichloropropane	ND	0.0200									
Bromodichloromethane	ND	0.0200									
Dibromomethane	ND	0.0200									
cis-1,3-Dichloropropene	ND	0.0200									
trans-1,3-Dichloropropylene	ND	0.0200									
1,1,2-Trichloroethane	ND	0.0200									
1,3-Dichloropropane	ND	0.0250									
Tetrachloroethene (PCE)	ND	0.0250									
Dibromochloromethane	ND	0.0250									
1,2-Dibromoethane (EDB)	ND	0.00500									
Chlorobenzene	ND	0.0250									
1,1,1,2-Tetrachloroethane	ND	0.0250									
Bromoform	ND	0.0500									
1,1,2,2-Tetrachloroethane	ND	0.0200									
Bromobenzene	ND	0.0200									
2-Chlorotoluene	ND	0.0250									
4-Chlorotoluene	ND	0.0250									
1,2,3-Trichloropropane	ND	0.0250									
1,2,4-Trichlorobenzene	ND	0.0250									
1,3-Dichlorobenzene	ND	0.0200									
1,4-Dichlorobenzene	ND	0.0200									
1,2-Dichlorobenzene	ND	0.0200									
1,2-Dibromo-3-chloropropane	ND	0.500									
Hexachloro-1,3-butadiene	ND	0.0500									
1,2,3-Trichlorobenzene	ND	0.0200									

Date: *6/23/2020*

Work Order: 2006190
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **MB-28623** SampType: **MBLK** Units: **mg/Kg** Prep Date: **6/10/2020** RunNo: **59761**
Client ID: **MBLKS** Batch ID: **28623** Analysis Date: **6/10/2020** SeqNo: **1195935**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	1.17		1.250		93.8	83.3	111				
Surr: Toluene-d8	1.21		1.250		96.9	87.9	111				
Surr: 1-Bromo-4-fluorobenzene	1.22		1.250		97.7	85.1	111				

Sample ID: **2006125-001BDUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **6/10/2020** RunNo: **59748**
Client ID: **BATCH** Batch ID: **28615** Analysis Date: **6/10/2020** SeqNo: **1195642**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	0.0272						0		30	
Chloromethane	ND	0.0679						0		30	
Vinyl chloride	ND	0.0340						0		30	
Bromomethane	ND	0.0679						0		30	Q
Trichlorofluoromethane (CFC-11)	ND	0.0272						0		30	
Chloroethane	ND	0.0679						0		30	Q
1,1-Dichloroethene	ND	0.0272						0		30	
Methylene chloride	ND	0.0272						0		30	
trans-1,2-Dichloroethene	ND	0.0272						0		30	
1,1-Dichloroethane	ND	0.0272						0		30	
cis-1,2-Dichloroethene	ND	0.0272						0		30	
Chloroform	ND	0.0272						0		30	
1,1,1-Trichloroethane (TCA)	ND	0.0340						0		30	
1,1-Dichloropropene	ND	0.0272						0		30	
Carbon tetrachloride	ND	0.0679						0		30	
1,2-Dichloroethane (EDC)	ND	0.0272						0		30	
Trichloroethene (TCE)	ND	0.0272						0		30	
1,2-Dichloropropane	ND	0.0272						0		30	
Bromodichloromethane	ND	0.0272						0		30	
Dibromomethane	ND	0.0272						0		30	
cis-1,3-Dichloropropene	ND	0.0272						0		30	
trans-1,3-Dichloropropylene	ND	0.0272						0		30	

Date: *6/23/2020*

Work Order: 2006190
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2006125-001BDUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **6/10/2020** RunNo: **59748**
Client ID: **BATCH** Batch ID: **28615** Analysis Date: **6/10/2020** SeqNo: **1195642**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,2-Trichloroethane	ND	0.0272						0		30	
1,3-Dichloropropane	ND	0.0340						0		30	
Tetrachloroethene (PCE)	ND	0.0340						0		30	
Dibromochloromethane	ND	0.0340						0		30	
1,2-Dibromoethane (EDB)	ND	0.00679						0		30	
Chlorobenzene	ND	0.0340						0		30	
1,1,1,2-Tetrachloroethane	ND	0.0340						0		30	
Bromoform	ND	0.0679						0		30	
1,1,2,2-Tetrachloroethane	ND	0.0272						0		30	
Bromobenzene	ND	0.0272						0		30	
2-Chlorotoluene	ND	0.0340						0		30	
4-Chlorotoluene	ND	0.0340						0		30	
1,2,3-Trichloropropane	ND	0.0340						0		30	
1,2,4-Trichlorobenzene	ND	0.0340						0		30	
1,3-Dichlorobenzene	ND	0.0272						0		30	
1,4-Dichlorobenzene	ND	0.0272						0		30	
1,2-Dichlorobenzene	ND	0.0272						0		30	
1,2-Dibromo-3-chloropropane	ND	0.679						0		30	
Hexachloro-1,3-butadiene	ND	0.0679						0		30	
1,2,3-Trichlorobenzene	ND	0.0272						0		30	
Surr: Dibromofluoromethane	1.63		1.698		95.8	83.3	111		0		
Surr: Toluene-d8	1.63		1.698		96.3	87.9	111		0		
Surr: 1-Bromo-4-fluorobenzene	1.67		1.698		98.4	85.1	111		0		

NOTES:
Q - Indicates an analyte with a continuing calibration that does not meet established acceptance criteria (Bromomethane; Chloroethane)

Sample ID: **2006084-003BDUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **6/10/2020** RunNo: **59761**
Client ID: **BATCH** Batch ID: **28623** Analysis Date: **6/10/2020** SeqNo: **1195909**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	0.0222						0		30	

Date: *6/23/2020*

Work Order: 2006190
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2006084-003BDUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **6/10/2020** RunNo: **59761**
Client ID: **BATCH** Batch ID: **28623** Analysis Date: **6/10/2020** SeqNo: **1195909**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloromethane	ND	0.0554						0		30	
Vinyl chloride	ND	0.0277						0		30	
Bromomethane	ND	0.0554						0		30	
Trichlorofluoromethane (CFC-11)	ND	0.0222						0		30	
Chloroethane	ND	0.0554						0		30	
1,1-Dichloroethene	ND	0.0222						0		30	
Methylene chloride	ND	0.0222						0		30	
trans-1,2-Dichloroethene	ND	0.0222						0		30	
1,1-Dichloroethane	ND	0.0222						0		30	
cis-1,2-Dichloroethene	ND	0.0222						0		30	
Chloroform	ND	0.0222						0		30	
1,1,1-Trichloroethane (TCA)	ND	0.0277						0		30	
1,1-Dichloropropene	ND	0.0222						0		30	
Carbon tetrachloride	ND	0.0554						0		30	
1,2-Dichloroethane (EDC)	ND	0.0222						0		30	
Trichloroethene (TCE)	ND	0.0222						0		30	
1,2-Dichloropropane	ND	0.0222						0		30	
Bromodichloromethane	ND	0.0222						0		30	
Dibromomethane	ND	0.0222						0		30	
cis-1,3-Dichloropropene	ND	0.0222						0		30	
trans-1,3-Dichloropropylene	ND	0.0222						0		30	
1,1,2-Trichloroethane	ND	0.0222						0		30	
1,3-Dichloropropane	ND	0.0277						0		30	
Tetrachloroethene (PCE)	ND	0.0277						0		30	
Dibromochloromethane	ND	0.0277						0		30	
1,2-Dibromoethane (EDB)	ND	0.00554						0		30	
Chlorobenzene	ND	0.0277						0		30	
1,1,1,2-Tetrachloroethane	ND	0.0277						0		30	
Bromoform	ND	0.0554						0		30	
1,1,2,2-Tetrachloroethane	ND	0.0222						0		30	
Bromobenzene	ND	0.0222						0		30	

Date: *6/23/2020*

Work Order: 2006190
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2006084-003BDUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **6/10/2020** RunNo: **59761**
Client ID: **BATCH** Batch ID: **28623** Analysis Date: **6/10/2020** SeqNo: **1195909**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2-Chlorotoluene	ND	0.0277						0		30	
4-Chlorotoluene	ND	0.0277						0		30	
1,2,3-Trichloropropane	ND	0.0277						0		30	
1,2,4-Trichlorobenzene	ND	0.0277						0		30	
1,3-Dichlorobenzene	ND	0.0222						0		30	
1,4-Dichlorobenzene	ND	0.0222						0		30	
1,2-Dichlorobenzene	ND	0.0222						0		30	
1,2-Dibromo-3-chloropropane	ND	0.554						0		30	
Hexachloro-1,3-butadiene	ND	0.0554						0		30	
1,2,3-Trichlorobenzene	ND	0.0222						0		30	
Surr: Dibromofluoromethane	1.34		1.386		96.8	83.3	111		0		
Surr: Toluene-d8	1.33		1.386		96.3	87.9	111		0		
Surr: 1-Bromo-4-fluorobenzene	5.97		6.930		86.1	85.1	111		0		

Sample ID: **2006113-003BMS** SampType: **MS** Units: **mg/Kg-dry** Prep Date: **6/10/2020** RunNo: **59748**
Client ID: **BATCH** Batch ID: **28615** Analysis Date: **6/10/2020** SeqNo: **1195636**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	1.36	0.0194	0.9703	0	140	5.73	173				
Chloromethane	1.19	0.0485	0.9703	0	123	41.3	150				
Vinyl chloride	1.11	0.0243	0.9703	0	114	49.5	138				
Bromomethane	0.703	0.0485	0.9703	0	72.4	48.5	158				
Trichlorofluoromethane (CFC-11)	1.16	0.0194	0.9703	0	119	40.6	159				
Chloroethane	0.654	0.0485	0.9703	0	67.4	30.4	166				
1,1-Dichloroethene	1.13	0.0194	0.9703	0	117	55	138				
Methylene chloride	0.976	0.0194	0.9703	0	101	70.3	123				
trans-1,2-Dichloroethene	0.974	0.0194	0.9703	0	100	73.1	121				
1,1-Dichloroethane	0.992	0.0194	0.9703	0	102	70.8	122				
cis-1,2-Dichloroethene	0.937	0.0194	0.9703	0	96.6	71.8	122				
Chloroform	0.969	0.0194	0.9703	0	99.8	72.9	122				

Date: *6/23/2020*

Work Order: 2006190
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2006113-003BMS** SampType: **MS** Units: **mg/Kg-dry** Prep Date: **6/10/2020** RunNo: **59748**
Client ID: **BATCH** Batch ID: **28615** Analysis Date: **6/10/2020** SeqNo: **1195636**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane (TCA)	0.992	0.0243	0.9703	0	102	69.6	125				
1,1-Dichloropropene	0.980	0.0194	0.9703	0	101	69.3	126				
Carbon tetrachloride	0.954	0.0485	0.9703	0	98.3	65	127				
1,2-Dichloroethane (EDC)	1.03	0.0194	0.9703	0	107	70.1	121				
Trichloroethene (TCE)	0.978	0.0194	0.9703	0	101	70.1	129				
1,2-Dichloropropane	0.968	0.0194	0.9703	0	99.8	74.6	120				
Bromodichloromethane	1.01	0.0194	0.9703	0	104	70.9	122				
Dibromomethane	0.993	0.0194	0.9703	0	102	75.6	120				
cis-1,3-Dichloropropene	0.889	0.0194	0.9703	0	91.7	68.3	120				
trans-1,3-Dichloropropylene	0.965	0.0194	0.9703	0	99.5	62.2	127				
1,1,2-Trichloroethane	0.963	0.0194	0.9703	0	99.2	72.9	120				
1,3-Dichloropropane	0.956	0.0243	0.9703	0	98.6	71.9	119				
Tetrachloroethene (PCE)	0.958	0.0243	0.9703	0	98.7	71.1	122				
Dibromochloromethane	1.01	0.0243	0.9703	0	104	65.9	126				
1,2-Dibromoethane (EDB)	0.956	0.00485	0.9703	0	98.5	72	119				
Chlorobenzene	0.965	0.0243	0.9703	0	99.5	81.4	116				
1,1,1,2-Tetrachloroethane	1.04	0.0243	0.9703	0	107	72.9	125				
Bromoform	1.14	0.0485	0.9703	0	117	63.4	133				
1,1,2,2-Tetrachloroethane	1.09	0.0194	0.9703	0	112	61	128				
Bromobenzene	1.01	0.0194	0.9703	0	105	77	120				
2-Chlorotoluene	1.00	0.0243	0.9703	0	103	71.4	126				
4-Chlorotoluene	1.01	0.0243	0.9703	0	105	73.6	124				
1,2,3-Trichloropropane	1.16	0.0243	0.9703	0	119	65.7	132				
1,2,4-Trichlorobenzene	1.01	0.0243	0.9703	0	105	70.5	130				
1,3-Dichlorobenzene	0.956	0.0194	0.9703	0	98.5	83.8	121				
1,4-Dichlorobenzene	0.959	0.0194	0.9703	0	98.9	85.7	117				
1,2-Dichlorobenzene	0.982	0.0194	0.9703	0	101	81.8	120				
1,2-Dibromo-3-chloropropane	1.10	0.485	0.9703	0	114	56.9	139				
Hexachloro-1,3-butadiene	1.11	0.0485	0.9703	0	114	61.1	140				
1,2,3-Trichlorobenzene	0.959	0.0194	0.9703	0	98.9	67.8	132				
Surr: Dibromofluoromethane	1.26		1.213		104	83.3	111				

Date: *6/23/2020*

Work Order: 2006190
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2006113-003BMS** SampType: **MS** Units: **mg/Kg-dry** Prep Date: **6/10/2020** RunNo: **59748**
Client ID: **BATCH** Batch ID: **28615** Analysis Date: **6/10/2020** SeqNo: **1195636**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: Toluene-d8	1.19		1.213		97.8	87.9	111				
Surr: 1-Bromo-4-fluorobenzene	1.30		1.213		107	85.1	111				

Sample ID: **2006084-001BMS** SampType: **MS** Units: **mg/Kg-dry** Prep Date: **6/10/2020** RunNo: **59761**
Client ID: **BATCH** Batch ID: **28623** Analysis Date: **6/10/2020** SeqNo: **1195905**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	0.967	0.0185	0.9251	0	105	5.73	173				
Chloromethane	0.791	0.0463	0.9251	0	85.5	41.3	150				
Vinyl chloride	0.775	0.0231	0.9251	0	83.8	49.5	138				
Bromomethane	0.940	0.0463	0.9251	0	102	48.5	158				
Trichlorofluoromethane (CFC-11)	0.718	0.0185	0.9251	0	77.6	40.6	159				
Chloroethane	0.853	0.0463	0.9251	0	92.2	30.4	166				
1,1-Dichloroethene	0.741	0.0185	0.9251	0	80.1	55	138				
Methylene chloride	0.769	0.0185	0.9251	0	83.1	70.3	123				
trans-1,2-Dichloroethene	0.730	0.0185	0.9251	0	78.9	73.1	121				
1,1-Dichloroethane	0.719	0.0185	0.9251	0	77.7	70.8	122				
cis-1,2-Dichloroethene	0.739	0.0185	0.9251	0	79.9	71.8	122				
Chloroform	0.733	0.0185	0.9251	0	79.3	72.9	122				
1,1,1-Trichloroethane (TCA)	0.702	0.0231	0.9251	0	75.9	69.6	125				
1,1-Dichloropropene	0.694	0.0185	0.9251	0	75.0	69.3	126				
Carbon tetrachloride	0.696	0.0463	0.9251	0	75.3	65	127				
1,2-Dichloroethane (EDC)	0.740	0.0185	0.9251	0	80.0	70.1	121				
Trichloroethene (TCE)	0.738	0.0185	0.9251	0	79.8	70.1	129				
1,2-Dichloropropane	0.733	0.0185	0.9251	0	79.2	74.6	120				
Bromodichloromethane	0.727	0.0185	0.9251	0	78.5	70.9	122				
Dibromomethane	0.778	0.0185	0.9251	0	84.1	75.6	120				
cis-1,3-Dichloropropene	0.740	0.0185	0.9251	0	80.0	68.3	120				
trans-1,3-Dichloropropylene	0.743	0.0185	0.9251	0	80.3	62.2	127				
1,1,2-Trichloroethane	0.778	0.0185	0.9251	0	84.1	72.9	120				

Date: *6/23/2020*

Work Order: 2006190
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2006084-001BMS** SampType: **MS** Units: **mg/Kg-dry** Prep Date: **6/10/2020** RunNo: **59761**
Client ID: **BATCH** Batch ID: **28623** Analysis Date: **6/10/2020** SeqNo: **1195905**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,3-Dichloropropane	0.769	0.0231	0.9251	0	83.1	71.9	119				
Tetrachloroethene (PCE)	0.733	0.0231	0.9251	0	79.2	71.1	122				
Dibromochloromethane	0.768	0.0231	0.9251	0	83.0	65.9	126				
1,2-Dibromoethane (EDB)	0.782	0.00463	0.9251	0	84.5	72	119				
Chlorobenzene	0.765	0.0231	0.9251	0	82.7	81.4	116				
1,1,1,2-Tetrachloroethane	0.753	0.0231	0.9251	0	81.4	72.9	125				
Bromoform	0.781	0.0463	0.9251	0	84.4	63.4	133				
1,1,2,2-Tetrachloroethane	0.757	0.0185	0.9251	0	81.9	61	128				
Bromobenzene	0.769	0.0185	0.9251	0	83.2	77	120				
2-Chlorotoluene	0.747	0.0231	0.9251	0	80.7	71.4	126				
4-Chlorotoluene	0.747	0.0231	0.9251	0	80.7	73.6	124				
1,2,3-Trichloropropane	0.761	0.0231	0.9251	0	82.3	65.7	132				
1,2,4-Trichlorobenzene	0.818	0.0231	0.9251	0	88.4	70.5	130				
1,3-Dichlorobenzene	0.783	0.0185	0.9251	0	84.6	83.8	121				
1,4-Dichlorobenzene	0.789	0.0185	0.9251	0	85.3	85.7	117				S
1,2-Dichlorobenzene	0.796	0.0185	0.9251	0	86.0	81.8	120				
1,2-Dibromo-3-chloropropane	0.776	0.463	0.9251	0	83.9	56.9	139				
Hexachloro-1,3-butadiene	0.742	0.0463	0.9251	0	80.2	61.1	140				
1,2,3-Trichlorobenzene	0.838	0.0185	0.9251	0	90.6	67.8	132				
Surr: Dibromofluoromethane	1.15		1.156		99.4	83.3	111				
Surr: Toluene-d8	1.13		1.156		97.4	87.9	111				
Surr: 1-Bromo-4-fluorobenzene	4.83		5.782		83.5	85.1	111				S

NOTES:
S - Outlying spike recovery(ies) observed. A duplicate analysis was performed and recovered within range.
S - Outlying surrogate recovery(ies) observed. A duplicate analysis was performed with similar results indicating a possible matrix effect.

Sample ID: **2006113-003BMSD** SampType: **MSD** Units: **mg/Kg-dry** Prep Date: **6/10/2020** RunNo: **59748**
Client ID: **BATCH** Batch ID: **28615** Analysis Date: **6/10/2020** SeqNo: **1195637**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	1.52	0.0194	0.9703	0	157	5.73	173	1.362	11.1	30	

Fremont Analytical

Date: *6/23/2020*

Work Order: 2006190
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2006113-003BMSD** SampType: **MSD** Units: **mg/Kg-dry** Prep Date: **6/10/2020** RunNo: **59748**
Client ID: **BATCH** Batch ID: **28615** Analysis Date: **6/10/2020** SeqNo: **1195637**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloromethane	1.32	0.0485	0.9703	0	136	41.3	150	1.190	10.3	30	
Vinyl chloride	1.24	0.0243	0.9703	0	128	49.5	138	1.110	11.3	30	
Bromomethane	0.828	0.0485	0.9703	0	85.3	48.5	158	0.7026	16.4	30	
Trichlorofluoromethane (CFC-11)	1.32	0.0194	0.9703	0	136	40.6	159	1.159	12.7	30	
Chloroethane	0.785	0.0485	0.9703	0	80.9	30.4	166	0.6542	18.2	30	
1,1-Dichloroethene	1.31	0.0194	0.9703	0	135	55	138	1.134	14.4	30	
Methylene chloride	1.06	0.0194	0.9703	0	109	70.3	123	0.9756	8.43	30	
trans-1,2-Dichloroethene	1.08	0.0194	0.9703	0	112	73.1	121	0.9743	10.7	30	
1,1-Dichloroethane	1.05	0.0194	0.9703	0	108	70.8	122	0.9919	5.36	30	
cis-1,2-Dichloroethene	1.02	0.0194	0.9703	0	105	71.8	122	0.9375	8.41	30	
Chloroform	1.04	0.0194	0.9703	0	107	72.9	122	0.9688	6.99	30	
1,1,1-Trichloroethane (TCA)	1.09	0.0243	0.9703	0	112	69.6	125	0.9925	9.40	30	
1,1-Dichloropropene	1.07	0.0194	0.9703	0	110	69.3	126	0.9803	8.75	30	
Carbon tetrachloride	1.07	0.0485	0.9703	0	110	65	127	0.9543	11.2	30	
1,2-Dichloroethane (EDC)	1.09	0.0194	0.9703	0	113	70.1	121	1.033	5.77	30	
Trichloroethene (TCE)	1.04	0.0194	0.9703	0	107	70.1	129	0.9777	6.11	30	
1,2-Dichloropropane	1.02	0.0194	0.9703	0	105	74.6	120	0.9683	5.14	30	
Bromodichloromethane	1.08	0.0194	0.9703	0	111	70.9	122	1.009	6.90	30	
Dibromomethane	1.06	0.0194	0.9703	0	109	75.6	120	0.9932	6.05	30	
cis-1,3-Dichloropropene	0.951	0.0194	0.9703	0	98.0	68.3	120	0.8895	6.68	30	
trans-1,3-Dichloropropylene	1.07	0.0194	0.9703	0	110	62.2	127	0.9652	10.3	30	
1,1,2-Trichloroethane	1.04	0.0194	0.9703	0	107	72.9	120	0.9626	7.64	30	
1,3-Dichloropropane	1.03	0.0243	0.9703	0	106	71.9	119	0.9565	7.55	30	
Tetrachloroethene (PCE)	1.07	0.0243	0.9703	0	110	71.1	122	0.9576	11.2	30	
Dibromochloromethane	1.04	0.0243	0.9703	0	107	65.9	126	1.012	2.69	30	
1,2-Dibromoethane (EDB)	0.980	0.00485	0.9703	0	101	72	119	0.9555	2.57	30	
Chlorobenzene	1.04	0.0243	0.9703	0	108	81.4	116	0.9653	7.75	30	
1,1,1,2-Tetrachloroethane	1.12	0.0243	0.9703	0	115	72.9	125	1.042	6.91	30	
Bromoform	1.18	0.0485	0.9703	0	122	63.4	133	1.140	3.81	30	
1,1,2,2-Tetrachloroethane	1.14	0.0194	0.9703	0	118	61	128	1.087	5.15	30	
Bromobenzene	1.08	0.0194	0.9703	0	111	77	120	1.015	6.33	30	

Date: *6/23/2020*

Work Order: 2006190
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2006113-003BMSD** SampType: **MSD** Units: **mg/Kg-dry** Prep Date: **6/10/2020** RunNo: **59748**
Client ID: **BATCH** Batch ID: **28615** Analysis Date: **6/10/2020** SeqNo: **1195637**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2-Chlorotoluene	1.07	0.0243	0.9703	0	110	71.4	126	1.004	6.39	30	
4-Chlorotoluene	1.09	0.0243	0.9703	0	112	73.6	124	1.015	7.24	30	
1,2,3-Trichloropropane	1.20	0.0243	0.9703	0	124	65.7	132	1.159	3.60	30	
1,2,4-Trichlorobenzene	1.12	0.0243	0.9703	0	115	70.5	130	1.015	9.91	30	
1,3-Dichlorobenzene	1.03	0.0194	0.9703	0	106	83.8	121	0.9560	7.68	30	
1,4-Dichlorobenzene	1.05	0.0194	0.9703	0	108	85.7	117	0.9594	8.66	30	
1,2-Dichlorobenzene	1.05	0.0194	0.9703	0	108	81.8	120	0.9819	6.91	30	
1,2-Dibromo-3-chloropropane	1.20	0.485	0.9703	0	124	56.9	139	1.104	8.28	30	
Hexachloro-1,3-butadiene	1.19	0.0485	0.9703	0	122	61.1	140	1.110	6.64	30	
1,2,3-Trichlorobenzene	1.12	0.0194	0.9703	0	116	67.8	132	0.9595	15.7	30	
Surr: Dibromofluoromethane	1.27		1.213		105	83.3	111		0		
Surr: Toluene-d8	1.17		1.213		96.3	87.9	111		0		
Surr: 1-Bromo-4-fluorobenzene	1.28		1.213		105	85.1	111		0		

Sample ID: **2006084-001BMSD** SampType: **MSD** Units: **mg/Kg-dry** Prep Date: **6/10/2020** RunNo: **59761**
Client ID: **BATCH** Batch ID: **28623** Analysis Date: **6/10/2020** SeqNo: **1195906**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	0.965	0.0185	0.9251	0	104	5.73	173	0.9670	0.256	30	
Chloromethane	0.830	0.0463	0.9251	0	89.7	41.3	150	0.7914	4.79	30	
Vinyl chloride	0.769	0.0231	0.9251	0	83.2	49.5	138	0.7754	0.765	30	
Bromomethane	0.905	0.0463	0.9251	0	97.8	48.5	158	0.9402	3.86	30	
Trichlorofluoromethane (CFC-11)	0.714	0.0185	0.9251	0	77.2	40.6	159	0.7180	0.552	30	
Chloroethane	0.888	0.0463	0.9251	0	95.9	30.4	166	0.8529	3.98	30	
1,1-Dichloroethene	0.727	0.0185	0.9251	0	78.6	55	138	0.7408	1.87	30	
Methylene chloride	0.791	0.0185	0.9251	0	85.5	70.3	123	0.7685	2.88	30	
trans-1,2-Dichloroethene	0.729	0.0185	0.9251	0	78.8	73.1	121	0.7299	0.142	30	
1,1-Dichloroethane	0.742	0.0185	0.9251	0	80.2	70.8	122	0.7190	3.08	30	
cis-1,2-Dichloroethene	0.764	0.0185	0.9251	0	82.6	71.8	122	0.7392	3.33	30	
Chloroform	0.753	0.0185	0.9251	0	81.4	72.9	122	0.7332	2.63	30	

Date: *6/23/2020*

Work Order: 2006190
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2006084-001BMSD** SampType: **MSD** Units: **mg/Kg-dry** Prep Date: **6/10/2020** RunNo: **59761**
Client ID: **BATCH** Batch ID: **28623** Analysis Date: **6/10/2020** SeqNo: **1195906**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane (TCA)	0.715	0.0231	0.9251	0	77.3	69.6	125	0.7024	1.83	30	
1,1-Dichloropropene	0.706	0.0185	0.9251	0	76.3	69.3	126	0.6936	1.82	30	
Carbon tetrachloride	0.697	0.0463	0.9251	0	75.4	65	127	0.6963	0.142	30	
1,2-Dichloroethane (EDC)	0.764	0.0185	0.9251	0	82.6	70.1	121	0.7399	3.24	30	
Trichloroethene (TCE)	0.727	0.0185	0.9251	0	78.6	70.1	129	0.7381	1.53	30	
1,2-Dichloropropane	0.746	0.0185	0.9251	0	80.6	74.6	120	0.7325	1.79	30	
Bromodichloromethane	0.765	0.0185	0.9251	0	82.7	70.9	122	0.7265	5.21	30	
Dibromomethane	0.802	0.0185	0.9251	0	86.7	75.6	120	0.7780	3.06	30	
cis-1,3-Dichloropropene	0.758	0.0185	0.9251	0	82.0	68.3	120	0.7399	2.44	30	
trans-1,3-Dichloropropylene	0.763	0.0185	0.9251	0	82.5	62.2	127	0.7428	2.72	30	
1,1,2-Trichloroethane	0.790	0.0185	0.9251	0	85.4	72.9	120	0.7781	1.49	30	
1,3-Dichloropropane	0.786	0.0231	0.9251	0	84.9	71.9	119	0.7689	2.16	30	
Tetrachloroethene (PCE)	0.734	0.0231	0.9251	0	79.4	71.1	122	0.7332	0.144	30	
Dibromochloromethane	0.796	0.0231	0.9251	0	86.1	65.9	126	0.7680	3.62	30	
1,2-Dibromoethane (EDB)	0.793	0.00463	0.9251	0	85.7	72	119	0.7821	1.40	30	
Chlorobenzene	0.792	0.0231	0.9251	0	85.6	81.4	116	0.7651	3.44	30	
1,1,1,2-Tetrachloroethane	0.786	0.0231	0.9251	0	84.9	72.9	125	0.7531	4.23	30	
Bromoform	0.793	0.0463	0.9251	0	85.7	63.4	133	0.7812	1.51	30	
1,1,2,2-Tetrachloroethane	0.796	0.0185	0.9251	0	86.1	61	128	0.7575	4.99	30	
Bromobenzene	0.803	0.0185	0.9251	0	86.8	77	120	0.7694	4.33	30	
2-Chlorotoluene	0.766	0.0231	0.9251	0	82.8	71.4	126	0.7468	2.56	30	
4-Chlorotoluene	0.777	0.0231	0.9251	0	84.0	73.6	124	0.7467	3.97	30	
1,2,3-Trichloropropane	0.785	0.0231	0.9251	0	84.8	65.7	132	0.7611	3.09	30	
1,2,4-Trichlorobenzene	0.861	0.0231	0.9251	0	93.0	70.5	130	0.8180	5.08	30	
1,3-Dichlorobenzene	0.814	0.0185	0.9251	0	88.0	83.8	121	0.7828	3.93	30	
1,4-Dichlorobenzene	0.834	0.0185	0.9251	0	90.2	85.7	117	0.7895	5.49	30	
1,2-Dichlorobenzene	0.832	0.0185	0.9251	0	90.0	81.8	120	0.7960	4.48	30	
1,2-Dibromo-3-chloropropane	0.829	0.463	0.9251	0	89.6	56.9	139	0.7758	6.66	30	
Hexachloro-1,3-butadiene	0.788	0.0463	0.9251	0	85.1	61.1	140	0.7417	6.00	30	
1,2,3-Trichlorobenzene	0.879	0.0185	0.9251	0	95.0	67.8	132	0.8382	4.76	30	
Surr: Dibromofluoromethane	1.16		1.156		100	83.3	111		0		

Date: *6/23/2020*

Work Order: 2006190
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2006084-001BMSD** SampType: **MSD** Units: **mg/Kg-dry** Prep Date: **6/10/2020** RunNo: **59761**
Client ID: **BATCH** Batch ID: **28623** Analysis Date: **6/10/2020** SeqNo: **1195906**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: Toluene-d8	1.12		1.156		96.9	87.9	111		0		
Surr: 1-Bromo-4-fluorobenzene	4.85		5.782		83.9	85.1	111		0		S

NOTES:
S - Outlying surrogate recovery(ies) observed. A duplicate analysis was performed with similar results indicating a possible matrix effect.

Sample ID: **2006190-023BDUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **6/10/2020** RunNo: **59761**
Client ID: **358-PH7-15** Batch ID: **28623** Analysis Date: **6/11/2020** SeqNo: **1195928**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	0.0329						0		30	
Chloromethane	ND	0.0822						0		30	
Vinyl chloride	ND	0.0411						0		30	
Bromomethane	ND	0.0822						0		30	
Trichlorofluoromethane (CFC-11)	ND	0.0329						0		30	
Chloroethane	ND	0.0822						0		30	
1,1-Dichloroethene	ND	0.0329						0		30	
Methylene chloride	ND	0.0329						0		30	
trans-1,2-Dichloroethene	ND	0.0329						0		30	
1,1-Dichloroethane	ND	0.0329						0		30	
cis-1,2-Dichloroethene	0.766	0.0329						0.7571	1.19	30	
Chloroform	ND	0.0329						0		30	
1,1,1-Trichloroethane (TCA)	ND	0.0411						0		30	
1,1-Dichloropropene	ND	0.0329						0		30	
Carbon tetrachloride	ND	0.0822						0		30	
1,2-Dichloroethane (EDC)	ND	0.0329						0		30	
Trichloroethene (TCE)	0.410	0.0329						0.4031	1.82	30	
1,2-Dichloropropane	ND	0.0329						0		30	
Bromodichloromethane	ND	0.0329						0		30	
Dibromomethane	ND	0.0329						0		30	
cis-1,3-Dichloropropene	ND	0.0329						0		30	
trans-1,3-Dichloropropylene	ND	0.0329						0		30	

Date: *6/23/2020*

Work Order: 2006190
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2006190-023BDUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **6/10/2020** RunNo: **59761**
Client ID: **358-PH7-15** Batch ID: **28623** Analysis Date: **6/11/2020** SeqNo: **1195928**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,2-Trichloroethane	ND	0.0329						0		30	
1,3-Dichloropropane	ND	0.0411						0		30	
Tetrachloroethene (PCE)	8.21	0.0411						8.162	0.564	30	E
Dibromochloromethane	ND	0.0411						0		30	
1,2-Dibromoethane (EDB)	ND	0.00822						0		30	
Chlorobenzene	ND	0.0411						0		30	
1,1,1,2-Tetrachloroethane	ND	0.0411						0		30	
Bromoform	ND	0.0822						0		30	
1,1,2,2-Tetrachloroethane	ND	0.0329						0		30	
Bromobenzene	ND	0.0329						0		30	
2-Chlorotoluene	ND	0.0411						0		30	
4-Chlorotoluene	ND	0.0411						0		30	
1,2,3-Trichloropropane	ND	0.0411						0		30	
1,2,4-Trichlorobenzene	ND	0.0411						0		30	
1,3-Dichlorobenzene	ND	0.0329						0		30	
1,4-Dichlorobenzene	ND	0.0329						0		30	
1,2-Dichlorobenzene	ND	0.0329						0		30	
1,2-Dibromo-3-chloropropane	ND	0.822						0		30	
Hexachloro-1,3-butadiene	ND	0.0822						0		30	
1,2,3-Trichlorobenzene	ND	0.0329						0		30	
Surr: Dibromofluoromethane	1.98		2.055		96.4	83.3	111		0		
Surr: Toluene-d8	1.99		2.055		97.1	87.9	111		0		
Surr: 1-Bromo-4-fluorobenzene	2.05		2.055		99.8	85.1	111		0		

NOTES:
E - Estimated value. The amount exceeds the linear working range of the instrument.

Date: *6/23/2020*

Work Order: 2006190
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by SW8260D/TCLP ZHE

Sample ID: **LCS-28762** SampType: **LCS** Units: **µg/L** Prep Date: **6/23/2020** RunNo: **60030**
Client ID: **LCSW** Batch ID: **28762** Analysis Date: **6/23/2020** SeqNo: **1201579**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	15.8	1.00	20.00	0	78.8	20.6	156				
Chloromethane	6.96	2.00	20.00	0	34.8	37.6	157				S
Vinyl chloride	17.7	0.200	20.00	0	88.6	63.7	126				
Bromomethane	15.9	1.00	20.00	0	79.7	53.5	142				
Trichlorofluoromethane (CFC-11)	19.3	1.00	20.00	0	96.5	80	118				
Chloroethane	18.0	1.00	20.00	0	90.1	69.7	122				
1,1-Dichloroethylene	19.1	1.00	20.00	0	95.3	83.1	115				
Methylene chloride	18.5	1.00	20.00	0	92.4	79.5	116				
trans-1,2-Dichloroethene	19.1	1.00	20.00	0	95.3	85.4	114				
Methyl tert-butyl ether (MTBE)	18.9	1.00	20.00	0	94.5	76.9	123				
1,1-Dichloroethane	18.9	1.00	20.00	0	94.5	79.1	118				
cis-1,2-Dichloroethene	19.2	1.00	20.00	0	96.0	85.3	114				
Chloroform	18.9	1.00	20.00	0	94.4	85.4	114				
1,1,1-Trichloroethane (TCA)	19.6	1.00	20.00	0	97.8	87.1	114				
1,1-Dichloropropene	19.2	1.00	20.00	0	95.9	88.4	114				
Carbon tetrachloride	20.2	1.00	20.00	0	101	86.1	115				
1,2-Dichloroethane (EDC)	19.2	1.00	20.00	0	95.9	84.9	115				
Benzene	18.8	1.00	20.00	0	94.0	89	112				
Trichloroethene (TCE)	19.5	0.500	20.00	0	97.4	85.8	117				
1,2-Dichloropropane	18.4	1.00	20.00	0	92.2	84.6	116				
Bromodichloromethane	19.5	1.00	20.00	0	97.5	83.5	118				
Dibromomethane	19.2	1.00	20.00	0	96.0	83.9	114				
cis-1,3-Dichloropropene	19.4	1.00	20.00	0	96.8	83.1	120				
Toluene	19.0	1.00	20.00	0	94.9	86.7	115				
trans-1,3-Dichloropropene	19.6	1.00	20.00	0	97.8	82	119				
1,1,2-Trichloroethane	19.2	1.00	20.00	0	96.2	84.1	117				
1,3-Dichloropropane	18.7	1.00	20.00	0	93.3	81	119				
Tetrachloroethene (PCE)	20.4	1.00	20.00	0	102	85.7	116				
Dibromochloromethane	20.6	1.00	20.00	0	103	81.1	118				
1,2-Dibromoethane (EDB)	19.5	0.250	20.00	0	97.3	80	119				
Chlorobenzene	19.4	1.00	20.00	0	97.0	88.2	110				

Date: *6/23/2020*

Work Order: 2006190
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by SW8260D/TCLP ZHE

Sample ID: **LCS-28762** SampType: **LCS** Units: **µg/L** Prep Date: **6/23/2020** RunNo: **60030**
Client ID: **LCSW** Batch ID: **28762** Analysis Date: **6/23/2020** SeqNo: **1201579**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	20.1	1.00	20.00	0	100	85.9	112				
Ethylbenzene	19.4	1.00	20.00	0	96.9	86.8	114				
m,p-Xylene	38.6	1.00	40.00	0	96.5	85.3	116				
o-Xylene	19.7	1.00	20.00	0	98.6	84.9	115				
Styrene	19.4	1.00	20.00	0	96.9	86.1	114				
Isopropylbenzene	19.7	1.00	20.00	0	98.5	85.6	117				
Bromoform	21.5	2.00	20.00	0	108	76.7	120				
1,1,2,2-Tetrachloroethane	19.6	1.00	20.00	0	98.2	68.1	128				
n-Propylbenzene	19.6	1.00	20.00	0	98.2	81.8	125				
Bromobenzene	20.1	1.00	20.00	0	100	80.8	119				
1,3,5-Trimethylbenzene	19.8	1.00	20.00	0	98.9	75.1	125				
2-Chlorotoluene	19.5	1.00	20.00	0	97.3	81.9	119				
4-Chlorotoluene	19.5	1.00	20.00	0	97.6	78.1	123				
tert-Butylbenzene	20.2	1.00	20.00	0	101	76	126				
1,2,3-Trichloropropane	20.4	1.00	20.00	0	102	70.7	127				
1,2,4-Trichlorobenzene	20.5	2.00	20.00	0	102	84.4	122				
sec-Butylbenzene	20.5	1.00	20.00	0	102	76.5	128				
4-Isopropyltoluene	20.6	1.00	20.00	0	103	76.8	125				
1,3-Dichlorobenzene	20.6	1.00	20.00	0	103	91.6	113				
1,4-Dichlorobenzene	19.9	1.00	20.00	0	99.7	88.9	114				
n-Butylbenzene	20.1	1.00	20.00	0	100	88.3	122				
1,2-Dichlorobenzene	20.1	1.00	20.00	0	101	89	114				
1,2-Dibromo-3-chloropropane	21.2	1.00	20.00	0	106	61.5	137				
1,2,4-Trimethylbenzene	19.9	1.00	20.00	0	99.3	76.4	125				
Hexachloro-1,3-butadiene	21.7	4.00	20.00	0	108	87.3	119				
Naphthalene	21.9	1.00	20.00	0	110	73.7	135				
1,2,3-Trichlorobenzene	21.4	4.00	20.00	0	107	81.2	124				
Surr: Dibromofluoromethane	24.7		25.00		98.9	83.7	117				
Surr: Toluene-d8	24.3		25.00		97.2	87.6	113				
Surr: 1-Bromo-4-fluorobenzene	25.3		25.00		101	81.2	113				

Date: *6/23/2020*

Work Order: 2006190
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by SW8260D/TCLP ZHE

Sample ID: **LCS-28762**	SampType: **LCS**	Units: **µg/L**	Prep Date: **6/23/2020**	RunNo: **60030**
Client ID: **LCSW**	Batch ID: **28762**		Analysis Date: **6/23/2020**	SeqNo: **1201579**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

NOTES:
S - Outlying spike recovery observed (low bias). Samples will be qualified with a *.

Sample ID: **LCSD-28762**	SampType: **LCSD**	Units: **µg/L**	Prep Date: **6/23/2020**	RunNo: **60030**
Client ID: **LCSW02**	Batch ID: **28762**		Analysis Date: **6/23/2020**	SeqNo: **1201580**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	14.8	1.00	20.00	0	73.9	20.6	156	15.76	6.47	20	
Chloromethane	6.35	2.00	20.00	0	31.8	37.6	157	6.964	9.22	20	S
Vinyl chloride	17.3	0.200	20.00	0	86.7	63.7	126	17.71	2.13	20	
Bromomethane	15.4	1.00	20.00	0	76.9	53.5	142	15.95	3.61	20	
Trichlorofluoromethane (CFC-11)	19.0	1.00	20.00	0	94.8	80	118	19.31	1.77	20	
Chloroethane	17.5	1.00	20.00	0	87.5	69.7	122	18.03	2.94	20	
1,1-Dichloroethylene	18.9	1.00	20.00	0	94.4	83.1	115	19.06	0.902	20	
Methylene chloride	18.5	1.00	20.00	0	92.4	79.5	116	18.47	0.00541	20	
trans-1,2-Dichloroethene	19.3	1.00	20.00	0	96.6	85.4	114	19.07	1.29	20	
Methyl tert-butyl ether (MTBE)	19.2	1.00	20.00	0	96.1	76.9	123	18.90	1.62	20	
1,1-Dichloroethane	18.4	1.00	20.00	0	91.8	79.1	118	18.91	2.92	20	
cis-1,2-Dichloroethene	19.3	1.00	20.00	0	96.3	85.3	114	19.19	0.344	20	
Chloroform	19.0	1.00	20.00	0	95.0	85.4	114	18.87	0.656	20	
1,1,1-Trichloroethane (TCA)	19.5	1.00	20.00	0	97.6	87.1	114	19.57	0.288	20	
1,1-Dichloropropene	19.2	1.00	20.00	0	95.8	88.4	114	19.18	0.138	20	
Carbon tetrachloride	20.2	1.00	20.00	0	101	86.1	115	20.20	0.211	20	
1,2-Dichloroethane (EDC)	19.3	1.00	20.00	0	96.4	84.9	115	19.18	0.495	20	
Benzene	18.6	1.00	20.00	0	93.0	89	112	18.79	1.04	20	
Trichloroethene (TCE)	19.4	0.500	20.00	0	96.9	85.8	117	19.49	0.540	20	
1,2-Dichloropropane	18.3	1.00	20.00	0	91.3	84.6	116	18.44	0.918	20	
Bromodichloromethane	19.5	1.00	20.00	0	97.6	83.5	118	19.50	0.115	20	
Dibromomethane	19.3	1.00	20.00	0	96.5	83.9	114	19.21	0.511	20	
cis-1,3-Dichloropropene	19.5	1.00	20.00	0	97.7	83.1	120	19.35	0.960	20	
Toluene	18.9	1.00	20.00	0	94.5	86.7	115	18.99	0.484	20	

Date: *6/23/2020*

Work Order: 2006190
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by SW8260D/TCLP ZHE

Sample ID: **LCSD-28762** SampType: **LCSD** Units: **µg/L** Prep Date: **6/23/2020** RunNo: **60030**
Client ID: **LCSW02** Batch ID: **28762** Analysis Date: **6/23/2020** SeqNo: **1201580**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
trans-1,3-Dichloropropene	19.9	1.00	20.00	0	99.6	82	119	19.57	1.76	20	
1,1,2-Trichloroethane	19.2	1.00	20.00	0	96.0	84.1	117	19.23	0.166	20	
1,3-Dichloropropane	18.8	1.00	20.00	0	94.2	81	119	18.65	0.993	20	
Tetrachloroethene (PCE)	20.4	1.00	20.00	0	102	85.7	116	20.37	0.300	20	
Dibromochloromethane	20.6	1.00	20.00	0	103	81.1	118	20.56	0.0397	20	
1,2-Dibromoethane (EDB)	19.8	0.250	20.00	0	98.9	80	119	19.46	1.61	20	
Chlorobenzene	19.5	1.00	20.00	0	97.3	88.2	110	19.40	0.289	20	
1,1,1,2-Tetrachloroethane	20.2	1.00	20.00	0	101	85.9	112	20.06	0.901	20	
Ethylbenzene	19.4	1.00	20.00	0	97.2	86.8	114	19.38	0.323	20	
m,p-Xylene	39.7	1.00	40.00	0	99.3	85.3	116	38.58	2.91	20	
o-Xylene	19.7	1.00	20.00	0	98.6	84.9	115	19.72	0.0207	20	
Styrene	19.6	1.00	20.00	0	97.9	86.1	114	19.37	1.08	20	
Isopropylbenzene	19.8	1.00	20.00	0	99.0	85.6	117	19.69	0.522	20	
Bromoform	21.8	2.00	20.00	0	109	76.7	120	21.54	1.44	20	
1,1,2,2-Tetrachloroethane	20.0	1.00	20.00	0	99.9	68.1	128	19.65	1.64	20	
n-Propylbenzene	19.3	1.00	20.00	0	96.6	81.8	125	19.63	1.59	20	
Bromobenzene	20.2	1.00	20.00	0	101	80.8	119	20.10	0.284	20	
1,3,5-Trimethylbenzene	19.8	1.00	20.00	0	98.9	75.1	125	19.78	0.0157	20	
2-Chlorotoluene	19.1	1.00	20.00	0	95.5	81.9	119	19.46	1.91	20	
4-Chlorotoluene	19.7	1.00	20.00	0	98.3	78.1	123	19.52	0.685	20	
tert-Butylbenzene	20.2	1.00	20.00	0	101	76	126	20.23	0.343	20	
1,2,3-Trichloropropane	20.4	1.00	20.00	0	102	70.7	127	20.43	0.0158	20	
1,2,4-Trichlorobenzene	20.7	2.00	20.00	0	103	84.4	122	20.47	0.924	20	
sec-Butylbenzene	19.9	1.00	20.00	0	99.3	76.5	128	20.48	3.10	20	
4-Isopropyltoluene	20.4	1.00	20.00	0	102	76.8	125	20.63	1.09	20	
1,3-Dichlorobenzene	20.5	1.00	20.00	0	103	91.6	113	20.58	0.360	20	
1,4-Dichlorobenzene	19.9	1.00	20.00	0	99.3	88.9	114	19.94	0.346	20	
n-Butylbenzene	20.1	1.00	20.00	0	100	88.3	122	20.10	0.0556	20	
1,2-Dichlorobenzene	20.1	1.00	20.00	0	101	89	114	20.11	0.141	20	
1,2-Dibromo-3-chloropropane	21.5	1.00	20.00	0	107	61.5	137	21.17	1.50	20	
1,2,4-Trimethylbenzene	19.5	1.00	20.00	0	97.4	76.4	125	19.85	1.93	20	

Date: *6/23/2020*

Work Order: 2006190
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by SW8260D/TCLP ZHE

Sample ID: **LCSD-28762** SampType: **LCSD** Units: **µg/L** Prep Date: **6/23/2020** RunNo: **60030**
Client ID: **LCSW02** Batch ID: **28762** Analysis Date: **6/23/2020** SeqNo: **1201580**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexachloro-1,3-butadiene	21.6	4.00	20.00	0	108	87.3	119	21.70	0.515	20	
Naphthalene	22.2	1.00	20.00	0	111	73.7	135	21.94	1.07	20	
1,2,3-Trichlorobenzene	21.1	4.00	20.00	0	106	81.2	124	21.36	1.21	20	
Surr: Dibromofluoromethane	24.9		25.00		99.5	83.7	117		0		
Surr: Toluene-d8	24.1		25.00		96.5	87.6	113		0		
Surr: 1-Bromo-4-fluorobenzene	25.5		25.00		102	81.2	113		0		

NOTES:
S - Outlying spike recovery observed (low bias). Samples will be qualified with a *.

Sample ID: **MB-28762** SampType: **MBLK** Units: **µg/L** Prep Date: **6/23/2020** RunNo: **60030**
Client ID: **MBLKW** Batch ID: **28762** Analysis Date: **6/23/2020** SeqNo: **1201582**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	1.00									
Chloromethane	ND	2.00									Q*
Vinyl chloride	ND	0.200									
Bromomethane	ND	1.00									
Trichlorofluoromethane (CFC-11)	ND	1.00									
Chloroethane	ND	1.00									
1,1-Dichloroethylene	ND	1.00									
Methylene chloride	ND	1.00									
trans-1,2-Dichloroethene	ND	1.00									
Methyl tert-butyl ether (MTBE)	ND	1.00									
1,1-Dichloroethane	ND	1.00									
cis-1,2-Dichloroethene	ND	1.00									
Chloroform	ND	1.00									
1,1,1-Trichloroethane (TCA)	ND	1.00									
1,1-Dichloropropene	ND	1.00									
Carbon tetrachloride	ND	1.00									
1,2-Dichloroethane (EDC)	ND	1.00									
Benzene	ND	1.00									

Date: *6/23/2020*

Work Order: 2006190
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by SW8260D/TCLP ZHE

Sample ID: **MB-28762**	SampType: **MBLK**	Units: **µg/L**	Prep Date: **6/23/2020**	RunNo: **60030**
Client ID: **MBLKW**	Batch ID: **28762**		Analysis Date: **6/23/2020**	SeqNo: **1201582**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Trichloroethene (TCE)	ND	0.500									
1,2-Dichloropropane	ND	1.00									
Bromodichloromethane	ND	1.00									
Dibromomethane	ND	1.00									
cis-1,3-Dichloropropene	ND	1.00									
Toluene	ND	1.00									
trans-1,3-Dichloropropene	ND	1.00									
1,1,2-Trichloroethane	ND	1.00									
1,3-Dichloropropane	ND	1.00									
Tetrachloroethene (PCE)	ND	1.00									
Dibromochloromethane	ND	1.00									
1,2-Dibromoethane (EDB)	ND	0.250									
Chlorobenzene	ND	1.00									
1,1,1,2-Tetrachloroethane	ND	1.00									
Ethylbenzene	ND	1.00									
m,p-Xylene	ND	1.00									
o-Xylene	ND	1.00									
Styrene	ND	1.00									
Isopropylbenzene	ND	1.00									
Bromoform	ND	2.00									
1,1,2,2-Tetrachloroethane	ND	1.00									
n-Propylbenzene	ND	1.00									
Bromobenzene	ND	1.00									
1,3,5-Trimethylbenzene	ND	1.00									
2-Chlorotoluene	ND	1.00									
4-Chlorotoluene	ND	1.00									
tert-Butylbenzene	ND	1.00									
1,2,3-Trichloropropane	ND	1.00									
1,2,4-Trichlorobenzene	ND	2.00									
sec-Butylbenzene	ND	1.00									
4-Isopropyltoluene	ND	1.00									

Date: *6/23/2020*

Work Order: 2006190
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by SW8260D/TCLP ZHE

Sample ID: **MB-28762** SampType: **MBLK** Units: **µg/L** Prep Date: **6/23/2020** RunNo: **60030**
Client ID: **MBLKW** Batch ID: **28762** Analysis Date: **6/23/2020** SeqNo: **1201582**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,3-Dichlorobenzene	ND	1.00									
1,4-Dichlorobenzene	ND	1.00									
n-Butylbenzene	ND	1.00									
1,2-Dichlorobenzene	ND	1.00									
1,2-Dibromo-3-chloropropane	ND	1.00									
1,2,4-Trimethylbenzene	ND	1.00									
Hexachloro-1,3-butadiene	ND	4.00									
Naphthalene	ND	1.00									
1,2,3-Trichlorobenzene	ND	4.00									
Surr: Dibromofluoromethane	24.0		25.00		96.1	83.7	117				
Surr: Toluene-d8	23.9		25.00		95.6	87.6	113				
Surr: 1-Bromo-4-fluorobenzene	24.9		25.00		99.6	81.2	113				

NOTES:
Q - Indicates an analyte with a continuing calibration that does not meet established acceptance criteria
* - Flagged value is not within established control limits.

Sample ID: **2006337-001DDUP** SampType: **DUP** Units: **µg/L** Prep Date: **6/23/2020** RunNo: **60030**
Client ID: **BATCH** Batch ID: **28762** Analysis Date: **6/23/2020** SeqNo: **1201577**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	1.00						0		30	
Chloromethane	ND	2.00						0		30	Q*
Vinyl chloride	ND	0.200						0		30	
Bromomethane	ND	1.00						0		30	
Trichlorofluoromethane (CFC-11)	ND	1.00						0		30	
Chloroethane	ND	1.00						0		30	
1,1-Dichloroethylene	ND	1.00						0		30	
Methylene chloride	ND	1.00						0		30	
trans-1,2-Dichloroethene	ND	1.00						0		30	
Methyl tert-butyl ether (MTBE)	ND	1.00						0		30	
1,1-Dichloroethane	ND	1.00						0		30	

Date: *6/23/2020*

Work Order: 2006190
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by SW8260D/TCLP ZHE

Sample ID: **2006337-001DDUP** SampType: **DUP** Units: **µg/L** Prep Date: **6/23/2020** RunNo: **60030**
Client ID: **BATCH** Batch ID: **28762** Analysis Date: **6/23/2020** SeqNo: **1201577**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
cis-1,2-Dichloroethene	ND	1.00						0		30	
Chloroform	2.06	1.00						2.058	0.0399	30	
1,1,1-Trichloroethane (TCA)	ND	1.00						0		30	
1,1-Dichloropropene	ND	1.00						0		30	
Carbon tetrachloride	ND	1.00						0		30	
1,2-Dichloroethane (EDC)	ND	1.00						0		30	
Benzene	ND	1.00						0		30	
Trichloroethene (TCE)	ND	0.500						0		30	
1,2-Dichloropropane	ND	1.00						0		30	
Bromodichloromethane	ND	1.00						0		30	
Dibromomethane	ND	1.00						0		30	
cis-1,3-Dichloropropene	ND	1.00						0		30	
Toluene	ND	1.00						0		30	
trans-1,3-Dichloropropene	ND	1.00						0		30	
1,1,2-Trichloroethane	ND	1.00						0		30	
1,3-Dichloropropane	ND	1.00						0		30	
Tetrachloroethene (PCE)	ND	1.00						0		30	
Dibromochloromethane	ND	1.00						0		30	
1,2-Dibromoethane (EDB)	ND	0.250						0		30	
Chlorobenzene	ND	1.00						0		30	
1,1,1,2-Tetrachloroethane	ND	1.00						0		30	
Ethylbenzene	ND	1.00						0		30	
m,p-Xylene	ND	1.00						0		30	
o-Xylene	ND	1.00						0		30	
Styrene	ND	1.00						0		30	
Isopropylbenzene	ND	1.00						0		30	
Bromoform	ND	2.00						0		30	
1,1,2,2-Tetrachloroethane	ND	1.00						0		30	
n-Propylbenzene	ND	1.00						0		30	
Bromobenzene	ND	1.00						0		30	
1,3,5-Trimethylbenzene	ND	1.00						0		30	

Date: *6/23/2020*

Work Order: 2006190
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by SW8260D/TCLP ZHE

Sample ID: **2006337-001DDUP** SampType: **DUP** Units: **µg/L** Prep Date: **6/23/2020** RunNo: **60030**
Client ID: **BATCH** Batch ID: **28762** Analysis Date: **6/23/2020** SeqNo: **1201577**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2-Chlorotoluene	ND	1.00						0		30	
4-Chlorotoluene	ND	1.00						0		30	
tert-Butylbenzene	ND	1.00						0		30	
1,2,3-Trichloropropane	ND	1.00						0		30	
1,2,4-Trichlorobenzene	ND	2.00						0		30	
sec-Butylbenzene	ND	1.00						0		30	
4-Isopropyltoluene	ND	1.00						0		30	
1,3-Dichlorobenzene	ND	1.00						0		30	
1,4-Dichlorobenzene	ND	1.00						0		30	
n-Butylbenzene	ND	1.00						0		30	
1,2-Dichlorobenzene	ND	1.00						0		30	
1,2-Dibromo-3-chloropropane	ND	1.00						0		30	
1,2,4-Trimethylbenzene	ND	1.00						0		30	
Hexachloro-1,3-butadiene	ND	4.00						0		30	
Naphthalene	ND	1.00						0		30	
1,2,3-Trichlorobenzene	ND	4.00						0		30	
Surr: Dibromofluoromethane	24.2		25.00		96.6	83.7	117		0		
Surr: Toluene-d8	23.9		25.00		95.5	87.6	113		0		
Surr: 1-Bromo-4-fluorobenzene	24.7		25.00		98.7	81.2	113		0		

NOTES:
Q - Indicates an analyte with a continuing calibration that does not meet established acceptance criteria
* - Flagged value is not within established control limits.

Sample ID: **MB-28741** SampType: **MBLK** Units: **µg/L** Prep Date: **6/23/2020** RunNo: **60030**
Client ID: **MBLKW** Batch ID: **28762** Analysis Date: **6/23/2020** SeqNo: **1201581**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	1.00									
Chloromethane	ND	2.00									Q*
Vinyl chloride	ND	0.200									
Bromomethane	ND	1.00									

Date: *6/23/2020*

Work Order: 2006190
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by SW8260D/TCLP ZHE

Sample ID: **MB-28741** SampType: **MBLK** Units: **µg/L** Prep Date: **6/23/2020** RunNo: **60030**
Client ID: **MBLKW** Batch ID: **28762** Analysis Date: **6/23/2020** SeqNo: **1201581**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Trichlorofluoromethane (CFC-11)	ND	1.00									
Chloroethane	ND	1.00									
1,1-Dichloroethylene	ND	1.00									
Methylene chloride	ND	1.00									
trans-1,2-Dichloroethene	ND	1.00									
Methyl tert-butyl ether (MTBE)	ND	1.00									
1,1-Dichloroethane	ND	1.00									
cis-1,2-Dichloroethene	ND	1.00									
Chloroform	ND	1.00									
1,1,1-Trichloroethane (TCA)	ND	1.00									
1,1-Dichloropropene	ND	1.00									
Carbon tetrachloride	ND	1.00									
1,2-Dichloroethane (EDC)	ND	1.00									
Benzene	ND	1.00									
Trichloroethene (TCE)	ND	0.500									
1,2-Dichloropropane	ND	1.00									
Bromodichloromethane	ND	1.00									
Dibromomethane	ND	1.00									
cis-1,3-Dichloropropene	ND	1.00									
Toluene	ND	1.00									
trans-1,3-Dichloropropene	ND	1.00									
1,1,2-Trichloroethane	ND	1.00									
1,3-Dichloropropane	ND	1.00									
Tetrachloroethene (PCE)	ND	1.00									
Dibromochloromethane	ND	1.00									
1,2-Dibromoethane (EDB)	ND	0.250									
Chlorobenzene	ND	1.00									
1,1,1,2-Tetrachloroethane	ND	1.00									
Ethylbenzene	ND	1.00									
m,p-Xylene	ND	1.00									
o-Xylene	ND	1.00									

Date: *6/23/2020*

Work Order: 2006190
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by SW8260D/TCLP ZHE

Sample ID: **MB-28741**	SampType: **MBLK**	Units: **µg/L**	Prep Date: **6/23/2020**	RunNo: **60030**
Client ID: **MBLKW**	Batch ID: **28762**		Analysis Date: **6/23/2020**	SeqNo: **1201581**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Styrene	ND	1.00									
Isopropylbenzene	ND	1.00									
Bromoform	ND	2.00									
1,1,2,2-Tetrachloroethane	ND	1.00									
n-Propylbenzene	ND	1.00									
Bromobenzene	ND	1.00									
1,3,5-Trimethylbenzene	ND	1.00									
2-Chlorotoluene	ND	1.00									
4-Chlorotoluene	ND	1.00									
tert-Butylbenzene	ND	1.00									
1,2,3-Trichloropropane	ND	1.00									
1,2,4-Trichlorobenzene	ND	2.00									
sec-Butylbenzene	ND	1.00									
4-Isopropyltoluene	ND	1.00									
1,3-Dichlorobenzene	ND	1.00									
1,4-Dichlorobenzene	ND	1.00									
n-Butylbenzene	ND	1.00									
1,2-Dichlorobenzene	ND	1.00									
1,2-Dibromo-3-chloropropane	ND	1.00									
1,2,4-Trimethylbenzene	ND	1.00									
Hexachloro-1,3-butadiene	ND	4.00									
Naphthalene	ND	1.00									
1,2,3-Trichlorobenzene	ND	4.00									
Surr: Dibromofluoromethane	24.2		25.00		96.8	83.7	117				
Surr: Toluene-d8	24.5		25.00		98.2	87.6	113				
Surr: 1-Bromo-4-fluorobenzene	23.9		25.00		95.5	81.2	113				

NOTES:
Q - Indicates an analyte with a continuing calibration that does not meet established acceptance criteria
* - Flagged value is not within established control limits.

Sample Log-In Check List

Client Name:	**ONEILL**	Work Order Number:	**2006190**
Logged by:	**Clare Griggs**	Date Received:	**6/10/2020 2:49:00 PM**

Chain of Custody

1.	Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
2.	How was the sample delivered?	Client		

Log In

3.	Coolers are present?	Yes ☑	No ☐	NA ☐
4.	Shipping container/cooler in good condition?	Yes ☑	No ☐	
5.	Custody Seals present on shipping container/cooler? (Refer to comments for Custody Seals not intact)	Yes ☐	No ☐	Not Present ☑
6.	Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
7.	Were all items received at a temperature of >2°C to 6°C *	Yes ☑	No ☐	NA ☐
8.	Sample(s) in proper container(s)?	Yes ☑	No ☐	
9.	Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
10.	Are samples properly preserved?	Yes ☑	No ☐	
11.	Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
12.	Is there headspace in the VOA vials?	Yes ☐	No ☐	NA ☑
13.	Did all samples containers arrive in good condition(unbroken)?	Yes ☑	No ☐	
14.	Does paperwork match bottle labels?	Yes ☑	No ☐	
15.	Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
16.	Is it clear what analyses were requested?	Yes ☑	No ☐	
17.	Were all holding times able to be met?	Yes ☑	No ☐	

Special Handling (if applicable)

18.	Was client notified of all discrepancies with this order?	Yes ☑	No ☐	NA ☐

Person Notified:	Vance t ins	Date:	
By Whom:	Matt angston	Via:	☑ eMail ☑ Phone ☐ Fax ☐ In Person
Regarding:	Confirming C method		
Client Instructions:	nalv e for rganic Matter instead		

19. Additional remarks:

Item Information

Item #	Temp ºC
Cooler	0.3
Sample	0.7

* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C

Chain of Custody Record & Laboratory Services Agreement

Fremont Analytical
3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790
Fax: 206-352-7178

Date: 6/10/2020 | Page: 1 of: 3 | Laboratory Project No (internal): 2006190

Project Name: F200

Project No: 2021

Collected by: DL

Location: FL 358

Report To (PM): Vance

PM Email:

Client: DSG

Address:

City, State, Zip:

Telephone:

Fax:

Special Remarks:

Sample Disposal: ☐ Return to client ☒ Disposal by lab (after 30 days)

	Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	HVOCs (EPA 8260 / 624)	GX/BTEX	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DX)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T) | Dissolved (D)	Anions (IC)***	EDB (8011)	TOC				Comments
1	358-PH8-5	6/10/20	840	S	X																	
2	358-PH2-1		900		X																	
3	358-PH2-2		905		X													X				
4	358-PH2-4		910		X																	
5	358-PH2-7		915		X													X				
6	358-PH2-10		920		X													X				
7	358-PH5-1		935		X																	
8	358-PH5-2		940		X													X				
9	358-PH5-4		945		X																	
10	358-PH5-7		950		X													X				

*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

**Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL *Individual:* Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti Tl U V Zn

***Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above and that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished	Date/Time	Received	Date/Time
x	6/10/2020 1425	x	6/10/20 @ 1449
Relinquished	Date/Time	Received	Date/Time
x		x	

Turn-around Time:
- ☐ Standard
- ☐ 3 Day
- ☐ 2 Day
- ☐ Next Day
- Same Day ____ (specify)

Chain of Custody Record & Laboratory Services Agreement

Fremont Analytical
3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790
Fax: 206-352-7178

Date: 6/10/2020 Page: 2 of: 3

Laboratory Project No (internal): 2006190

Project Name: F200

Project No: 2021

Collected by: DL

Location: FL358

Report To (PM): Vince

PM Email:

Client: OSG

Address:

City, State, Zip:

Telephone:

Fax:

Special Remarks:

Sample Disposal: ☐ Return to client ☒ Disposal by lab (after 30 days)

	Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	HVOCs (EPA 8260 / 624)	GX/BTEX	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DX)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T) | Dissolved (D)	Anions (IC)***	EDB (8011)	TOC				Comments
1	358-PH5-10	6/10/20	955	S	X												X					
2	358-PH6-1		1010		X																	
3	358-PH6-2		1015		X																	
4	358-PH6-4		1020		X																	
5	358-PH6-7		1025		X																	
6	358-PH6-10		1030		X																	
7	358-PH7-1		1100		X																	
8	358-PH7-2		1105		X																	
9	358-PH7-4		1110		X																	
10	358-PH7-7		1115		X																	

*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

**Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL *Individual:* Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti Tl U V Zn

***Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite

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Relinquished x [signature] Date/Time 6/10/2020 1425 Received x [signature] Date/Time 6/10/20 @ 1449

Relinquished x Date/Time Received x Date/Time

Turn-around Time:
- ☐ Standard
- ☐ 3 Day
- ☐ 2 Day
- ☒ Next Day
- Same Day ____ (specify)

Chain of Custody Record & Laboratory Services Agreement

Fremont Analytical
3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790
Fax: 206-352-7178

Date: 6/10/2020 Page: 3 of: 3

Laboratory Project No (internal): 2006190

Project Name: F2CU

Project No: 2021

Collected by: DL

Location: FL35E

Report To (PM): Vance

PM Email:

Client: OSG

Address:

City, State, Zip:

Telephone:

Fax:

Special Remarks:

Sample Disposal: ☐ Return to client ☒ Disposal by lab (after 30 days)

	Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	HVOCs (EPA 8260 / 624)	GX/BTEX	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DX)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T) | Dissolved (D)	Anions (IC)***	EDB (8011)	TOC					Comments
1	358-PH7-9	6/10/20	1120	S	X																		
2	358-PH7-12	↓	1125	↓	X																		
3	358-PH7-15	↓	1130	↓	X																		
4																							
5																							
6																							
7																							
8																							
9																							
10																							

*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

**Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL *Individual:* Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti Tl U V Zn

***Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite

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Relinquished x [signature] Date/Time 6/10/2020 14:25

Received x [signature] Date/Time 6/10/20 @ 1449

Relinquished x Date/Time

Received x Date/Time

Turn-around Time:

- ☐ Standard
- ☐ 3 Day
- ☐ 2 Day
- ☒ Next Day
- Same Day ____ (specify)

Chain of Custody Record & Laboratory Services Agreement

Fremont Analytical
3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790
Fax: 206-352-7178

Date: 6/16/2020 Page: 1 of: 3

Laboratory Project No (internal): 2006190

Project Name: F200

Project No: 2071

Collected by: DK

Location: FL 358

Report To (PM): Venice

PM Email:

Special Remarks: ⊗ run per V.A 6/19/20 aq RUSH TAT

Sample Disposal: ☐ Return to client ☒ Disposal by lab (after 30 days)

Client: DSB

Address:

City, State, Zip:

Telephone:

Fax:

	Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	VOCs (EPA 8260 / 624)	GX/BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DX)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T) | Dissolved (D)	Anions (IC)***	EDB (8011)	TAL ⊗ICP VOCs				Comments
1	358-PH8-5	6/16/20	840	S	X																
2	358-PH2-1		900		X																
3	358-PH2-2		905		X											X					
4	358-PH2-4		910		X																
5	358-PH2-7		915		X											X					
6	358-PH2-10		920		X											X					
7	358-PH5-1		935		X																
8	358-PH5-2		940		X											X					
9	358-PH5-4		945		X																
10	358-PH5-7		950		X											X					

*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

**Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL *Individual* Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti Tl U V Zn

***Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite

Turn-around Time:
- ☐ Standard
- ☐ 3 Day
- ☐ 2 Day
- ☐ Next Day
- Same Day (specify)

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above and that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished	Date/Time	Received	Date/Time
x	6/16/2020 1435	x	6/16/20 @ 1449
Relinquished	Date/Time	Received	Date/Time
x		x	

Date: *06/15/2020*

CLIENT: O'Neill Service Group
Project: F200
Work Order: 2006234

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
2006234-001	358-B11-GW	06/12/2020 9:15 AM	06/12/2020 2:20 PM
2006234-002	358-B15-GW	06/12/2020 9:50 AM	06/12/2020 2:20 PM
2006234-003	358-B13-GW	06/12/2020 11:25 AM	06/12/2020 2:20 PM
2006234-004	358-B14-GW	06/12/2020 12:50 PM	06/12/2020 2:20 PM
2006234-005	Trip Blank	06/04/2020 8:48 AM	06/12/2020 2:20 PM

Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned

Case Narrative

WO#: **2006234**

Date: **6/15/2020**

CLIENT: O'Neill Service Group

Project: F200

I. SAMPLE RECEIPT:
Samples receipt information is recorded on the attached Sample Receipt Checklist.

II. GENERAL REPORTING COMMENTS:
Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

III. ANALYSES AND EXCEPTIONS:
Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

Rev 1 - Sample ID has been amended per VA, 6/15/20

Qualifiers:

* - Flagged value is not within established control limits
B - Analyte detected in the associated Method Blank
D - Dilution was required
E - Value above quantitation range
H - Holding times for preparation or analysis exceeded
I - Analyte with an internal standard that does not meet established acceptance criteria
J - Analyte detected below Reporting Limit
N - Tentatively Identified Compound (TIC)
Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF)
S - Spike recovery outside accepted recovery limits
ND - Not detected at the Reporting Limit
R - High relative percent difference observed

Acronyms:

%Rec - Percent Recovery
CCB - Continued Calibration Blank
CCV - Continued Calibration Verification
DF - Dilution Factor
HEM - Hexane Extractable Material
ICV - Initial Calibration Verification
LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
MB or MBLANK - Method Blank
MDL - Method Detection Limit
MS/MSD - Matrix Spike / Matrix Spike Duplicate
PDS - Post Digestion Spike
Ref Val - Reference Value
RL - Reporting Limit
RPD - Relative Percent Difference
SD - Serial Dilution
SGT - Silica Gel Treatment
SPK - Spike
Surr - Surrogate

Analytical Report

Work Order: **2006234**
Date Reported: **6/15/2020**

Client: O'Neill Service Group
Collection Date: 6/12/2020 9:15:00 AM
Project: F200
Lab ID: 2006234-001
Matrix: Water
Client Sample ID: 358-B11-GW

Volatile Organic Compounds by EPA Method 8260D

Batch ID: 28653 Analyst: KT

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	1.00		µg/L	1	6/13/2020 2:43:41 AM
Chloromethane	ND	2.00		µg/L	1	6/13/2020 2:43:41 AM
Vinyl chloride	ND	0.200		µg/L	1	6/13/2020 2:43:41 AM
Bromomethane	ND	1.00		µg/L	1	6/13/2020 2:43:41 AM
Trichlorofluoromethane (CFC-11)	ND	1.00		µg/L	1	6/13/2020 2:43:41 AM
Chloroethane	ND	1.00		µg/L	1	6/13/2020 2:43:41 AM
1,1-Dichloroethene	ND	1.00		µg/L	1	6/13/2020 2:43:41 AM
Methylene chloride	ND	1.00		µg/L	1	6/13/2020 2:43:41 AM
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	6/13/2020 2:43:41 AM
1,1-Dichloroethane	ND	1.00		µg/L	1	6/13/2020 2:43:41 AM
cis-1,2-Dichloroethene	3.37	1.00		µg/L	1	6/13/2020 2:43:41 AM
Chloroform	ND	1.00		µg/L	1	6/13/2020 2:43:41 AM
1,1,1-Trichloroethane (TCA)	ND	1.00		µg/L	1	6/13/2020 2:43:41 AM
1,1-Dichloropropene	ND	1.00		µg/L	1	6/13/2020 2:43:41 AM
Carbon tetrachloride	ND	1.00		µg/L	1	6/13/2020 2:43:41 AM
1,2-Dichloroethane (EDC)	ND	1.00		µg/L	1	6/13/2020 2:43:41 AM
Trichloroethene (TCE)	ND	0.500		µg/L	1	6/13/2020 2:43:41 AM
1,2-Dichloropropane	ND	1.00		µg/L	1	6/13/2020 2:43:41 AM
Bromodichloromethane	ND	1.00		µg/L	1	6/13/2020 2:43:41 AM
Dibromomethane	ND	1.00		µg/L	1	6/13/2020 2:43:41 AM
cis-1,3-Dichloropropene	ND	1.00		µg/L	1	6/13/2020 2:43:41 AM
trans-1,3-Dichloropropylene	ND	1.00		µg/L	1	6/13/2020 2:43:41 AM
1,1,2-Trichloroethane	ND	1.00		µg/L	1	6/13/2020 2:43:41 AM
1,3-Dichloropropane	ND	1.00		µg/L	1	6/13/2020 2:43:41 AM
Tetrachloroethene (PCE)	ND	1.00		µg/L	1	6/13/2020 2:43:41 AM
Dibromochloromethane	ND	1.00		µg/L	1	6/13/2020 2:43:41 AM
1,2-Dibromoethane (EDB)	ND	0.250		µg/L	1	6/13/2020 2:43:41 AM
Chlorobenzene	ND	1.00		µg/L	1	6/13/2020 2:43:41 AM
1,1,1,2-Tetrachloroethane	ND	1.00		µg/L	1	6/13/2020 2:43:41 AM
Bromoform	ND	2.00		µg/L	1	6/13/2020 2:43:41 AM
1,1,2,2-Tetrachloroethane	ND	1.00		µg/L	1	6/13/2020 2:43:41 AM
Bromobenzene	ND	1.00		µg/L	1	6/13/2020 2:43:41 AM
2-Chlorotoluene	ND	1.00		µg/L	1	6/13/2020 2:43:41 AM
4-Chlorotoluene	ND	1.00		µg/L	1	6/13/2020 2:43:41 AM
1,2,3-Trichloropropane	ND	1.00		µg/L	1	6/13/2020 2:43:41 AM
1,2,4-Trichlorobenzene	ND	2.00		µg/L	1	6/13/2020 2:43:41 AM
1,3-Dichlorobenzene	ND	1.00		µg/L	1	6/13/2020 2:43:41 AM
1,4-Dichlorobenzene	ND	1.00		µg/L	1	6/13/2020 2:43:41 AM
1,2-Dichlorobenzene	ND	1.00		µg/L	1	6/13/2020 2:43:41 AM

Analytical Report

Work Order: **2006234**
Date Reported: **6/15/2020**

Client: O'Neill Service Group
Collection Date: 6/12/2020 9:15:00 AM
Project: F200
Lab ID: 2006234-001
Matrix: Water
Client Sample ID: 358-B11-GW

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28653		Analyst: KT
1,2-Dibromo-3-chloropropane	ND	1.00		µg/L	1	6/13/2020 2:43:41 AM
Hexachloro-1,3-butadiene	ND	4.00		µg/L	1	6/13/2020 2:43:41 AM
1,2,3-Trichlorobenzene	ND	4.00		µg/L	1	6/13/2020 2:43:41 AM
Surr: Dibromofluoromethane	98.6	83.7 - 117		%Rec	1	6/13/2020 2:43:41 AM
Surr: Toluene-d8	98.6	87.6 - 113		%Rec	1	6/13/2020 2:43:41 AM
Surr: 1-Bromo-4-fluorobenzene	97.9	81.2 - 113		%Rec	1	6/13/2020 2:43:41 AM

Analytical Report

Work Order: **2006234**
Date Reported: **6/15/2020**

Client: O'Neill Service Group
Collection Date: 6/12/2020 9:50:00 AM
Project: F200
Lab ID: 2006234-002
Matrix: Water
Client Sample ID: 358-B15-GW

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28653 Analyst: KT

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	1.00		µg/L	1	6/13/2020 3:13:58 AM
Chloromethane	ND	2.00		µg/L	1	6/13/2020 3:13:58 AM
Vinyl chloride	ND	0.200		µg/L	1	6/13/2020 3:13:58 AM
Bromomethane	ND	1.00		µg/L	1	6/13/2020 3:13:58 AM
Trichlorofluoromethane (CFC-11)	ND	1.00		µg/L	1	6/13/2020 3:13:58 AM
Chloroethane	ND	1.00		µg/L	1	6/13/2020 3:13:58 AM
1,1-Dichloroethene	ND	1.00		µg/L	1	6/13/2020 3:13:58 AM
Methylene chloride	ND	1.00		µg/L	1	6/13/2020 3:13:58 AM
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	6/13/2020 3:13:58 AM
1,1-Dichloroethane	ND	1.00		µg/L	1	6/13/2020 3:13:58 AM
cis-1,2-Dichloroethene	9.95	1.00		µg/L	1	6/13/2020 3:13:58 AM
Chloroform	ND	1.00		µg/L	1	6/13/2020 3:13:58 AM
1,1,1-Trichloroethane (TCA)	ND	1.00		µg/L	1	6/13/2020 3:13:58 AM
1,1-Dichloropropene	ND	1.00		µg/L	1	6/13/2020 3:13:58 AM
Carbon tetrachloride	ND	1.00		µg/L	1	6/13/2020 3:13:58 AM
1,2-Dichloroethane (EDC)	ND	1.00		µg/L	1	6/13/2020 3:13:58 AM
Trichloroethene (TCE)	1.89	0.500		µg/L	1	6/13/2020 3:13:58 AM
1,2-Dichloropropane	ND	1.00		µg/L	1	6/13/2020 3:13:58 AM
Bromodichloromethane	ND	1.00		µg/L	1	6/13/2020 3:13:58 AM
Dibromomethane	ND	1.00		µg/L	1	6/13/2020 3:13:58 AM
cis-1,3-Dichloropropene	ND	1.00		µg/L	1	6/13/2020 3:13:58 AM
trans-1,3-Dichloropropylene	ND	1.00		µg/L	1	6/13/2020 3:13:58 AM
1,1,2-Trichloroethane	ND	1.00		µg/L	1	6/13/2020 3:13:58 AM
1,3-Dichloropropane	ND	1.00		µg/L	1	6/13/2020 3:13:58 AM
Tetrachloroethene (PCE)	ND	1.00		µg/L	1	6/13/2020 3:13:58 AM
Dibromochloromethane	ND	1.00		µg/L	1	6/13/2020 3:13:58 AM
1,2-Dibromoethane (EDB)	ND	0.250		µg/L	1	6/13/2020 3:13:58 AM
Chlorobenzene	ND	1.00		µg/L	1	6/13/2020 3:13:58 AM
1,1,1,2-Tetrachloroethane	ND	1.00		µg/L	1	6/13/2020 3:13:58 AM
Bromoform	ND	2.00		µg/L	1	6/13/2020 3:13:58 AM
1,1,2,2-Tetrachloroethane	ND	1.00		µg/L	1	6/13/2020 3:13:58 AM
Bromobenzene	ND	1.00		µg/L	1	6/13/2020 3:13:58 AM
2-Chlorotoluene	ND	1.00		µg/L	1	6/13/2020 3:13:58 AM
4-Chlorotoluene	ND	1.00		µg/L	1	6/13/2020 3:13:58 AM
1,2,3-Trichloropropane	ND	1.00		µg/L	1	6/13/2020 3:13:58 AM
1,2,4-Trichlorobenzene	ND	2.00		µg/L	1	6/13/2020 3:13:58 AM
1,3-Dichlorobenzene	ND	1.00		µg/L	1	6/13/2020 3:13:58 AM
1,4-Dichlorobenzene	ND	1.00		µg/L	1	6/13/2020 3:13:58 AM
1,2-Dichlorobenzene	ND	1.00		µg/L	1	6/13/2020 3:13:58 AM

Analytical Report

Work Order: **2006234**
Date Reported: **6/15/2020**

Client: O'Neill Service Group
Collection Date: 6/12/2020 9:50:00 AM
Project: F200
Lab ID: 2006234-002
Matrix: Water
Client Sample ID: 358-B15-GW

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28653		Analyst: KT
1,2-Dibromo-3-chloropropane	ND	1.00		µg/L	1	6/13/2020 3:13:58 AM
Hexachloro-1,3-butadiene	ND	4.00		µg/L	1	6/13/2020 3:13:58 AM
1,2,3-Trichlorobenzene	ND	4.00		µg/L	1	6/13/2020 3:13:58 AM
Surr: Dibromofluoromethane	96.9	83.7 - 117		%Rec	1	6/13/2020 3:13:58 AM
Surr: Toluene-d8	99.1	87.6 - 113		%Rec	1	6/13/2020 3:13:58 AM
Surr: 1-Bromo-4-fluorobenzene	99.4	81.2 - 113		%Rec	1	6/13/2020 3:13:58 AM

Analytical Report

Work Order: **2006234**
Date Reported: **6/15/2020**

Client: O'Neill Service Group
Collection Date: 6/12/2020 11:25:00 AM
Project: F200
Lab ID: 2006234-003
Matrix: Water
Client Sample ID: 358-B13-GW

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28653 Analyst: KT

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	1.00		µg/L	1	6/13/2020 3:44:14 AM
Chloromethane	ND	2.00		µg/L	1	6/13/2020 3:44:14 AM
Vinyl chloride	ND	0.200		µg/L	1	6/13/2020 3:44:14 AM
Bromomethane	ND	1.00		µg/L	1	6/13/2020 3:44:14 AM
Trichlorofluoromethane (CFC-11)	ND	1.00		µg/L	1	6/13/2020 3:44:14 AM
Chloroethane	ND	1.00		µg/L	1	6/13/2020 3:44:14 AM
1,1-Dichloroethene	ND	1.00		µg/L	1	6/13/2020 3:44:14 AM
Methylene chloride	ND	1.00		µg/L	1	6/13/2020 3:44:14 AM
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	6/13/2020 3:44:14 AM
1,1-Dichloroethane	ND	1.00		µg/L	1	6/13/2020 3:44:14 AM
cis-1,2-Dichloroethene	ND	1.00		µg/L	1	6/13/2020 3:44:14 AM
Chloroform	ND	1.00		µg/L	1	6/13/2020 3:44:14 AM
1,1,1-Trichloroethane (TCA)	ND	1.00		µg/L	1	6/13/2020 3:44:14 AM
1,1-Dichloropropene	ND	1.00		µg/L	1	6/13/2020 3:44:14 AM
Carbon tetrachloride	ND	1.00		µg/L	1	6/13/2020 3:44:14 AM
1,2-Dichloroethane (EDC)	ND	1.00		µg/L	1	6/13/2020 3:44:14 AM
Trichloroethene (TCE)	ND	0.500		µg/L	1	6/13/2020 3:44:14 AM
1,2-Dichloropropane	ND	1.00		µg/L	1	6/13/2020 3:44:14 AM
Bromodichloromethane	ND	1.00		µg/L	1	6/13/2020 3:44:14 AM
Dibromomethane	ND	1.00		µg/L	1	6/13/2020 3:44:14 AM
cis-1,3-Dichloropropene	ND	1.00		µg/L	1	6/13/2020 3:44:14 AM
trans-1,3-Dichloropropylene	ND	1.00		µg/L	1	6/13/2020 3:44:14 AM
1,1,2-Trichloroethane	ND	1.00		µg/L	1	6/13/2020 3:44:14 AM
1,3-Dichloropropane	ND	1.00		µg/L	1	6/13/2020 3:44:14 AM
Tetrachloroethene (PCE)	ND	1.00		µg/L	1	6/13/2020 3:44:14 AM
Dibromochloromethane	ND	1.00		µg/L	1	6/13/2020 3:44:14 AM
1,2-Dibromoethane (EDB)	ND	0.250		µg/L	1	6/13/2020 3:44:14 AM
Chlorobenzene	ND	1.00		µg/L	1	6/13/2020 3:44:14 AM
1,1,1,2-Tetrachloroethane	ND	1.00		µg/L	1	6/13/2020 3:44:14 AM
Bromoform	ND	2.00		µg/L	1	6/13/2020 3:44:14 AM
1,1,2,2-Tetrachloroethane	ND	1.00		µg/L	1	6/13/2020 3:44:14 AM
Bromobenzene	ND	1.00		µg/L	1	6/13/2020 3:44:14 AM
2-Chlorotoluene	ND	1.00		µg/L	1	6/13/2020 3:44:14 AM
4-Chlorotoluene	ND	1.00		µg/L	1	6/13/2020 3:44:14 AM
1,2,3-Trichloropropane	ND	1.00		µg/L	1	6/13/2020 3:44:14 AM
1,2,4-Trichlorobenzene	ND	2.00		µg/L	1	6/13/2020 3:44:14 AM
1,3-Dichlorobenzene	ND	1.00		µg/L	1	6/13/2020 3:44:14 AM
1,4-Dichlorobenzene	ND	1.00		µg/L	1	6/13/2020 3:44:14 AM
1,2-Dichlorobenzene	ND	1.00		µg/L	1	6/13/2020 3:44:14 AM

Analytical Report

Work Order: **2006234**
Date Reported: **6/15/2020**

Client: O'Neill Service Group
Collection Date: 6/12/2020 11:25:00 AM
Project: F200
Lab ID: 2006234-003
Matrix: Water
Client Sample ID: 358-B13-GW

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28653		Analyst: KT
1,2-Dibromo-3-chloropropane	ND	1.00		µg/L	1	6/13/2020 3:44:14 AM
Hexachloro-1,3-butadiene	ND	4.00		µg/L	1	6/13/2020 3:44:14 AM
1,2,3-Trichlorobenzene	ND	4.00		µg/L	1	6/13/2020 3:44:14 AM
Surr: Dibromofluoromethane	96.8	83.7 - 117		%Rec	1	6/13/2020 3:44:14 AM
Surr: Toluene-d8	99.3	87.6 - 113		%Rec	1	6/13/2020 3:44:14 AM
Surr: 1-Bromo-4-fluorobenzene	98.9	81.2 - 113		%Rec	1	6/13/2020 3:44:14 AM

Analytical Report

Work Order: **2006234**
Date Reported: **6/15/2020**

Client: O'Neill Service Group
Collection Date: 6/12/2020 12:50:00 PM
Project: F200
Lab ID: 2006234-004
Matrix: Water
Client Sample ID: 358-B14-GW

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28653 Analyst: KT

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	1.00		µg/L	1	6/13/2020 4:14:25 AM
Chloromethane	ND	2.00		µg/L	1	6/13/2020 4:14:25 AM
Vinyl chloride	ND	0.200		µg/L	1	6/13/2020 4:14:25 AM
Bromomethane	ND	1.00		µg/L	1	6/13/2020 4:14:25 AM
Trichlorofluoromethane (CFC-11)	ND	1.00		µg/L	1	6/13/2020 4:14:25 AM
Chloroethane	ND	1.00		µg/L	1	6/13/2020 4:14:25 AM
1,1-Dichloroethene	ND	1.00		µg/L	1	6/13/2020 4:14:25 AM
Methylene chloride	ND	1.00		µg/L	1	6/13/2020 4:14:25 AM
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	6/13/2020 4:14:25 AM
1,1-Dichloroethane	ND	1.00		µg/L	1	6/13/2020 4:14:25 AM
cis-1,2-Dichloroethene	ND	1.00		µg/L	1	6/13/2020 4:14:25 AM
Chloroform	ND	1.00		µg/L	1	6/13/2020 4:14:25 AM
1,1,1-Trichloroethane (TCA)	ND	1.00		µg/L	1	6/13/2020 4:14:25 AM
1,1-Dichloropropene	ND	1.00		µg/L	1	6/13/2020 4:14:25 AM
Carbon tetrachloride	ND	1.00		µg/L	1	6/13/2020 4:14:25 AM
1,2-Dichloroethane (EDC)	ND	1.00		µg/L	1	6/13/2020 4:14:25 AM
Trichloroethene (TCE)	ND	0.500		µg/L	1	6/13/2020 4:14:25 AM
1,2-Dichloropropane	ND	1.00		µg/L	1	6/13/2020 4:14:25 AM
Bromodichloromethane	ND	1.00		µg/L	1	6/13/2020 4:14:25 AM
Dibromomethane	ND	1.00		µg/L	1	6/13/2020 4:14:25 AM
cis-1,3-Dichloropropene	ND	1.00		µg/L	1	6/13/2020 4:14:25 AM
trans-1,3-Dichloropropylene	ND	1.00		µg/L	1	6/13/2020 4:14:25 AM
1,1,2-Trichloroethane	ND	1.00		µg/L	1	6/13/2020 4:14:25 AM
1,3-Dichloropropane	ND	1.00		µg/L	1	6/13/2020 4:14:25 AM
Tetrachloroethene (PCE)	ND	1.00		µg/L	1	6/13/2020 4:14:25 AM
Dibromochloromethane	ND	1.00		µg/L	1	6/13/2020 4:14:25 AM
1,2-Dibromoethane (EDB)	ND	0.250		µg/L	1	6/13/2020 4:14:25 AM
Chlorobenzene	ND	1.00		µg/L	1	6/13/2020 4:14:25 AM
1,1,1,2-Tetrachloroethane	ND	1.00		µg/L	1	6/13/2020 4:14:25 AM
Bromoform	ND	2.00		µg/L	1	6/13/2020 4:14:25 AM
1,1,2,2-Tetrachloroethane	ND	1.00		µg/L	1	6/13/2020 4:14:25 AM
Bromobenzene	ND	1.00		µg/L	1	6/13/2020 4:14:25 AM
2-Chlorotoluene	ND	1.00		µg/L	1	6/13/2020 4:14:25 AM
4-Chlorotoluene	ND	1.00		µg/L	1	6/13/2020 4:14:25 AM
1,2,3-Trichloropropane	ND	1.00		µg/L	1	6/13/2020 4:14:25 AM
1,2,4-Trichlorobenzene	ND	2.00		µg/L	1	6/13/2020 4:14:25 AM
1,3-Dichlorobenzene	ND	1.00		µg/L	1	6/13/2020 4:14:25 AM
1,4-Dichlorobenzene	ND	1.00		µg/L	1	6/13/2020 4:14:25 AM
1,2-Dichlorobenzene	ND	1.00		µg/L	1	6/13/2020 4:14:25 AM

Analytical Report

Work Order: **2006234**
Date Reported: **6/15/2020**

Client: O'Neill Service Group
Collection Date: 6/12/2020 12:50:00 PM
Project: F200
Lab ID: 2006234-004
Matrix: Water
Client Sample ID: 358-B14-GW

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28653		Analyst: KT
1,2-Dibromo-3-chloropropane	ND	1.00		µg/L	1	6/13/2020 4:14:25 AM
Hexachloro-1,3-butadiene	ND	4.00		µg/L	1	6/13/2020 4:14:25 AM
1,2,3-Trichlorobenzene	ND	4.00		µg/L	1	6/13/2020 4:14:25 AM
Surr: Dibromofluoromethane	97.0	83.7 - 117		%Rec	1	6/13/2020 4:14:25 AM
Surr: Toluene-d8	97.7	87.6 - 113		%Rec	1	6/13/2020 4:14:25 AM
Surr: 1-Bromo-4-fluorobenzene	99.5	81.2 - 113		%Rec	1	6/13/2020 4:14:25 AM

Analytical Report

Work Order: **2006234**
Date Reported: **6/15/2020**

Client: O'Neill Service Group
Collection Date: 6/4/2020 8:48:00 AM
Project: F200
Lab ID: 2006234-005
Matrix: Water
Client Sample ID: Trip Blank

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28653 Analyst: KT

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	1.00		µg/L	1	6/13/2020 1:12:50 AM
Chloromethane	ND	2.00		µg/L	1	6/13/2020 1:12:50 AM
Vinyl chloride	ND	0.200		µg/L	1	6/13/2020 1:12:50 AM
Bromomethane	ND	1.00		µg/L	1	6/13/2020 1:12:50 AM
Trichlorofluoromethane (CFC-11)	ND	1.00		µg/L	1	6/13/2020 1:12:50 AM
Chloroethane	ND	1.00		µg/L	1	6/13/2020 1:12:50 AM
1,1-Dichloroethene	ND	1.00		µg/L	1	6/13/2020 1:12:50 AM
Methylene chloride	ND	1.00		µg/L	1	6/13/2020 1:12:50 AM
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	6/13/2020 1:12:50 AM
1,1-Dichloroethane	ND	1.00		µg/L	1	6/13/2020 1:12:50 AM
cis-1,2-Dichloroethene	ND	1.00		µg/L	1	6/13/2020 1:12:50 AM
Chloroform	ND	1.00		µg/L	1	6/13/2020 1:12:50 AM
1,1,1-Trichloroethane (TCA)	ND	1.00		µg/L	1	6/13/2020 1:12:50 AM
1,1-Dichloropropene	ND	1.00		µg/L	1	6/13/2020 1:12:50 AM
Carbon tetrachloride	ND	1.00		µg/L	1	6/13/2020 1:12:50 AM
1,2-Dichloroethane (EDC)	ND	1.00		µg/L	1	6/13/2020 1:12:50 AM
Trichloroethene (TCE)	ND	0.500		µg/L	1	6/13/2020 1:12:50 AM
1,2-Dichloropropane	ND	1.00		µg/L	1	6/13/2020 1:12:50 AM
Bromodichloromethane	ND	1.00		µg/L	1	6/13/2020 1:12:50 AM
Dibromomethane	ND	1.00		µg/L	1	6/13/2020 1:12:50 AM
cis-1,3-Dichloropropene	ND	1.00		µg/L	1	6/13/2020 1:12:50 AM
trans-1,3-Dichloropropylene	ND	1.00		µg/L	1	6/13/2020 1:12:50 AM
1,1,2-Trichloroethane	ND	1.00		µg/L	1	6/13/2020 1:12:50 AM
1,3-Dichloropropane	ND	1.00		µg/L	1	6/13/2020 1:12:50 AM
Tetrachloroethene (PCE)	ND	1.00		µg/L	1	6/13/2020 1:12:50 AM
Dibromochloromethane	ND	1.00		µg/L	1	6/13/2020 1:12:50 AM
1,2-Dibromoethane (EDB)	ND	0.250		µg/L	1	6/13/2020 1:12:50 AM
Chlorobenzene	ND	1.00		µg/L	1	6/13/2020 1:12:50 AM
1,1,1,2-Tetrachloroethane	ND	1.00		µg/L	1	6/13/2020 1:12:50 AM
Bromoform	ND	2.00		µg/L	1	6/13/2020 1:12:50 AM
1,1,2,2-Tetrachloroethane	ND	1.00		µg/L	1	6/13/2020 1:12:50 AM
Bromobenzene	ND	1.00		µg/L	1	6/13/2020 1:12:50 AM
2-Chlorotoluene	ND	1.00		µg/L	1	6/13/2020 1:12:50 AM
4-Chlorotoluene	ND	1.00		µg/L	1	6/13/2020 1:12:50 AM
1,2,3-Trichloropropane	ND	1.00		µg/L	1	6/13/2020 1:12:50 AM
1,2,4-Trichlorobenzene	ND	2.00		µg/L	1	6/13/2020 1:12:50 AM
1,3-Dichlorobenzene	ND	1.00		µg/L	1	6/13/2020 1:12:50 AM
1,4-Dichlorobenzene	ND	1.00		µg/L	1	6/13/2020 1:12:50 AM
1,2-Dichlorobenzene	ND	1.00		µg/L	1	6/13/2020 1:12:50 AM

Analytical Report

Work Order: **2006234**
Date Reported: **6/15/2020**

Client: O'Neill Service Group
Collection Date: 6/4/2020 8:48:00 AM
Project: F200
Lab ID: 2006234-005
Matrix: Water
Client Sample ID: Trip Blank

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28653		Analyst: KT
1,2-Dibromo-3-chloropropane	ND	1.00		µg/L	1	6/13/2020 1:12:50 AM
Hexachloro-1,3-butadiene	ND	4.00		µg/L	1	6/13/2020 1:12:50 AM
1,2,3-Trichlorobenzene	ND	4.00		µg/L	1	6/13/2020 1:12:50 AM
Surr: Dibromofluoromethane	97.9	83.7 - 117		%Rec	1	6/13/2020 1:12:50 AM
Surr: Toluene-d8	99.2	87.6 - 113		%Rec	1	6/13/2020 1:12:50 AM
Surr: 1-Bromo-4-fluorobenzene	99.0	81.2 - 113		%Rec	1	6/13/2020 1:12:50 AM

Date: *6/15/2020*

Work Order: 2006234
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **LCS-28653** SampType: **LCS** Units: **µg/L** Prep Date: **6/12/2020** RunNo: **59819**
Client ID: **LCSW** Batch ID: **28653** Analysis Date: **6/12/2020** SeqNo: **1197081**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	16.3	1.00	20.00	0	81.6	20.6	156				
Chloromethane	19.4	2.00	20.00	0	96.9	37.6	157				
Vinyl chloride	19.3	0.200	20.00	0	96.7	63.7	126				
Bromomethane	18.8	1.00	20.00	0	93.8	53.5	142				
Trichlorofluoromethane (CFC-11)	19.9	1.00	20.00	0	99.7	80	118				
Chloroethane	20.3	1.00	20.00	0	101	69.7	122				
1,1-Dichloroethene	19.9	1.00	20.00	0	99.7	83.1	115				
Methylene chloride	20.4	1.00	20.00	0	102	79.5	116				
trans-1,2-Dichloroethene	20.3	1.00	20.00	0	102	85.4	114				
1,1-Dichloroethane	20.6	1.00	20.00	0	103	79.1	118				
cis-1,2-Dichloroethene	20.4	1.00	20.00	0	102	85.3	114				
Chloroform	20.2	1.00	20.00	0	101	85.4	114				
1,1,1-Trichloroethane (TCA)	20.4	1.00	20.00	0	102	87.1	114				
1,1-Dichloropropene	20.7	1.00	20.00	0	104	88.4	114				
Carbon tetrachloride	20.6	1.00	20.00	0	103	86.1	115				
1,2-Dichloroethane (EDC)	20.0	1.00	20.00	0	100	84.9	115				
Trichloroethene (TCE)	20.4	0.500	20.00	0	102	85.8	117				
1,2-Dichloropropane	20.2	1.00	20.00	0	101	84.6	116				
Bromodichloromethane	20.3	1.00	20.00	0	102	83.5	118				
Dibromomethane	19.8	1.00	20.00	0	99.1	83.9	114				
cis-1,3-Dichloropropene	20.2	1.00	20.00	0	101	83.1	120				
trans-1,3-Dichloropropylene	19.8	1.00	20.00	0	98.9	82	119				
1,1,2-Trichloroethane	19.9	1.00	20.00	0	99.3	84.1	117				
1,3-Dichloropropane	19.8	1.00	20.00	0	99.0	81	119				
Tetrachloroethene (PCE)	20.5	1.00	20.00	0	103	85.7	116				
Dibromochloromethane	20.1	1.00	20.00	0	101	81.1	118				
1,2-Dibromoethane (EDB)	19.6	0.250	20.00	0	98.1	80	119				
Chlorobenzene	20.4	1.00	20.00	0	102	88.2	110				
1,1,1,2-Tetrachloroethane	20.4	1.00	20.00	0	102	85.9	112				
Bromoform	19.7	2.00	20.00	0	98.5	76.7	120				
1,1,2,2-Tetrachloroethane	19.6	1.00	20.00	0	98.1	68.1	128				

Fremont Analytical

Date: *6/15/2020*

Work Order: 2006234
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **LCS-28653** SampType: **LCS** Units: **µg/L** Prep Date: **6/12/2020** RunNo: **59819**
Client ID: **LCSW** Batch ID: **28653** Analysis Date: **6/12/2020** SeqNo: **1197081**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromobenzene	20.3	1.00	20.00	0	102	80.8	119				
2-Chlorotoluene	20.4	1.00	20.00	0	102	81.9	119				
4-Chlorotoluene	20.4	1.00	20.00	0	102	78.1	123				
1,2,3-Trichloropropane	19.1	1.00	20.00	0	95.5	70.7	127				
1,2,4-Trichlorobenzene	21.0	2.00	20.00	0	105	84.4	122				
1,3-Dichlorobenzene	21.2	1.00	20.00	0	106	91.6	113				
1,4-Dichlorobenzene	21.1	1.00	20.00	0	106	88.9	114				
1,2-Dichlorobenzene	21.0	1.00	20.00	0	105	89	114				
1,2-Dibromo-3-chloropropane	20.5	1.00	20.00	0	103	61.5	137				
Hexachloro-1,3-butadiene	21.6	4.00	20.00	0	108	87.3	119				
1,2,3-Trichlorobenzene	20.7	4.00	20.00	0	103	81.2	124				
Surr: Dibromofluoromethane	25.2		25.00		101	83.7	117				
Surr: Toluene-d8	24.9		25.00		99.7	87.6	113				
Surr: 1-Bromo-4-fluorobenzene	25.3		25.00		101	81.2	113				

Sample ID: **LCSD-28653** SampType: **LCSD** Units: **µg/L** Prep Date: **6/12/2020** RunNo: **59819**
Client ID: **LCSW02** Batch ID: **28653** Analysis Date: **6/12/2020** SeqNo: **1197082**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	15.3	1.00	20.00	0	76.5	20.6	156	16.32	6.40	20	
Chloromethane	16.3	2.00	20.00	0	81.6	37.6	157	19.38	17.2	20	
Vinyl chloride	18.4	0.200	20.00	0	91.9	63.7	126	19.33	5.02	20	
Bromomethane	16.5	1.00	20.00	0	82.6	53.5	142	18.76	12.7	20	
Trichlorofluoromethane (CFC-11)	19.0	1.00	20.00	0	94.9	80	118	19.94	4.89	20	
Chloroethane	19.1	1.00	20.00	0	95.5	69.7	122	20.30	6.12	20	
1,1-Dichloroethene	19.0	1.00	20.00	0	95.0	83.1	115	19.94	4.87	20	
Methylene chloride	19.6	1.00	20.00	0	97.8	79.5	116	20.40	4.26	20	
trans-1,2-Dichloroethene	19.2	1.00	20.00	0	96.0	85.4	114	20.31	5.63	20	
1,1-Dichloroethane	20.1	1.00	20.00	0	101	79.1	118	20.58	2.21	20	
cis-1,2-Dichloroethene	20.0	1.00	20.00	0	100	85.3	114	20.41	1.92	20	

Date: *6/15/2020*

Work Order: 2006234
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **LCSD-28653** SampType: **LCSD** Units: **µg/L** Prep Date: **6/12/2020** RunNo: **59819**
Client ID: **LCSW02** Batch ID: **28653** Analysis Date: **6/12/2020** SeqNo: **1197082**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloroform	19.5	1.00	20.00	0	97.3	85.4	114	20.24	3.93	20	
1,1,1-Trichloroethane (TCA)	19.4	1.00	20.00	0	96.9	87.1	114	20.44	5.31	20	
1,1-Dichloropropene	19.8	1.00	20.00	0	98.9	88.4	114	20.70	4.57	20	
Carbon tetrachloride	19.5	1.00	20.00	0	97.3	86.1	115	20.57	5.57	20	
1,2-Dichloroethane (EDC)	19.6	1.00	20.00	0	98.0	84.9	115	20.02	2.14	20	
Trichloroethene (TCE)	19.8	0.500	20.00	0	98.9	85.8	117	20.42	3.19	20	
1,2-Dichloropropane	19.3	1.00	20.00	0	96.5	84.6	116	20.25	4.81	20	
Bromodichloromethane	19.7	1.00	20.00	0	98.7	83.5	118	20.34	2.95	20	
Dibromomethane	19.6	1.00	20.00	0	97.8	83.9	114	19.82	1.38	20	
cis-1,3-Dichloropropene	19.7	1.00	20.00	0	98.7	83.1	120	20.22	2.42	20	
trans-1,3-Dichloropropylene	19.8	1.00	20.00	0	99.0	82	119	19.78	0.0595	20	
1,1,2-Trichloroethane	19.8	1.00	20.00	0	99.2	84.1	117	19.86	0.0676	20	
1,3-Dichloropropane	19.9	1.00	20.00	0	99.3	81	119	19.81	0.301	20	
Tetrachloroethene (PCE)	19.7	1.00	20.00	0	98.4	85.7	116	20.55	4.26	20	
Dibromochloromethane	20.2	1.00	20.00	0	101	81.1	118	20.13	0.490	20	
1,2-Dibromoethane (EDB)	19.6	0.250	20.00	0	98.1	80	119	19.63	0.0177	20	
Chlorobenzene	19.8	1.00	20.00	0	99.2	88.2	110	20.43	2.94	20	
1,1,1,2-Tetrachloroethane	20.1	1.00	20.00	0	100	85.9	112	20.44	1.82	20	
Bromoform	20.1	2.00	20.00	0	101	76.7	120	19.69	2.14	20	
1,1,2,2-Tetrachloroethane	19.8	1.00	20.00	0	98.9	68.1	128	19.61	0.869	20	
Bromobenzene	20.1	1.00	20.00	0	100	80.8	119	20.35	1.22	20	
2-Chlorotoluene	19.4	1.00	20.00	0	96.9	81.9	119	20.42	5.17	20	
4-Chlorotoluene	19.8	1.00	20.00	0	99.2	78.1	123	20.41	2.80	20	
1,2,3-Trichloropropane	19.6	1.00	20.00	0	98.0	70.7	127	19.10	2.57	20	
1,2,4-Trichlorobenzene	21.4	2.00	20.00	0	107	84.4	122	20.99	2.07	20	
1,3-Dichlorobenzene	20.6	1.00	20.00	0	103	91.6	113	21.18	2.52	20	
1,4-Dichlorobenzene	20.6	1.00	20.00	0	103	88.9	114	21.11	2.29	20	
1,2-Dichlorobenzene	21.0	1.00	20.00	0	105	89	114	21.02	0.0793	20	
1,2-Dibromo-3-chloropropane	21.3	1.00	20.00	0	106	61.5	137	20.55	3.37	20	
Hexachloro-1,3-butadiene	21.1	4.00	20.00	0	105	87.3	119	21.59	2.45	20	
1,2,3-Trichlorobenzene	21.3	4.00	20.00	0	106	81.2	124	20.69	2.72	20	

Date: *6/15/2020*

Work Order: 2006234
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **LCSD-28653** SampType: **LCSD** Units: **µg/L** Prep Date: **6/12/2020** RunNo: **59819**
Client ID: **LCSW02** Batch ID: **28653** Analysis Date: **6/12/2020** SeqNo: **1197082**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	25.3		25.00		101	83.7	117		0		
Surr: Toluene-d8	24.8		25.00		99.2	87.6	113		0		
Surr: 1-Bromo-4-fluorobenzene	24.9		25.00		99.8	81.2	113		0		

Sample ID: **MB-28653** SampType: **MBLK** Units: **µg/L** Prep Date: **6/12/2020** RunNo: **59819**
Client ID: **MBLKW** Batch ID: **28653** Analysis Date: **6/13/2020** SeqNo: **1197083**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	1.00									
Chloromethane	ND	2.00									
Vinyl chloride	ND	0.200									
Bromomethane	ND	1.00									
Trichlorofluoromethane (CFC-11)	ND	1.00									
Chloroethane	ND	1.00									
1,1-Dichloroethene	ND	1.00									
Methylene chloride	ND	1.00									
trans-1,2-Dichloroethene	ND	1.00									
1,1-Dichloroethane	ND	1.00									
cis-1,2-Dichloroethene	ND	1.00									
Chloroform	ND	1.00									
1,1,1-Trichloroethane (TCA)	ND	1.00									
1,1-Dichloropropene	ND	1.00									
Carbon tetrachloride	ND	1.00									
1,2-Dichloroethane (EDC)	ND	1.00									
Trichloroethene (TCE)	ND	0.500									
1,2-Dichloropropane	ND	1.00									
Bromodichloromethane	ND	1.00									
Dibromomethane	ND	1.00									
cis-1,3-Dichloropropene	ND	1.00									
trans-1,3-Dichloropropylene	ND	1.00									

Date: *6/15/2020*

Work Order: 2006234
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **MB-28653** SampType: **MBLK** Units: **µg/L** Prep Date: **6/12/2020** RunNo: **59819**
Client ID: **MBLKW** Batch ID: **28653** Analysis Date: **6/13/2020** SeqNo: **1197083**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,2-Trichloroethane	ND	1.00									
1,3-Dichloropropane	ND	1.00									
Tetrachloroethene (PCE)	ND	1.00									
Dibromochloromethane	ND	1.00									
1,2-Dibromoethane (EDB)	ND	0.250									
Chlorobenzene	ND	1.00									
1,1,1,2-Tetrachloroethane	ND	1.00									
Bromoform	ND	2.00									
1,1,2,2-Tetrachloroethane	ND	1.00									
Bromobenzene	ND	1.00									
2-Chlorotoluene	ND	1.00									
4-Chlorotoluene	ND	1.00									
1,2,3-Trichloropropane	ND	1.00									
1,2,4-Trichlorobenzene	ND	2.00									
1,3-Dichlorobenzene	ND	1.00									
1,4-Dichlorobenzene	ND	1.00									
1,2-Dichlorobenzene	ND	1.00									
1,2-Dibromo-3-chloropropane	ND	1.00									
Hexachloro-1,3-butadiene	ND	4.00									
1,2,3-Trichlorobenzene	ND	4.00									
Surr: Dibromofluoromethane	24.6		25.00		98.5	83.7	117				
Surr: Toluene-d8	24.8		25.00		99.2	87.6	113				
Surr: 1-Bromo-4-fluorobenzene	24.4		25.00		97.7	81.2	113				

Sample ID: **2006212-002ADUP** SampType: **DUP** Units: **µg/L** Prep Date: **6/12/2020** RunNo: **59819**
Client ID: **BATCH** Batch ID: **28653** Analysis Date: **6/13/2020** SeqNo: **1197073**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	1.00						0		30	
Chloromethane	ND	2.00						0		30	

Date: *6/15/2020*

Work Order: 2006234
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2006212-002ADUP** SampType: **DUP** Units: **µg/L** Prep Date: **6/12/2020** RunNo: **59819**
Client ID: **BATCH** Batch ID: **28653** Analysis Date: **6/13/2020** SeqNo: **1197073**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	ND	0.200						0		30	
Bromomethane	ND	1.00						0		30	
Trichlorofluoromethane (CFC-11)	ND	1.00						0		30	
Chloroethane	ND	1.00						0		30	
1,1-Dichloroethene	ND	1.00						0		30	
Methylene chloride	ND	1.00						0		30	
trans-1,2-Dichloroethene	ND	1.00						0		30	
1,1-Dichloroethane	ND	1.00						0		30	
cis-1,2-Dichloroethene	ND	1.00						0		30	
Chloroform	ND	1.00						0		30	
1,1,1-Trichloroethane (TCA)	ND	1.00						0		30	
1,1-Dichloropropene	ND	1.00						0		30	
Carbon tetrachloride	ND	1.00						0		30	
1,2-Dichloroethane (EDC)	ND	1.00						0		30	
Trichloroethene (TCE)	ND	0.500						0		30	
1,2-Dichloropropane	ND	1.00						0		30	
Bromodichloromethane	ND	1.00						0		30	
Dibromomethane	ND	1.00						0		30	
cis-1,3-Dichloropropene	ND	1.00						0		30	
trans-1,3-Dichloropropylene	ND	1.00						0		30	
1,1,2-Trichloroethane	ND	1.00						0		30	
1,3-Dichloropropane	ND	1.00						0		30	
Tetrachloroethene (PCE)	ND	1.00						0		30	
Dibromochloromethane	ND	1.00						0		30	
1,2-Dibromoethane (EDB)	ND	0.250						0		30	
Chlorobenzene	ND	1.00						0		30	
1,1,1,2-Tetrachloroethane	ND	1.00						0		30	
Bromoform	ND	2.00						0		30	
1,1,2,2-Tetrachloroethane	ND	1.00						0		30	
Bromobenzene	ND	1.00						0		30	
2-Chlorotoluene	ND	1.00						0		30	

Date: *6/15/2020*

Work Order: 2006234
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2006212-002ADUP** SampType: **DUP** Units: **µg/L** Prep Date: **6/12/2020** RunNo: **59819**
Client ID: **BATCH** Batch ID: **28653** Analysis Date: **6/13/2020** SeqNo: **1197073**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4-Chlorotoluene	ND	1.00						0		30	
1,2,3-Trichloropropane	ND	1.00						0		30	
1,2,4-Trichlorobenzene	ND	2.00						0		30	
1,3-Dichlorobenzene	ND	1.00						0		30	
1,4-Dichlorobenzene	ND	1.00						0		30	
1,2-Dichlorobenzene	ND	1.00						0		30	
1,2-Dibromo-3-chloropropane	ND	1.00						0		30	
Hexachloro-1,3-butadiene	ND	4.00						0		30	
1,2,3-Trichlorobenzene	ND	4.00						0		30	
Surr: Dibromofluoromethane	26.2		25.00		105	83.7	117		0		
Surr: Toluene-d8	24.7		25.00		98.7	87.6	113		0		
Surr: 1-Bromo-4-fluorobenzene	24.7		25.00		98.7	81.2	113		0		

Sample Log-In Check List

Client Name:	**ONEILL**	Work Order Number:	**2006234**
Logged by:	**Carissa True**	Date Received:	**6/12/2020 2:20:00 PM**

Chain of Custody

1.	Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
2.	How was the sample delivered?	Client		

Log In

3.	Coolers are present?	Yes ☑	No ☐	NA ☐
4.	Shipping container/cooler in good condition?	Yes ☑	No ☐	
5.	Custody Seals present on shipping container/cooler? (Refer to comments for Custody Seals not intact)	Yes ☐	No ☐	Not Present ☑
6.	Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
7.	Were all items received at a temperature of >2°C to 6°C *	Yes ☑	No ☐	NA ☐
8.	Sample(s) in proper container(s)?	Yes ☑	No ☐	
9.	Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
10.	Are samples properly preserved?	Yes ☑	No ☐	
11.	Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
12.	Is there headspace in the VOA vials?	Yes ☐	No ☑	NA ☐
13.	Did all samples containers arrive in good condition(unbroken)?	Yes ☑	No ☐	
14.	Does paperwork match bottle labels?	Yes ☑	No ☐	
15.	Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
16.	Is it clear what analyses were requested?	Yes ☑	No ☐	
17.	Were all holding times able to be met?	Yes ☑	No ☐	

Special Handling (if applicable)

18.	Was client notified of all discrepancies with this order?	Yes ☐	No ☐	NA ☑

Person Notified: _____ Date: _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

19. Additional remarks:

Item Information

Item #	Temp ºC
Cooler 1	3.8
Sample 1	3.6

* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C

Chain of Custody Record & Laboratory Services Agreement

Fremont Analytical
3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790
Fax: 206-352-7178

Date: 6/12/20 | Page: 1 of: 1 | Laboratory Project No (internal): 2006234

Project Name: F200

Project No: 2021

Collected by: ATK.

Location: FL358

Report To (PM): ATK

PM Email:

Client: 088

Address:

City, State, Zip:

Telephone:

Fax:

Special Remarks:

Sample Disposal: ☐ Return to client ☐ Disposal by lab (after 30 days)

	Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	VOCs (EPA 8260 / 624)	GX/BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DX)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T) | Dissolved (D)	Anions (IC)***	EDB (8011)	Comments
1	FL358-B11-GW	6/12/20	915		X												
2	358-B9-GW		950		X												
3	358-B13-GW		1125		X												
4	358-B14-GW		1250		X												
5	TRIP BLANK		—		X												
6																	
7																	
8																	
9																	
10																	

*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

**Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL *Individual:* Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti Tl U V Zn

***Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above and that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Turn-around Time:
- ☐ Standard
- ☐ 3 Day
- ☐ 2 Day
- ☒ Next Day
- Same Day ____ (specify)

Relinquished	Date/Time	Received	Date/Time
x [signature]	6/12/20 1420	x [signature]	6/12/20 1420
Relinquished	Date/Time	Received	Date/Time
x		x	

Chain of Custody Record & Laboratory Services Agreement

Fremont Analytical
3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790
Fax: 206-352-7178

Date: 6/12/20 | Page: 1 of: 1 | Laboratory Project No (internal): 2006234

Project Name: F200

Project No: 2021

Collected by: ATK.

Location: FL358

Report To (PM): ATK

PM Email:

Client: 038

Address:

City, State, Zip:

Telephone:

Fax:

Special Remarks:

Sample Disposal: ☐ Return to client ☐ Disposal by lab (after 30 days)

	Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	VOCs (EPA 8260 / 624)	GX/BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DX)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T) | Dissolved (D)	Anions (IC)***	EDB (8011)	Comments
1	~~FL~~358-B11-GW	6/12/20	915		X												
2	358-B9-GW		950		X												"358-B15-GW" per VA, mwdl 6/15/20
3	358-B13-GW		1125		X												
4	358-B14-GW		1250		X												
5	TRIP BLANK		—		X												
6																	
7																	
8																	
9																	
10																	

*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

**Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL *Individual:* Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti Tl U V Zn

***Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above and that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished	Date/Time	Received	Date/Time
x [signature]	6/12/20 1420	x [signature]	6/12/20 1420
Relinquished x	Date/Time	Received x	Date/Time

Turn-around Time:
- ☐ Standard
- ☐ 3 Day
- ☐ 2 Day
- ☑ Next Day
- Same Day ____ (specify)

3600 Fremont Ave. N.
Seattle, WA 98103
T: (206) 352-3790
F: (206) 352-7178
info@fremontanalytical.com

O'Neill Service Group
Vance Atkins
17619 NE 67th Court, Suite 100
Redmond, WA 98052

RE: F200
Work Order Number: 2006285

June 17, 2020

Attention Vance Atkins:

Fremont Analytical, Inc. received 3 sample(s) on 6/16/2020 for the analyses presented in the following report.

Volatile Organic Compounds by EPA Method 8260D

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Brianna Barnes
Project Manager

Date: *06/17/2020*

CLIENT: O'Neill Service Group
Project: F200
Work Order: 2006285

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
2006285-001	358-Influent	06/16/2020 11:25 AM	06/16/2020 3:24 PM
2006285-002	358-Pond	06/16/2020 11:30 AM	06/16/2020 3:24 PM
2006285-003	Trip Blank	06/15/2020 4:01 PM	06/16/2020 3:24 PM

Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned

Case Narrative

WO#: **2006285**

Date: **6/17/2020**

CLIENT: O'Neill Service Group

Project: F200

I. SAMPLE RECEIPT:
Samples receipt information is recorded on the attached Sample Receipt Checklist.

II. GENERAL REPORTING COMMENTS:
Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

III. ANALYSES AND EXCEPTIONS:
Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

Qualifiers:

* - Flagged value is not within established control limits
B - Analyte detected in the associated Method Blank
D - Dilution was required
E - Value above quantitation range
H - Holding times for preparation or analysis exceeded
I - Analyte with an internal standard that does not meet established acceptance criteria
J - Analyte detected below Reporting Limit
N - Tentatively Identified Compound (TIC)
Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF)
S - Spike recovery outside accepted recovery limits
ND - Not detected at the Reporting Limit
R - High relative percent difference observed

Acronyms:

%Rec - Percent Recovery
CCB - Continued Calibration Blank
CCV - Continued Calibration Verification
DF - Dilution Factor
HEM - Hexane Extractable Material
ICV - Initial Calibration Verification
LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
MB or MBLANK - Method Blank
MDL - Method Detection Limit
MS/MSD - Matrix Spike / Matrix Spike Duplicate
PDS - Post Digestion Spike
Ref Val - Reference Value
RL - Reporting Limit
RPD - Relative Percent Difference
SD - Serial Dilution
SGT - Silica Gel Treatment
SPK - Spike
Surr - Surrogate

Analytical Report

Work Order: **2006285**
Date Reported: **6/17/2020**

Client: O'Neill Service Group
Collection Date: 6/16/2020 11:25:00 AM
Project: F200
Lab ID: 2006285-001
Matrix: Water
Client Sample ID: 358-Influent

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28671 Analyst: CR

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	1.00		µg/L	1	6/16/2020 8:06:09 PM
Chloromethane	ND	2.00		µg/L	1	6/16/2020 8:06:09 PM
Vinyl chloride	ND	0.200		µg/L	1	6/16/2020 8:06:09 PM
Bromomethane	ND	1.00		µg/L	1	6/16/2020 8:06:09 PM
Trichlorofluoromethane (CFC-11)	ND	1.00		µg/L	1	6/16/2020 8:06:09 PM
Chloroethane	ND	1.00		µg/L	1	6/16/2020 8:06:09 PM
1,1-Dichloroethene	ND	1.00		µg/L	1	6/16/2020 8:06:09 PM
Methylene chloride	ND	1.00		µg/L	1	6/16/2020 8:06:09 PM
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	6/16/2020 8:06:09 PM
1,1-Dichloroethane	ND	1.00		µg/L	1	6/16/2020 8:06:09 PM
cis-1,2-Dichloroethene	ND	1.00		µg/L	1	6/16/2020 8:06:09 PM
Chloroform	3.71	1.00		µg/L	1	6/16/2020 8:06:09 PM
1,1,1-Trichloroethane (TCA)	ND	1.00		µg/L	1	6/16/2020 8:06:09 PM
1,1-Dichloropropene	ND	1.00		µg/L	1	6/16/2020 8:06:09 PM
Carbon tetrachloride	ND	1.00		µg/L	1	6/16/2020 8:06:09 PM
1,2-Dichloroethane (EDC)	ND	1.00		µg/L	1	6/16/2020 8:06:09 PM
Trichloroethene (TCE)	ND	0.500		µg/L	1	6/16/2020 8:06:09 PM
1,2-Dichloropropane	ND	1.00		µg/L	1	6/16/2020 8:06:09 PM
Bromodichloromethane	ND	1.00		µg/L	1	6/16/2020 8:06:09 PM
Dibromomethane	ND	1.00		µg/L	1	6/16/2020 8:06:09 PM
cis-1,3-Dichloropropene	ND	1.00		µg/L	1	6/16/2020 8:06:09 PM
trans-1,3-Dichloropropylene	ND	1.00		µg/L	1	6/16/2020 8:06:09 PM
1,1,2-Trichloroethane	ND	1.00		µg/L	1	6/16/2020 8:06:09 PM
1,3-Dichloropropane	ND	1.00		µg/L	1	6/16/2020 8:06:09 PM
Tetrachloroethene (PCE)	ND	1.00		µg/L	1	6/16/2020 8:06:09 PM
Dibromochloromethane	ND	1.00		µg/L	1	6/16/2020 8:06:09 PM
1,2-Dibromoethane (EDB)	ND	0.250		µg/L	1	6/16/2020 8:06:09 PM
Chlorobenzene	ND	1.00		µg/L	1	6/16/2020 8:06:09 PM
1,1,1,2-Tetrachloroethane	ND	1.00		µg/L	1	6/16/2020 8:06:09 PM
Bromoform	ND	2.00		µg/L	1	6/16/2020 8:06:09 PM
1,1,2,2-Tetrachloroethane	ND	1.00		µg/L	1	6/16/2020 8:06:09 PM
Bromobenzene	ND	1.00		µg/L	1	6/16/2020 8:06:09 PM
2-Chlorotoluene	ND	1.00		µg/L	1	6/16/2020 8:06:09 PM
4-Chlorotoluene	ND	1.00		µg/L	1	6/16/2020 8:06:09 PM
1,2,3-Trichloropropane	ND	1.00		µg/L	1	6/16/2020 8:06:09 PM
1,2,4-Trichlorobenzene	ND	2.00		µg/L	1	6/16/2020 8:06:09 PM
1,3-Dichlorobenzene	ND	1.00		µg/L	1	6/16/2020 8:06:09 PM
1,4-Dichlorobenzene	ND	1.00		µg/L	1	6/16/2020 8:06:09 PM
1,2-Dichlorobenzene	ND	1.00		µg/L	1	6/16/2020 8:06:09 PM

Analytical Report

Work Order: **2006285**
Date Reported: **6/17/2020**

Client: O'Neill Service Group
Collection Date: 6/16/2020 11:25:00 AM
Project: F200
Lab ID: 2006285-001
Matrix: Water
Client Sample ID: 358-Influent

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28671		Analyst: CR
1,2-Dibromo-3-chloropropane	ND	1.00		µg/L	1	6/16/2020 8:06:09 PM
Hexachloro-1,3-butadiene	ND	4.00		µg/L	1	6/16/2020 8:06:09 PM
1,2,3-Trichlorobenzene	ND	4.00		µg/L	1	6/16/2020 8:06:09 PM
Surr: Dibromofluoromethane	101	83.7 - 117		%Rec	1	6/16/2020 8:06:09 PM
Surr: Toluene-d8	99.2	87.6 - 113		%Rec	1	6/16/2020 8:06:09 PM
Surr: 1-Bromo-4-fluorobenzene	96.1	81.2 - 113		%Rec	1	6/16/2020 8:06:09 PM

Analytical Report

Work Order: **2006285**
Date Reported: **6/17/2020**

Client: O'Neill Service Group
Collection Date: 6/16/2020 11:30:00 AM
Project: F200
Lab ID: 2006285-002
Matrix: Water
Client Sample ID: 358-Pond

Volatile Organic Compounds by EPA Method 8260D

Batch ID: 28671 Analyst: CR

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	1.00		µg/L	1	6/16/2020 7:05:47 PM
Chloromethane	ND	2.00		µg/L	1	6/16/2020 7:05:47 PM
Vinyl chloride	ND	0.200		µg/L	1	6/16/2020 7:05:47 PM
Bromomethane	ND	1.00		µg/L	1	6/16/2020 7:05:47 PM
Trichlorofluoromethane (CFC-11)	ND	1.00		µg/L	1	6/16/2020 7:05:47 PM
Chloroethane	ND	1.00		µg/L	1	6/16/2020 7:05:47 PM
1,1-Dichloroethene	ND	1.00		µg/L	1	6/16/2020 7:05:47 PM
Methylene chloride	ND	1.00		µg/L	1	6/16/2020 7:05:47 PM
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	6/16/2020 7:05:47 PM
1,1-Dichloroethane	ND	1.00		µg/L	1	6/16/2020 7:05:47 PM
cis-1,2-Dichloroethene	1.16	1.00		µg/L	1	6/16/2020 7:05:47 PM
Chloroform	ND	1.00		µg/L	1	6/16/2020 7:05:47 PM
1,1,1-Trichloroethane (TCA)	ND	1.00		µg/L	1	6/16/2020 7:05:47 PM
1,1-Dichloropropene	ND	1.00		µg/L	1	6/16/2020 7:05:47 PM
Carbon tetrachloride	ND	1.00		µg/L	1	6/16/2020 7:05:47 PM
1,2-Dichloroethane (EDC)	ND	1.00		µg/L	1	6/16/2020 7:05:47 PM
Trichloroethene (TCE)	1.19	0.500		µg/L	1	6/16/2020 7:05:47 PM
1,2-Dichloropropane	ND	1.00		µg/L	1	6/16/2020 7:05:47 PM
Bromodichloromethane	ND	1.00		µg/L	1	6/16/2020 7:05:47 PM
Dibromomethane	ND	1.00		µg/L	1	6/16/2020 7:05:47 PM
cis-1,3-Dichloropropene	ND	1.00		µg/L	1	6/16/2020 7:05:47 PM
trans-1,3-Dichloropropylene	ND	1.00		µg/L	1	6/16/2020 7:05:47 PM
1,1,2-Trichloroethane	ND	1.00		µg/L	1	6/16/2020 7:05:47 PM
1,3-Dichloropropane	ND	1.00		µg/L	1	6/16/2020 7:05:47 PM
Tetrachloroethene (PCE)	16.3	1.00		µg/L	1	6/16/2020 7:05:47 PM
Dibromochloromethane	ND	1.00		µg/L	1	6/16/2020 7:05:47 PM
1,2-Dibromoethane (EDB)	ND	0.250		µg/L	1	6/16/2020 7:05:47 PM
Chlorobenzene	ND	1.00		µg/L	1	6/16/2020 7:05:47 PM
1,1,1,2-Tetrachloroethane	ND	1.00		µg/L	1	6/16/2020 7:05:47 PM
Bromoform	ND	2.00		µg/L	1	6/16/2020 7:05:47 PM
1,1,2,2-Tetrachloroethane	ND	1.00		µg/L	1	6/16/2020 7:05:47 PM
Bromobenzene	ND	1.00		µg/L	1	6/16/2020 7:05:47 PM
2-Chlorotoluene	ND	1.00		µg/L	1	6/16/2020 7:05:47 PM
4-Chlorotoluene	ND	1.00		µg/L	1	6/16/2020 7:05:47 PM
1,2,3-Trichloropropane	ND	1.00		µg/L	1	6/16/2020 7:05:47 PM
1,2,4-Trichlorobenzene	ND	2.00		µg/L	1	6/16/2020 7:05:47 PM
1,3-Dichlorobenzene	ND	1.00		µg/L	1	6/16/2020 7:05:47 PM
1,4-Dichlorobenzene	ND	1.00		µg/L	1	6/16/2020 7:05:47 PM
1,2-Dichlorobenzene	ND	1.00		µg/L	1	6/16/2020 7:05:47 PM

Original

Analytical Report

Work Order: **2006285**
Date Reported: **6/17/2020**

Client: O'Neill Service Group
Collection Date: 6/16/2020 11:30:00 AM
Project: F200
Lab ID: 2006285-002
Matrix: Water
Client Sample ID: 358-Pond

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28671		Analyst: CR
1,2-Dibromo-3-chloropropane	ND	1.00		µg/L	1	6/16/2020 7:05:47 PM
Hexachloro-1,3-butadiene	ND	4.00		µg/L	1	6/16/2020 7:05:47 PM
1,2,3-Trichlorobenzene	ND	4.00		µg/L	1	6/16/2020 7:05:47 PM
Surr: Dibromofluoromethane	99.7	83.7 - 117		%Rec	1	6/16/2020 7:05:47 PM
Surr: Toluene-d8	98.5	87.6 - 113		%Rec	1	6/16/2020 7:05:47 PM
Surr: 1-Bromo-4-fluorobenzene	96.0	81.2 - 113		%Rec	1	6/16/2020 7:05:47 PM

Date: *6/17/2020*

Work Order: 2006285
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **LCS-28671** SampType: **LCS** Units: **µg/L** Prep Date: **6/16/2020** RunNo: **59889**
Client ID: **LCSW** Batch ID: **28671** Analysis Date: **6/16/2020** SeqNo: **1198707**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	16.4	1.00	20.00	0	82.1	20.6	156				
Chloromethane	19.2	2.00	20.00	0	96.1	37.6	157				
Vinyl chloride	18.4	0.200	20.00	0	92.2	63.7	126				
Bromomethane	17.3	1.00	20.00	0	86.6	53.5	142				
Trichlorofluoromethane (CFC-11)	20.2	1.00	20.00	0	101	80	118				
Chloroethane	19.1	1.00	20.00	0	95.6	69.7	122				
1,1-Dichloroethene	19.5	1.00	20.00	0	97.3	83.1	115				
Methylene chloride	19.4	1.00	20.00	0	97.2	79.5	116				
trans-1,2-Dichloroethene	19.7	1.00	20.00	0	98.4	85.4	114				
1,1-Dichloroethane	20.0	1.00	20.00	0	99.9	79.1	118				
cis-1,2-Dichloroethene	19.8	1.00	20.00	0	98.9	85.3	114				
Chloroform	19.8	1.00	20.00	0	99.0	85.4	114				
1,1,1-Trichloroethane (TCA)	20.4	1.00	20.00	0	102	87.1	114				
1,1-Dichloropropene	20.4	1.00	20.00	0	102	88.4	114				
Carbon tetrachloride	20.4	1.00	20.00	0	102	86.1	115				
1,2-Dichloroethane (EDC)	20.5	1.00	20.00	0	102	84.9	115				
Trichloroethene (TCE)	20.1	0.500	20.00	0	101	85.8	117				
1,2-Dichloropropane	20.2	1.00	20.00	0	101	84.6	116				
Bromodichloromethane	20.0	1.00	20.00	0	100	83.5	118				
Dibromomethane	20.4	1.00	20.00	0	102	83.9	114				
cis-1,3-Dichloropropene	20.7	1.00	20.00	0	104	83.1	120				
trans-1,3-Dichloropropylene	22.6	1.00	20.00	0	113	82	119				
1,1,2-Trichloroethane	20.8	1.00	20.00	0	104	84.1	117				
1,3-Dichloropropane	21.0	1.00	20.00	0	105	81	119				
Tetrachloroethene (PCE)	21.0	1.00	20.00	0	105	85.7	116				
Dibromochloromethane	18.9	1.00	20.00	0	94.7	81.1	118				
1,2-Dibromoethane (EDB)	20.5	0.250	20.00	0	102	80	119				
Chlorobenzene	20.2	1.00	20.00	0	101	88.2	110				
1,1,1,2-Tetrachloroethane	20.5	1.00	20.00	0	102	85.9	112				
Bromoform	21.6	2.00	20.00	0	108	76.7	120				
1,1,2,2-Tetrachloroethane	21.2	1.00	20.00	0	106	68.1	128				

Date: *6/17/2020*

Work Order: 2006285
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **LCS-28671** SampType: **LCS** Units: **µg/L** Prep Date: **6/16/2020** RunNo: **59889**
Client ID: **LCSW** Batch ID: **28671** Analysis Date: **6/16/2020** SeqNo: **1198707**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromobenzene	20.4	1.00	20.00	0	102	80.8	119				
2-Chlorotoluene	20.4	1.00	20.00	0	102	81.9	119				
4-Chlorotoluene	20.5	1.00	20.00	0	103	78.1	123				
1,2,3-Trichloropropane	21.6	1.00	20.00	0	108	70.7	127				
1,2,4-Trichlorobenzene	20.7	2.00	20.00	0	103	84.4	122				
1,3-Dichlorobenzene	21.2	1.00	20.00	0	106	91.6	113				
1,4-Dichlorobenzene	21.1	1.00	20.00	0	106	88.9	114				
1,2-Dichlorobenzene	21.2	1.00	20.00	0	106	89	114				
1,2-Dibromo-3-chloropropane	22.6	1.00	20.00	0	113	61.5	137				
Hexachloro-1,3-butadiene	21.9	4.00	20.00	0	109	87.3	119				
1,2,3-Trichlorobenzene	21.3	4.00	20.00	0	107	81.2	124				
Surr: Dibromofluoromethane	25.1		25.00		100	83.7	117				
Surr: Toluene-d8	24.6		25.00		98.4	87.6	113				
Surr: 1-Bromo-4-fluorobenzene	25.4		25.00		102	81.2	113				

Sample ID: **MB-28671** SampType: **MBLK** Units: **µg/L** Prep Date: **6/16/2020** RunNo: **59889**
Client ID: **MBLKW** Batch ID: **28671** Analysis Date: **6/16/2020** SeqNo: **1198708**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	1.00									
Chloromethane	ND	2.00									
Vinyl chloride	ND	0.200									
Bromomethane	ND	1.00									
Trichlorofluoromethane (CFC-11)	ND	1.00									
Chloroethane	ND	1.00									
1,1-Dichloroethene	ND	1.00									
Methylene chloride	ND	1.00									
trans-1,2-Dichloroethene	ND	1.00									
1,1-Dichloroethane	ND	1.00									
cis-1,2-Dichloroethene	ND	1.00									

Date: *6/17/2020*

Work Order: 2006285
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **MB-28671** SampType: **MBLK** Units: **µg/L** Prep Date: **6/16/2020** RunNo: **59889**
Client ID: **MBLKW** Batch ID: **28671** Analysis Date: **6/16/2020** SeqNo: **1198708**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloroform	ND	1.00									
1,1,1-Trichloroethane (TCA)	ND	1.00									
1,1-Dichloropropene	ND	1.00									
Carbon tetrachloride	ND	1.00									
1,2-Dichloroethane (EDC)	ND	1.00									
Trichloroethene (TCE)	ND	0.500									
1,2-Dichloropropane	ND	1.00									
Bromodichloromethane	ND	1.00									
Dibromomethane	ND	1.00									
cis-1,3-Dichloropropene	ND	1.00									
trans-1,3-Dichloropropylene	ND	1.00									
1,1,2-Trichloroethane	ND	1.00									
1,3-Dichloropropane	ND	1.00									
Tetrachloroethene (PCE)	ND	1.00									
Dibromochloromethane	ND	1.00									
1,2-Dibromoethane (EDB)	ND	0.250									
Chlorobenzene	ND	1.00									
1,1,1,2-Tetrachloroethane	ND	1.00									
Bromoform	ND	2.00									
1,1,2,2-Tetrachloroethane	ND	1.00									
Bromobenzene	ND	1.00									
2-Chlorotoluene	ND	1.00									
4-Chlorotoluene	ND	1.00									
1,2,3-Trichloropropane	ND	1.00									
1,2,4-Trichlorobenzene	ND	2.00									
1,3-Dichlorobenzene	ND	1.00									
1,4-Dichlorobenzene	ND	1.00									
1,2-Dichlorobenzene	ND	1.00									
1,2-Dibromo-3-chloropropane	ND	1.00									
Hexachloro-1,3-butadiene	ND	4.00									
1,2,3-Trichlorobenzene	ND	4.00									

Date: *6/17/2020*

Work Order: 2006285
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **MB-28671** SampType: **MBLK** Units: **µg/L** Prep Date: **6/16/2020** RunNo: **59889**
Client ID: **MBLKW** Batch ID: **28671** Analysis Date: **6/16/2020** SeqNo: **1198708**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	24.4		25.00		97.5	83.7	117				
Surr: Toluene-d8	24.7		25.00		98.7	87.6	113				
Surr: 1-Bromo-4-fluorobenzene	24.1		25.00		96.4	81.2	113				

Sample ID: **2006242-026BDUP** SampType: **DUP** Units: **µg/L** Prep Date: **6/16/2020** RunNo: **59889**
Client ID: **BATCH** Batch ID: **28671** Analysis Date: **6/16/2020** SeqNo: **1198689**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	1.00						0		30	
Chloromethane	ND	2.00						0		30	
Vinyl chloride	ND	0.200						0		30	
Bromomethane	ND	1.00						0		30	
Trichlorofluoromethane (CFC-11)	ND	1.00						0		30	
Chloroethane	ND	1.00						0		30	
1,1-Dichloroethene	ND	1.00						0		30	
Methylene chloride	ND	1.00						0		30	
trans-1,2-Dichloroethene	ND	1.00						0		30	
1,1-Dichloroethane	ND	1.00						0		30	
cis-1,2-Dichloroethene	ND	1.00						0		30	
Chloroform	ND	1.00						0		30	
1,1,1-Trichloroethane (TCA)	ND	1.00						0		30	
1,1-Dichloropropene	ND	1.00						0		30	
Carbon tetrachloride	ND	1.00						0		30	
1,2-Dichloroethane (EDC)	ND	1.00						0		30	
Trichloroethene (TCE)	ND	0.500						0		30	
1,2-Dichloropropane	ND	1.00						0		30	
Bromodichloromethane	ND	1.00						0		30	
Dibromomethane	ND	1.00						0		30	
cis-1,3-Dichloropropene	ND	1.00						0		30	
trans-1,3-Dichloropropylene	ND	1.00						0		30	

Date: *6/17/2020*

Work Order: 2006285
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2006242-026BDUP** SampType: **DUP** Units: **µg/L** Prep Date: **6/16/2020** RunNo: **59889**
Client ID: **BATCH** Batch ID: **28671** Analysis Date: **6/16/2020** SeqNo: **1198689**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,2-Trichloroethane	ND	1.00						0		30	
1,3-Dichloropropane	ND	1.00						0		30	
Tetrachloroethene (PCE)	4.65	1.00						5.172	10.5	30	
Dibromochloromethane	ND	1.00						0		30	
1,2-Dibromoethane (EDB)	ND	0.250						0		30	
Chlorobenzene	ND	1.00						0		30	
1,1,1,2-Tetrachloroethane	ND	1.00						0		30	
Bromoform	ND	2.00						0		30	
1,1,2,2-Tetrachloroethane	ND	1.00						0		30	
Bromobenzene	ND	1.00						0		30	
2-Chlorotoluene	ND	1.00						0		30	
4-Chlorotoluene	ND	1.00						0		30	
1,2,3-Trichloropropane	ND	1.00						0		30	
1,2,4-Trichlorobenzene	ND	2.00						0		30	
1,3-Dichlorobenzene	ND	1.00						0		30	
1,4-Dichlorobenzene	ND	1.00						0		30	
1,2-Dichlorobenzene	ND	1.00						0		30	
1,2-Dibromo-3-chloropropane	ND	1.00						0		30	
Hexachloro-1,3-butadiene	ND	4.00						0		30	
1,2,3-Trichlorobenzene	ND	4.00						0		30	
Surr: Dibromofluoromethane	25.0		25.00		100	83.7	117		0		
Surr: Toluene-d8	24.8		25.00		99.2	87.6	113		0		
Surr: 1-Bromo-4-fluorobenzene	24.1		25.00		96.5	81.2	113		0		

Sample ID: **2006242-029BMS** SampType: **MS** Units: **µg/L** Prep Date: **6/16/2020** RunNo: **59889**
Client ID: **BATCH** Batch ID: **28671** Analysis Date: **6/16/2020** SeqNo: **1198693**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	11.6	1.00	20.00	0	58.0	5.43	176				
Chloromethane	16.9	2.00	20.00	0	84.4	16.9	195				

Date: *6/17/2020*

Work Order: 2006285
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2006242-029BMS** SampType: **MS** Units: **µg/L** Prep Date: **6/16/2020** RunNo: **59889**
Client ID: **BATCH** Batch ID: **28671** Analysis Date: **6/16/2020** SeqNo: **1198693**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	17.2	0.200	20.00	0	85.8	56.5	140				
Bromomethane	17.5	1.00	20.00	0	87.5	46.6	148				
Trichlorofluoromethane (CFC-11)	20.0	1.00	20.00	0	100	70.8	131				
Chloroethane	18.3	1.00	20.00	0	91.7	62.5	133				
1,1-Dichloroethene	20.0	1.00	20.00	0	99.8	73.1	133				
Methylene chloride	19.9	1.00	20.00	0	99.3	66.1	128				
trans-1,2-Dichloroethene	20.6	1.00	20.00	0	103	73.6	132				
1,1-Dichloroethane	20.6	1.00	20.00	0	103	67.5	136				
cis-1,2-Dichloroethene	20.9	1.00	20.00	0.2053	104	73.1	130				
Chloroform	20.7	1.00	20.00	0	104	72.7	131				
1,1,1-Trichloroethane (TCA)	21.4	1.00	20.00	0	107	70.8	138				
1,1-Dichloropropene	21.5	1.00	20.00	0	108	74.4	135				
Carbon tetrachloride	21.6	1.00	20.00	0	108	74.8	134				
1,2-Dichloroethane (EDC)	21.0	1.00	20.00	0	105	68.2	132				
Trichloroethene (TCE)	21.0	0.500	20.00	0	105	75.1	128				
1,2-Dichloropropane	20.8	1.00	20.00	0	104	72.1	131				
Bromodichloromethane	21.0	1.00	20.00	0	105	74.5	129				
Dibromomethane	21.0	1.00	20.00	0	105	70.3	128				
cis-1,3-Dichloropropene	21.0	1.00	20.00	0	105	66.8	127				
trans-1,3-Dichloropropylene	22.2	1.00	20.00	0	111	59.4	131				
1,1,2-Trichloroethane	20.9	1.00	20.00	0	104	68.7	132				
1,3-Dichloropropane	20.8	1.00	20.00	0	104	63.9	134				
Tetrachloroethene (PCE)	22.6	1.00	20.00	1.398	106	72.7	130				
Dibromochloromethane	19.9	1.00	20.00	0	99.4	67.8	130				
1,2-Dibromoethane (EDB)	20.9	0.250	20.00	0	104	63.7	132				
Chlorobenzene	20.7	1.00	20.00	0	103	73.8	125				
1,1,1,2-Tetrachloroethane	21.2	1.00	20.00	0	106	72.4	127				
Bromoform	22.3	2.00	20.00	0	112	66.5	132				
1,1,2,2-Tetrachloroethane	22.2	1.00	20.00	0	111	61.3	146				
Bromobenzene	20.9	1.00	20.00	0	105	68.6	132				
2-Chlorotoluene	20.8	1.00	20.00	0	104	68.9	135				

Date: *6/17/2020*

Work Order: 2006285
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2006242-029BMS** SampType: **MS** Units: **µg/L** Prep Date: **6/16/2020** RunNo: **59889**
Client ID: **BATCH** Batch ID: **28671** Analysis Date: **6/16/2020** SeqNo: **1198693**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4-Chlorotoluene	21.1	1.00	20.00	0	105	68.1	136				
1,2,3-Trichloropropane	21.6	1.00	20.00	0	108	55	143				
1,2,4-Trichlorobenzene	19.2	2.00	20.00	0	96.1	72.1	129				
1,3-Dichlorobenzene	21.1	1.00	20.00	0	106	77.6	123				
1,4-Dichlorobenzene	20.7	1.00	20.00	0	104	76.6	122				
1,2-Dichlorobenzene	20.9	1.00	20.00	0	104	77	123				
1,2-Dibromo-3-chloropropane	22.6	1.00	20.00	0	113	56.8	145				
Hexachloro-1,3-butadiene	21.1	4.00	20.00	0	106	71.9	131				
1,2,3-Trichlorobenzene	20.5	4.00	20.00	0	102	69	134				
Surr: Dibromofluoromethane	25.6		25.00		102	83.7	117				
Surr: Toluene-d8	25.1		25.00		101	87.6	113				
Surr: 1-Bromo-4-fluorobenzene	25.9		25.00		104	81.2	113				

Sample ID: **2006242-029BMSD** SampType: **MSD** Units: **µg/L** Prep Date: **6/16/2020** RunNo: **59889**
Client ID: **BATCH** Batch ID: **28671** Analysis Date: **6/16/2020** SeqNo: **1198694**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	10.7	1.00	20.00	0	53.4	5.43	176	11.60	8.36	30	
Chloromethane	16.3	2.00	20.00	0	81.6	16.9	195	16.88	3.39	30	
Vinyl chloride	16.5	0.200	20.00	0	82.6	56.5	140	17.16	3.82	30	
Bromomethane	16.8	1.00	20.00	0	84.0	46.6	148	17.49	3.99	30	
Trichlorofluoromethane (CFC-11)	19.7	1.00	20.00	0	98.4	70.8	131	19.99	1.60	30	
Chloroethane	18.1	1.00	20.00	0	90.3	62.5	133	18.33	1.48	30	
1,1-Dichloroethene	19.5	1.00	20.00	0	97.4	73.1	133	19.97	2.43	30	
Methylene chloride	18.8	1.00	20.00	0	94.1	66.1	128	19.87	5.40	30	
trans-1,2-Dichloroethene	19.9	1.00	20.00	0	99.5	73.6	132	20.63	3.63	30	
1,1-Dichloroethane	19.9	1.00	20.00	0	99.3	67.5	136	20.55	3.42	30	
cis-1,2-Dichloroethene	20.0	1.00	20.00	0.2053	98.9	73.1	130	20.91	4.48	30	
Chloroform	19.9	1.00	20.00	0	99.7	72.7	131	20.72	3.87	30	
1,1,1-Trichloroethane (TCA)	20.7	1.00	20.00	0	104	70.8	138	21.37	2.93	30	

Date: *6/17/2020*

Work Order: 2006285
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2006242-029BMSD** SampType: **MSD** Units: **µg/L** Prep Date: **6/16/2020** RunNo: **59889**
Client ID: **BATCH** Batch ID: **28671** Analysis Date: **6/16/2020** SeqNo: **1198694**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloropropene	20.6	1.00	20.00	0	103	74.4	135	21.52	4.46	30	
Carbon tetrachloride	20.7	1.00	20.00	0	103	74.8	134	21.61	4.40	30	
1,2-Dichloroethane (EDC)	20.0	1.00	20.00	0	100	68.2	132	21.03	4.84	30	
Trichloroethene (TCE)	20.1	0.500	20.00	0	101	75.1	128	20.98	4.06	30	
1,2-Dichloropropane	20.0	1.00	20.00	0	99.9	72.1	131	20.82	4.12	30	
Bromodichloromethane	20.1	1.00	20.00	0	100	74.5	129	21.05	4.76	30	
Dibromomethane	19.9	1.00	20.00	0	99.5	70.3	128	21.00	5.41	30	
cis-1,3-Dichloropropene	20.1	1.00	20.00	0	100	66.8	127	20.99	4.42	30	
trans-1,3-Dichloropropylene	21.7	1.00	20.00	0	108	59.4	131	22.19	2.47	30	
1,1,2-Trichloroethane	20.7	1.00	20.00	0	104	68.7	132	20.85	0.592	30	
1,3-Dichloropropane	20.3	1.00	20.00	0	101	63.9	134	20.79	2.49	30	
Tetrachloroethene (PCE)	22.1	1.00	20.00	1.398	104	72.7	130	22.63	2.39	30	
Dibromochloromethane	18.8	1.00	20.00	0	94.1	67.8	130	19.87	5.45	30	
1,2-Dibromoethane (EDB)	20.0	0.250	20.00	0	100	63.7	132	20.88	4.07	30	
Chlorobenzene	20.5	1.00	20.00	0	102	73.8	125	20.67	0.987	30	
1,1,1,2-Tetrachloroethane	20.7	1.00	20.00	0	103	72.4	127	21.15	2.20	30	
Bromoform	21.7	2.00	20.00	0	108	66.5	132	22.31	2.89	30	
1,1,2,2-Tetrachloroethane	21.5	1.00	20.00	0	108	61.3	146	22.17	3.02	30	
Bromobenzene	20.5	1.00	20.00	0	103	68.6	132	20.91	1.97	30	
2-Chlorotoluene	20.4	1.00	20.00	0	102	68.9	135	20.76	1.91	30	
4-Chlorotoluene	20.6	1.00	20.00	0	103	68.1	136	21.06	2.30	30	
1,2,3-Trichloropropane	20.8	1.00	20.00	0	104	55	143	21.60	3.81	30	
1,2,4-Trichlorobenzene	20.1	2.00	20.00	0	100	72.1	129	19.22	4.29	30	
1,3-Dichlorobenzene	21.3	1.00	20.00	0	106	77.6	123	21.12	0.794	30	
1,4-Dichlorobenzene	20.8	1.00	20.00	0	104	76.6	122	20.74	0.463	30	
1,2-Dichlorobenzene	21.0	1.00	20.00	0	105	77	123	20.86	0.472	30	
1,2-Dibromo-3-chloropropane	22.2	1.00	20.00	0	111	56.8	145	22.62	1.91	30	
Hexachloro-1,3-butadiene	21.5	4.00	20.00	0	107	71.9	131	21.14	1.61	30	
1,2,3-Trichlorobenzene	21.3	4.00	20.00	0	107	69	134	20.46	4.16	30	
Surr: Dibromofluoromethane	25.2		25.00		101	83.7	117		0		
Surr: Toluene-d8	24.6		25.00		98.6	87.6	113		0		

Date: *6/17/2020*

Work Order: 2006285
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2006242-029BMSD** SampType: **MSD** Units: **µg/L** Prep Date: **6/16/2020** RunNo: **59889**
Client ID: **BATCH** Batch ID: **28671** Analysis Date: **6/16/2020** SeqNo: **1198694**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: 1-Bromo-4-fluorobenzene	26.0		25.00		104	81.2	113		0		

Sample ID: **2006285-002ADUP** SampType: **DUP** Units: **µg/L** Prep Date: **6/16/2020** RunNo: **59889**
Client ID: **358-Pond** Batch ID: **28671** Analysis Date: **6/16/2020** SeqNo: **1198703**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	1.00						0		30	
Chloromethane	ND	2.00						0		30	
Vinyl chloride	ND	0.200						0		30	
Bromomethane	ND	1.00						0		30	
Trichlorofluoromethane (CFC-11)	ND	1.00						0		30	
Chloroethane	ND	1.00						0		30	
1,1-Dichloroethene	ND	1.00						0		30	
Methylene chloride	ND	1.00						0		30	
trans-1,2-Dichloroethene	ND	1.00						0		30	
1,1-Dichloroethane	ND	1.00						0		30	
cis-1,2-Dichloroethene	1.29	1.00						1.161	10.6	30	
Chloroform	1.07	1.00						0.9435	12.2	30	
1,1,1-Trichloroethane (TCA)	ND	1.00						0		30	
1,1-Dichloropropene	ND	1.00						0		30	
Carbon tetrachloride	ND	1.00						0		30	
1,2-Dichloroethane (EDC)	ND	1.00						0		30	
Trichloroethene (TCE)	1.33	0.500						1.187	11.0	30	
1,2-Dichloropropane	ND	1.00						0		30	
Bromodichloromethane	ND	1.00						0		30	
Dibromomethane	ND	1.00						0		30	
cis-1,3-Dichloropropene	ND	1.00						0		30	
trans-1,3-Dichloropropylene	ND	1.00						0		30	
1,1,2-Trichloroethane	ND	1.00						0		30	
1,3-Dichloropropane	ND	1.00						0		30	

Date: *6/17/2020*

Work Order: 2006285
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2006285-002ADUP** SampType: **DUP** Units: **µg/L** Prep Date: **6/16/2020** RunNo: **59889**
Client ID: **358-Pond** Batch ID: **28671** Analysis Date: **6/16/2020** SeqNo: **1198703**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tetrachloroethene (PCE)	18.4	1.00						16.26	12.4	30	
Dibromochloromethane	ND	1.00						0		30	
1,2-Dibromoethane (EDB)	ND	0.250						0		30	
Chlorobenzene	ND	1.00						0		30	
1,1,1,2-Tetrachloroethane	ND	1.00						0		30	
Bromoform	ND	2.00						0		30	
1,1,2,2-Tetrachloroethane	ND	1.00						0		30	
Bromobenzene	ND	1.00						0		30	
2-Chlorotoluene	ND	1.00						0		30	
4-Chlorotoluene	ND	1.00						0		30	
1,2,3-Trichloropropane	ND	1.00						0		30	
1,2,4-Trichlorobenzene	ND	2.00						0		30	
1,3-Dichlorobenzene	ND	1.00						0		30	
1,4-Dichlorobenzene	ND	1.00						0		30	
1,2-Dichlorobenzene	ND	1.00						0		30	
1,2-Dibromo-3-chloropropane	ND	1.00						0		30	
Hexachloro-1,3-butadiene	ND	4.00						0		30	
1,2,3-Trichlorobenzene	ND	4.00						0		30	
Surr: Dibromofluoromethane	24.9		25.00		99.7	83.7	117		0		
Surr: Toluene-d8	24.8		25.00		99.2	87.6	113		0		
Surr: 1-Bromo-4-fluorobenzene	23.8		25.00		95.2	81.2	113		0		

Sample Log-In Check List

Client Name:	**ONEILL**	Work Order Number:	**2006285**
Logged by:	**Clare Griggs**	Date Received:	**6/16/2020 3:24:00 PM**

Chain of Custody

1.	Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
2.	How was the sample delivered?	Client		

Log In

3.	Coolers are present?	Yes ☑	No ☐	NA ☐
4.	Shipping container/cooler in good condition?	Yes ☑	No ☐	
5.	Custody Seals present on shipping container/cooler? (Refer to comments for Custody Seals not intact)	Yes ☐	No ☐	Not Present ☑
6.	Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
7.	Were all items received at a temperature of >2°C to 6°C *	Yes ☑	No ☐	NA ☐
8.	Sample(s) in proper container(s)?	Yes ☑	No ☐	
9.	Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
10.	Are samples properly preserved?	Yes ☑	No ☐	
11.	Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
12.	Is there headspace in the VOA vials?	Yes ☐	No ☑	NA ☐
13.	Did all samples containers arrive in good condition(unbroken)?	Yes ☑	No ☐	
14.	Does paperwork match bottle labels?	Yes ☑	No ☐	
15.	Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
16.	Is it clear what analyses were requested?	Yes ☑	No ☐	
17.	Were all holding times able to be met?	Yes ☑	No ☐	

Special Handling (if applicable)

18.	Was client notified of all discrepancies with this order?	Yes ☐	No ☐	NA ☑

Person Notified: _____ Date: _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

19. Additional remarks:

Item Information

Item #	Temp ºC
Cooler	1.4
Sample	2.8
Temp Blank	3.2

* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C

Fremont Analytical
3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790
Fax: 206-352-7178

Chain of Custody Record & Laboratory Services Agreement

Date: 6/16/2020 Page: 1 of: 1

Laboratory Project No (internal): 2006285

Project Name: FZOU

Project No: 2021

Collected by: DC

Location: FZ358

Report To (PM): Venice

PM Email:

Client: OSG

Address:

City, State, Zip:

Telephone:

Fax:

Special Remarks:

Sample Disposal: ☐ Return to client ☒ Disposal by lab (after 30 days)

	Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	TPH VOCs (EPA 8260 / 624)	GX/BTEX	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DX)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T) | Dissolved (D)	Anions (IC)***	EDB (8011)				Comments
1	358-Influent	6/16/20	1125	W	X																
2	358-Pond	6/16/20	1130	W	X																
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					

*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

**Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL *Individual:* Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti Tl U V Zn

***Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above and that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished	Date/Time	Received	Date/Time
x [signature]	6/16/20 -1400	x [signature]	6/16/20 1524
Relinquished	Date/Time	Received	Date/Time
x		x	

Turn-around Time:
- ☒ Standard
- ☐ 3 Day
- ☐ 2 Day
- ☒ Next Day
- Same Day ____ (specify)

3600 Fremont Ave. N.
Seattle, WA 98103
T: (206) 352-3790
F: (206) 352-7178
info@fremontanalytical.com

O'Neill Service Group
Vance Atkins
17619 NE 67th Court, Suite 100
Redmond, WA 98052

RE: F200
Work Order Number: 2006286

June 17, 2020

Attention Vance Atkins:

Fremont Analytical, Inc. received 2 sample(s) on 6/16/2020 for the analyses presented in the following report.

Sample Moisture (Percent Moisture)
Volatile Organic Compounds by EPA Method 8260D

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Brianna Barnes
Project Manager

Date: *06/17/2020*

CLIENT: O'Neill Service Group
Project: F200
Work Order: 2006286

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
2006286-001	358-Storm	06/16/2020 1:30 PM	06/16/2020 3:23 PM
2006286-001	358-Storm	06/16/2020 1:30 PM	06/16/2020 3:23 PM
2006286-002	358-CB	06/16/2020 1:35 PM	06/16/2020 3:23 PM

Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned

Case Narrative

WO#: **2006286**

Date: **6/17/2020**

CLIENT: O'Neill Service Group

Project: F200

I. SAMPLE RECEIPT:
Samples receipt information is recorded on the attached Sample Receipt Checklist.

II. GENERAL REPORTING COMMENTS:
Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

III. ANALYSES AND EXCEPTIONS:
Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

Qualifiers:

* - Flagged value is not within established control limits
B - Analyte detected in the associated Method Blank
D - Dilution was required
E - Value above quantitation range
H - Holding times for preparation or analysis exceeded
I - Analyte with an internal standard that does not meet established acceptance criteria
J - Analyte detected below Reporting Limit
N - Tentatively Identified Compound (TIC)
Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF)
S - Spike recovery outside accepted recovery limits
ND - Not detected at the Reporting Limit
R - High relative percent difference observed

Acronyms:

%Rec - Percent Recovery
CCB - Continued Calibration Blank
CCV - Continued Calibration Verification
DF - Dilution Factor
HEM - Hexane Extractable Material
ICV - Initial Calibration Verification
LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
MB or MBLANK - Method Blank
MDL - Method Detection Limit
MS/MSD - Matrix Spike / Matrix Spike Duplicate
PDS - Post Digestion Spike
Ref Val - Reference Value
RL - Reporting Limit
RPD - Relative Percent Difference
SD - Serial Dilution
SGT - Silica Gel Treatment
SPK - Spike
Surr - Surrogate

Analytical Report

Work Order: **2006286**
Date Reported: **6/17/2020**

Client: O'Neill Service Group
Collection Date: 6/16/2020 1:30:00 PM
Project: F200
Lab ID: 2006286-001
Matrix: Soil
Client Sample ID: 358-Storm

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28685 Analyst: KT

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0474		mg/Kg-dry	1	6/17/2020 5:13:48 AM
Chloromethane	ND	0.118		mg/Kg-dry	1	6/17/2020 5:13:48 AM
Vinyl chloride	ND	0.0592		mg/Kg-dry	1	6/17/2020 5:13:48 AM
Bromomethane	ND	0.118		mg/Kg-dry	1	6/17/2020 5:13:48 AM
Trichlorofluoromethane (CFC-11)	ND	0.0474		mg/Kg-dry	1	6/17/2020 5:13:48 AM
Chloroethane	ND	0.118		mg/Kg-dry	1	6/17/2020 5:13:48 AM
1,1-Dichloroethene	ND	0.0474		mg/Kg-dry	1	6/17/2020 5:13:48 AM
Methylene chloride	ND	0.0474		mg/Kg-dry	1	6/17/2020 5:13:48 AM
trans-1,2-Dichloroethene	ND	0.0474		mg/Kg-dry	1	6/17/2020 5:13:48 AM
1,1-Dichloroethane	ND	0.0474		mg/Kg-dry	1	6/17/2020 5:13:48 AM
cis-1,2-Dichloroethene	ND	0.0474		mg/Kg-dry	1	6/17/2020 5:13:48 AM
Chloroform	ND	0.0474		mg/Kg-dry	1	6/17/2020 5:13:48 AM
1,1,1-Trichloroethane (TCA)	ND	0.0592		mg/Kg-dry	1	6/17/2020 5:13:48 AM
1,1-Dichloropropene	ND	0.0474		mg/Kg-dry	1	6/17/2020 5:13:48 AM
Carbon tetrachloride	ND	0.0592		mg/Kg-dry	1	6/17/2020 5:13:48 AM
1,2-Dichloroethane (EDC)	ND	0.0474		mg/Kg-dry	1	6/17/2020 5:13:48 AM
Trichloroethene (TCE)	ND	0.0474		mg/Kg-dry	1	6/17/2020 5:13:48 AM
1,2-Dichloropropane	ND	0.0474		mg/Kg-dry	1	6/17/2020 5:13:48 AM
Bromodichloromethane	ND	0.0474		mg/Kg-dry	1	6/17/2020 5:13:48 AM
Dibromomethane	ND	0.0474		mg/Kg-dry	1	6/17/2020 5:13:48 AM
cis-1,3-Dichloropropene	ND	0.0474		mg/Kg-dry	1	6/17/2020 5:13:48 AM
trans-1,3-Dichloropropylene	ND	0.0474		mg/Kg-dry	1	6/17/2020 5:13:48 AM
1,1,2-Trichloroethane	ND	0.0474		mg/Kg-dry	1	6/17/2020 5:13:48 AM
1,3-Dichloropropane	ND	0.0592		mg/Kg-dry	1	6/17/2020 5:13:48 AM
Tetrachloroethene (PCE)	ND	0.0592		mg/Kg-dry	1	6/17/2020 5:13:48 AM
Dibromochloromethane	ND	0.0592		mg/Kg-dry	1	6/17/2020 5:13:48 AM
1,2-Dibromoethane (EDB)	ND	0.0118		mg/Kg-dry	1	6/17/2020 5:13:48 AM
Chlorobenzene	ND	0.0592		mg/Kg-dry	1	6/17/2020 5:13:48 AM
1,1,1,2-Tetrachloroethane	ND	0.0592		mg/Kg-dry	1	6/17/2020 5:13:48 AM
Bromoform	ND	0.118		mg/Kg-dry	1	6/17/2020 5:13:48 AM
1,1,2,2-Tetrachloroethane	ND	0.0474		mg/Kg-dry	1	6/17/2020 5:13:48 AM
Bromobenzene	ND	0.0474		mg/Kg-dry	1	6/17/2020 5:13:48 AM
2-Chlorotoluene	ND	0.0592		mg/Kg-dry	1	6/17/2020 5:13:48 AM
4-Chlorotoluene	ND	0.0592		mg/Kg-dry	1	6/17/2020 5:13:48 AM
1,2,3-Trichloropropane	ND	0.0592		mg/Kg-dry	1	6/17/2020 5:13:48 AM
1,2,4-Trichlorobenzene	ND	0.0592		mg/Kg-dry	1	6/17/2020 5:13:48 AM
1,3-Dichlorobenzene	ND	0.0474		mg/Kg-dry	1	6/17/2020 5:13:48 AM
1,4-Dichlorobenzene	ND	0.0474		mg/Kg-dry	1	6/17/2020 5:13:48 AM
1,2-Dichlorobenzene	ND	0.0474		mg/Kg-dry	1	6/17/2020 5:13:48 AM

Analytical Report

Work Order: **2006286**
Date Reported: **6/17/2020**

Client: O'Neill Service Group
Collection Date: 6/16/2020 1:30:00 PM
Project: F200
Lab ID: 2006286-001
Matrix: Soil
Client Sample ID: 358-Storm

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28685		Analyst: KT
1,2-Dibromo-3-chloropropane	ND	1.18		mg/Kg-dry	1	6/17/2020 5:13:48 AM
Hexachloro-1,3-butadiene	ND	0.118		mg/Kg-dry	1	6/17/2020 5:13:48 AM
1,2,3-Trichlorobenzene	ND	0.0474		mg/Kg-dry	1	6/17/2020 5:13:48 AM
Surr: Dibromofluoromethane	99.2	83.3 - 111		%Rec	1	6/17/2020 5:13:48 AM
Surr: Toluene-d8	100	87.9 - 111		%Rec	1	6/17/2020 5:13:48 AM
Surr: 1-Bromo-4-fluorobenzene	99.4	85.1 - 111		%Rec	1	6/17/2020 5:13:48 AM
Sample Moisture (Percent Moisture)				Batch ID: R59881		Analyst: EH
Percent Moisture	3.64	0.500		wt%	1	6/17/2020 8:50:34 AM

Analytical Report

Work Order: **2006286**
Date Reported: **6/17/2020**

Client: O'Neill Service Group
Collection Date: 6/16/2020 1:35:00 PM
Project: F200
Lab ID: 2006286-002
Matrix: Soil
Client Sample ID: 358-CB

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28685 Analyst: KT

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0655		mg/Kg-dry	1	6/17/2020 5:43:57 AM
Chloromethane	ND	0.164		mg/Kg-dry	1	6/17/2020 5:43:57 AM
Vinyl chloride	ND	0.0819		mg/Kg-dry	1	6/17/2020 5:43:57 AM
Bromomethane	ND	0.164		mg/Kg-dry	1	6/17/2020 5:43:57 AM
Trichlorofluoromethane (CFC-11)	ND	0.0655		mg/Kg-dry	1	6/17/2020 5:43:57 AM
Chloroethane	ND	0.164		mg/Kg-dry	1	6/17/2020 5:43:57 AM
1,1-Dichloroethene	ND	0.0655		mg/Kg-dry	1	6/17/2020 5:43:57 AM
Methylene chloride	ND	0.0655		mg/Kg-dry	1	6/17/2020 5:43:57 AM
trans-1,2-Dichloroethene	ND	0.0655		mg/Kg-dry	1	6/17/2020 5:43:57 AM
1,1-Dichloroethane	ND	0.0655		mg/Kg-dry	1	6/17/2020 5:43:57 AM
cis-1,2-Dichloroethene	ND	0.0655		mg/Kg-dry	1	6/17/2020 5:43:57 AM
Chloroform	ND	0.0655		mg/Kg-dry	1	6/17/2020 5:43:57 AM
1,1,1-Trichloroethane (TCA)	ND	0.0819		mg/Kg-dry	1	6/17/2020 5:43:57 AM
1,1-Dichloropropene	ND	0.0655		mg/Kg-dry	1	6/17/2020 5:43:57 AM
Carbon tetrachloride	ND	0.0819		mg/Kg-dry	1	6/17/2020 5:43:57 AM
1,2-Dichloroethane (EDC)	ND	0.0655		mg/Kg-dry	1	6/17/2020 5:43:57 AM
Trichloroethene (TCE)	ND	0.0655		mg/Kg-dry	1	6/17/2020 5:43:57 AM
1,2-Dichloropropane	ND	0.0655		mg/Kg-dry	1	6/17/2020 5:43:57 AM
Bromodichloromethane	ND	0.0655		mg/Kg-dry	1	6/17/2020 5:43:57 AM
Dibromomethane	ND	0.0655		mg/Kg-dry	1	6/17/2020 5:43:57 AM
cis-1,3-Dichloropropene	ND	0.0655		mg/Kg-dry	1	6/17/2020 5:43:57 AM
trans-1,3-Dichloropropylene	ND	0.0655		mg/Kg-dry	1	6/17/2020 5:43:57 AM
1,1,2-Trichloroethane	ND	0.0655		mg/Kg-dry	1	6/17/2020 5:43:57 AM
1,3-Dichloropropane	ND	0.0819		mg/Kg-dry	1	6/17/2020 5:43:57 AM
Tetrachloroethene (PCE)	ND	0.0819		mg/Kg-dry	1	6/17/2020 5:43:57 AM
Dibromochloromethane	ND	0.0819		mg/Kg-dry	1	6/17/2020 5:43:57 AM
1,2-Dibromoethane (EDB)	ND	0.0164		mg/Kg-dry	1	6/17/2020 5:43:57 AM
Chlorobenzene	ND	0.0819		mg/Kg-dry	1	6/17/2020 5:43:57 AM
1,1,1,2-Tetrachloroethane	ND	0.0819		mg/Kg-dry	1	6/17/2020 5:43:57 AM
Bromoform	ND	0.164		mg/Kg-dry	1	6/17/2020 5:43:57 AM
1,1,2,2-Tetrachloroethane	ND	0.0655		mg/Kg-dry	1	6/17/2020 5:43:57 AM
Bromobenzene	ND	0.0655		mg/Kg-dry	1	6/17/2020 5:43:57 AM
2-Chlorotoluene	ND	0.0819		mg/Kg-dry	1	6/17/2020 5:43:57 AM
4-Chlorotoluene	ND	0.0819		mg/Kg-dry	1	6/17/2020 5:43:57 AM
1,2,3-Trichloropropane	ND	0.0819		mg/Kg-dry	1	6/17/2020 5:43:57 AM
1,2,4-Trichlorobenzene	ND	0.0819		mg/Kg-dry	1	6/17/2020 5:43:57 AM
1,3-Dichlorobenzene	ND	0.0655		mg/Kg-dry	1	6/17/2020 5:43:57 AM
1,4-Dichlorobenzene	ND	0.0655		mg/Kg-dry	1	6/17/2020 5:43:57 AM
1,2-Dichlorobenzene	ND	0.0655		mg/Kg-dry	1	6/17/2020 5:43:57 AM

Analytical Report

Work Order: **2006286**
Date Reported: **6/17/2020**

Client: O'Neill Service Group
Collection Date: 6/16/2020 1:35:00 PM
Project: F200
Lab ID: 2006286-002
Matrix: Soil
Client Sample ID: 358-CB

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28685		Analyst: KT
1,2-Dibromo-3-chloropropane	ND	1.64		mg/Kg-dry	1	6/17/2020 5:43:57 AM
Hexachloro-1,3-butadiene	ND	0.164		mg/Kg-dry	1	6/17/2020 5:43:57 AM
1,2,3-Trichlorobenzene	ND	0.0655		mg/Kg-dry	1	6/17/2020 5:43:57 AM
Surr: Dibromofluoromethane	98.9	83.3 - 111		%Rec	1	6/17/2020 5:43:57 AM
Surr: Toluene-d8	99.8	87.9 - 111		%Rec	1	6/17/2020 5:43:57 AM
Surr: 1-Bromo-4-fluorobenzene	98.2	85.1 - 111		%Rec	1	6/17/2020 5:43:57 AM
Sample Moisture (Percent Moisture)				Batch ID: R59881		Analyst: EH
Percent Moisture	7.02	0.500		wt%	1	6/17/2020 8:50:34 AM

Date: *6/17/2020*

Work Order: 2006286
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **LCS-28685** SampType: **LCS** Units: **mg/Kg** Prep Date: **6/16/2020** RunNo: **59878**
Client ID: **LCSS** Batch ID: **28685** Analysis Date: **6/17/2020** SeqNo: **1198569**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	0.892	0.0200	1.000	0	89.2	13.4	185				
Chloromethane	0.960	0.0500	1.000	0	96.0	38.5	158				
Vinyl chloride	0.973	0.0250	1.000	0	97.3	53.6	138				
Bromomethane	0.977	0.0500	1.000	0	97.7	56.6	151				
Trichlorofluoromethane (CFC-11)	0.992	0.0200	1.000	0	99.2	64.2	137				
Chloroethane	1.00	0.0500	1.000	0	100	54.1	134				
1,1-Dichloroethene	0.985	0.0200	1.000	0	98.5	66	133				
Methylene chloride	0.994	0.0200	1.000	0	99.4	74.3	117				
trans-1,2-Dichloroethene	0.975	0.0200	1.000	0	97.5	79.6	115				
1,1-Dichloroethane	0.997	0.0200	1.000	0	99.7	75.8	117				
cis-1,2-Dichloroethene	0.993	0.0200	1.000	0	99.3	77.8	115				
Chloroform	0.980	0.0200	1.000	0	98.0	78.2	115				
1,1,1-Trichloroethane (TCA)	1.01	0.0250	1.000	0	101	76	121				
1,1-Dichloropropene	1.01	0.0200	1.000	0	101	77.2	120				
Carbon tetrachloride	0.990	0.0250	1.000	0	99.0	74	122				
1,2-Dichloroethane (EDC)	1.00	0.0200	1.000	0	100	74.7	115				
Trichloroethene (TCE)	1.00	0.0200	1.000	0	100	79.6	118				
1,2-Dichloropropane	0.992	0.0200	1.000	0	99.2	78.2	115				
Bromodichloromethane	0.975	0.0200	1.000	0	97.5	76.6	116				
Dibromomethane	0.980	0.0200	1.000	0	98.0	77.9	115				
cis-1,3-Dichloropropene	0.986	0.0200	1.000	0	98.6	74.6	119				
trans-1,3-Dichloropropylene	0.984	0.0200	1.000	0	98.4	70.6	124				
1,1,2-Trichloroethane	0.988	0.0200	1.000	0	98.8	75.6	116				
1,3-Dichloropropane	0.998	0.0250	1.000	0	99.8	75.3	116				
Tetrachloroethene (PCE)	1.00	0.0250	1.000	0	100	78.8	119				
Dibromochloromethane	0.977	0.0250	1.000	0	97.7	72.5	123				
1,2-Dibromoethane (EDB)	0.999	0.00500	1.000	0	99.9	75	116				
Chlorobenzene	1.00	0.0250	1.000	0	100	83.4	113				
1,1,1,2-Tetrachloroethane	0.975	0.0250	1.000	0	97.5	80.8	117				
Bromoform	0.983	0.0500	1.000	0	98.3	71	129				
1,1,2,2-Tetrachloroethane	1.06	0.0200	1.000	0	106	71.3	119				

Date: *6/17/2020*

Work Order: 2006286
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **LCS-28685** SampType: **LCS** Units: **mg/Kg** Prep Date: **6/16/2020** RunNo: **59878**
Client ID: **LCSS** Batch ID: **28685** Analysis Date: **6/17/2020** SeqNo: **1198569**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromobenzene	1.01	0.0200	1.000	0	101	78.6	115				
2-Chlorotoluene	1.01	0.0250	1.000	0	101	78.6	116				
4-Chlorotoluene	1.02	0.0250	1.000	0	102	78.8	117				
1,2,3-Trichloropropane	1.02	0.0250	1.000	0	102	67.5	129				
1,2,4-Trichlorobenzene	1.02	0.0250	1.000	0	102	79.6	124				
1,3-Dichlorobenzene	1.03	0.0200	1.000	0	103	87.1	117				
1,4-Dichlorobenzene	1.04	0.0200	1.000	0	104	87.6	115				
1,2-Dichlorobenzene	1.03	0.0200	1.000	0	103	87.9	115				
1,2-Dibromo-3-chloropropane	1.05	0.500	1.000	0	105	65.6	132				
Hexachloro-1,3-butadiene	1.05	0.0500	1.000	0	105	75	130				
1,2,3-Trichlorobenzene	1.04	0.0200	1.000	0	104	74.3	128				
Surr: Dibromofluoromethane	1.25		1.250		100	83.3	111				
Surr: Toluene-d8	1.23		1.250		98.6	87.9	111				
Surr: 1-Bromo-4-fluorobenzene	1.22		1.250		97.3	85.1	111				

Sample ID: **LCSD-28685** SampType: **LCSD** Units: **mg/Kg** Prep Date: **6/16/2020** RunNo: **59878**
Client ID: **LCSS02** Batch ID: **28685** Analysis Date: **6/17/2020** SeqNo: **1198570**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	0.848	0.0200	1.000	0	84.8	13.4	185	0.8919	5.08	20	
Chloromethane	0.921	0.0500	1.000	0	92.1	38.5	158	0.9595	4.09	20	
Vinyl chloride	0.913	0.0250	1.000	0	91.3	53.6	138	0.9733	6.43	20	
Bromomethane	0.954	0.0500	1.000	0	95.4	56.6	151	0.9774	2.45	20	
Trichlorofluoromethane (CFC-11)	0.941	0.0200	1.000	0	94.1	64.2	137	0.9919	5.29	20	
Chloroethane	0.956	0.0500	1.000	0	95.6	54.1	134	1.002	4.76	20	
1,1-Dichloroethene	0.948	0.0200	1.000	0	94.8	66	133	0.9848	3.81	20	
Methylene chloride	0.964	0.0200	1.000	0	96.4	74.3	117	0.9945	3.11	20	
trans-1,2-Dichloroethene	0.951	0.0200	1.000	0	95.1	79.6	115	0.9746	2.47	20	
1,1-Dichloroethane	0.963	0.0200	1.000	0	96.3	75.8	117	0.9966	3.41	20	
cis-1,2-Dichloroethene	0.958	0.0200	1.000	0	95.8	77.8	115	0.9932	3.63	20	

Date: *6/17/2020*

Work Order: 2006286
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **LCSD-28685** SampType: **LCSD** Units: **mg/Kg** Prep Date: **6/16/2020** RunNo: **59878**
Client ID: **LCSS02** Batch ID: **28685** Analysis Date: **6/17/2020** SeqNo: **1198570**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloroform	0.961	0.0200	1.000	0	96.1	78.2	115	0.9801	1.96	20	
1,1,1-Trichloroethane (TCA)	0.957	0.0250	1.000	0	95.7	76	121	1.007	5.04	20	
1,1-Dichloropropene	0.968	0.0200	1.000	0	96.8	77.2	120	1.011	4.38	20	
Carbon tetrachloride	0.953	0.0250	1.000	0	95.3	74	122	0.9896	3.78	20	
1,2-Dichloroethane (EDC)	0.972	0.0200	1.000	0	97.2	74.7	115	1.005	3.32	20	
Trichloroethene (TCE)	0.960	0.0200	1.000	0	96.0	79.6	118	1.003	4.33	20	
1,2-Dichloropropane	0.970	0.0200	1.000	0	97.0	78.2	115	0.9924	2.32	20	
Bromodichloromethane	0.967	0.0200	1.000	0	96.7	76.6	116	0.9753	0.807	20	
Dibromomethane	0.964	0.0200	1.000	0	96.4	77.9	115	0.9797	1.61	20	
cis-1,3-Dichloropropene	0.955	0.0200	1.000	0	95.5	74.6	119	0.9860	3.19	20	
trans-1,3-Dichloropropylene	0.965	0.0200	1.000	0	96.5	70.6	124	0.9842	1.94	20	
1,1,2-Trichloroethane	0.977	0.0200	1.000	0	97.7	75.6	116	0.9881	1.10	20	
1,3-Dichloropropane	0.982	0.0250	1.000	0	98.2	75.3	116	0.9979	1.61	20	
Tetrachloroethene (PCE)	0.950	0.0250	1.000	0	95.0	78.8	119	1.003	5.50	20	
Dibromochloromethane	0.965	0.0250	1.000	0	96.5	72.5	123	0.9775	1.28	20	
1,2-Dibromoethane (EDB)	0.971	0.00500	1.000	0	97.1	75	116	0.9988	2.85	20	
Chlorobenzene	0.968	0.0250	1.000	0	96.8	83.4	113	0.9998	3.18	20	
1,1,1,2-Tetrachloroethane	0.966	0.0250	1.000	0	96.6	80.8	117	0.9753	0.928	20	
Bromoform	0.984	0.0500	1.000	0	98.4	71	129	0.9833	0.0899	20	
1,1,2,2-Tetrachloroethane	1.06	0.0200	1.000	0	106	71.3	119	1.056	0.677	20	
Bromobenzene	0.979	0.0200	1.000	0	97.9	78.6	115	1.013	3.38	20	
2-Chlorotoluene	0.991	0.0250	1.000	0	99.1	78.6	116	1.010	1.98	20	
4-Chlorotoluene	0.996	0.0250	1.000	0	99.6	78.8	117	1.023	2.74	20	
1,2,3-Trichloropropane	1.02	0.0250	1.000	0	102	67.5	129	1.020	0.478	20	
1,2,4-Trichlorobenzene	0.993	0.0250	1.000	0	99.3	79.6	124	1.017	2.30	20	
1,3-Dichlorobenzene	0.995	0.0200	1.000	0	99.5	87.1	117	1.033	3.80	20	
1,4-Dichlorobenzene	0.999	0.0200	1.000	0	99.9	87.6	115	1.038	3.85	20	
1,2-Dichlorobenzene	1.01	0.0200	1.000	0	101	87.9	115	1.029	1.80	20	
1,2-Dibromo-3-chloropropane	1.06	0.500	1.000	0	106	65.6	132	1.048	1.54	20	
Hexachloro-1,3-butadiene	0.998	0.0500	1.000	0	99.8	75	130	1.054	5.46	20	
1,2,3-Trichlorobenzene	1.01	0.0200	1.000	0	101	74.3	128	1.035	2.83	20	

Date: *6/17/2020*

Work Order: 2006286
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **LCSD-28685** SampType: **LCSD** Units: **mg/Kg** Prep Date: **6/16/2020** RunNo: **59878**
Client ID: **LCSS02** Batch ID: **28685** Analysis Date: **6/17/2020** SeqNo: **1198570**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	1.25		1.250		99.7	83.3	111		0		
Surr: Toluene-d8	1.24		1.250		99.0	87.9	111		0		
Surr: 1-Bromo-4-fluorobenzene	1.23		1.250		98.1	85.1	111		0		

Sample ID: **MB-28685** SampType: **MBLK** Units: **mg/Kg** Prep Date: **6/16/2020** RunNo: **59878**
Client ID: **MBLKS** Batch ID: **28685** Analysis Date: **6/17/2020** SeqNo: **1198571**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	0.0200									
Chloromethane	ND	0.0500									
Vinyl chloride	ND	0.0250									
Bromomethane	ND	0.0500									
Trichlorofluoromethane (CFC-11)	ND	0.0200									
Chloroethane	ND	0.0500									
1,1-Dichloroethene	ND	0.0200									
Methylene chloride	ND	0.0200									
trans-1,2-Dichloroethene	ND	0.0200									
1,1-Dichloroethane	ND	0.0200									
cis-1,2-Dichloroethene	ND	0.0200									
Chloroform	ND	0.0200									
1,1,1-Trichloroethane (TCA)	ND	0.0250									
1,1-Dichloropropene	ND	0.0200									
Carbon tetrachloride	ND	0.0250									
1,2-Dichloroethane (EDC)	ND	0.0200									
Trichloroethene (TCE)	ND	0.0200									
1,2-Dichloropropane	ND	0.0200									
Bromodichloromethane	ND	0.0200									
Dibromomethane	ND	0.0200									
cis-1,3-Dichloropropene	ND	0.0200									
trans-1,3-Dichloropropylene	ND	0.0200									

Date: *6/17/2020*

Work Order: 2006286
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **MB-28685** SampType: **MBLK** Units: **mg/Kg** Prep Date: **6/16/2020** RunNo: **59878**
Client ID: **MBLKS** Batch ID: **28685** Analysis Date: **6/17/2020** SeqNo: **1198571**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,2-Trichloroethane	ND	0.0200									
1,3-Dichloropropane	ND	0.0250									
Tetrachloroethene (PCE)	ND	0.0250									
Dibromochloromethane	ND	0.0250									
1,2-Dibromoethane (EDB)	ND	0.00500									
Chlorobenzene	ND	0.0250									
1,1,1,2-Tetrachloroethane	ND	0.0250									
Bromoform	ND	0.0500									
1,1,2,2-Tetrachloroethane	ND	0.0200									
Bromobenzene	ND	0.0200									
2-Chlorotoluene	ND	0.0250									
4-Chlorotoluene	ND	0.0250									
1,2,3-Trichloropropane	ND	0.0250									
1,2,4-Trichlorobenzene	ND	0.0250									
1,3-Dichlorobenzene	ND	0.0200									
1,4-Dichlorobenzene	ND	0.0200									
1,2-Dichlorobenzene	ND	0.0200									
1,2-Dibromo-3-chloropropane	ND	0.500									
Hexachloro-1,3-butadiene	ND	0.0500									
1,2,3-Trichlorobenzene	ND	0.0200									
Surr: Dibromofluoromethane	1.21		1.250		96.8	83.3	111				
Surr: Toluene-d8	1.25		1.250		100	87.9	111				
Surr: 1-Bromo-4-fluorobenzene	1.27		1.250		102	85.1	111				

Sample ID: **2006286-002BDUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **6/16/2020** RunNo: **59878**
Client ID: **358-CB** Batch ID: **28685** Analysis Date: **6/17/2020** SeqNo: **1198575**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	0.0655						0		30	
Chloromethane	ND	0.164						0		30	

Date: *6/17/2020*

Work Order: 2006286
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2006286-002BDUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **6/16/2020** RunNo: **59878**
Client ID: **358-CB** Batch ID: **28685** Analysis Date: **6/17/2020** SeqNo: **1198575**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	ND	0.0819						0		30	
Bromomethane	ND	0.164						0		30	
Trichlorofluoromethane (CFC-11)	ND	0.0655						0		30	
Chloroethane	ND	0.164						0		30	
1,1-Dichloroethene	ND	0.0655						0		30	
Methylene chloride	ND	0.0655						0		30	
trans-1,2-Dichloroethene	ND	0.0655						0		30	
1,1-Dichloroethane	ND	0.0655						0		30	
cis-1,2-Dichloroethene	ND	0.0655						0		30	
Chloroform	ND	0.0655						0		30	
1,1,1-Trichloroethane (TCA)	ND	0.0819						0		30	
1,1-Dichloropropene	ND	0.0655						0		30	
Carbon tetrachloride	ND	0.164						0		30	
1,2-Dichloroethane (EDC)	ND	0.0655						0		30	
Trichloroethene (TCE)	ND	0.0655						0		30	
1,2-Dichloropropane	ND	0.0655						0		30	
Bromodichloromethane	ND	0.0655						0		30	
Dibromomethane	ND	0.0655						0		30	
cis-1,3-Dichloropropene	ND	0.0655						0		30	
trans-1,3-Dichloropropylene	ND	0.0655						0		30	
1,1,2-Trichloroethane	ND	0.0655						0		30	
1,3-Dichloropropane	ND	0.0819						0		30	
Tetrachloroethene (PCE)	ND	0.0819						0		30	
Dibromochloromethane	ND	0.0819						0		30	
1,2-Dibromoethane (EDB)	ND	0.0164						0		30	
Chlorobenzene	ND	0.0819						0		30	
1,1,1,2-Tetrachloroethane	ND	0.0819						0		30	
Bromoform	ND	0.164						0		30	
1,1,2,2-Tetrachloroethane	ND	0.0655						0		30	
Bromobenzene	ND	0.0655						0		30	
2-Chlorotoluene	ND	0.0819						0		30	

Date: *6/17/2020*

Work Order: 2006286
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2006286-002BDUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **6/16/2020** RunNo: **59878**
Client ID: **358-CB** Batch ID: **28685** Analysis Date: **6/17/2020** SeqNo: **1198575**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4-Chlorotoluene	ND	0.0819						0		30	
1,2,3-Trichloropropane	ND	0.0819						0		30	
1,2,4-Trichlorobenzene	ND	0.0819						0		30	
1,3-Dichlorobenzene	ND	0.0655						0		30	
1,4-Dichlorobenzene	ND	0.0655						0		30	
1,2-Dichlorobenzene	ND	0.0655						0		30	
1,2-Dibromo-3-chloropropane	ND	1.64						0		30	
Hexachloro-1,3-butadiene	ND	0.164						0		30	
1,2,3-Trichlorobenzene	ND	0.0655						0		30	
Surr: Dibromofluoromethane	4.04		4.093		98.6	83.3	111		0		
Surr: Toluene-d8	4.11		4.093		100	87.9	111		0		
Surr: 1-Bromo-4-fluorobenzene	4.13		4.093		101	85.1	111		0		

Sample Log-In Check List

Client Name:	**ONEILL**	Work Order Number:	**2006286**
Logged by:	**Clare Griggs**	Date Received:	**6/16/2020 3:23:00 PM**

Chain of Custody

		Yes	No	Not Present
1.	Is Chain of Custody complete?	☑	☐	☐
2.	How was the sample delivered?	Client		

Log In

		Yes	No	NA
3.	Coolers are present?	☑	☐	☐
4.	Shipping container/cooler in good condition?	☑	☐	
5.	Custody Seals present on shipping container/cooler? (Refer to comments for Custody Seals not intact)	☐	☐	Not Present ☑
6.	Was an attempt made to cool the samples?	☑	☐	☐
7.	Were all items received at a temperature of >2°C to 6°C *	☑	☐	☐
8.	Sample(s) in proper container(s)?	☑	☐	
9.	Sufficient sample volume for indicated test(s)?	☑	☐	
10.	Are samples properly preserved?	☑	☐	
11.	Was preservative added to bottles?	☐	☑	☐
12.	Is there headspace in the VOA vials?	☐	☑	☐
13.	Did all samples containers arrive in good condition(unbroken)?	☑	☐	
14.	Does paperwork match bottle labels?	☑	☐	
15.	Are matrices correctly identified on Chain of Custody?	☑	☐	
16.	Is it clear what analyses were requested?	☑	☐	
17.	Were all holding times able to be met?	☑	☐	

Special Handling (if applicable)

		Yes	No	NA
18.	Was client notified of all discrepancies with this order?	☐	☐	☑

Person Notified: _____ Date: _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

19. Additional remarks:

Item Information

Item #	Temp ºC
Cooler	1.4
Sample	2.6
Temp Blank	3.2

* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C

Chain of Custody Record & Laboratory Services Agreement

Fremont Analytical
3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790
Fax: 206-352-7178

Date: 6/16/20 Page: 1 of: 1

Laboratory Project No (internal): 2006286

Project Name: F200

Project No: 2021

Collected by: Atkins

Location: FL358

Report To (PM): Atkins

PM Email:

Client: OSS

Address:

City, State, Zip:

Telephone:

Fax:

Special Remarks:

Sample Disposal: ☐ Return to client ☐ Disposal by lab (after 30 days)

	Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	HVOCs (EPA 8260 / 624)	GX/BTEX	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DX)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T) | Dissolved (D)	Anions (IC)***	EDB (8011)					Comments
1	358-Storm	6/16/20	1030	S	X																	
2	358-CB	"	1335	S	X																	
3																						
4																						
5																						
6																						
7																						
8																						
9																						
10																						

*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

**Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL *Individual:* Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti Tl U V Zn

***Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above and that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished	Date/Time	Received	Date/Time
x [signature]	6/16/20 1450	x [signature]	6/16/20 1523
Relinquished	Date/Time	Received	Date/Time
x		x	

Turn-around Time:

- ☐ Standard
- ☐ 3 Day
- ☐ 2 Day
- ☐ ~~Next Day~~
- Same Day _____ (specify)

3600 Fremont Ave. N.
Seattle, WA 98103
T: (206) 352-3790
F: (206) 352-7178
info@fremontanalytical.com

O'Neill Service Group
Vance Atkins
17619 NE 67th Court, Suite 100
Redmond, WA 98052

RE: F200
Work Order Number: 2006287

June 22, 2020

Attention Vance Atkins:

Fremont Analytical, Inc. received 5 sample(s) on 6/16/2020 for the analyses presented in the following report.

Sample Moisture (Percent Moisture)
Volatile Organic Compounds by EPA Method 8260D

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Brianna Barnes
Project Manager

Date: *06/22/2020*

CLIENT: O'Neill Service Group
Project: F200
Work Order: 2006287

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
2006287-001	CONCRETE-SP1	06/16/2020 10:30 AM	06/16/2020 3:22 PM
2006287-002	CONCRETE-SP2	06/16/2020 10:35 AM	06/16/2020 3:22 PM
2006287-003	CONCRETE-SP3	06/16/2020 10:35 AM	06/16/2020 3:22 PM
2006287-004	CONCRETE-SP4	06/16/2020 10:40 AM	06/16/2020 3:22 PM
2006287-005	CONCRETE-SP5	06/16/2020 10:45 AM	06/16/2020 3:22 PM

Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned

Case Narrative

WO#: **2006287**

Date: **6/22/2020**

CLIENT: O'Neill Service Group

Project: F200

I. SAMPLE RECEIPT:
Samples receipt information is recorded on the attached Sample Receipt Checklist.

II. GENERAL REPORTING COMMENTS:
Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

III. ANALYSES AND EXCEPTIONS:
Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

Qualifiers:

* - Flagged value is not within established control limits
B - Analyte detected in the associated Method Blank
D - Dilution was required
E - Value above quantitation range
H - Holding times for preparation or analysis exceeded
I - Analyte with an internal standard that does not meet established acceptance criteria
J - Analyte detected below Reporting Limit
N - Tentatively Identified Compound (TIC)
Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF)
S - Spike recovery outside accepted recovery limits
ND - Not detected at the Reporting Limit
R - High relative percent difference observed

Acronyms:

%Rec - Percent Recovery
CCB - Continued Calibration Blank
CCV - Continued Calibration Verification
DF - Dilution Factor
HEM - Hexane Extractable Material
ICV - Initial Calibration Verification
LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
MB or MBLANK - Method Blank
MDL - Method Detection Limit
MS/MSD - Matrix Spike / Matrix Spike Duplicate
PDS - Post Digestion Spike
Ref Val - Reference Value
RL - Reporting Limit
RPD - Relative Percent Difference
SD - Serial Dilution
SGT - Silica Gel Treatment
SPK - Spike
Surr - Surrogate

Analytical Report

Work Order: **2006287**
Date Reported: **6/22/2020**

Client: O'Neill Service Group
Collection Date: 6/16/2020 10:30:00 AM
Project: F200
Lab ID: 2006287-001
Matrix: Soil
Client Sample ID: CONCRETE-SP1

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28703 Analyst: KT

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0346		mg/Kg-dry	1	6/17/2020 7:44:42 PM
Chloromethane	ND	0.0866		mg/Kg-dry	1	6/17/2020 7:44:42 PM
Vinyl chloride	ND	0.0433		mg/Kg-dry	1	6/17/2020 7:44:42 PM
Bromomethane	ND	0.0866		mg/Kg-dry	1	6/17/2020 7:44:42 PM
Trichlorofluoromethane (CFC-11)	ND	0.0346		mg/Kg-dry	1	6/17/2020 7:44:42 PM
Chloroethane	ND	0.0866		mg/Kg-dry	1	6/17/2020 7:44:42 PM
1,1-Dichloroethene	ND	0.0346		mg/Kg-dry	1	6/17/2020 7:44:42 PM
Methylene chloride	ND	0.0346		mg/Kg-dry	1	6/17/2020 7:44:42 PM
trans-1,2-Dichloroethene	ND	0.0346		mg/Kg-dry	1	6/17/2020 7:44:42 PM
Methyl tert-butyl ether (MTBE)	ND	0.0866		mg/Kg-dry	1	6/17/2020 7:44:42 PM
1,1-Dichloroethane	ND	0.0346		mg/Kg-dry	1	6/17/2020 7:44:42 PM
cis-1,2-Dichloroethene	ND	0.0346		mg/Kg-dry	1	6/17/2020 7:44:42 PM
Chloroform	ND	0.0346		mg/Kg-dry	1	6/17/2020 7:44:42 PM
1,1,1-Trichloroethane (TCA)	ND	0.0433		mg/Kg-dry	1	6/17/2020 7:44:42 PM
1,1-Dichloropropene	ND	0.0346		mg/Kg-dry	1	6/17/2020 7:44:42 PM
Carbon tetrachloride	ND	0.0866		mg/Kg-dry	1	6/17/2020 7:44:42 PM
1,2-Dichloroethane (EDC)	ND	0.0346		mg/Kg-dry	1	6/17/2020 7:44:42 PM
Benzene	ND	0.0346		mg/Kg-dry	1	6/17/2020 7:44:42 PM
Trichloroethene (TCE)	ND	0.0346		mg/Kg-dry	1	6/17/2020 7:44:42 PM
1,2-Dichloropropane	ND	0.0346		mg/Kg-dry	1	6/17/2020 7:44:42 PM
Bromodichloromethane	ND	0.0346		mg/Kg-dry	1	6/17/2020 7:44:42 PM
Dibromomethane	ND	0.0346		mg/Kg-dry	1	6/17/2020 7:44:42 PM
cis-1,3-Dichloropropene	ND	0.0346		mg/Kg-dry	1	6/17/2020 7:44:42 PM
Toluene	ND	0.0346		mg/Kg-dry	1	6/17/2020 7:44:42 PM
trans-1,3-Dichloropropylene	ND	0.0346		mg/Kg-dry	1	6/17/2020 7:44:42 PM
1,1,2-Trichloroethane	ND	0.0346		mg/Kg-dry	1	6/17/2020 7:44:42 PM
1,3-Dichloropropane	ND	0.0433		mg/Kg-dry	1	6/17/2020 7:44:42 PM
Tetrachloroethene (PCE)	ND	0.0433		mg/Kg-dry	1	6/17/2020 7:44:42 PM
Dibromochloromethane	ND	0.0433		mg/Kg-dry	1	6/17/2020 7:44:42 PM
1,2-Dibromoethane (EDB)	ND	0.00866		mg/Kg-dry	1	6/17/2020 7:44:42 PM
Chlorobenzene	ND	0.0433		mg/Kg-dry	1	6/17/2020 7:44:42 PM
1,1,1,2-Tetrachloroethane	ND	0.0433		mg/Kg-dry	1	6/17/2020 7:44:42 PM
Ethylbenzene	ND	0.0433		mg/Kg-dry	1	6/17/2020 7:44:42 PM
m,p-Xylene	ND	0.0866		mg/Kg-dry	1	6/17/2020 7:44:42 PM
o-Xylene	ND	0.0433		mg/Kg-dry	1	6/17/2020 7:44:42 PM
Styrene	ND	0.0433		mg/Kg-dry	1	6/17/2020 7:44:42 PM
Isopropylbenzene	ND	0.0433		mg/Kg-dry	1	6/17/2020 7:44:42 PM
Bromoform	ND	0.0866		mg/Kg-dry	1	6/17/2020 7:44:42 PM
1,1,2,2-Tetrachloroethane	ND	0.0346		mg/Kg-dry	1	6/17/2020 7:44:42 PM

Analytical Report

Work Order: **2006287**
Date Reported: **6/22/2020**

Client: O'Neill Service Group
Collection Date: 6/16/2020 10:30:00 AM
Project: F200
Lab ID: 2006287-001
Matrix: Soil
Client Sample ID: CONCRETE-SP1

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28703		Analyst: KT
n-Propylbenzene	ND	0.0433		mg/Kg-dry	1	6/17/2020 7:44:42 PM
Bromobenzene	ND	0.0346		mg/Kg-dry	1	6/17/2020 7:44:42 PM
1,3,5-Trimethylbenzene	ND	0.0433		mg/Kg-dry	1	6/17/2020 7:44:42 PM
2-Chlorotoluene	ND	0.0433		mg/Kg-dry	1	6/17/2020 7:44:42 PM
4-Chlorotoluene	ND	0.0433		mg/Kg-dry	1	6/17/2020 7:44:42 PM
tert-Butylbenzene	ND	0.0433		mg/Kg-dry	1	6/17/2020 7:44:42 PM
1,2,3-Trichloropropane	ND	0.0433		mg/Kg-dry	1	6/17/2020 7:44:42 PM
1,2,4-Trichlorobenzene	ND	0.0433		mg/Kg-dry	1	6/17/2020 7:44:42 PM
sec-Butylbenzene	ND	0.0866		mg/Kg-dry	1	6/17/2020 7:44:42 PM
4-Isopropyltoluene	ND	0.0866		mg/Kg-dry	1	6/17/2020 7:44:42 PM
1,3-Dichlorobenzene	ND	0.0346		mg/Kg-dry	1	6/17/2020 7:44:42 PM
1,4-Dichlorobenzene	ND	0.0346		mg/Kg-dry	1	6/17/2020 7:44:42 PM
n-Butylbenzene	ND	0.0433		mg/Kg-dry	1	6/17/2020 7:44:42 PM
1,2-Dichlorobenzene	ND	0.0346		mg/Kg-dry	1	6/17/2020 7:44:42 PM
1,2-Dibromo-3-chloropropane	ND	0.866		mg/Kg-dry	1	6/17/2020 7:44:42 PM
1,2,4-Trimethylbenzene	ND	0.0346		mg/Kg-dry	1	6/17/2020 7:44:42 PM
Hexachloro-1,3-butadiene	ND	0.0866		mg/Kg-dry	1	6/17/2020 7:44:42 PM
Naphthalene	ND	0.0866		mg/Kg-dry	1	6/17/2020 7:44:42 PM
1,2,3-Trichlorobenzene	ND	0.0346		mg/Kg-dry	1	6/17/2020 7:44:42 PM
Surr: Dibromofluoromethane	102	83.3 - 111		%Rec	1	6/17/2020 7:44:42 PM
Surr: Toluene-d8	103	87.9 - 111		%Rec	1	6/17/2020 7:44:42 PM
Surr: 1-Bromo-4-fluorobenzene	100	85.1 - 111		%Rec	1	6/17/2020 7:44:42 PM
Sample Moisture (Percent Moisture)				Batch ID: R59898		Analyst: EH
Percent Moisture	11.9	0.500		wt%	1	6/17/2020 1:00:07 PM

Analytical Report

Work Order: **2006287**
Date Reported: **6/22/2020**

Client: O'Neill Service Group
Collection Date: 6/16/2020 10:35:00 AM
Project: F200
Lab ID: 2006287-002
Matrix: Soil
Client Sample ID: CONCRETE-SP2

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28703 Analyst: KT

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0295		mg/Kg-dry	1	6/17/2020 8:14:54 PM
Chloromethane	ND	0.0736		mg/Kg-dry	1	6/17/2020 8:14:54 PM
Vinyl chloride	ND	0.0368		mg/Kg-dry	1	6/17/2020 8:14:54 PM
Bromomethane	ND	0.0736		mg/Kg-dry	1	6/17/2020 8:14:54 PM
Trichlorofluoromethane (CFC-11)	ND	0.0295		mg/Kg-dry	1	6/17/2020 8:14:54 PM
Chloroethane	ND	0.0736		mg/Kg-dry	1	6/17/2020 8:14:54 PM
1,1-Dichloroethene	ND	0.0295		mg/Kg-dry	1	6/17/2020 8:14:54 PM
Methylene chloride	ND	0.0295		mg/Kg-dry	1	6/17/2020 8:14:54 PM
trans-1,2-Dichloroethene	ND	0.0295		mg/Kg-dry	1	6/17/2020 8:14:54 PM
Methyl tert-butyl ether (MTBE)	ND	0.0736		mg/Kg-dry	1	6/17/2020 8:14:54 PM
1,1-Dichloroethane	ND	0.0295		mg/Kg-dry	1	6/17/2020 8:14:54 PM
cis-1,2-Dichloroethene	ND	0.0295		mg/Kg-dry	1	6/17/2020 8:14:54 PM
Chloroform	ND	0.0295		mg/Kg-dry	1	6/17/2020 8:14:54 PM
1,1,1-Trichloroethane (TCA)	ND	0.0368		mg/Kg-dry	1	6/17/2020 8:14:54 PM
1,1-Dichloropropene	ND	0.0295		mg/Kg-dry	1	6/17/2020 8:14:54 PM
Carbon tetrachloride	ND	0.0736		mg/Kg-dry	1	6/17/2020 8:14:54 PM
1,2-Dichloroethane (EDC)	ND	0.0295		mg/Kg-dry	1	6/17/2020 8:14:54 PM
Benzene	ND	0.0295		mg/Kg-dry	1	6/17/2020 8:14:54 PM
Trichloroethene (TCE)	ND	0.0295		mg/Kg-dry	1	6/17/2020 8:14:54 PM
1,2-Dichloropropane	ND	0.0295		mg/Kg-dry	1	6/17/2020 8:14:54 PM
Bromodichloromethane	ND	0.0295		mg/Kg-dry	1	6/17/2020 8:14:54 PM
Dibromomethane	ND	0.0295		mg/Kg-dry	1	6/17/2020 8:14:54 PM
cis-1,3-Dichloropropene	ND	0.0295		mg/Kg-dry	1	6/17/2020 8:14:54 PM
Toluene	ND	0.0295		mg/Kg-dry	1	6/17/2020 8:14:54 PM
trans-1,3-Dichloropropylene	ND	0.0295		mg/Kg-dry	1	6/17/2020 8:14:54 PM
1,1,2-Trichloroethane	ND	0.0295		mg/Kg-dry	1	6/17/2020 8:14:54 PM
1,3-Dichloropropane	ND	0.0368		mg/Kg-dry	1	6/17/2020 8:14:54 PM
Tetrachloroethene (PCE)	ND	0.0368		mg/Kg-dry	1	6/17/2020 8:14:54 PM
Dibromochloromethane	ND	0.0368		mg/Kg-dry	1	6/17/2020 8:14:54 PM
1,2-Dibromoethane (EDB)	ND	0.00736		mg/Kg-dry	1	6/17/2020 8:14:54 PM
Chlorobenzene	ND	0.0368		mg/Kg-dry	1	6/17/2020 8:14:54 PM
1,1,1,2-Tetrachloroethane	ND	0.0368		mg/Kg-dry	1	6/17/2020 8:14:54 PM
Ethylbenzene	ND	0.0368		mg/Kg-dry	1	6/17/2020 8:14:54 PM
m,p-Xylene	ND	0.0736		mg/Kg-dry	1	6/17/2020 8:14:54 PM
o-Xylene	ND	0.0368		mg/Kg-dry	1	6/17/2020 8:14:54 PM
Styrene	ND	0.0368		mg/Kg-dry	1	6/17/2020 8:14:54 PM
Isopropylbenzene	ND	0.0368		mg/Kg-dry	1	6/17/2020 8:14:54 PM
Bromoform	ND	0.0736		mg/Kg-dry	1	6/17/2020 8:14:54 PM
1,1,2,2-Tetrachloroethane	ND	0.0295		mg/Kg-dry	1	6/17/2020 8:14:54 PM

Analytical Report

Work Order: **2006287**
Date Reported: **6/22/2020**

Client: O'Neill Service Group
Collection Date: 6/16/2020 10:35:00 AM
Project: F200
Lab ID: 2006287-002
Matrix: Soil
Client Sample ID: CONCRETE-SP2

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28703		Analyst: KT
n-Propylbenzene	ND	0.0368		mg/Kg-dry	1	6/17/2020 8:14:54 PM
Bromobenzene	ND	0.0295		mg/Kg-dry	1	6/17/2020 8:14:54 PM
1,3,5-Trimethylbenzene	ND	0.0368		mg/Kg-dry	1	6/17/2020 8:14:54 PM
2-Chlorotoluene	ND	0.0368		mg/Kg-dry	1	6/17/2020 8:14:54 PM
4-Chlorotoluene	ND	0.0368		mg/Kg-dry	1	6/17/2020 8:14:54 PM
tert-Butylbenzene	ND	0.0368		mg/Kg-dry	1	6/17/2020 8:14:54 PM
1,2,3-Trichloropropane	ND	0.0368		mg/Kg-dry	1	6/17/2020 8:14:54 PM
1,2,4-Trichlorobenzene	ND	0.0368		mg/Kg-dry	1	6/17/2020 8:14:54 PM
sec-Butylbenzene	ND	0.0736		mg/Kg-dry	1	6/17/2020 8:14:54 PM
4-Isopropyltoluene	ND	0.0736		mg/Kg-dry	1	6/17/2020 8:14:54 PM
1,3-Dichlorobenzene	ND	0.0295		mg/Kg-dry	1	6/17/2020 8:14:54 PM
1,4-Dichlorobenzene	ND	0.0295		mg/Kg-dry	1	6/17/2020 8:14:54 PM
n-Butylbenzene	ND	0.0368		mg/Kg-dry	1	6/17/2020 8:14:54 PM
1,2-Dichlorobenzene	ND	0.0295		mg/Kg-dry	1	6/17/2020 8:14:54 PM
1,2-Dibromo-3-chloropropane	ND	0.736		mg/Kg-dry	1	6/17/2020 8:14:54 PM
1,2,4-Trimethylbenzene	ND	0.0295		mg/Kg-dry	1	6/17/2020 8:14:54 PM
Hexachloro-1,3-butadiene	ND	0.0736		mg/Kg-dry	1	6/17/2020 8:14:54 PM
Naphthalene	ND	0.0736		mg/Kg-dry	1	6/17/2020 8:14:54 PM
1,2,3-Trichlorobenzene	ND	0.0295		mg/Kg-dry	1	6/17/2020 8:14:54 PM
Surr: Dibromofluoromethane	101	83.3 - 111		%Rec	1	6/17/2020 8:14:54 PM
Surr: Toluene-d8	101	87.9 - 111		%Rec	1	6/17/2020 8:14:54 PM
Surr: 1-Bromo-4-fluorobenzene	99.0	85.1 - 111		%Rec	1	6/17/2020 8:14:54 PM
Sample Moisture (Percent Moisture)				Batch ID: R59898		Analyst: EH
Percent Moisture	10.9	0.500		wt%	1	6/17/2020 1:00:07 PM

Analytical Report

Work Order: **2006287**
Date Reported: **6/22/2020**

Client: O'Neill Service Group
Collection Date: 6/16/2020 10:35:00 AM
Project: F200
Lab ID: 2006287-003
Matrix: Soil
Client Sample ID: CONCRETE-SP3

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28703 Analyst: KT

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0343		mg/Kg-dry	1	6/17/2020 11:15:43 PM
Chloromethane	ND	0.0857		mg/Kg-dry	1	6/17/2020 11:15:43 PM
Vinyl chloride	ND	0.0428		mg/Kg-dry	1	6/17/2020 11:15:43 PM
Bromomethane	ND	0.0857		mg/Kg-dry	1	6/17/2020 11:15:43 PM
Trichlorofluoromethane (CFC-11)	ND	0.0343		mg/Kg-dry	1	6/17/2020 11:15:43 PM
Chloroethane	ND	0.0857		mg/Kg-dry	1	6/17/2020 11:15:43 PM
1,1-Dichloroethene	ND	0.0343		mg/Kg-dry	1	6/17/2020 11:15:43 PM
Methylene chloride	ND	0.0343		mg/Kg-dry	1	6/17/2020 11:15:43 PM
trans-1,2-Dichloroethene	ND	0.0343		mg/Kg-dry	1	6/17/2020 11:15:43 PM
Methyl tert-butyl ether (MTBE)	ND	0.0857		mg/Kg-dry	1	6/17/2020 11:15:43 PM
1,1-Dichloroethane	ND	0.0343		mg/Kg-dry	1	6/17/2020 11:15:43 PM
cis-1,2-Dichloroethene	ND	0.0343		mg/Kg-dry	1	6/17/2020 11:15:43 PM
Chloroform	ND	0.0343		mg/Kg-dry	1	6/17/2020 11:15:43 PM
1,1,1-Trichloroethane (TCA)	ND	0.0428		mg/Kg-dry	1	6/17/2020 11:15:43 PM
1,1-Dichloropropene	ND	0.0343		mg/Kg-dry	1	6/17/2020 11:15:43 PM
Carbon tetrachloride	ND	0.0857		mg/Kg-dry	1	6/17/2020 11:15:43 PM
1,2-Dichloroethane (EDC)	ND	0.0343		mg/Kg-dry	1	6/17/2020 11:15:43 PM
Benzene	ND	0.0343		mg/Kg-dry	1	6/17/2020 11:15:43 PM
Trichloroethene (TCE)	ND	0.0343		mg/Kg-dry	1	6/17/2020 11:15:43 PM
1,2-Dichloropropane	ND	0.0343		mg/Kg-dry	1	6/17/2020 11:15:43 PM
Bromodichloromethane	ND	0.0343		mg/Kg-dry	1	6/17/2020 11:15:43 PM
Dibromomethane	ND	0.0343		mg/Kg-dry	1	6/17/2020 11:15:43 PM
cis-1,3-Dichloropropene	ND	0.0343		mg/Kg-dry	1	6/17/2020 11:15:43 PM
Toluene	ND	0.0343		mg/Kg-dry	1	6/17/2020 11:15:43 PM
trans-1,3-Dichloropropylene	ND	0.0343		mg/Kg-dry	1	6/17/2020 11:15:43 PM
1,1,2-Trichloroethane	ND	0.0343		mg/Kg-dry	1	6/17/2020 11:15:43 PM
1,3-Dichloropropane	ND	0.0428		mg/Kg-dry	1	6/17/2020 11:15:43 PM
Tetrachloroethene (PCE)	ND	0.0428		mg/Kg-dry	1	6/17/2020 11:15:43 PM
Dibromochloromethane	ND	0.0428		mg/Kg-dry	1	6/17/2020 11:15:43 PM
1,2-Dibromoethane (EDB)	ND	0.00857		mg/Kg-dry	1	6/17/2020 11:15:43 PM
Chlorobenzene	ND	0.0428		mg/Kg-dry	1	6/17/2020 11:15:43 PM
1,1,1,2-Tetrachloroethane	ND	0.0428		mg/Kg-dry	1	6/17/2020 11:15:43 PM
Ethylbenzene	ND	0.0428		mg/Kg-dry	1	6/17/2020 11:15:43 PM
m,p-Xylene	ND	0.0857		mg/Kg-dry	1	6/17/2020 11:15:43 PM
o-Xylene	ND	0.0428		mg/Kg-dry	1	6/17/2020 11:15:43 PM
Styrene	ND	0.0428		mg/Kg-dry	1	6/17/2020 11:15:43 PM
Isopropylbenzene	ND	0.0428		mg/Kg-dry	1	6/17/2020 11:15:43 PM
Bromoform	ND	0.0857		mg/Kg-dry	1	6/17/2020 11:15:43 PM
1,1,2,2-Tetrachloroethane	ND	0.0343		mg/Kg-dry	1	6/17/2020 11:15:43 PM

Analytical Report

Work Order: **2006287**
Date Reported: **6/22/2020**

Client: O'Neill Service Group
Collection Date: 6/16/2020 10:35:00 AM
Project: F200
Lab ID: 2006287-003
Matrix: Soil
Client Sample ID: CONCRETE-SP3

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28703		Analyst: KT
n-Propylbenzene	ND	0.0428		mg/Kg-dry	1	6/17/2020 11:15:43 PM
Bromobenzene	ND	0.0343		mg/Kg-dry	1	6/17/2020 11:15:43 PM
1,3,5-Trimethylbenzene	ND	0.0428		mg/Kg-dry	1	6/17/2020 11:15:43 PM
2-Chlorotoluene	ND	0.0428		mg/Kg-dry	1	6/17/2020 11:15:43 PM
4-Chlorotoluene	ND	0.0428		mg/Kg-dry	1	6/17/2020 11:15:43 PM
tert-Butylbenzene	ND	0.0428		mg/Kg-dry	1	6/17/2020 11:15:43 PM
1,2,3-Trichloropropane	ND	0.0428		mg/Kg-dry	1	6/17/2020 11:15:43 PM
1,2,4-Trichlorobenzene	ND	0.0428		mg/Kg-dry	1	6/17/2020 11:15:43 PM
sec-Butylbenzene	ND	0.0857		mg/Kg-dry	1	6/17/2020 11:15:43 PM
4-Isopropyltoluene	ND	0.0857		mg/Kg-dry	1	6/17/2020 11:15:43 PM
1,3-Dichlorobenzene	ND	0.0343		mg/Kg-dry	1	6/17/2020 11:15:43 PM
1,4-Dichlorobenzene	ND	0.0343		mg/Kg-dry	1	6/17/2020 11:15:43 PM
n-Butylbenzene	ND	0.0428		mg/Kg-dry	1	6/17/2020 11:15:43 PM
1,2-Dichlorobenzene	ND	0.0343		mg/Kg-dry	1	6/17/2020 11:15:43 PM
1,2-Dibromo-3-chloropropane	ND	0.857		mg/Kg-dry	1	6/17/2020 11:15:43 PM
1,2,4-Trimethylbenzene	ND	0.0343		mg/Kg-dry	1	6/17/2020 11:15:43 PM
Hexachloro-1,3-butadiene	ND	0.0857		mg/Kg-dry	1	6/17/2020 11:15:43 PM
Naphthalene	ND	0.0857		mg/Kg-dry	1	6/17/2020 11:15:43 PM
1,2,3-Trichlorobenzene	ND	0.0343		mg/Kg-dry	1	6/17/2020 11:15:43 PM
Surr: Dibromofluoromethane	101	83.3 - 111		%Rec	1	6/17/2020 11:15:43 PM
Surr: Toluene-d8	102	87.9 - 111		%Rec	1	6/17/2020 11:15:43 PM
Surr: 1-Bromo-4-fluorobenzene	98.9	85.1 - 111		%Rec	1	6/17/2020 11:15:43 PM
Sample Moisture (Percent Moisture)				Batch ID: R59898		Analyst: EH
Percent Moisture	12.0	0.500		wt%	1	6/17/2020 1:00:07 PM

Analytical Report

Work Order: **2006287**
Date Reported: **6/22/2020**

Client: O'Neill Service Group
Collection Date: 6/16/2020 10:40:00 AM
Project: F200
Lab ID: 2006287-004
Matrix: Soil
Client Sample ID: CONCRETE-SP4

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28703 Analyst: KT

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0338		mg/Kg-dry	1	6/17/2020 11:45:51 PM
Chloromethane	ND	0.0845		mg/Kg-dry	1	6/17/2020 11:45:51 PM
Vinyl chloride	ND	0.0423		mg/Kg-dry	1	6/17/2020 11:45:51 PM
Bromomethane	ND	0.0845		mg/Kg-dry	1	6/17/2020 11:45:51 PM
Trichlorofluoromethane (CFC-11)	ND	0.0338		mg/Kg-dry	1	6/17/2020 11:45:51 PM
Chloroethane	ND	0.0845		mg/Kg-dry	1	6/17/2020 11:45:51 PM
1,1-Dichloroethene	ND	0.0338		mg/Kg-dry	1	6/17/2020 11:45:51 PM
Methylene chloride	ND	0.0338		mg/Kg-dry	1	6/17/2020 11:45:51 PM
trans-1,2-Dichloroethene	ND	0.0338		mg/Kg-dry	1	6/17/2020 11:45:51 PM
Methyl tert-butyl ether (MTBE)	ND	0.0845		mg/Kg-dry	1	6/17/2020 11:45:51 PM
1,1-Dichloroethane	ND	0.0338		mg/Kg-dry	1	6/17/2020 11:45:51 PM
cis-1,2-Dichloroethene	ND	0.0338		mg/Kg-dry	1	6/17/2020 11:45:51 PM
Chloroform	ND	0.0338		mg/Kg-dry	1	6/17/2020 11:45:51 PM
1,1,1-Trichloroethane (TCA)	ND	0.0423		mg/Kg-dry	1	6/17/2020 11:45:51 PM
1,1-Dichloropropene	ND	0.0338		mg/Kg-dry	1	6/17/2020 11:45:51 PM
Carbon tetrachloride	ND	0.0845		mg/Kg-dry	1	6/17/2020 11:45:51 PM
1,2-Dichloroethane (EDC)	ND	0.0338		mg/Kg-dry	1	6/17/2020 11:45:51 PM
Benzene	ND	0.0338		mg/Kg-dry	1	6/17/2020 11:45:51 PM
Trichloroethene (TCE)	ND	0.0338		mg/Kg-dry	1	6/17/2020 11:45:51 PM
1,2-Dichloropropane	ND	0.0338		mg/Kg-dry	1	6/17/2020 11:45:51 PM
Bromodichloromethane	ND	0.0338		mg/Kg-dry	1	6/17/2020 11:45:51 PM
Dibromomethane	ND	0.0338		mg/Kg-dry	1	6/17/2020 11:45:51 PM
cis-1,3-Dichloropropene	ND	0.0338		mg/Kg-dry	1	6/17/2020 11:45:51 PM
Toluene	ND	0.0338		mg/Kg-dry	1	6/17/2020 11:45:51 PM
trans-1,3-Dichloropropylene	ND	0.0338		mg/Kg-dry	1	6/17/2020 11:45:51 PM
1,1,2-Trichloroethane	ND	0.0338		mg/Kg-dry	1	6/17/2020 11:45:51 PM
1,3-Dichloropropane	ND	0.0423		mg/Kg-dry	1	6/17/2020 11:45:51 PM
Tetrachloroethene (PCE)	ND	0.0423		mg/Kg-dry	1	6/17/2020 11:45:51 PM
Dibromochloromethane	ND	0.0423		mg/Kg-dry	1	6/17/2020 11:45:51 PM
1,2-Dibromoethane (EDB)	ND	0.00845		mg/Kg-dry	1	6/17/2020 11:45:51 PM
Chlorobenzene	ND	0.0423		mg/Kg-dry	1	6/17/2020 11:45:51 PM
1,1,1,2-Tetrachloroethane	ND	0.0423		mg/Kg-dry	1	6/17/2020 11:45:51 PM
Ethylbenzene	ND	0.0423		mg/Kg-dry	1	6/17/2020 11:45:51 PM
m,p-Xylene	ND	0.0845		mg/Kg-dry	1	6/17/2020 11:45:51 PM
o-Xylene	ND	0.0423		mg/Kg-dry	1	6/17/2020 11:45:51 PM
Styrene	ND	0.0423		mg/Kg-dry	1	6/17/2020 11:45:51 PM
Isopropylbenzene	ND	0.0423		mg/Kg-dry	1	6/17/2020 11:45:51 PM
Bromoform	ND	0.0845		mg/Kg-dry	1	6/17/2020 11:45:51 PM
1,1,2,2-Tetrachloroethane	ND	0.0338		mg/Kg-dry	1	6/17/2020 11:45:51 PM

Analytical Report

Work Order: **2006287**
Date Reported: **6/22/2020**

Client: O'Neill Service Group
Collection Date: 6/16/2020 10:40:00 AM
Project: F200
Lab ID: 2006287-004
Matrix: Soil
Client Sample ID: CONCRETE-SP4

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28703		Analyst: KT
n-Propylbenzene	ND	0.0423		mg/Kg-dry	1	6/17/2020 11:45:51 PM
Bromobenzene	ND	0.0338		mg/Kg-dry	1	6/17/2020 11:45:51 PM
1,3,5-Trimethylbenzene	ND	0.0423		mg/Kg-dry	1	6/17/2020 11:45:51 PM
2-Chlorotoluene	ND	0.0423		mg/Kg-dry	1	6/17/2020 11:45:51 PM
4-Chlorotoluene	ND	0.0423		mg/Kg-dry	1	6/17/2020 11:45:51 PM
tert-Butylbenzene	ND	0.0423		mg/Kg-dry	1	6/17/2020 11:45:51 PM
1,2,3-Trichloropropane	ND	0.0423		mg/Kg-dry	1	6/17/2020 11:45:51 PM
1,2,4-Trichlorobenzene	ND	0.0423		mg/Kg-dry	1	6/17/2020 11:45:51 PM
sec-Butylbenzene	ND	0.0845		mg/Kg-dry	1	6/17/2020 11:45:51 PM
4-Isopropyltoluene	ND	0.0845		mg/Kg-dry	1	6/17/2020 11:45:51 PM
1,3-Dichlorobenzene	ND	0.0338		mg/Kg-dry	1	6/17/2020 11:45:51 PM
1,4-Dichlorobenzene	ND	0.0338		mg/Kg-dry	1	6/17/2020 11:45:51 PM
n-Butylbenzene	ND	0.0423		mg/Kg-dry	1	6/17/2020 11:45:51 PM
1,2-Dichlorobenzene	ND	0.0338		mg/Kg-dry	1	6/17/2020 11:45:51 PM
1,2-Dibromo-3-chloropropane	ND	0.845		mg/Kg-dry	1	6/17/2020 11:45:51 PM
1,2,4-Trimethylbenzene	ND	0.0338		mg/Kg-dry	1	6/17/2020 11:45:51 PM
Hexachloro-1,3-butadiene	ND	0.0845		mg/Kg-dry	1	6/17/2020 11:45:51 PM
Naphthalene	ND	0.0845		mg/Kg-dry	1	6/17/2020 11:45:51 PM
1,2,3-Trichlorobenzene	ND	0.0338		mg/Kg-dry	1	6/17/2020 11:45:51 PM
Surr: Dibromofluoromethane	101	83.3 - 111		%Rec	1	6/17/2020 11:45:51 PM
Surr: Toluene-d8	102	87.9 - 111		%Rec	1	6/17/2020 11:45:51 PM
Surr: 1-Bromo-4-fluorobenzene	99.4	85.1 - 111		%Rec	1	6/17/2020 11:45:51 PM
Sample Moisture (Percent Moisture)				Batch ID: R59898		Analyst: EH
Percent Moisture	10.2	0.500		wt%	1	6/17/2020 1:00:07 PM

Analytical Report

Work Order: **2006287**
Date Reported: **6/22/2020**

Client: O'Neill Service Group
Collection Date: 6/16/2020 10:45:00 AM
Project: F200
Lab ID: 2006287-005
Matrix: Soil
Client Sample ID: CONCRETE-SP5

Volatile Organic Compounds by EPA Method 8260D Batch ID: 28703 Analyst: KT

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0306		mg/Kg-dry	1	6/18/2020 12:15:59 AM
Chloromethane	ND	0.0765		mg/Kg-dry	1	6/18/2020 12:15:59 AM
Vinyl chloride	ND	0.0382		mg/Kg-dry	1	6/18/2020 12:15:59 AM
Bromomethane	ND	0.0765		mg/Kg-dry	1	6/18/2020 12:15:59 AM
Trichlorofluoromethane (CFC-11)	ND	0.0306		mg/Kg-dry	1	6/18/2020 12:15:59 AM
Chloroethane	ND	0.0765		mg/Kg-dry	1	6/18/2020 12:15:59 AM
1,1-Dichloroethene	ND	0.0306		mg/Kg-dry	1	6/18/2020 12:15:59 AM
Methylene chloride	ND	0.0306		mg/Kg-dry	1	6/18/2020 12:15:59 AM
trans-1,2-Dichloroethene	ND	0.0306		mg/Kg-dry	1	6/18/2020 12:15:59 AM
Methyl tert-butyl ether (MTBE)	ND	0.0765		mg/Kg-dry	1	6/18/2020 12:15:59 AM
1,1-Dichloroethane	ND	0.0306		mg/Kg-dry	1	6/18/2020 12:15:59 AM
cis-1,2-Dichloroethene	ND	0.0306		mg/Kg-dry	1	6/18/2020 12:15:59 AM
Chloroform	ND	0.0306		mg/Kg-dry	1	6/18/2020 12:15:59 AM
1,1,1-Trichloroethane (TCA)	ND	0.0382		mg/Kg-dry	1	6/18/2020 12:15:59 AM
1,1-Dichloropropene	ND	0.0306		mg/Kg-dry	1	6/18/2020 12:15:59 AM
Carbon tetrachloride	ND	0.0765		mg/Kg-dry	1	6/18/2020 12:15:59 AM
1,2-Dichloroethane (EDC)	ND	0.0306		mg/Kg-dry	1	6/18/2020 12:15:59 AM
Benzene	ND	0.0306		mg/Kg-dry	1	6/18/2020 12:15:59 AM
Trichloroethene (TCE)	ND	0.0306		mg/Kg-dry	1	6/18/2020 12:15:59 AM
1,2-Dichloropropane	ND	0.0306		mg/Kg-dry	1	6/18/2020 12:15:59 AM
Bromodichloromethane	ND	0.0306		mg/Kg-dry	1	6/18/2020 12:15:59 AM
Dibromomethane	ND	0.0306		mg/Kg-dry	1	6/18/2020 12:15:59 AM
cis-1,3-Dichloropropene	ND	0.0306		mg/Kg-dry	1	6/18/2020 12:15:59 AM
Toluene	ND	0.0306		mg/Kg-dry	1	6/18/2020 12:15:59 AM
trans-1,3-Dichloropropylene	ND	0.0306		mg/Kg-dry	1	6/18/2020 12:15:59 AM
1,1,2-Trichloroethane	ND	0.0306		mg/Kg-dry	1	6/18/2020 12:15:59 AM
1,3-Dichloropropane	ND	0.0382		mg/Kg-dry	1	6/18/2020 12:15:59 AM
Tetrachloroethene (PCE)	ND	0.0382		mg/Kg-dry	1	6/18/2020 12:15:59 AM
Dibromochloromethane	ND	0.0382		mg/Kg-dry	1	6/18/2020 12:15:59 AM
1,2-Dibromoethane (EDB)	ND	0.00765		mg/Kg-dry	1	6/18/2020 12:15:59 AM
Chlorobenzene	ND	0.0382		mg/Kg-dry	1	6/18/2020 12:15:59 AM
1,1,1,2-Tetrachloroethane	ND	0.0382		mg/Kg-dry	1	6/18/2020 12:15:59 AM
Ethylbenzene	ND	0.0382		mg/Kg-dry	1	6/18/2020 12:15:59 AM
m,p-Xylene	ND	0.0765		mg/Kg-dry	1	6/18/2020 12:15:59 AM
o-Xylene	ND	0.0382		mg/Kg-dry	1	6/18/2020 12:15:59 AM
Styrene	ND	0.0382		mg/Kg-dry	1	6/18/2020 12:15:59 AM
Isopropylbenzene	ND	0.0382		mg/Kg-dry	1	6/18/2020 12:15:59 AM
Bromoform	ND	0.0765		mg/Kg-dry	1	6/18/2020 12:15:59 AM
1,1,2,2-Tetrachloroethane	ND	0.0306		mg/Kg-dry	1	6/18/2020 12:15:59 AM

Analytical Report

Work Order: **2006287**
Date Reported: **6/22/2020**

Client: O'Neill Service Group
Collection Date: 6/16/2020 10:45:00 AM
Project: F200
Lab ID: 2006287-005
Matrix: Soil
Client Sample ID: CONCRETE-SP5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 28703		Analyst: KT
n-Propylbenzene	ND	0.0382		mg/Kg-dry	1	6/18/2020 12:15:59 AM
Bromobenzene	ND	0.0306		mg/Kg-dry	1	6/18/2020 12:15:59 AM
1,3,5-Trimethylbenzene	ND	0.0382		mg/Kg-dry	1	6/18/2020 12:15:59 AM
2-Chlorotoluene	ND	0.0382		mg/Kg-dry	1	6/18/2020 12:15:59 AM
4-Chlorotoluene	ND	0.0382		mg/Kg-dry	1	6/18/2020 12:15:59 AM
tert-Butylbenzene	ND	0.0382		mg/Kg-dry	1	6/18/2020 12:15:59 AM
1,2,3-Trichloropropane	ND	0.0382		mg/Kg-dry	1	6/18/2020 12:15:59 AM
1,2,4-Trichlorobenzene	ND	0.0382		mg/Kg-dry	1	6/18/2020 12:15:59 AM
sec-Butylbenzene	ND	0.0765		mg/Kg-dry	1	6/18/2020 12:15:59 AM
4-Isopropyltoluene	ND	0.0765		mg/Kg-dry	1	6/18/2020 12:15:59 AM
1,3-Dichlorobenzene	ND	0.0306		mg/Kg-dry	1	6/18/2020 12:15:59 AM
1,4-Dichlorobenzene	ND	0.0306		mg/Kg-dry	1	6/18/2020 12:15:59 AM
n-Butylbenzene	ND	0.0382		mg/Kg-dry	1	6/18/2020 12:15:59 AM
1,2-Dichlorobenzene	ND	0.0306		mg/Kg-dry	1	6/18/2020 12:15:59 AM
1,2-Dibromo-3-chloropropane	ND	0.765		mg/Kg-dry	1	6/18/2020 12:15:59 AM
1,2,4-Trimethylbenzene	ND	0.0306		mg/Kg-dry	1	6/18/2020 12:15:59 AM
Hexachloro-1,3-butadiene	ND	0.0765		mg/Kg-dry	1	6/18/2020 12:15:59 AM
Naphthalene	ND	0.0765		mg/Kg-dry	1	6/18/2020 12:15:59 AM
1,2,3-Trichlorobenzene	ND	0.0306		mg/Kg-dry	1	6/18/2020 12:15:59 AM
Surr: Dibromofluoromethane	103	83.3 - 111		%Rec	1	6/18/2020 12:15:59 AM
Surr: Toluene-d8	103	87.9 - 111		%Rec	1	6/18/2020 12:15:59 AM
Surr: 1-Bromo-4-fluorobenzene	98.5	85.1 - 111		%Rec	1	6/18/2020 12:15:59 AM
Sample Moisture (Percent Moisture)				Batch ID: R59898		Analyst: EH
Percent Moisture	12.0	0.500		wt%	1	6/17/2020 1:00:07 PM

Date: *6/22/2020*

Work Order: 2006287
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **LCS-28703** SampType: **LCS** Units: **mg/Kg** Prep Date: **6/17/2020** RunNo: **59926**
Client ID: **LCSS** Batch ID: **28703** Analysis Date: **6/17/2020** SeqNo: **1199491**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	0.702	0.0200	1.000	0	70.2	13.4	185				
Chloromethane	0.808	0.0500	1.000	0	80.8	38.5	158				
Vinyl chloride	0.855	0.0250	1.000	0	85.5	53.6	138				
Bromomethane	0.985	0.0500	1.000	0	98.5	56.6	151				
Trichlorofluoromethane (CFC-11)	0.956	0.0200	1.000	0	95.6	64.2	137				
Chloroethane	0.960	0.0500	1.000	0	96.0	54.1	134				
1,1-Dichloroethene	0.935	0.0200	1.000	0	93.5	66	133				
Methylene chloride	0.945	0.0200	1.000	0	94.5	74.3	117				
trans-1,2-Dichloroethene	0.933	0.0200	1.000	0	93.3	79.6	115				
Methyl tert-butyl ether (MTBE)	0.956	0.0500	1.000	0	95.6	73.1	119				
1,1-Dichloroethane	0.938	0.0200	1.000	0	93.8	75.8	117				
cis-1,2-Dichloroethene	0.951	0.0200	1.000	0	95.1	77.8	115				
Chloroform	0.944	0.0200	1.000	0	94.4	78.2	115				
1,1,1-Trichloroethane (TCA)	0.947	0.0250	1.000	0	94.7	76	121				
1,1-Dichloropropene	0.985	0.0200	1.000	0	98.5	77.2	120				
Carbon tetrachloride	0.946	0.0500	1.000	0	94.6	74	122				
1,2-Dichloroethane (EDC)	0.960	0.0200	1.000	0	96.0	74.7	115				
Benzene	0.949	0.0200	1.000	0	94.9	80.5	114				
Trichloroethene (TCE)	0.981	0.0200	1.000	0	98.1	79.6	118				
1,2-Dichloropropane	0.955	0.0200	1.000	0	95.5	78.2	115				
Bromodichloromethane	0.955	0.0200	1.000	0	95.5	76.6	116				
Dibromomethane	0.945	0.0200	1.000	0	94.5	77.9	115				
cis-1,3-Dichloropropene	0.970	0.0200	1.000	0	97.0	74.6	119				
Toluene	0.980	0.0200	1.000	0	98.0	79.6	116				
trans-1,3-Dichloropropylene	0.959	0.0200	1.000	0	95.9	70.6	124				
1,1,2-Trichloroethane	0.960	0.0200	1.000	0	96.0	75.6	116				
1,3-Dichloropropane	0.961	0.0250	1.000	0	96.1	75.3	116				
Tetrachloroethene (PCE)	0.957	0.0250	1.000	0	95.7	78.8	119				
Dibromochloromethane	0.951	0.0250	1.000	0	95.1	72.5	123				
1,2-Dibromoethane (EDB)	0.963	0.00500	1.000	0	96.3	75	116				
Chlorobenzene	0.949	0.0250	1.000	0	94.9	83.4	113				

Date: *6/22/2020*

Work Order: 2006287
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **LCS-28703** SampType: **LCS** Units: **mg/Kg** Prep Date: **6/17/2020** RunNo: **59926**
Client ID: **LCSS** Batch ID: **28703** Analysis Date: **6/17/2020** SeqNo: **1199491**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	0.938	0.0250	1.000	0	93.8	80.8	117				
Ethylbenzene	0.973	0.0250	1.000	0	97.3	81.6	116				
m,p-Xylene	1.95	0.0500	2.000	0	97.6	80.9	117				
o-Xylene	0.971	0.0250	1.000	0	97.1	80.8	114				
Styrene	0.965	0.0250	1.000	0	96.5	80.4	114				
Isopropylbenzene	0.976	0.0250	1.000	0	97.6	79.3	118				
Bromoform	0.902	0.0500	1.000	0	90.2	71	129				
1,1,2,2-Tetrachloroethane	0.984	0.0200	1.000	0	98.4	71.3	119				
n-Propylbenzene	0.990	0.0250	1.000	0	99.0	80.4	120				
Bromobenzene	0.937	0.0200	1.000	0	93.7	78.6	115				
1,3,5-Trimethylbenzene	0.967	0.0250	1.000	0	96.7	80	116				
2-Chlorotoluene	0.972	0.0250	1.000	0	97.2	78.6	116				
4-Chlorotoluene	0.983	0.0250	1.000	0	98.3	78.8	117				
tert-Butylbenzene	0.961	0.0250	1.000	0	96.1	77.8	118				
1,2,3-Trichloropropane	0.972	0.0250	1.000	0	97.2	67.5	129				
1,2,4-Trichlorobenzene	0.931	0.0250	1.000	0	93.1	79.6	124				
sec-Butylbenzene	0.982	0.0500	1.000	0	98.2	78.6	119				
4-Isopropyltoluene	0.971	0.0500	1.000	0	97.1	78	119				
1,3-Dichlorobenzene	0.978	0.0200	1.000	0	97.8	87.1	117				
1,4-Dichlorobenzene	0.973	0.0200	1.000	0	97.3	87.6	115				
n-Butylbenzene	0.994	0.0250	1.000	0	99.4	81.9	122				
1,2-Dichlorobenzene	0.986	0.0200	1.000	0	98.6	87.9	115				
1,2-Dibromo-3-chloropropane	1.01	0.500	1.000	0	101	65.6	132				
1,2,4-Trimethylbenzene	0.981	0.0200	1.000	0	98.1	79.3	117				
Hexachloro-1,3-butadiene	0.952	0.0500	1.000	0	95.2	75	130				
Naphthalene	0.936	0.0500	1.000	0	93.6	71.7	132				
1,2,3-Trichlorobenzene	0.912	0.0200	1.000	0	91.2	74.3	128				
Surr: Dibromofluoromethane	1.24		1.250		99.1	83.3	111				
Surr: Toluene-d8	1.28		1.250		102	87.9	111				
Surr: 1-Bromo-4-fluorobenzene	1.23		1.250		98.7	85.1	111				

Date: *6/22/2020*

Work Order: 2006287
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **MB-28703** SampType: **MBLK** Units: **mg/Kg** Prep Date: **6/17/2020** RunNo: **59926**
Client ID: **MBLKS** Batch ID: **28703** Analysis Date: **6/17/2020** SeqNo: **1199492**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	0.0200									
Chloromethane	ND	0.0500									
Vinyl chloride	ND	0.0250									
Bromomethane	ND	0.0500									
Trichlorofluoromethane (CFC-11)	ND	0.0200									
Chloroethane	ND	0.0500									
1,1-Dichloroethene	ND	0.0200									
Methylene chloride	ND	0.0200									
trans-1,2-Dichloroethene	ND	0.0200									
Methyl tert-butyl ether (MTBE)	ND	0.0500									
1,1-Dichloroethane	ND	0.0200									
cis-1,2-Dichloroethene	ND	0.0200									
Chloroform	ND	0.0200									
1,1,1-Trichloroethane (TCA)	ND	0.0250									
1,1-Dichloropropene	ND	0.0200									
Carbon tetrachloride	ND	0.0500									
1,2-Dichloroethane (EDC)	ND	0.0200									
Benzene	ND	0.0200									
Trichloroethene (TCE)	ND	0.0200									
1,2-Dichloropropane	ND	0.0200									
Bromodichloromethane	ND	0.0200									
Dibromomethane	ND	0.0200									
cis-1,3-Dichloropropene	ND	0.0200									
Toluene	ND	0.0200									
trans-1,3-Dichloropropylene	ND	0.0200									
1,1,2-Trichloroethane	ND	0.0200									
1,3-Dichloropropane	ND	0.0250									
Tetrachloroethene (PCE)	ND	0.0250									
Dibromochloromethane	ND	0.0250									
1,2-Dibromoethane (EDB)	ND	0.00500									
Chlorobenzene	ND	0.0250									

Date: *6/22/2020*

Work Order: 2006287
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **MB-28703** SampType: **MBLK** Units: **mg/Kg** Prep Date: **6/17/2020** RunNo: **59926**
Client ID: **MBLKS** Batch ID: **28703** Analysis Date: **6/17/2020** SeqNo: **1199492**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	ND	0.0250									
Ethylbenzene	ND	0.0250									
m,p-Xylene	ND	0.0500									
o-Xylene	ND	0.0250									
Styrene	ND	0.0250									
Isopropylbenzene	ND	0.0250									
Bromoform	ND	0.0500									
1,1,2,2-Tetrachloroethane	ND	0.0200									
n-Propylbenzene	ND	0.0250									
Bromobenzene	ND	0.0200									
1,3,5-Trimethylbenzene	ND	0.0250									
2-Chlorotoluene	ND	0.0250									
4-Chlorotoluene	ND	0.0250									
tert-Butylbenzene	ND	0.0250									
1,2,3-Trichloropropane	ND	0.0250									
1,2,4-Trichlorobenzene	ND	0.0250									
sec-Butylbenzene	ND	0.0500									
4-Isopropyltoluene	ND	0.0500									
1,3-Dichlorobenzene	ND	0.0200									
1,4-Dichlorobenzene	ND	0.0200									
n-Butylbenzene	ND	0.0250									
1,2-Dichlorobenzene	ND	0.0200									
1,2-Dibromo-3-chloropropane	ND	0.500									
1,2,4-Trimethylbenzene	ND	0.0200									
Hexachloro-1,3-butadiene	ND	0.0500									
Naphthalene	ND	0.0500									
1,2,3-Trichlorobenzene	ND	0.0200									
Surr: Dibromofluoromethane	1.19		1.250		95.6	83.3	111				
Surr: Toluene-d8	1.27		1.250		101	87.9	111				
Surr: 1-Bromo-4-fluorobenzene	1.26		1.250		101	85.1	111				

Date: *6/22/2020*

Work Order: 2006287
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2005191-004BDUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **6/17/2020** RunNo: **59926**
Client ID: **BATCH** Batch ID: **28703** Analysis Date: **6/17/2020** SeqNo: **1199476**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	0.0210						0		30	H
Chloromethane	ND	0.0525						0		30	H
Vinyl chloride	ND	0.0263						0		30	H
Bromomethane	ND	0.0525						0		30	H
Trichlorofluoromethane (CFC-11)	ND	0.0210						0		30	H
Chloroethane	ND	0.0525						0		30	H
1,1-Dichloroethene	ND	0.0210						0		30	H
Methylene chloride	ND	0.0210						0		30	H
trans-1,2-Dichloroethene	ND	0.0210						0		30	H
Methyl tert-butyl ether (MTBE)	ND	0.0525						0		30	H
1,1-Dichloroethane	ND	0.0210						0		30	H
cis-1,2-Dichloroethene	ND	0.0210						0		30	H
Chloroform	ND	0.0210						0		30	H
1,1,1-Trichloroethane (TCA)	ND	0.0263						0		30	H
1,1-Dichloropropene	ND	0.0210						0		30	H
Carbon tetrachloride	ND	0.0525						0		30	H
1,2-Dichloroethane (EDC)	ND	0.0210						0		30	H
Benzene	ND	0.0210						0		30	H
Trichloroethene (TCE)	ND	0.0210						0		30	H
1,2-Dichloropropane	ND	0.0210						0		30	H
Bromodichloromethane	ND	0.0210						0		30	H
Dibromomethane	ND	0.0210						0		30	H
cis-1,3-Dichloropropene	ND	0.0210						0		30	H
Toluene	ND	0.0210						0		30	H
trans-1,3-Dichloropropylene	ND	0.0210						0		30	H
1,1,2-Trichloroethane	ND	0.0210						0		30	H
1,3-Dichloropropane	ND	0.0263						0		30	H
Tetrachloroethene (PCE)	ND	0.0263						0		30	H
Dibromochloromethane	ND	0.0263						0		30	H
1,2-Dibromoethane (EDB)	ND	0.00525						0		30	H
Chlorobenzene	ND	0.0263						0		30	H

Date: *6/22/2020*

Work Order: 2006287
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2005191-004BDUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **6/17/2020** RunNo: **59926**
Client ID: **BATCH** Batch ID: **28703** Analysis Date: **6/17/2020** SeqNo: **1199476**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	ND	0.0263						0		30	H
Ethylbenzene	ND	0.0263						0		30	H
m,p-Xylene	ND	0.0525						0		30	H
o-Xylene	ND	0.0263						0		30	H
Styrene	ND	0.0263						0		30	H
Isopropylbenzene	ND	0.0263						0		30	H
Bromoform	ND	0.0525						0		30	H
1,1,2,2-Tetrachloroethane	ND	0.0210						0		30	H
n-Propylbenzene	ND	0.0263						0		30	H
Bromobenzene	ND	0.0210						0		30	H
1,3,5-Trimethylbenzene	ND	0.0263						0		30	H
2-Chlorotoluene	ND	0.0263						0		30	H
4-Chlorotoluene	ND	0.0263						0		30	H
tert-Butylbenzene	ND	0.0263						0		30	H
1,2,3-Trichloropropane	ND	0.0263						0		30	H
1,2,4-Trichlorobenzene	ND	0.0263						0		30	H
sec-Butylbenzene	ND	0.0525						0		30	H
4-Isopropyltoluene	ND	0.0525						0		30	H
1,3-Dichlorobenzene	ND	0.0210						0		30	H
1,4-Dichlorobenzene	ND	0.0210						0		30	H
n-Butylbenzene	ND	0.0263						0		30	H
1,2-Dichlorobenzene	ND	0.0210						0		30	H
1,2-Dibromo-3-chloropropane	ND	0.525						0		30	H
1,2,4-Trimethylbenzene	ND	0.0210						0		30	H
Hexachloro-1,3-butadiene	ND	0.0525						0		30	H
Naphthalene	ND	0.0525						0		30	H
1,2,3-Trichlorobenzene	ND	0.0210						0		30	H
Surr: Dibromofluoromethane	1.30		1.313		99.3	83.3	111		0		H
Surr: Toluene-d8	1.31		1.313		100	87.9	111		0		H
Surr: 1-Bromo-4-fluorobenzene	1.33		1.313		101	85.1	111		0		H

Date: *6/22/2020*

Work Order: 2006287
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2006287-002BMS** SampType: **MS** Units: **mg/Kg-dry** Prep Date: **6/17/2020** RunNo: **59926**
Client ID: **CONCRETE-SP2** Batch ID: **28703** Analysis Date: **6/17/2020** SeqNo: **1199479**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	0.943	0.0295	1.473	0	64.0	5.73	173				
Chloromethane	1.29	0.0736	1.473	0	87.9	41.3	150				
Vinyl chloride	1.31	0.0368	1.473	0	89.3	49.5	138				
Bromomethane	1.71	0.0736	1.473	0	116	48.5	158				
Trichlorofluoromethane (CFC-11)	1.38	0.0295	1.473	0	93.8	40.6	159				
Chloroethane	1.55	0.0736	1.473	0	105	30.4	166				
1,1-Dichloroethene	1.44	0.0295	1.473	0	98.0	55	138				
Methylene chloride	1.56	0.0295	1.473	0	106	70.3	123				
trans-1,2-Dichloroethene	1.51	0.0295	1.473	0	103	73.1	121				
Methyl tert-butyl ether (MTBE)	1.41	0.0736	1.473	0	95.9	69.6	122				
1,1-Dichloroethane	1.58	0.0295	1.473	0	107	70.8	122				
cis-1,2-Dichloroethene	1.54	0.0295	1.473	0	105	71.8	122				
Chloroform	1.57	0.0295	1.473	0	107	72.9	122				
1,1,1-Trichloroethane (TCA)	1.50	0.0368	1.473	0	102	69.6	125				
1,1-Dichloropropene	1.51	0.0295	1.473	0	103	69.3	126				
Carbon tetrachloride	1.43	0.0736	1.473	0	97.4	65	127				
1,2-Dichloroethane (EDC)	1.55	0.0295	1.473	0	106	70.1	121				
Benzene	1.52	0.0295	1.473	0	103	76.7	119				
Trichloroethene (TCE)	2.12	0.0295	1.473	0	144	70.1	129				S
1,2-Dichloropropane	1.50	0.0295	1.473	0	102	74.6	120				
Bromodichloromethane	1.50	0.0295	1.473	0	102	70.9	122				
Dibromomethane	1.53	0.0295	1.473	0	104	75.6	120				
cis-1,3-Dichloropropene	1.48	0.0295	1.473	0	100	68.3	120				
Toluene	1.54	0.0295	1.473	0	104	74.7	119				
trans-1,3-Dichloropropylene	1.41	0.0295	1.473	0	96.0	62.2	127				
1,1,2-Trichloroethane	1.46	0.0295	1.473	0	99.1	72.9	120				
1,3-Dichloropropane	1.48	0.0368	1.473	0	101	71.9	119				
Tetrachloroethene (PCE)	1.46	0.0368	1.473	0	99.4	71.1	122				
Dibromochloromethane	1.39	0.0368	1.473	0	94.6	65.9	126				
1,2-Dibromoethane (EDB)	1.47	0.00736	1.473	0	100	72	119				
Chlorobenzene	1.49	0.0368	1.473	0	101	81.4	116				

Date: *6/22/2020*

Work Order: 2006287
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2006287-002BMS** SampType: **MS** Units: **mg/Kg-dry** Prep Date: **6/17/2020** RunNo: **59926**
Client ID: **CONCRETE-SP2** Batch ID: **28703** Analysis Date: **6/17/2020** SeqNo: **1199479**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	1.41	0.0368	1.473	0	96.0	72.9	125				
Ethylbenzene	1.54	0.0368	1.473	0	105	77.1	120				
m,p-Xylene	3.09	0.0736	2.946	0	105	76.3	120				
o-Xylene	1.55	0.0368	1.473	0	105	76.6	119				
Styrene	1.54	0.0368	1.473	0	104	75.1	121				
Isopropylbenzene	1.52	0.0368	1.473	0	103	74.8	122				
Bromoform	1.28	0.0736	1.473	0	87.2	63.4	133				
1,1,2,2-Tetrachloroethane	0.668	0.0295	1.473	0	45.4	61	128				S
n-Propylbenzene	1.56	0.0368	1.473	0	106	73	128				
Bromobenzene	1.45	0.0295	1.473	0	98.5	77	120				
1,3,5-Trimethylbenzene	1.34	0.0368	1.473	0	90.9	72.1	126				
2-Chlorotoluene	1.54	0.0368	1.473	0	105	71.4	126				
4-Chlorotoluene	1.51	0.0368	1.473	0	103	73.6	124				
tert-Butylbenzene	1.48	0.0368	1.473	0	100	70.7	126				
1,2,3-Trichloropropane	1.40	0.0368	1.473	0	95.1	65.7	132				
1,2,4-Trichlorobenzene	1.36	0.0368	1.473	0	92.2	70.5	130				
sec-Butylbenzene	1.51	0.0736	1.473	0	102	68.8	129				
4-Isopropyltoluene	1.45	0.0736	1.473	0	98.1	69.2	128				
1,3-Dichlorobenzene	1.52	0.0295	1.473	0	103	83.8	121				
1,4-Dichlorobenzene	1.51	0.0295	1.473	0	102	85.7	117				
n-Butylbenzene	1.50	0.0368	1.473	0	102	67.4	133				
1,2-Dichlorobenzene	1.47	0.0295	1.473	0	100	81.8	120				
1,2-Dibromo-3-chloropropane	1.45	0.736	1.473	0	98.5	56.9	139				
1,2,4-Trimethylbenzene	1.29	0.0295	1.473	0	87.4	70.9	127				
Hexachloro-1,3-butadiene	1.58	0.0736	1.473	0	107	61.1	140				
Naphthalene	1.46	0.0736	1.473	0	99.1	63.3	143				
1,2,3-Trichlorobenzene	1.42	0.0295	1.473	0	96.7	67.8	132				
Surr: Dibromofluoromethane	1.93		1.841		105	83.3	111				
Surr: Toluene-d8	1.91		1.841		104	87.9	111				
Surr: 1-Bromo-4-fluorobenzene	1.82		1.841		99.1	85.1	111				

Date: *6/22/2020*

Work Order: 2006287
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2006287-002BMS** SampType: **MS** Units: **mg/Kg-dry** Prep Date: **6/17/2020** RunNo: **59926**
Client ID: **CONCRETE-SP2** Batch ID: **28703** Analysis Date: **6/17/2020** SeqNo: **1199479**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

NOTES:
S - Outlying spike recovery(ies) observed. A duplicate analysis was performed with similar results indicating a possible matrix effect.

Sample ID: **2006287-002BMSD** SampType: **MSD** Units: **mg/Kg-dry** Prep Date: **6/17/2020** RunNo: **59926**
Client ID: **CONCRETE-SP2** Batch ID: **28703** Analysis Date: **6/17/2020** SeqNo: **1199480**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	0.853	0.0295	1.473	0	57.9	5.73	173	0.9427	10.0	30	
Chloromethane	1.24	0.0736	1.473	0	84.4	41.3	150	1.295	4.01	30	
Vinyl chloride	1.27	0.0368	1.473	0	86.1	49.5	138	1.315	3.58	30	
Bromomethane	1.53	0.0736	1.473	0	104	48.5	158	1.708	10.7	30	
Trichlorofluoromethane (CFC-11)	1.31	0.0295	1.473	0	89.1	40.6	159	1.381	5.06	30	
Chloroethane	1.51	0.0736	1.473	0	102	30.4	166	1.551	2.80	30	
1,1-Dichloroethene	1.37	0.0295	1.473	0	93.3	55	138	1.444	4.98	30	
Methylene chloride	1.53	0.0295	1.473	0	104	70.3	123	1.563	1.86	30	
trans-1,2-Dichloroethene	1.45	0.0295	1.473	0	98.7	73.1	121	1.512	3.92	30	
Methyl tert-butyl ether (MTBE)	1.38	0.0736	1.473	0	93.9	69.6	122	1.412	2.06	30	
1,1-Dichloroethane	1.50	0.0295	1.473	0	102	70.8	122	1.576	4.88	30	
cis-1,2-Dichloroethene	1.50	0.0295	1.473	0	102	71.8	122	1.545	2.72	30	
Chloroform	1.53	0.0295	1.473	0	104	72.9	122	1.570	2.29	30	
1,1,1-Trichloroethane (TCA)	1.43	0.0368	1.473	0	97.4	69.6	125	1.499	4.37	30	
1,1-Dichloropropene	1.43	0.0295	1.473	0	97.1	69.3	126	1.511	5.44	30	
Carbon tetrachloride	1.39	0.0736	1.473	0	94.1	65	127	1.435	3.46	30	
1,2-Dichloroethane (EDC)	1.53	0.0295	1.473	0	104	70.1	121	1.555	1.74	30	
Benzene	1.48	0.0295	1.473	0	100	76.7	119	1.522	2.91	30	
Trichloroethene (TCE)	2.10	0.0295	1.473	0	142	70.1	129	2.119	1.01	30	S
1,2-Dichloropropane	1.50	0.0295	1.473	0	102	74.6	120	1.501	0.101	30	
Bromodichloromethane	1.46	0.0295	1.473	0	98.8	70.9	122	1.499	3.00	30	
Dibromomethane	1.49	0.0295	1.473	0	101	75.6	120	1.530	2.97	30	
cis-1,3-Dichloropropene	1.44	0.0295	1.473	0	98.0	68.3	120	1.477	2.30	30	
Toluene	1.48	0.0295	1.473	0	101	74.7	119	1.537	3.76	30	

Date: *6/22/2020*

Work Order: 2006287
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2006287-002BMSD** SampType: **MSD** Units: **mg/Kg-dry** Prep Date: **6/17/2020** RunNo: **59926**
Client ID: **CONCRETE-SP2** Batch ID: **28703** Analysis Date: **6/17/2020** SeqNo: **1199480**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
trans-1,3-Dichloropropylene	1.40	0.0295	1.473	0	95.3	62.2	127	1.414	0.759	30	
1,1,2-Trichloroethane	1.44	0.0295	1.473	0	97.9	72.9	120	1.460	1.16	30	
1,3-Dichloropropane	1.47	0.0368	1.473	0	99.5	71.9	119	1.480	1.04	30	
Tetrachloroethene (PCE)	1.39	0.0368	1.473	0	94.6	71.1	122	1.464	4.97	30	
Dibromochloromethane	1.39	0.0368	1.473	0	94.3	65.9	126	1.394	0.377	30	
1,2-Dibromoethane (EDB)	1.45	0.00736	1.473	0	98.4	72	119	1.474	1.61	30	
Chlorobenzene	1.47	0.0368	1.473	0	99.9	81.4	116	1.491	1.34	30	
1,1,1,2-Tetrachloroethane	1.38	0.0368	1.473	0	93.8	72.9	125	1.415	2.32	30	
Ethylbenzene	1.50	0.0368	1.473	0	102	77.1	120	1.543	2.96	30	
m,p-Xylene	2.99	0.0736	2.946	0	102	76.3	120	3.091	3.22	30	
o-Xylene	1.50	0.0368	1.473	0	102	76.6	119	1.552	3.68	30	
Styrene	1.50	0.0368	1.473	0	102	75.1	121	1.536	2.60	30	
Isopropylbenzene	1.47	0.0368	1.473	0	99.8	74.8	122	1.521	3.36	30	
Bromoform	1.30	0.0736	1.473	0	88.1	63.4	133	1.284	1.05	30	
1,1,2,2-Tetrachloroethane	0.632	0.0295	1.473	0	42.9	61	128	0.6684	5.59	30	S
n-Propylbenzene	1.51	0.0368	1.473	0	102	73	128	1.559	3.46	30	
Bromobenzene	1.45	0.0295	1.473	0	98.1	77	120	1.451	0.355	30	
1,3,5-Trimethylbenzene	1.31	0.0368	1.473	0	88.8	72.1	126	1.340	2.39	30	
2-Chlorotoluene	1.50	0.0368	1.473	0	102	71.4	126	1.544	2.95	30	
4-Chlorotoluene	1.47	0.0368	1.473	0	99.8	73.6	124	1.512	2.81	30	
tert-Butylbenzene	1.43	0.0368	1.473	0	97.1	70.7	126	1.476	3.14	30	
1,2,3-Trichloropropane	1.40	0.0368	1.473	0	94.9	65.7	132	1.401	0.240	30	
1,2,4-Trichlorobenzene	1.39	0.0368	1.473	0	94.5	70.5	130	1.358	2.47	30	
sec-Butylbenzene	1.46	0.0736	1.473	0	99.2	68.8	129	1.507	3.12	30	
4-Isopropyltoluene	1.42	0.0736	1.473	0	96.4	69.2	128	1.445	1.74	30	
1,3-Dichlorobenzene	1.54	0.0295	1.473	0	104	83.8	121	1.522	0.945	30	
1,4-Dichlorobenzene	1.51	0.0295	1.473	0	102	85.7	117	1.509	0.175	30	
n-Butylbenzene	1.51	0.0368	1.473	0	102	67.4	133	1.504	0.111	30	
1,2-Dichlorobenzene	1.52	0.0295	1.473	0	103	81.8	120	1.473	3.04	30	
1,2-Dibromo-3-chloropropane	1.48	0.736	1.473	0	100	56.9	139	1.450	1.93	30	
1,2,4-Trimethylbenzene	1.25	0.0295	1.473	0	85.2	70.9	127	1.288	2.59	30	

Date: *6/22/2020*

Work Order: 2006287
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2006287-002BMSD** SampType: **MSD** Units: **mg/Kg-dry** Prep Date: **6/17/2020** RunNo: **59926**
Client ID: **CONCRETE-SP2** Batch ID: **28703** Analysis Date: **6/17/2020** SeqNo: **1199480**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexachloro-1,3-butadiene	1.58	0.0736	1.473	0	107	61.1	140	1.582	0.0515	30	
Naphthalene	1.48	0.0736	1.473	0	101	63.3	143	1.459	1.59	30	
1,2,3-Trichlorobenzene	1.47	0.0295	1.473	0	99.6	67.8	132	1.425	2.98	30	
Surr: Dibromofluoromethane	1.89		1.841		103	83.3	111		0		
Surr: Toluene-d8	1.89		1.841		103	87.9	111		0		
Surr: 1-Bromo-4-fluorobenzene	1.78		1.841		96.6	85.1	111		0		

NOTES:
S - Outlying spike recovery(ies) observed. A duplicate analysis was performed with similar results indicating a possible matrix effect.

Sample ID: **2006288-003BDUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **6/17/2020** RunNo: **59926**
Client ID: **BATCH** Batch ID: **28703** Analysis Date: **6/18/2020** SeqNo: **1199487**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	0.0932						0		30	D
Chloromethane	ND	0.233						0		30	D
Vinyl chloride	ND	0.116						0		30	D
Bromomethane	ND	0.233						0		30	D
Trichlorofluoromethane (CFC-11)	ND	0.0932						0		30	D
Chloroethane	ND	0.233						0		30	D
1,1-Dichloroethene	ND	0.0932						0		30	D
Methylene chloride	ND	0.0932						0		30	D
trans-1,2-Dichloroethene	ND	0.0932						0		30	D
Methyl tert-butyl ether (MTBE)	ND	0.233						0		30	D
1,1-Dichloroethane	ND	0.0932						0		30	D
cis-1,2-Dichloroethene	ND	0.0932						0		30	D
Chloroform	ND	0.0932						0		30	D
1,1,1-Trichloroethane (TCA)	ND	0.116						0		30	D
1,1-Dichloropropene	ND	0.0932						0		30	D
Carbon tetrachloride	ND	0.233						0		30	D
1,2-Dichloroethane (EDC)	ND	0.0932						0		30	D
Benzene	ND	0.0932						0		30	D

Date: *6/22/2020*

Work Order: 2006287
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2006288-003BDUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **6/17/2020** RunNo: **59926**
Client ID: **BATCH** Batch ID: **28703** Analysis Date: **6/18/2020** SeqNo: **1199487**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Trichloroethene (TCE)	ND	0.0932						0		30	D
1,2-Dichloropropane	ND	0.0932						0		30	D
Bromodichloromethane	ND	0.0932						0		30	D
Dibromomethane	ND	0.0932						0		30	D
cis-1,3-Dichloropropene	ND	0.0932						0		30	D
Toluene	2.77	0.0932						2.772	0.146	30	D
trans-1,3-Dichloropropylene	ND	0.0932						0		30	D
1,1,2-Trichloroethane	ND	0.0932						0		30	D
1,3-Dichloropropane	ND	0.116						0		30	D
Tetrachloroethene (PCE)	ND	0.116						0		30	D
Dibromochloromethane	ND	0.116						0		30	D
1,2-Dibromoethane (EDB)	ND	0.0233						0		30	D
Chlorobenzene	ND	0.116						0		30	D
1,1,1,2-Tetrachloroethane	ND	0.116						0		30	D
Ethylbenzene	2.55	0.116						2.577	1.14	30	D
m,p-Xylene	11.7	0.233						11.80	0.581	30	D
o-Xylene	4.32	0.116						4.375	1.19	30	D
Styrene	ND	0.116						0		30	D
Isopropylbenzene	0.224	0.116						0.2369	5.81	30	D
Bromoform	ND	0.233						0		30	D
1,1,2,2-Tetrachloroethane	ND	0.0932						0		30	D
n-Propylbenzene	1.24	0.116						1.248	0.823	30	D
Bromobenzene	ND	0.0932						0		30	D
1,3,5-Trimethylbenzene	2.86	0.116						2.807	1.89	30	D
2-Chlorotoluene	ND	0.116						0		30	D
4-Chlorotoluene	ND	0.116						0		30	D
tert-Butylbenzene	ND	0.116						0		30	D
1,2,3-Trichloropropane	ND	0.116						0		30	D
1,2,4-Trichlorobenzene	ND	0.116						0		30	D
sec-Butylbenzene	ND	0.233						0		30	D
4-Isopropyltoluene	ND	0.233						0		30	D

Date: *6/22/2020*

Work Order: 2006287
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2006288-003BDUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **6/17/2020** RunNo: **59926**
Client ID: **BATCH** Batch ID: **28703** Analysis Date: **6/18/2020** SeqNo: **1199487**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,3-Dichlorobenzene	ND	0.0932						0		30	D
1,4-Dichlorobenzene	ND	0.0932						0		30	D
n-Butylbenzene	1.24	0.116						1.223	1.72	30	D
1,2-Dichlorobenzene	ND	0.0932						0		30	D
1,2-Dibromo-3-chloropropane	ND	2.33						0		30	D
1,2,4-Trimethylbenzene	8.06	0.0932						7.815	3.04	30	D
Hexachloro-1,3-butadiene	ND	0.233						0		30	D
Naphthalene	1.35	0.233						1.354	0.0325	30	D
1,2,3-Trichlorobenzene	ND	0.0932						0		30	D
Surr: Dibromofluoromethane	5.86		5.823		101	83.3	111		0		D
Surr: Toluene-d8	5.92		5.823		102	87.9	111		0		D
Surr: 1-Bromo-4-fluorobenzene	5.84		5.823		100	85.1	111		0		D

NOTES:
Diluted due to matrix.

Fremont Analytical
3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790
Fax: 206-352-7178

Chain of Custody Record & Laboratory Services Agreement

Date: 6/16/2020 Page: 1 of:

Laboratory Project No (internal): 2000287

Project Name: F200

Special Remarks:

Client: OSG

Project No: 2021

Address:

Collected by: DL

City, State, Zip:

Location: FL358

Telephone:

Report To (PM): Vance

Sample Disposal: ☐ Return to client ☒ Disposal by lab (after 30 days)

Fax:

PM Email:

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	VOCs (EPA 8260 / 624)	GX/BTEX	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DX)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T) | Dissolved (D)	Anions (IC)***	EDB (8011)					Comments
1 Concrete - SP1	6/16/20	1030	SL	X																	
2 Concrete - SP2		1035		X																	
3 Concrete - SP3		1035		X																	
4 Concrete - SP4		1040		X																	
5 Concrete - SP5		1045		X																	
6																					
7																					
8																					
9																					
10																					

*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

**Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL *Individual:* Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti Tl U V Zn

***Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite

Turn-around Time:

☒ Standard
☐ 3 Day
☐ 2 Day
☐ Next Day
Same Day ____ (specify)

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above and that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished	Date/Time	Received	Date/Time
x [signature]	6/16/20 1450	x [signature]	6/16/20 1522
Relinquished	Date/Time	Received	Date/Time
x		x	

Libby Environmental, Inc.

3322 South Bay Road NE • Olympia, WA 98506-2957

July 16, 2020

Vance Atkins
O'Neill Service Group
17619 NE 67th Ct, Suite 100
Redmond, WA 98052

Dear Mr. Atkins:

Please find enclosed the analytical data report for the F200 Project located in Federal Way, Washington.

The results of the analyses are summarized in the attached tables. Applicable detection limits and QA/QC data are included. The sample(s) will be disposed of within 30 days unless we are contacted to arrange long term storage.

Libby Environmental, Inc. appreciates the opportunity to have provided analytical services for this project. If you have any further questions about the data report, please give me a call. It was a pleasure working with you on this project, and we are looking forward to the next opportunity to work together.

Sincerely,

Sherry L. Chilcutt
Senior Chemist
Libby Environmental, Inc.

Phone (360) 352-2110 • Fax (360) 352-4154 • libbyenv@gmail.com

Libby Environmental, Inc.

Chain of Custody Record

www.LibbyEnvironmental.com

3322 South Bay Road NE
Olympia, WA 98506

Ph: 360-352-2110
Fax: 360-352-4154

Date: 7/15/20 Page: 1 of 1

Client: OSG

Project Manager: VANCE ATKINS

Address:

Project Name: F200.

City: State: Zip:

Location: FL358 City, State:

Phone: Fax:

Collector: ATKINS Date of Collection: 7/15/20

Client Project # 2021

Email: VANCE A@ ONEILLSG.COM

Sample Number	Depth	Time	Sample Type	Container Type	VOC 8260	PCE & Daughter Prod.	NWTPH-Gx	BTEX (8260) / (8021)	NWTPH-HCID	NWTPH-Dx / Dx	PCB 8082	MTCA 5 Metals	RCRA 8 Metals	c PAH 8270	PAH 8270	Semi Vol 8270				Field Notes
1 353-PEX-1-5	5	930	S	4oz/VOA		X														
2 2-5	5	935																		
3 3-5	5	940																		
4 4-5	5	945																		
5 5-7	7	950				X														
6																				
7																				
8																				
9																				
10																				
11																				
12																				
13																				
14																				
15																				
16																				
17																				

Relinquished by:	Date / Time	Received by:	Date / Time
[illegible]	7/15/20 1147	[illegible]	7/15/2020 11:47
Relinquished by:	Date / Time	Received by:	Date / Time
Relinquished by:	Date / Time	Received by:	Date / Time

Sample Receipt

Good Condition?	Y	N
Cooler Temp.		°C
Sample Temp.		°C
Total Number of Containers		

Remarks: Rush

TAT: 24HR 48HR 5-DAY

Distribution: White - Lab, Yellow - Originator

Libby Environmental, Inc.

3322 South Bay Road NE
Olympia, WA 98506
Phone: (360) 352-2110
FAX: (360) 352-4154
Email: libbyenv@gmail.com

F200 PROJECT
O'Neill Service Group
Federal Way, Washington
Libby Project # L200715-1
Client Project # 2021

Volatile Organic Compounds by EPA Method 8260D in Soil

Sample Description		Method Blank	358-PEX-1-5	358-PEX-1-5 Dup	358-PEX-2-5	358-PEX-3-5	358-PEX-4-5
Date Sampled		N/A	7/15/2020	7/15/2020	7/15/2020	7/15/2020	7/15/2020
Date Analyzed	PQL (mg/kg)	7/15/2020 (mg/kg)	7/15/2020 (mg/kg)	7/15/2020 (mg/kg)	7/15/2020 (mg/kg)	7/15/2020 (mg/kg)	7/15/2020 (mg/kg)
Vinyl Chloride (VC)	0.02	nd	nd	nd	0.036	nd	nd
1,1-Dichloroethene	0.05	nd	nd	nd	nd	nd	nd
trans-1,2-Dichloroethene	0.03	nd	0.048	0.070	0.25	0.62	0.72
cis -1,2-Dichloroethene	0.03	nd	0.64	0.87	4.0	1.1	0.13
Trichloroethene (TCE)	0.02	nd	0.038	0.047	4.1	0.026	0.33
Tetrachloroethene (PCE)	0.03	nd	nd	nd	10.6	0.053	0.22
Surrogate Recovery							
Dibromofluoromethane		119	111	111	106	110	113
1,2-Dichloroethane-d4		133	126	133	135	125	135
Toluene-d8		98	103	98	100	100	97
4-Bromofluorobenzene		94	84	86	96	102	97

"nd" Indicates not detected at listed detection limit.
"int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE : 65% TO 135%

ANALYSES PERFORMED BY: Sherry Chilcutt

Libby Environmental, Inc.

3322 South Bay Road NE
Olympia, WA 98506
Phone: (360) 352-2110
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Email: libbyenv@gmail.com

F200 PROJECT
O'Neill Service Group
Federal Way, Washington
Libby Project # L200715-1
Client Project # 2021

Volatile Organic Compounds by EPA Method 8260D in Soil

Sample Description		358-PEX-5-7
Date Sampled		7/15/20
Date Analyzed	PQL (mg/kg)	7/15/20 (mg/kg)
Vinyl Chloride (VC)	0.02	0.19
1,1-Dichloroethene	0.05	nd
trans-1,2-Dichloroethene	0.02	0.15
cis -1,2-Dichloroethene	0.02	4.4
Trichloroethene (TCE)	0.02	1.5
Tetrachloroethene (PCE)	0.02	2.4
Surrogate Recovery		
Dibromofluoromethane		106
1,2-Dichloroethane-d4		122
Toluene-d8		98
4-Bromofluorobenzene		94

"nd" Indicates not detected at listed detection limit.
"int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE : 65% TO 135%

ANALYSES PERFORMED BY: Sherry Chilcutt

Libby Environmental, Inc.

3322 South Bay Road NE
Olympia, WA 98506
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F200 PROJECT
O'Neill Service Group
Federal Way, Washington
Libby Project # L200715-1
Client Project # 2021

QA/QC for Volatile Organic Compounds by EPA Method 8260D in Soil

Matrix Spike Sample Identification: 358-PEX-5-7

	Spiked Conc. (mg/kg)	MS Response (mg/kg)	MSD Response (mg/kg)	MS Recovery (%)	MSD Recovery (%)	RPD (%)	Limits Recovery (%)	Data Flag
Vinyl Chloride (VC)	0.25	0.23	0.23	90	92	2.2	65-135	
1,1-Dichloroethene	0.25	0.32	0.30	127	121	4.5	65-135	
trans-1,2-Dichloroethene	0.25	0.31	0.43	124	172	32.4	65-135	S
cis -1,2-Dichloroethene	0.25	0.20	2.50	80	1000	170.4	65-135	R,S
Trichloroethene (TCE)	0.25	0.24	4.95	96	1980	181.5	65-135	R,S
Tetrachloroethene (PCE)	0.25	0.26	12.5	104	5000	191.8	65-135	R,S

Surrogate Recovery (%)	MS	MSD	
Dibromofluoromethane	106	107	65-135
1,2-Dichloroethane-d4	122	130	65-135
Toluene-d8	100	101	65-135
4-Bromofluorobenzene	93	104	65-135

ACCEPTABLE RPD IS 35%
"R" High relative percent difference observed.
"S" Spike recovery outside accepted recovery limits.

ANALYSES PERFORMED BY: Sherry Chilcutt

Libby Environmental, Inc.

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Olympia, WA 98506
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F200 PROJECT
O'Neill Service Group
Federal Way, Washington
Libby Project # L200715-1
Client Project # 2021

Laboratory Control Sample

	Spiked Conc. (mg/kg)	LCS Response (mg/kg)	LCS Recovery (%)	LCS Recovery Limits (%)	Data Flag
Vinyl Chloride (VC)	0.25	0.27	107	80-120	
1,1-Dichloroethene	0.25	0.30	120	80-120	
trans-1,2-Dichloroethene	0.25	0.29	118	80-120	
cis -1,2-Dichloroethene	0.25	0.25	101	80-120	
Trichloroethene (TCE)	0.25	0.27	110	80-120	
Tetrachloroethene (PCE)	0.25	0.22	90	80-120	

Surrogate Recovery		
Dibromofluoromethane	110	65-135
1,2-Dichloroethane-d4	133	65-135
Toluene-d8	100	65-135
4-Bromofluorobenzene	102	65-135

ANALYSES PERFORMED BY: Sherry Chilcutt

Libby Environmental, Inc.

3322 South Bay Road NE
Olympia, WA 98506
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Email: libbyenv@gmail.com

F200 PROJECT
O'Neill Service Group
Federal Way, Washington
Libby Project # L200715-1
Client Project # 2021

Analysis of Moisture in Soil

Sample Number	Percent Moisture
358-PEX-1-5	11.0%
358-PEX-2-5	10.7%
358-PEX-3-5	23.8%
358-PEX-4-5	11.6%
358-PEX-5-7	13.6%
Reporting Limit	0.5

ANALYSES PERFORMED BY: Kory Dixon & Melissa Harrington

Libby Environmental, Inc.

3322 South Bay Road NE
Olympia, WA 98506
Phone: (360) 352-2110
FAX: (360) 352-4154
Email: libbyenv@gmail.com

F200 PROJECT
O'Neill Service Group
Libby Project # L200715-1
Date Received 7/15/2020
Time Received 11:47 AM

Received By JC

Sample Receipt Checklist

Chain of Custody

1. Is the Chain of Custody complete?	☑ Yes	☐ No	
2. How was the sample delivered?	☐ Hand Delivered	☑ Picked Up	☐ Shipped

Log In

3. Cooler or Shipping Container is present.	☑ Yes	☐ No	☐ N/A
4. Cooler or Shipping Container is in good condition.	☑ Yes	☐ No	☐ N/A
5. Cooler or Shipping Container has Custody Seals present.	☐ Yes	☑ No	☐ N/A
6. Was an attempt made to cool the samples?	☑ Yes	☐ No	☐ N/A
7. Temperature of cooler (0°C to 8°C recommended)	1.0 °C		
8. Temperature of sample(s) (0°C to 8°C recommended)	15.1 °C		
9. Did all containers arrive in good condition (unbroken)?	☑ Yes	☐ No	
10. Is it clear what analyses were requested?	☑ Yes	☐ No	
11. Did container labels match Chain of Custody?	☑ Yes	☐ No	
12. Are matrices correctly identified on Chain of Custody?	☑ Yes	☐ No	
13. Are correct containers used for the analysis indicated?	☑ Yes	☐ No	
14. Is there sufficient sample volume for indicated analysis?	☑ Yes	☐ No	
15. Were all containers properly preserved per each analysis?	☑ Yes	☐ No	
16. Were VOA vials collected correctly (no headspace)?	☑ Yes	☐ No	☐ N/A
17. Were all holding times able to be met?	☑ Yes	☐ No	

Discrepancies/ Notes

18. Was client notified of all discrepancies?	☐ Yes	☐ No	☑ N/A

Person Notified: _____ Date: _____

By Whom: _____ Via: _____

Regarding: _____

19. Comments. _____

Libby Environmental, Inc.

3322 South Bay Road NE • Olympia, WA 98506-2957

July 20, 2020

Vance Atkins
O'Neill Service Group
17619 NE 67th Ct, Suite 100
Redmond, WA 98052

Dear Mr. Atkins:

Please find enclosed the analytical data report for the F200 Project located in Federal Way, Washington.

The results of the analyses are summarized in the attached tables. Applicable detection limits and QA/QC data are included. The sample(s) will be disposed of within 30 days unless we are contacted to arrange long term storage.

Libby Environmental, Inc. appreciates the opportunity to have provided analytical services for this project. If you have any further questions about the data report, please give me a call. It was a pleasure working with you on this project, and we are looking forward to the next opportunity to work together.

Sincerely,

Sherry L. Chilcutt
Senior Chemist
Libby Environmental, Inc.

Phone (360) 352-2110 • Fax (360) 352-4154 • libbyenv@gmail.com

Libby Environmental, Inc.

Chain of Custody Record

www.LibbyEnvironmental.com

3322 South Bay Road NE
Olympia, WA 98506
Ph: 360-352-2110
Fax: 360-352-4154

Date: 7/16/20 Page: 1 of 1

Client: OSG

Project Manager: ATKINS, VANCE

Address:

Project Name: F200

City: State: Zip:

Location: FL358 City, State: FEDERAL WAY

Phone: 425-677-3009 Fax:

Collector: ATKINS Date of Collection: 7/16/20

Client Project # 2021

Email: VANCEA@ONEILLSG.COM

Sample Number	Depth	Time	Sample Type	Container Type	VOC 8260	PCE & Daughter Prod.	NWTPH-Gx	BTEX (8260) / (8021)	NWTPH-HCID	NWTPH-Dx / Dx	PCB 8082	MTCA 5 Metals	RCRA 8 Metals	c PAH 8270	PAH 8270	Semi Vol 8270				Field Notes
1 358-PEx-6-4	3-4	1315	S	4oz/Jar		✓														
2 358-PEx-7-7	6-7	1320				✓														
3 358-PEx-8-4	3-4	1325				✓														
4 358-PEx-9-4	3-4	1330				✓														
5																				
6																				
7																				
8																				
9																				
10																				
11																				
12																				
13																				
14																				
15																				
16																				
17																				

Relinquished by:	Date / Time	Received by:	Date / Time
[signature]	7/16/20 1415	[signature]	7-10-2014/5
Relinquished by:	Date / Time	Received by:	Date / Time
Relinquished by:	Date / Time	Received by:	Date / Time

Sample Receipt

Good Condition?	Y	N
Cooler Temp.		°C
Sample Temp.		°C
Total Number of Containers		

Remarks: Non A.M. 0.1degreeC

TAT: 24HR 48HR 5-DAY

Distribution: White - Lab, Yellow - Originator

Libby Environmental, Inc.

3322 South Bay Road NE
Olympia, WA 98506
Phone: (360) 352-2110
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Email: libbyenv@gmail.com

F200 PROJECT
O'Neill Service Group
Federal Way, Washington
Libby Project # L200717-1
Client Project # 2021

Volatile Organic Compounds by EPA Method 8260D in Soil

Sample Description		Method Blank	358-PEX-6-4	358-PEX-7-7	358-PEX-7-7 Dup	358-PEX-8-4	358-PEX-9-4
Date Sampled		N/A	7/17/2020	7/17/2020	7/17/2020	7/17/2020	7/17/2020
Date Analyzed	PQL (mg/kg)	7/18/2020 (mg/kg)	7/18/2020 (mg/kg)	7/18/2020 (mg/kg)	7/18/2020 (mg/kg)	7/18/2020 (mg/kg)	7/18/2020 (mg/kg)
Vinyl Chloride (VC)	0.02	nd	nd	nd	nd	nd	nd
1,1-Dichloroethene	0.05	nd	nd	nd	nd	nd	nd
trans-1,2-Dichloroethene	0.03	nd	nd	nd	nd	nd	nd
cis -1,2-Dichloroethene	0.03	nd	nd	nd	nd	0.075	nd
Trichloroethene (TCE)	0.02	nd	nd	0.019 J	0.024	0.16	nd
Tetrachloroethene (PCE)	0.03	nd	nd	0.041	0.068	0.75	nd
Surrogate Recovery							
Dibromofluoromethane		117	115	104	116	106	112
1,2-Dichloroethane-d4		127	134	129	135	124	135
Toluene-d8		100	98	102	98	89	94
4-Bromofluorobenzene		94	86	83	90	91	90

"nd" Indicates not detected at listed detection limit.
"int" Indicates that interference prevents determination.
“J” Result is less than the PQL but greater than the MDL. Reported value is approximate.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE : 65% TO 135%

ANALYSES PERFORMED BY: Sherry Chilcutt

Libby Environmental, Inc.

3322 South Bay Road NE
Olympia, WA 98506
Phone: (360) 352-2110
FAX: (360) 352-4154
Email: libbyenv@gmail.com

F200 PROJECT
O'Neill Service Group
Federal Way, Washington
Libby Project # L200717-1
Client Project # 2021

QA/QC for Volatile Organic Compounds by EPA Method 8260D in Soil

Matrix Spike Sample Identification: 358-PEX-7-7

	Spiked Conc. (mg/kg)	MS Response (mg/kg)	MSD Response (mg/kg)	MS Recovery (%)	MSD Recovery (%)	RPD (%)	Limits Recovery (%)	Data Flag
Vinyl Chloride (VC)	0.25	0.24	0.26	97	105	7.9	65-135	
1,1-Dichloroethene	0.25	0.27	0.27	106	107	0.8	65-135	
trans-1,2-Dichloroethene	0.25	0.30	0.29	120	118	2.4	65-135	
cis -1,2-Dichloroethene	0.25	0.25	0.28	101	112	10.9	65-135	
Trichloroethene (TCE)	0.25	0.19	0.20	74	80	7.8	65-135	
Tetrachloroethene (PCE)	0.25	0.25	0.3	98	106	7.8	65-135	

Surrogate Recovery (%)	MS	MSD	
Dibromofluoromethane	105	100	65-135
1,2-Dichloroethane-d4	129	128	65-135
Toluene-d8	92	92	65-135
4-Bromofluorobenzene	90	89	65-135

ACCEPTABLE RPD IS 35%

ANALYSES PERFORMED BY: Sherry Chilcutt

Libby Environmental, Inc.

3322 South Bay Road NE
Olympia, WA 98506
Phone: (360) 352-2110
FAX: (360) 352-4154
Email: libbyenv@gmail.com

F200 PROJECT
O'Neill Service Group
Federal Way, Washington
Libby Project # L200717-1
Client Project # 2021

Laboratory Control Sample

	Spiked Conc. (mg/kg)	LCS Response (mg/kg)	LCS Recovery (%)	LCS Recovery Limits (%)	Data Flag
Vinyl Chloride (VC)	0.25	0.30	118	80-120	
1,1-Dichloroethene	0.25	0.30	120	80-120	
trans-1,2-Dichloroethene	0.25	0.30	119	80-120	
cis -1,2-Dichloroethene	0.25	0.24	95	80-120	
Trichloroethene (TCE)	0.25	0.21	82	80-120	
Tetrachloroethene (PCE)	0.25	0.23	94	80-120	

Surrogate Recovery		
Dibromofluoromethane	113	65-135
1,2-Dichloroethane-d4	134	65-135
Toluene-d8	101	65-135
4-Bromofluorobenzene	99	65-135

ANALYSES PERFORMED BY: Sherry Chilcutt

Libby Environmental, Inc.

3322 South Bay Road NE
Olympia, WA 98506
Phone: (360) 352-2110
FAX: (360) 352-4154
Email: libbyenv@gmail.com

F200 PROJECT
O'Neill Service Group
Libby Project # L200717-1
Date Received 7/17/2020
Time Received 2:15 PM

Received By SC

Sample Receipt Checklist

Chain of Custody

1. Is the Chain of Custody complete?	☑ Yes	☐ No	
2. How was the sample delivered?	☐ Hand Delivered	☑ Picked Up	☐ Shipped

Log In

3. Cooler or Shipping Container is present.	☑ Yes	☐ No	☐ N/A
4. Cooler or Shipping Container is in good condition.	☑ Yes	☐ No	☐ N/A
5. Cooler or Shipping Container has Custody Seals present.	☐ Yes	☑ No	☐ N/A
6. Was an attempt made to cool the samples?	☑ Yes	☐ No	☐ N/A
7. Temperature of cooler (0°C to 8°C recommended)	0.1 °C		
8. Temperature of sample(s) (0°C to 8°C recommended)	7.8 °C		
9. Did all containers arrive in good condition (unbroken)?	☑ Yes	☐ No	
10. Is it clear what analyses were requested?	☑ Yes	☐ No	
11. Did container labels match Chain of Custody?	☑ Yes	☐ No	
12. Are matrices correctly identified on Chain of Custody?	☑ Yes	☐ No	
13. Are correct containers used for the analysis indicated?	☑ Yes	☐ No	
14. Is there sufficient sample volume for indicated analysis?	☑ Yes	☐ No	
15. Were all containers properly preserved per each analysis?	☑ Yes	☐ No	
16. Were VOA vials collected correctly (no headspace)?	☑ Yes	☐ No	☐ N/A
17. Were all holding times able to be met?	☑ Yes	☐ No	

Discrepancies/ Notes

18. Was client notified of all discrepancies?	☐ Yes	☐ No	☑ N/A

Person Notified: _____ Date: _____
By Whom: _____ Via: _____
Regarding: _____

19. Comments. Samples prepreserved with 5ml MeOH

Libby Environmental, Inc.

3322 South Bay Road NE • Olympia, WA 98506-2957

July 23, 2020

Vance Atkins
O'Neill Service Group
17619 NE 67th Ct, Suite 100
Redmond, WA 98052

Dear Mr. Atkins:

Please find enclosed the analytical data report for the F200 Project located in Federal Way, Washington.

The results of the analyses are summarized in the attached tables. Applicable detection limits and QA/QC data are included. The sample(s) will be disposed of within 30 days unless we are contacted to arrange long term storage.

Libby Environmental, Inc. appreciates the opportunity to have provided analytical services for this project. If you have any further questions about the data report, please give me a call. It was a pleasure working with you on this project, and we are looking forward to the next opportunity to work together.

Sincerely,

Sherry L. Chilcutt
Senior Chemist
Libby Environmental, Inc.

Phone (360) 352-2110 • Fax (360) 352-4154 • libbyenv@gmail.com

Libby Environmental, Inc.

Chain of Custody Record

www.LibbyEnvironmental.com

3322 South Bay Road NE
Olympia, WA 98506
Ph: 360-352-2110
Fax: 360-352-4154

Date: 7/20/20 Page: 1 of 1

Client: OSG

Project Manager: Atkins, Vance

Address:

Project Name: F200

City: State: Zip:

Location: FL358 City, State: Fed Way

Phone: 425-677-3009 Fax:

Collector: Atkins Date of Collection: 7/20/20

Client Project # 2021

Email: VANCEA@ONELLSG.COM

	Sample Number	Depth	Time	Sample Type	Container Type	VOC 8260	PCE & Daughter Prod.	NWTPH-Gx	BTEX (8260) / (8021)	NWTPH-HCID	NWTPH-Dx / Dx	PCB 8082	MTCA 5 Metals	RCRA 8 Metals	cPAH 8270	PAH 8270	Semi Vol 8270				Field Notes
1	358-PSS-10-1	0-1	1255	S	4oz/VOA		X														
2	-11-6	5-6	1257				X														
3	-12-1	0-1	1302				X														
4	-13-6	5-6	1305				X														
5	-14-1	0-1	1308				X														
6	-15-6	5-6	1310				X														
7	-16-1	0-1	1312				X														
8	-17-6	5-6	1315				X														
9	-18-10	9-10	1605				X														PRIORITY
10	-19-10	9-10	1607				X														
11	-20-11	11	1610				X														
12	-21-10	9-10	1612				X														
13																					
14																					
15																					
16																					
17																					

Relinquished by:	Date / Time	Received by:	Date / Time
[signature]	7/20/20 1740	[signature]	7/20/2020 1740
Relinquished by:	Date / Time	Received by:	Date / Time
Relinquished by:	Date / Time	Received by:	Date / Time

Sample Receipt

Good Condition?	Y	N
Cooler Temp.		°C
Sample Temp.		°C
Total Number of Containers		

Remarks: RUSH

TAT: 24HR 48HR 5-DAY

Distribution: White - Lab, Yellow - Originator

Libby Environmental, Inc.

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F200 PROJECT
O'Neill Service Group
Federal Way, Washington
Libby Project # L200720-2
Client Project # 2021

Volatile Organic Compounds by EPA Method 8260D in Soil

Sample Description		Method Blank	358-PEX-10-1	358-PEX-10-1 Dup	358-PEX-11-6	358-PEX-12-1	358-PEX-13-6
Date Sampled		N/A	7/20/2020	7/20/2020	7/20/2020	7/20/2020	7/20/2020
Date Analyzed	PQL (mg/kg)	7/20/2020 (mg/kg)	7/21/2020 (mg/kg)	7/20/2020 (mg/kg)	7/20/2020 (mg/kg)	7/20/2020 (mg/kg)	7/20/2020 (mg/kg)
Vinyl Chloride (VC)	0.02	nd	nd	nd	nd	nd	nd
1,1-Dichloroethene	0.05	nd	nd	nd	nd	nd	nd
trans-1,2-Dichloroethene	0.02	nd	nd	nd	nd	nd	nd
cis -1,2-Dichloroethene	0.02	nd	nd	nd	nd	nd	nd
Trichloroethene (TCE)	0.02	nd	nd	nd	nd	nd	nd
Tetrachloroethene (PCE)	0.02	nd	nd	nd	nd	0.019	nd
Surrogate Recovery							
Dibromofluoromethane		118	116	116	107	118	118
1,2-Dichloroethane-d4		133	127	117	127	133	129
Toluene-d8		98	99	95	87	94	98
4-Bromofluorobenzene		94	90	89	96	90	93

"nd" Indicates not detected at listed detection limit.
"int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE : 65% TO 135%

ANALYSES PERFORMED BY: Paul Burke

Libby Environmental, Inc.

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F200 PROJECT
O'Neill Service Group
Federal Way, Washington
Libby Project # L200720-2
Client Project # 2021

Volatile Organic Compounds by EPA Method 8260D in Soil

Sample Description		358-PEX-14-1	358-PEX-15-6	358-PEX-16-1	358-PEX-17-6	358-PEX-17-6 Dup	358-PEX-18-10
Date Sampled		7/20/20	7/20/20	7/20/20	7/20/20	7/20/20	7/20/20
Date Analyzed	PQL (mg/kg)	7/20/20 (mg/kg)	7/20/20 (mg/kg)	7/20/20 (mg/kg)	7/20/20 (mg/kg)	7/20/20 (mg/kg)	7/20/20 (mg/kg)
Vinyl Chloride (VC)	0.02	nd	nd	nd	nd	nd	nd
1,1-Dichloroethene	0.05	nd	nd	nd	nd	nd	nd
trans-1,2-Dichloroethene	0.02	nd	nd	nd	nd	nd	nd
cis -1,2-Dichloroethene	0.02	nd	0.037	nd	0.44	0.46	nd
Trichloroethene (TCE)	0.02	0.025	nd	nd	nd	nd	nd
Tetrachloroethene (PCE)	0.02	0.052	nd	0.021	nd	nd	10.3
Surrogate Recovery							
Dibromofluoromethane		116	115	115	112	112	117
1,2-Dichloroethane-d4		135	135	135	130	131	134
Toluene-d8		97	97	96	98	100	97
4-Bromofluorobenzene		91	88	88	101	99	94

"nd" Indicates not detected at listed detection limit.
"int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE : 65% TO 135%

ANALYSES PERFORMED BY: Paul Burke

Libby Environmental, Inc.

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F200 PROJECT
O'Neill Service Group
Federal Way, Washington
Libby Project # L200720-2
Client Project # 2021

Volatile Organic Compounds by EPA Method 8260D in Soil

Sample Description		358-PEX-19-10	358-PEX-20-11	358-PEX-21-10
Date Sampled		7/20/20	7/20/20	7/20/20
Date Analyzed	PQL (mg/kg)	7/20/20 (mg/kg)	7/20/20 (mg/kg)	7/20/20 (mg/kg)
Vinyl Chloride (VC)	0.02	nd	nd	nd
1,1-Dichloroethene	0.05	nd	nd	nd
trans-1,2-Dichloroethene	0.02	nd	nd	nd
cis -1,2-Dichloroethene	0.02	0.12	0.049	0.074
Trichloroethene (TCE)	0.02	0.93	0.029	0.049
Tetrachloroethene (PCE)	0.02	4.48	9.33	3.58
Surrogate Recovery				
Dibromofluoromethane		108	118	115
1,2-Dichloroethane-d4		131	134	132
Toluene-d8		94	96	97
4-Bromofluorobenzene		90	91	93

"nd" Indicates not detected at listed detection limit.
"int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE : 65% TO 135%

ANALYSES PERFORMED BY: Paul Burke

Libby Environmental, Inc.

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F200 PROJECT
O'Neill Service Group
Federal Way, Washington
Libby Project # L200720-2
Client Project # 2021

QA/QC for Volatile Organic Compounds by EPA Method 8260D in Soil

Matrix Spike Sample Identification: 358-PEX-17-6

	Spiked Conc. (mg/kg)	MS Response (mg/kg)	MSD Response (mg/kg)	MS Recovery (%)	MSD Recovery (%)	RPD (%)	Limits Recovery (%)	Data Flag
Vinyl Chloride (VC)	0.25	0.24	0.17	96	68	34.1	65-135	
1,1-Dichloroethene	0.25	0.28	0.17	112	68	48.9	65-135	R
trans-1,2-Dichloroethene	0.25	0.15	0.16	60	64	6.5	65-135	S
cis -1,2-Dichloroethene	0.25	0.20	0.22	80	88	9.5	65-135	
Trichloroethene (TCE)	0.25	0.22	0.20	88	80	9.5	65-135	
Tetrachloroethene (PCE)	0.25	0.20	0.18	80	72	10.5	65-135	

Surrogate Recovery (%)	MS	MSD	
Dibromofluoromethane	106	135	65-135
1,2-Dichloroethane-d4	130	133	65-135
Toluene-d8	99	112	65-135
4-Bromofluorobenzene	99	118	65-135

ACCEPTABLE RPD IS 35%
"R" High relative percent difference observed.
"S" Spike recovery outside accepted recovery limits.

ANALYSES PERFORMED BY: Paul Burke

Libby Environmental, Inc.

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Olympia, WA 98506
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Email: libbyenv@gmail.com

F200 PROJECT
O'Neill Service Group
Federal Way, Washington
Libby Project # L200720-2
Client Project # 2021

Laboratory Control Sample

	Spiked Conc. (mg/kg)	LCS Response (mg/kg)	LCS Recovery (%)	LCS Recovery Limits (%)	Data Flag
Vinyl Chloride (VC)	0.25	0.21	86	80-120	
1,1-Dichloroethene	0.25	0.26	104	80-120	
trans-1,2-Dichloroethene	0.25	0.27	106	80-120	
cis -1,2-Dichloroethene	0.25	0.30	119	80-120	
Trichloroethene (TCE)	0.25	0.23	90	80-120	
Tetrachloroethene (PCE)	0.25	0.24	96	80-120	

Surrogate Recovery		
Dibromofluoromethane	90	65-135
1,2-Dichloroethane-d4	114	65-135
Toluene-d8	83	65-135
4-Bromofluorobenzene	100	65-135

ANALYSES PERFORMED BY: Paul Burke

Libby Environmental, Inc.

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Email: libbyenv@gmail.com

F200 PROJECT
O'Neill Service Group
Federal Way, Washington
Libby Project # L200720-2
Client Project # 2021

Analysis of Moisture in Soil

Sample Number	Percent Moisture
358-PEX-10-1	11.0%
358-PEX-11-6	17.8%
358-PEX-12-1	7.7%
358-PEX-13-6	16.2%
358-PEX-14-1	8.1%
358-PEX-15-6	7.4%
358-PEX-16-1	3.8%
358-PEX-17-6	17.2%
358-PEX-18-10	10.9%
358-PEX-19-10	9.1%
358-PEX-20-11	10.0%
358-PEX-21-10	10.3%
Reporting Limit	0.5

ANALYSES PERFORMED BY: Kory Dixon & Jodie Childress

Libby Environmental, Inc.

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Olympia, WA 98506
Phone: (360) 352-2110
FAX: (360) 352-4154
Email: libbyenv@gmail.com

F200 PROJECT
O'Neill Service Group
Libby Project # L200720-2
Date Received 7/20/2020
Time Received 5:40 PM

Received By EB

Sample Receipt Checklist

Chain of Custody

1. Is the Chain of Custody complete?	☑ Yes	☐ No	
2. How was the sample delivered?	☐ Hand Delivered	☑ Picked Up	☐ Shipped

Log In

3. Cooler or Shipping Container is present.	☑ Yes	☐ No	☐ N/A
4. Cooler or Shipping Container is in good condition.	☑ Yes	☐ No	☐ N/A
5. Cooler or Shipping Container has Custody Seals present.	☐ Yes	☑ No	☐ N/A
6. Was an attempt made to cool the samples?	☑ Yes	☐ No	☐ N/A
7. Temperature of cooler (0°C to 8°C recommended)	6.7 °C		
8. Temperature of sample(s) (0°C to 8°C recommended)	11.0 °C		
9. Did all containers arrive in good condition (unbroken)?	☑ Yes	☐ No	
10. Is it clear what analyses were requested?	☑ Yes	☐ No	
11. Did container labels match Chain of Custody?	☑ Yes	☐ No	
12. Are matrices correctly identified on Chain of Custody?	☑ Yes	☐ No	
13. Are correct containers used for the analysis indicated?	☑ Yes	☐ No	
14. Is there sufficient sample volume for indicated analysis?	☑ Yes	☐ No	
15. Were all containers properly preserved per each analysis?	☑ Yes	☐ No	
16. Were VOA vials collected correctly (no headspace)?	☑ Yes	☐ No	☐ N/A
17. Were all holding times able to be met?	☑ Yes	☐ No	

Discrepancies/ Notes

18. Was client notified of all discrepancies? ☐ Yes ☐ No ☑ N/A

Person Notified: _____ Date: _____

By Whom: _____ Via: _____

Regarding: _____

19. Comments. _____

Libby Environmental, Inc.

3322 South Bay Road NE • Olympia, WA 98506-2957

July 21, 2020

Vance Atkins
O'Neill Service Group
17619 NE 67th Ct, Suite 100
Redmond, WA 98052

Dear Mr. Atkins:

Please find enclosed the analytical data report for the F200 Project located in Federal Way, Washington.

The results of the analyses are summarized in the attached tables. Applicable detection limits and QA/QC data are included. The sample(s) will be disposed of within 30 days unless we are contacted to arrange long term storage.

Libby Environmental, Inc. appreciates the opportunity to have provided analytical services for this project. If you have any further questions about the data report, please give me a call. It was a pleasure working with you on this project, and we are looking forward to the next opportunity to work together.

Sincerely,

Sherry L. Chilcutt
Senior Chemist
Libby Environmental, Inc.

Phone (360) 352-2110 • Fax (360) 352-4154 • libbyenv@gmail.com

Libby Environmental, Inc.

Chain of Custody Record

www.LibbyEnvironmental.com

3322 South Bay Road NE
Olympia, WA 98506
Ph: 360-352-2110
Fax: 360-352-4154

Date: 7/20/20 Page: 1 of 1

Client: OSG

Project Manager: Atkins, Vance

Address:

Project Name: F200

City: State: Zip:

Location: F-358 City, State: Foo Way

Phone: 425 677 3009 Fax:

Collector: Atkins Date of Collection: 7/20/20

Client Project # 2021

Email: vancea@oneillsg.com

Sample Number	Depth	Time	Sample Type	Container Type	VOC 8260	PCE & Daughter Prod.	NWTPH-Gx	BTEX (8260) / (8021)	NWTPH-HCID	NWTPH-Dx / Dx	PCB 8082	MTCA 5 Metals	RCRA 8 Metals	c PAH 8270	PAH 8270	Semi Vol 8270				Field Notes
1 358-Tank-Comp	—	1400	W	3 VOA		X														
2																				
3																				
4																				
5																				
6																				
7																				
8																				
9																				
10																				
11																				
12																				
13																				
14																				
15																				
16																				
17																				

Relinquished by:	Date / Time	Received by:	Date / Time
Van Q	7/20/20 - 1740	Eng 2 h	7/20/2020 1740
Relinquished by:	Date / Time	Received by:	Date / Time
Relinquished by:	Date / Time	Received by:	Date / Time

Sample Receipt

Good Condition?	Y	N
Cooler Temp.		°C
Sample Temp.		°C
Total Number of Containers		

Remarks:

TAT: 24HR 48HR 5-DAY

Distribution: White - Lab, Yellow - Originator

Libby Environmental, Inc.

3322 South Bay Road NE
Olympia, WA 98506
Phone: (360) 352-2110
FAX: (360) 352-4154
Email: libbyenv@gmail.com

F200 PROJECT
O'Neill Service Group
Federal Way, Washington
Libby Project # L200720-3
Client Project # 2021

Volatile Organic Compounds by EPA Method 8260D in Water

Sample Description		Method Blank	358-Tank-Comp	358-Tank-Comp Dup
Date Sampled		N/A	7/20/2020	7/20/2020
Date Analyzed	PQL (µg/L)	7/21/2020 (µg/L)	7/21/2020 (µg/L)	7/21/2020 (µg/L)
Vinyl Chloride (VC)	0.2	nd	nd	nd
1,1-Dichloroethene	0.5	nd	nd	nd
trans-1,2-Dichloroethene	1.0	nd	nd	nd
cis -1,2-Dichloroethene	1.0	nd	11	12
Trichloroethene (TCE)	0.4	nd	12	13
Tetrachloroethene (PCE)	1.0	nd	38	38
Surrogate Recovery				
Dibromofluoromethane		121	107	112
1,2-Dichloroethane-d4		123	115	119
Toluene-d8		99	100	100
4-Bromofluorobenzene		91	92	95

"nd" Indicates not detected at listed detection limit.
"int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE : 65% TO 135%

ANALYSES PERFORMED BY: Paul Burke

Libby Environmental, Inc.

3322 South Bay Road NE
Olympia, WA 98506
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FAX: (360) 352-4154
Email: libbyenv@gmail.com

F200 PROJECT
O'Neill Service Group
Federal Way, Washington
Libby Project # L200720-3
Client Project # 2021

QA/QC for Volatile Organic Compounds by EPA Method 8260D in Water

Matrix Spike Sample Identification: 358-Tank-Comp

	Spiked Conc. (µg/L)	MS Response (µg/L)	MSD Response (µg/L)	MS Recovery (%)	MSD Recovery (%)	RPD (%)	Limits Recovery (%)	Data Flag
Vinyl Chloride (VC)	5.0	3.7	3.6	74	72	2.7	65-135	
1,1-Dichloroethene	5.0	5.1	5.2	102	104	1.9	65-135	
trans-1,2-Dichloroethene	5.0	4.6	5.7	92	114	21.4	65-135	
cis-1,2-Dichloroethene	5.0	4.6	5.2	92	104	12.2	65-135	
Trichloroethene (TCE)	5.0	4.7	6.2	94	124	27.5	65-135	
Tetrachloroethene (PCE)	5.0	6.1	10.7	122	214	54.8	65-135	R, S

Surrogate Recovery (%)	MS	MSD	
Dibromofluoromethane	109	109	65-135
1,2-Dichloroethane-d4	126	122	65-135
Toluene-d8	102	103	65-135
4-Bromofluorobenzene	97	96	65-135

ACCEPTABLE RPD IS 35%
"R" High relative percent difference observed.
"S" Spike recovery outside accepted recovery limits.

ANALYSES PERFORMED BY: Paul Burke

Laboratory Control Sample

	Spiked Conc. (µg/L)	LCS Response (µg/L)	LCS Recovery (%)	LCS Recovery Limits (%)	Data Flag
Vinyl Chloride (VC)	5.0	4.6	92	80-120	
1,1-Dichloroethene	5.0	4.5	90	80-120	
trans-1,2-Dichloroethene	5.0	3.3	66	80-120	
cis-1,2-Dichloroethene	5.0	4.9	98	80-120	
Trichloroethene (TCE)	5.0	4.8	96	80-120	
Tetrachloroethene (PCE)	5.0	4.7	94	80-120	

Surrogate Recovery		
Dibromofluoromethane	125	65-135
1,2-Dichloroethane-d4	131	65-135
Toluene-d8	109	65-135
4-Bromofluorobenzene	104	65-135

ANALYSES PERFORMED BY: Paul Burke

Libby Environmental, Inc.

3322 South Bay Road NE
Olympia, WA 98506
Phone: (360) 352-2110
FAX: (360) 352-4154
Email: libbyenv@gmail.com

F200 PROJECT
O'Neill Service Group
Libby Project # L200720-3
Date Received 7/20/2020
Time Received 5:40 PM

Received By EB

Sample Receipt Checklist

Chain of Custody

1. Is the Chain of Custody complete?	☑ Yes	☐ No	
2. How was the sample delivered?	☐ Hand Delivered	☑ Picked Up	☐ Shipped

Log In

3. Cooler or Shipping Container is present.	☑ Yes	☐ No	☐ N/A
4. Cooler or Shipping Container is in good condition.	☑ Yes	☐ No	☐ N/A
5. Cooler or Shipping Container has Custody Seals present.	☐ Yes	☑ No	☐ N/A
6. Was an attempt made to cool the samples?	☑ Yes	☐ No	☐ N/A
7. Temperature of cooler (0°C to 8°C recommended)	6.7 °C		
8. Temperature of sample(s) (0°C to 8°C recommended)	11.0 °C		
9. Did all containers arrive in good condition (unbroken)?	☑ Yes	☐ No	
10. Is it clear what analyses were requested?	☑ Yes	☐ No	
11. Did container labels match Chain of Custody?	☑ Yes	☐ No	
12. Are matrices correctly identified on Chain of Custody?	☑ Yes	☐ No	
13. Are correct containers used for the analysis indicated?	☑ Yes	☐ No	
14. Is there sufficient sample volume for indicated analysis?	☑ Yes	☐ No	
15. Were all containers properly preserved per each analysis?	☑ Yes	☐ No	
16. Were VOA vials collected correctly (no headspace)?	☑ Yes	☐ No	☐ N/A
17. Were all holding times able to be met?	☑ Yes	☐ No	

Discrepancies/ Notes

18. Was client notified of all discrepancies?	☐ Yes	☐ No	☑ N/A

Person Notified: _____ Date: _____

By Whom: _____ Via: _____

Regarding: _____

19. Comments. _____

Libby Environmental, Inc.

3322 South Bay Road NE • Olympia, WA 98506-2957

July 23, 2020

Vance Atkins
O'Neill Service Group
17619 NE 67th Ct, Suite 100
Redmond, WA 98052

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Sincerely,

Sherry L. Chilcutt
Senior Chemist
Libby Environmental, Inc.

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Libby Environmental, Inc.

Chain of Custody Record

www.LibbyEnvironmental.com

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Ph: 360-352-2110
Fax: 360-352-4154

Client: OJJ
Address:
City: State: Zip:
Phone: 425-677-3009 Fax:
Client Project # 2021

Date: 7/21/20 Page: 1 of 1
Project Manager: Atkins, VANCE
Project Name: Foo
Location: FB58 City, State: Foo Way, WA
Collector: Atkins Date of Collection: 7/21/20
Email: VANCEAO@ONEILL39.COM

Sample Number	Depth	Time	Sample Type	Container Type	VOC 8260	PCE & Daughter Prod.	NWTPH-Gx	BTEX (8260) / (8021)	NWTPH-HCID	NWTPH-Dx / Dx	PCB 8082	MTCA 5 Metals	RCRA 8 Metals	c PAH 8270	PAH 8270	Semi Vol 8270				Field Notes
1 BIN 8725	—	805	S	4oz/Jar		X														7-21-20 change to RUSH per Vance
2																				
3																				
4																				
5																				
6																				
7																				
8																				
9																				
10																				
11																				
12																				
13																				
14																				
15																				
16																				
17																				

Relinquished by:	Date / Time	Received by:	Date / Time
[signature]	7/21/20 1005	[signature]	7/21/20 10:08
[signature]	7/21/20 10:33	Julie Chadwick	7/21/20 10:33

Sample Receipt

Good Condition?	Y	N
Cooler Temp.		°C
Sample Temp.		°C
Total Number of Containers		

Remarks: RUSH

TAT: 24HR 48HR 5-DAY

Distribution: White - Lab, Yellow - Originator

Libby Environmental, Inc.

3322 South Bay Road NE
Olympia, WA 98506
Phone: (360) 352-2110
FAX: (360) 352-4154
Email: libbyenv@gmail.com

F200 PROJECT
O'Neill Service Group
Federal Way, Washington
Libby Project # L200721-2
Client Project # 2021

Volatile Organic Compounds by EPA Method 8260D in Soil

Sample Description		Method Blank	BIN 8725	BIN 8725 Dup
Date Sampled		N/A	7/21/2020	7/21/2020
Date Analyzed	PQL (mg/kg)	7/21/2020 (mg/kg)	7/21/2020 (mg/kg)	7/21/2020 (mg/kg)
Vinyl Chloride (VC)	0.02	nd	nd	nd
1,1-Dichloroethene	0.05	nd	nd	nd
trans-1,2-Dichloroethene	0.02	nd	nd	nd
cis -1,2-Dichloroethene	0.02	nd	0.027	nd
Trichloroethene (TCE)	0.02	nd	0.022	nd
Tetrachloroethene (PCE)	0.02	nd	44 E	42
Surrogate Recovery				
Dibromofluoromethane		121	118	122
1,2-Dichloroethane-d4		123	115	134
Toluene-d8		99	97	96
4-Bromofluorobenzene		91	97	96

"E" Indicates reported result is an estimate because it exceeds the calibration range.
"nd" Indicates not detected at listed detection limit.
"int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE : 65% TO 135%

ANALYSES PERFORMED BY: Paul Burke

Libby Environmental, Inc.

3322 South Bay Road NE
Olympia, WA 98506
Phone: (360) 352-2110
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Email: libbyenv@gmail.com

F200 PROJECT
O'Neill Service Group
Federal Way, Washington
Libby Project # L200721-2
Client Project # 2021

QA/QC for Volatile Organic Compounds by EPA Method 8260D in Soil

Matrix Spike Sample Identification: L200721-3

	Spiked Conc. (mg/kg)	MS Response (mg/kg)	MSD Response (mg/kg)	MS Recovery (%)	MSD Recovery (%)	RPD (%)	Limits Recovery (%)	Data Flag
Vinyl Chloride (VC)	0.25	0.17	0.18	68	72	5.7	65-135	
1,1-Dichloroethene	0.25	0.27	0.27	108	108	0.0	65-135	
trans-1,2-Dichloroethene	0.25	0.26	0.25	104	100	3.9	65-135	
cis -1,2-Dichloroethene	0.25	0.22	0.18	88	72	20.0	65-135	
Trichloroethene (TCE)	0.25	0.23	0.29	92	116	23.1	65-135	
Tetrachloroethene (PCE)	0.25	0.22	0.21	88	84	4.7	65-135	

Surrogate Recovery (%)	MS	MSD	
Dibromofluoromethane	114	112	65-135
1,2-Dichloroethane-d4	132	130	65-135
Toluene-d8	101	99	65-135
4-Bromofluorobenzene	100	102	65-135

ACCEPTABLE RPD IS 35%

ANALYSES PERFORMED BY: Paul Burke

Libby Environmental, Inc.

3322 South Bay Road NE
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F200 PROJECT
O'Neill Service Group
Federal Way, Washington
Libby Project # L200721-2
Client Project # 2021

Laboratory Control Sample

	Spiked Conc. (mg/kg)	LCS Response (mg/kg)	LCS Recovery (%)	LCS Recovery Limits (%)	Data Flag
Vinyl Chloride (VC)	0.25	0.23	92	80-120	
1,1-Dichloroethene	0.25	0.22	88	80-120	
trans-1,2-Dichloroethene	0.25	0.22	88	80-120	
cis -1,2-Dichloroethene	0.25	0.24	96	80-120	
Trichloroethene (TCE)	0.25	0.24	96	80-120	
Tetrachloroethene (PCE)	0.25	0.23	92	80-120	

Surrogate Recovery		
Dibromofluoromethane	125	65-135
1,2-Dichloroethane-d4	131	65-135
Toluene-d8	109	65-135
4-Bromofluorobenzene	104	65-135

ANALYSES PERFORMED BY: Paul Burke

Libby Environmental, Inc.

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F200 PROJECT
O'Neill Service Group
Federal Way, Washington
Libby Project # L200721-2
Client Project # 2021

Analysis of Moisture in Soil

Sample Number	Percent Moisture
BIN 8725	11.6%
Reporting Limit	0.5

ANALYSES PERFORMED BY: Jodie Childress

Libby Environmental, Inc.

3322 South Bay Road NE
Olympia, WA 98506
Phone: (360) 352-2110
FAX: (360) 352-4154
Email: libbyenv@gmail.com

F200 PROJECT
O'Neill Service Group
Libby Project # L200721-2
Date Received 7/21/2020
Time Received 10:33 AM

Received By JC

Sample Receipt Checklist

Chain of Custody

1. Is the Chain of Custody complete?	☑ Yes	☐ No	
2. How was the sample delivered?	☐ Hand Delivered	☑ Picked Up	☐ Shipped

Log In

3. Cooler or Shipping Container is present.	☑ Yes	☐ No	☐ N/A
4. Cooler or Shipping Container is in good condition.	☑ Yes	☐ No	☐ N/A
5. Cooler or Shipping Container has Custody Seals present.	☐ Yes	☑ No	☐ N/A
6. Was an attempt made to cool the samples?	☑ Yes	☐ No	☐ N/A
7. Temperature of cooler (0°C to 8°C recommended)	0.3 °C		
8. Temperature of sample(s) (0°C to 8°C recommended)	12.1 °C		
9. Did all containers arrive in good condition (unbroken)?	☑ Yes	☐ No	
10. Is it clear what analyses were requested?	☑ Yes	☐ No	
11. Did container labels match Chain of Custody?	☑ Yes	☐ No	
12. Are matrices correctly identified on Chain of Custody?	☑ Yes	☐ No	
13. Are correct containers used for the analysis indicated?	☑ Yes	☐ No	
14. Is there sufficient sample volume for indicated analysis?	☑ Yes	☐ No	
15. Were all containers properly preserved per each analysis?	☑ Yes	☐ No	
16. Were VOA vials collected correctly (no headspace)?	☑ Yes	☐ No	☐ N/A
17. Were all holding times able to be met?	☑ Yes	☐ No	

Discrepancies/ Notes

18. Was client notified of all discrepancies?	☐ Yes	☐ No	☑ N/A

Person Notified: _____ Date: _____

By Whom: _____ Via: _____

Regarding: _____

19. Comments. _____

Libby Environmental, Inc.

3322 South Bay Road NE • Olympia, WA 98506-2957

July 23, 2020

Vance Atkins
O'Neill Service Group
17619 NE 67th Ct, Suite 100
Redmond, WA 98052

Dear Mr. Atkins:

Please find enclosed the analytical data report for the F200 Project located in Federal Way, Washington.

The results of the analyses are summarized in the attached tables. Applicable detection limits and QA/QC data are included. The sample(s) will be disposed of within 30 days unless we are contacted to arrange long term storage.

Libby Environmental, Inc. appreciates the opportunity to have provided analytical services for this project. If you have any further questions about the data report, please give me a call. It was a pleasure working with you on this project, and we are looking forward to the next opportunity to work together.

Sincerely,

Sherry L. Chilcutt
Senior Chemist
Libby Environmental, Inc.

Phone (360) 352-2110 • Fax (360) 352-4154 • libbyenv@gmail.com

Libby Environmental, Inc.

Chain of Custody Record

www.LibbyEnvironmental.com

3322 South Bay Road NE
Olympia, WA 98506
Ph: 360-352-2110
Fax: 360-352-4154

Date: 7/21/20 Page: 1 of 1

Client: Oneill Service Group (OSG)

Project Manager: Atkins, VANCE

Address:

Project Name: F20

City: State: Zip:

Location: F358 City, State: Fed Way

Phone: 425-677-3009 Fax:

Collector: Atkins Date of Collection: 7/21/20

Client Project # 2021

Email: on file

Sample Number	Depth	Time	Sample Type	Container Type	VOC 8260	PCE & Daughter Prod.	NWTPH-Gx	BTEX (8260) / (8021)	NWTPH-HCID	NWTPH-Dx / Dx	PCB 8082	MTCA 5 Metals	RCRA 8 Metals	c PAH 8270	PAH 8270	Semi Vol 8270				Field Notes
1 358-PEX-22-11	10-11	855	solid	4oz/VOA		X														Priority
2 358-PEX-23-2	1-2	9:30	Soil			X														
3 358-PEX-24-6	5-6	9:35am				X														
4 358-PEX-25-2	1-2	9:40am				X														
5 358-PEX-26-6	5-6	9:50am				X														
6 358-PEX-27-2	1-2	9:45am				X														
7 358-PEX-29-8	8	9:55am				X														
8 358-PEX-28-6	5-6	9:57am				X														
9 358-PEX-30-8	8	10:05am				X														
10 358-PEX-31-8	8	10:00am	soil	4oz/VOA		X														
11																				
12																				
13																				
14																				
15																				
16																				
17																				

Relinquished by:	Date / Time	Received by:	Date / Time
[signature]	7/21/20 1005	[signature]	7/21/20 10:04
[signature]	7/21/20 10:34	Jodie Chaldwell	7/21/20 10:33

Sample Receipt

Good Condition?	Y	N
Cooler Temp.		°C
Sample Temp.		°C
Total Number of Containers		

Remarks: Rush

TAT: 24HR 48HR 5-DAY

Distribution: White - Lab, Yellow - Originator

Libby Environmental, Inc.

3322 South Bay Road NE
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F200 PROJECT
O'Neill Service Group
Federal Way, Washington
Libby Project # L200721-3
Client Project # 2021

Volatile Organic Compounds by EPA Method 8260D in Soil

Sample Description		Method Blank	358-PEX-22-11	358-PEX-23-2	358-PEX-24-6	358-PEX-25-2	358-PEX-26-6
Date Sampled		N/A	7/21/2020	7/21/2020	7/21/2020	7/21/2020	7/21/2020
Date Analyzed	PQL (mg/kg)	7/21/2020 (mg/kg)	7/21/2020 (mg/kg)	7/21/2020 (mg/kg)	7/21/2020 (mg/kg)	7/21/2020 (mg/kg)	7/22/2020 (mg/kg)
Vinyl Chloride (VC)	0.02	nd	nd	nd	nd	nd	nd
1,1-Dichloroethene	0.05	nd	nd	nd	nd	nd	nd
trans-1,2-Dichloroethene	0.02	nd	nd	nd	nd	nd	nd
cis -1,2-Dichloroethene	0.02	nd	0.17	nd	1.6	0.050	0.21
Trichloroethene (TCE)	0.02	nd	0.12	nd	0.056	nd	0.046
Tetrachloroethene (PCE)	0.02	nd	1.3	0.048	nd	nd	0.13
Surrogate Recovery							
Dibromofluoromethane		109	116	114	105	107	109
1,2-Dichloroethane-d4		121	134	134	133	131	134
Toluene-d8		101	98	90	91	90	92
4-Bromofluorobenzene		91	91	92	106	94	97

"nd" Indicates not detected at listed detection limit.
"int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE : 65% TO 135%

ANALYSES PERFORMED BY: Paul Burke

Libby Environmental, Inc.

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F200 PROJECT
O'Neill Service Group
Federal Way, Washington
Libby Project # L200721-3
Client Project # 2021

Volatile Organic Compounds by EPA Method 8260D in Soil

Sample Description		358-PEX-26-6 Dup	358-PEX-27-2	358-PEX-29-8	358-PEX-28-6	358-PEX-30-8	358-PEX-31-8
Date Sampled		7/21/20	7/21/20	7/21/20	7/21/20	7/21/20	7/21/20
Date Analyzed	PQL (mg/kg)	7/21/20 (mg/kg)	7/21/20 (mg/kg)	7/21/20 (mg/kg)	7/21/20 (mg/kg)	7/21/20 (mg/kg)	7/22/20 (mg/kg)
Vinyl Chloride (VC)	0.02	nd	nd	nd	nd	nd	nd
1,1-Dichloroethene	0.05	nd	nd	nd	nd	nd	nd
trans-1,2-Dichloroethene	0.02	nd	nd	nd	nd	nd	nd
cis -1,2-Dichloroethene	0.02	0.20	nd	nd	0.77	nd	nd
Trichloroethene (TCE)	0.02	0.045	nd	nd	nd	nd	nd
Tetrachloroethene (PCE)	0.02	0.13	0.068	nd	nd	0.030	nd
Surrogate Recovery							
Dibromofluoromethane		107	113	108	103	124	127
1,2-Dichloroethane-d4		135	134	132	133	130	95
Toluene-d8		88	90	84	86	98	96
4-Bromofluorobenzene		99	89	93	92	93	123

"nd" Indicates not detected at listed detection limit.
"int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE : 65% TO 135%

ANALYSES PERFORMED BY: Paul Burke

Libby Environmental, Inc.

3322 South Bay Road NE
Olympia, WA 98506
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Email: libbyenv@gmail.com

F200 PROJECT
O'Neill Service Group
Federal Way, Washington
Libby Project # L200721-3
Client Project # 2021

Volatile Organic Compounds by EPA Method 8260D in Soil

Sample Description		358-PEX-31-8 Dup
Date Sampled		7/21/20
Date Analyzed	PQL (mg/kg)	7/21/20 (mg/kg)
Vinyl Chloride (VC)	0.02	nd
1,1-Dichloroethene	0.05	nd
trans-1,2-Dichloroethene	0.02	nd
cis -1,2-Dichloroethene	0.02	nd
Trichloroethene (TCE)	0.02	nd
Tetrachloroethene (PCE)	0.02	nd

Surrogate Recovery	
Dibromofluoromethane	124
1,2-Dichloroethane-d4	130
Toluene-d8	92
4-Bromofluorobenzene	88

"nd" Indicates not detected at listed detection limit.
"int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE : 65% TO 135%

ANALYSES PERFORMED BY: Paul Burke

Libby Environmental, Inc.

3322 South Bay Road NE
Olympia, WA 98506
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Email: libbyenv@gmail.com

F200 PROJECT
O'Neill Service Group
Federal Way, Washington
Libby Project # L200721-3
Client Project # 2021

QA/QC for Volatile Organic Compounds by EPA Method 8260D in Soil

Matrix Spike Sample Identification: 358-PEX-26-6

	Spiked Conc. (mg/kg)	MS Response (mg/kg)	MSD Response (mg/kg)	MS Recovery (%)	MSD Recovery (%)	RPD (%)	Limits Recovery (%)	Data Flag
Vinyl Chloride (VC)	0.25	0.17	0.18	68	72	5.7	65-135	
1,1-Dichloroethene	0.25	0.27	0.27	108	108	0.0	65-135	
trans-1,2-Dichloroethene	0.25	0.26	0.25	104	100	3.9	65-135	
cis -1,2-Dichloroethene	0.25	0.22	0.18	88	72	20.0	65-135	
Trichloroethene (TCE)	0.25	0.23	0.29	92	116	23.1	65-135	
Tetrachloroethene (PCE)	0.25	0.22	0.21	88	84	4.7	65-135	

Surrogate Recovery (%)	MS	MSD	
Dibromofluoromethane	114	112	65-135
1,2-Dichloroethane-d4	132	130	65-135
Toluene-d8	101	99	65-135
4-Bromofluorobenzene	100	102	65-135

ACCEPTABLE RPD IS 35%

ANALYSES PERFORMED BY: Paul Burke

Libby Environmental, Inc.

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F200 PROJECT
O'Neill Service Group
Federal Way, Washington
Libby Project # L200721-3
Client Project # 2021

Laboratory Control Sample

	Spiked Conc. (mg/kg)	LCS Response (mg/kg)	LCS Recovery (%)	LCS Recovery Limits (%)	Data Flag
Vinyl Chloride (VC)	0.25	0.23	92	80-120	
1,1-Dichloroethene	0.25	0.22	88	80-120	
trans-1,2-Dichloroethene	0.25	0.22	88	80-120	
cis -1,2-Dichloroethene	0.25	0.24	96	80-120	
Trichloroethene (TCE)	0.25	0.24	96	80-120	
Tetrachloroethene (PCE)	0.25	0.23	92	80-120	

Surrogate Recovery		
Dibromofluoromethane	125	65-135
1,2-Dichloroethane-d4	131	65-135
Toluene-d8	109	65-135
4-Bromofluorobenzene	104	65-135

ANALYSES PERFORMED BY: Paul Burke

Libby Environmental, Inc.

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Olympia, WA 98506
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Email: libbyenv@gmail.com

F200 PROJECT
O'Neill Service Group
Federal Way, Washington
Libby Project # L200721-3
Client Project # 2021

Analysis of Moisture in Soil

Sample Number	Percent Moisture
358-PEX-22-11	12.5%
358-PEX-23-2	9.6%
358-PEX-24-6	21.8%
358-PEX-25-2	9.9%
358-PEX-26-6	15.0%
358-PEX-27-2	6.8%
358-PEX-29-8	11.6%
358-PEX-28-6	24.3%
358-PEX-30-8	14.6%
358-PEX-31-8	15.2%
Reporting Limit	0.5

ANALYSES PERFORMED BY: Jodie Childress

Libby Environmental, Inc.

3322 South Bay Road NE
Olympia, WA 98506
Phone: (360) 352-2110
FAX: (360) 352-4154
Email: libbyenv@gmail.com

F200 PROJECT
O'Neill Service Group
Libby Project # L200721-3
Date Received 7/21/2020
Time Received 10:33 AM

Received By JC

Sample Receipt Checklist

Chain of Custody

1. Is the Chain of Custody complete?	☑ Yes	☐ No	
2. How was the sample delivered?	☐ Hand Delivered	☑ Picked Up	☐ Shipped

Log In

3. Cooler or Shipping Container is present.	☑ Yes	☐ No	☐ N/A
4. Cooler or Shipping Container is in good condition.	☑ Yes	☐ No	☐ N/A
5. Cooler or Shipping Container has Custody Seals present.	☐ Yes	☑ No	☐ N/A
6. Was an attempt made to cool the samples?	☑ Yes	☐ No	☐ N/A
7. Temperature of cooler (0°C to 8°C recommended)	0.3 °C		
8. Temperature of sample(s) (0°C to 8°C recommended)	14.1 °C		
9. Did all containers arrive in good condition (unbroken)?	☑ Yes	☐ No	
10. Is it clear what analyses were requested?	☑ Yes	☐ No	
11. Did container labels match Chain of Custody?	☑ Yes	☐ No	
12. Are matrices correctly identified on Chain of Custody?	☑ Yes	☐ No	
13. Are correct containers used for the analysis indicated?	☑ Yes	☐ No	
14. Is there sufficient sample volume for indicated analysis?	☑ Yes	☐ No	
15. Were all containers properly preserved per each analysis?	☑ Yes	☐ No	
16. Were VOA vials collected correctly (no headspace)?	☑ Yes	☐ No	☐ N/A
17. Were all holding times able to be met?	☑ Yes	☐ No	

Discrepancies/ Notes

18. Was client notified of all discrepancies?	☐ Yes	☐ No	☑ N/A

Person Notified: _____ Date: _____

By Whom: _____ Via: _____

Regarding: _____

19. Comments. _____

Libby Environmental, Inc.

3322 South Bay Road NE • Olympia, WA 98506-2957

July 23, 2020

Vance Atkins
O'Neill Service Group
17619 NE 67th Ct, Suite 100
Redmond, WA 98052

Dear Mr. Atkins:

Please find enclosed the analytical data report for the F200 Project located in Federal Way, Washington.

The results of the analyses are summarized in the attached tables. Applicable detection limits and QA/QC data are included. The sample(s) will be disposed of within 30 days unless we are contacted to arrange long term storage.

Libby Environmental, Inc. appreciates the opportunity to have provided analytical services for this project. If you have any further questions about the data report, please give me a call. It was a pleasure working with you on this project, and we are looking forward to the next opportunity to work together.

Sincerely,

Sherry L. Chilcutt
Senior Chemist
Libby Environmental, Inc.

Phone (360) 352-2110 • Fax (360) 352-4154 • libbyenv@gmail.com

Libby Environmental, Inc.

Chain of Custody Record

www.LibbyEnvironmental.com

3322 South Bay Road NE
Olympia, WA 98506

Ph: 360-352-2110
Fax: 360-352-4154

Date: 7/21/20 Page: 1 of 1

Client: OSG

Project Manager: Atkins, Vance

Address:

Project Name: F200

City: State: Zip:

Location: FL358 City, State: Fox Way

Phone: 425-677-3009 Fax:

Collector: Atkins Date of Collection: 7/21/20

Client Project # 2021

Email: VANCEA@ONSITESG.COM

	Sample Number	Depth	Time	Sample Type	Container Type	VOC 8260	PCE & Daughter Prod.	NWTPH-Gx	BTEX (8260) / (8021)	NWTPH-HCID	NWTPH-Dx / Dx	PCB 8082	MTCA 5 Metals	RCRA 8 Metals	c PAH 8270	PAH 8270	Semi Vol 8270				Field Notes
1	358.PEx-32-10	10	1430	Soil	40z/VOA		X														
2	-33-7	6-7	1432																		
3	-34-10	9-10	1438																		
4	-35-10	9-10	1440																		
D 5	-36-7	6-7	1445																		
6	-37-10	9-10	1447																		
7	-38-8	8	1457																		
8	-39-1	0-1	1500																		
MS 9	-40-6	6-7	1503																		
D 10	-41-1	0-1	1507																		
11	-42-6	6-7	1510																		
12	-43-10	9-10	1530				X														Priority
13																					
14																					
15																					
16																					
17																					

Relinquished by:	Date / Time	Received by:	Date / Time
Van A	7/21/20 1637	Julie Chalkess	7/21/20 4:37p
Relinquished by:	Date / Time	Received by:	Date / Time
Relinquished by:	Date / Time	Received by:	Date / Time

Sample Receipt

Good Condition?	Y	N
Cooler Temp.		°C
Sample Temp.		°C
Total Number of Containers		

Remarks: Rush

TAT: 24HR 48HR 5-DAY

LEGAL ACTION CLAUSE: *In the event of default of payment and/or failure to pay, Client agrees to pay the costs of collection including court costs and reasonable attorney fees to be determined by a court of law.*

Distribution: White - Lab, Yellow - Originator

Libby Environmental, Inc.

3322 South Bay Road NE
Olympia, WA 98506
Phone: (360) 352-2110
FAX: (360) 352-4154
Email: libbyenv@gmail.com

F200 PROJECT
O'Neill Service Group
Federal Way, Washington
Libby Project # L200721-7
Client Project # 2021

Volatile Organic Compounds by EPA Method 8260D in Soil

Sample Description		Method Blank	358-PEX-32-10	358-PEX-33-7	358-PEX-34-10	358-PEX-35-10	358-PEX-36-7
Date Sampled		N/A	7/21/2020	7/21/2020	7/21/2020	7/21/2020	7/21/2020
Date Analyzed	PQL (mg/kg)	7/21/2020 (mg/kg)	7/21/2020 (mg/kg)	7/21/2020 (mg/kg)	7/21/2020 (mg/kg)	7/21/2020 (mg/kg)	7/21/2020 (mg/kg)
Vinyl Chloride (VC)	0.02	nd	nd	nd	nd	nd	nd
1,1-Dichloroethene	0.05	nd	nd	nd	nd	nd	nd
trans-1,2-Dichloroethene	0.02	nd	nd	nd	nd	nd	nd
cis -1,2-Dichloroethene	0.02	nd	nd	nd	nd	nd	nd
Trichloroethene (TCE)	0.02	nd	nd	nd	nd	nd	nd
Tetrachloroethene (PCE)	0.02	nd	0.36	0.035	0.038	nd	nd
Surrogate Recovery							
Dibromofluoromethane		127	119	120	121	118	119
1,2-Dichloroethane-d4		125	126	123	133	131	125
Toluene-d8		98	100	98	97	96	97
4-Bromofluorobenzene		105	90	89	88	86	89

"nd" Indicates not detected at listed detection limit.
"int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE : 65% TO 135%

ANALYSES PERFORMED BY: Paul Burke

Libby Environmental, Inc.

3322 South Bay Road NE
Olympia, WA 98506
Phone: (360) 352-2110
FAX: (360) 352-4154
Email: libbyenv@gmail.com

F200 PROJECT
O'Neill Service Group
Federal Way, Washington
Libby Project # L200721-7
Client Project # 2021

Volatile Organic Compounds by EPA Method 8260D in Soil

Sample Description		358-PEX-36-7 Dup	358-PEX-37-10	358-PEX-38-8	358-PEX-39-1	358-PEX-40-6	358-PEX-41-1
Date Sampled		7/21/20	7/21/20	7/21/20	7/21/20	7/21/20	7/21/20
Date Analyzed	PQL (mg/kg)	7/21/20 (mg/kg)	7/21/20 (mg/kg)	7/21/20 (mg/kg)	7/21/20 (mg/kg)	7/21/20 (mg/kg)	7/21/20 (mg/kg)
Vinyl Chloride (VC)	0.02	nd	nd	nd	nd	nd	nd
1,1-Dichloroethene	0.05	nd	nd	nd	nd	nd	nd
trans-1,2-Dichloroethene	0.02	nd	nd	nd	nd	nd	nd
cis -1,2-Dichloroethene	0.02	nd	0.095	0.20	nd	0.046	nd
Trichloroethene (TCE)	0.02	nd	0.086	0.029	nd	nd	nd
Tetrachloroethene (PCE)	0.02	nd	0.37	nd	nd	nd	nd
Surrogate Recovery							
Dibromofluoromethane		123	115	113	107	115	118
1,2-Dichloroethane-d4		133	134	132	131	124	129
Toluene-d8		98	97	8	133	97	99
4-Bromofluorobenzene		90	87	88	88	95	91

"nd" Indicates not detected at listed detection limit.
"int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE : 65% TO 135%

ANALYSES PERFORMED BY: Paul Burke

Libby Environmental, Inc.

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Email: libbyenv@gmail.com

F200 PROJECT
O'Neill Service Group
Federal Way, Washington
Libby Project # L200721-7
Client Project # 2021

Volatile Organic Compounds by EPA Method 8260D in Soil

Sample Description		358-PEX-41-1 Dup	358-PEX-42-6	358-PEX-43-10
Date Sampled		7/21/20	7/21/20	7/21/20
Date Analyzed	PQL (mg/kg)	7/21/20 (mg/kg)	7/21/20 (mg/kg)	7/21/20 (mg/kg)
Vinyl Chloride (VC)	0.02	nd	nd	nd
1,1-Dichloroethene	0.05	nd	nd	nd
trans-1,2-Dichloroethene	0.02	nd	nd	nd
cis -1,2-Dichloroethene	0.02	nd	nd	0.12
Trichloroethene (TCE)	0.02	nd	nd	0.10
Tetrachloroethene (PCE)	0.02	nd	nd	0.84
Surrogate Recovery				
Dibromofluoromethane		114	117	115
1,2-Dichloroethane-d4		121	128	130
Toluene-d8		99	98	99
4-Bromofluorobenzene		88	89	93

"nd" Indicates not detected at listed detection limit.
"int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE : 65% TO 135%

ANALYSES PERFORMED BY: Paul Burke

Libby Environmental, Inc.

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F200 PROJECT
O'Neill Service Group
Federal Way, Washington
Libby Project # L200721-7
Client Project # 2021

QA/QC for Volatile Organic Compounds by EPA Method 8260D in Soil

Matrix Spike Sample Identification: 358-PEX-40-6

	Spiked Conc. (mg/kg)	MS Response (mg/kg)	MSD Response (mg/kg)	MS Recovery (%)	MSD Recovery (%)	RPD (%)	Limits Recovery (%)	Data Flag
Vinyl Chloride (VC)	0.25	0.17	0.17	68	68	0.0	65-135	
1,1-Dichloroethene	0.25	0.21	0.18	84	72	15.4	65-135	
trans-1,2-Dichloroethene	0.25	0.17	0.17	68	68	0.0	65-135	
cis -1,2-Dichloroethene	0.25	0.29	0.29	116	116	0.0	65-135	
Trichloroethene (TCE)	0.25	0.24	0.25	96	100	4.1	65-135	
Tetrachloroethene (PCE)	0.25	0.24	0.20	96	80	18.2	65-135	

Surrogate Recovery (%)	MS	MSD	
Dibromofluoromethane	111	111	65-135
1,2-Dichloroethane-d4	132	129	65-135
Toluene-d8	100	101	65-135
4-Bromofluorobenzene	109	102	65-135

ACCEPTABLE RPD IS 35%

ANALYSES PERFORMED BY: Paul Burke

Libby Environmental, Inc.

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F200 PROJECT
O'Neill Service Group
Federal Way, Washington
Libby Project # L200721-7
Client Project # 2021

Laboratory Control Sample

	Spiked Conc. (mg/kg)	LCS Response (mg/kg)	LCS Recovery (%)	LCS Recovery Limits (%)	Data Flag
Vinyl Chloride (VC)	0.25	0.22	88	80-120	
1,1-Dichloroethene	0.25	0.23	92	80-120	
trans-1,2-Dichloroethene	0.25	0.29	116	80-120	
cis -1,2-Dichloroethene	0.25	0.27	108	80-120	
Trichloroethene (TCE)	0.25	0.28	112	80-120	
Tetrachloroethene (PCE)	0.25	0.22	88	80-120	

Surrogate Recovery		
Dibromofluoromethane	132	65-135
1,2-Dichloroethane-d4	132	65-135
Toluene-d8	117	65-135
4-Bromofluorobenzene	99	65-135

ANALYSES PERFORMED BY: Paul Burke

Libby Environmental, Inc.

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Email: libbyenv@gmail.com

F200 PROJECT
O'Neill Service Group
Federal Way, Washington
Libby Project # L200721-7
Client Project # 2021

Analysis of Moisture in Soil

Sample Number	Percent Moisture
358-PEX-32-10	10.9%
358-PEX-33-7	11.3%
358-PEX-34-10	15.6%
358-PEX-35-10	14.1%
358-PEX-36-7	10.1%
358-PEX-37-10	11.7%
358-PEX-38-8	10.9%
358-PEX-39-1	6.7%
358-PEX-40-6	15.5%
358-PEX-41-1	7.1%
358-PEX-42-6	7.6%
358-PEX-43-10	18.7%
Reporting Limit	0.5

ANALYSES PERFORMED BY: Kory Dixon & Jodie Childress

Libby Environmental, Inc.

3322 South Bay Road NE
Olympia, WA 98506
Phone: (360) 352-2110
FAX: (360) 352-4154
Email: libbyenv@gmail.com

F200 PROJECT
O'Neill Service Group
Libby Project # L200721-7
Date Received 7/21/2020
Time Received 4:37 PM

Received By JC

Sample Receipt Checklist

Chain of Custody

1. Is the Chain of Custody complete?	☑ Yes	☐ No	
2. How was the sample delivered?	☐ Hand Delivered	☑ Picked Up	☐ Shipped

Log In

3. Cooler or Shipping Container is present.	☑ Yes	☐ No	☐ N/A
4. Cooler or Shipping Container is in good condition.	☑ Yes	☐ No	☐ N/A
5. Cooler or Shipping Container has Custody Seals present.	☐ Yes	☑ No	☐ N/A
6. Was an attempt made to cool the samples?	☑ Yes	☐ No	☐ N/A
7. Temperature of cooler (0°C to 8°C recommended)	0.1 °C		
8. Temperature of sample(s) (0°C to 8°C recommended)	10.2 °C		
9. Did all containers arrive in good condition (unbroken)?	☑ Yes	☐ No	
10. Is it clear what analyses were requested?	☑ Yes	☐ No	
11. Did container labels match Chain of Custody?	☑ Yes	☐ No	
12. Are matrices correctly identified on Chain of Custody?	☑ Yes	☐ No	
13. Are correct containers used for the analysis indicated?	☑ Yes	☐ No	
14. Is there sufficient sample volume for indicated analysis?	☑ Yes	☐ No	
15. Were all containers properly preserved per each analysis?	☑ Yes	☐ No	
16. Were VOA vials collected correctly (no headspace)?	☑ Yes	☐ No	☐ N/A
17. Were all holding times able to be met?	☑ Yes	☐ No	

Discrepancies/ Notes

18. Was client notified of all discrepancies?	☐ Yes	☐ No	☑ N/A

Person Notified: _____ Date: _____

By Whom: _____ Via: _____

Regarding: _____

19. Comments. _____

Libby Environmental, Inc.

3322 South Bay Road NE • Olympia, WA 98506-2957

July 23, 2020

Vance Atkins
O'Neill Service Group
17619 NE 67th Ct, Suite 100
Redmond, WA 98052

Dear Mr. Atkins:

Please find enclosed the analytical data report for the F200 Project located in Federal Way, Washington.

The results of the analyses are summarized in the attached tables. Applicable detection limits and QA/QC data are included. The sample(s) will be disposed of within 30 days unless we are contacted to arrange long term storage.

Libby Environmental, Inc. appreciates the opportunity to have provided analytical services for this project. If you have any further questions about the data report, please give me a call. It was a pleasure working with you on this project, and we are looking forward to the next opportunity to work together.

Sincerely,

Sherry L. Chilcutt
Senior Chemist
Libby Environmental, Inc.

Phone (360) 352-2110 • Fax (360) 352-4154 • libbyenv@gmail.com

Libby Environmental, Inc.

Chain of Custody Record

www.LibbyEnvironmental.com

3322 South Bay Road NE
Olympia, WA 98506
Ph: 360-352-2110
Fax: 360-352-4154

Date: 7/22/2020 Page: 1 of 1

Client: OSG

Project Manager: Atkins, VANCE

Address:

Project Name: F200

City: State: Zip:

Location: FL358 City, State: Federal Way

Phone: 425-677-3009 Fax:

Collector: Atkins Date of Collection: 7/22/20

Client Project # 2021

Email: Vancea@oneillsg.com

Sample Number	Depth	Time	Sample Type	Container Type	VOC 8260	PCE & Daughter Prod.	NWTPH-Gx	BTEX (8260) / (8021)	NWTPH-HCID	NWTPH-Dx / Dx	PCB 8082	MTCA 5 Metals	RCRA 8 Metals	c PAH 8270	PAH 8270	Semi Vol 8270				Field Notes
1 358-PEX-44-1	0-1	1445	Soil	4oz/VOA		x														
2 358-PEX-45-1	0-1	1448	Soil	4oz/VOA		x														
3 358-PEX-46-1	0-1	1455	Soil	4oz/VOA		x														
4																				
5																				
6																				
7																				
8																				
9																				
10																				
11																				
12																				
13																				
14																				
15																				
16																				
17																				

Relinquished by:	Date / Time	Received by:	Date / Time
		Melissa Toft	7/23/20 9:32
Relinquished by:	Date / Time	Received by:	Date / Time
Relinquished by:	Date / Time	Received by:	Date / Time

Sample Receipt

Good Condition?	Y	N
Cooler Temp.		°C
Sample Temp.		°C
Number of Conta		

Remarks:

rush

TAT: 24HR 48HR 5-DAY

Distribution: White - Lab, Yellow - Originator

Libby Environmental, Inc.

3322 South Bay Road NE
Olympia, WA 98506
Phone: (360) 352-2110
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Email: libbyenv@gmail.com

F200 PROJECT
O'Neill Service Group
Federal Way, Washington
Libby Project # L200723-1
Client Project # 2021

Volatile Organic Compounds by EPA Method 8260D in Soil

Sample Description		Method Blank	358-PEX-44-1	358-PEX-45-1	358-PEX-45-1 Dup	358-PEX-46-1
Date Sampled		N/A	7/22/2020	7/22/2020	7/22/2020	7/22/2020
Date Analyzed	PQL (mg/kg)	7/23/2020 (mg/kg)	7/23/2020 (mg/kg)	7/23/2020 (mg/kg)	7/23/2020 (mg/kg)	7/23/2020 (mg/kg)
Vinyl Chloride (VC)	0.02	nd	nd	nd	nd	nd
1,1-Dichloroethene	0.05	nd	nd	nd	nd	nd
trans-1,2-Dichloroethene	0.02	nd	nd	nd	nd	nd
cis -1,2-Dichloroethene	0.02	nd	nd	nd	nd	nd
Trichloroethene (TCE)	0.02	nd	nd	nd	nd	nd
Tetrachloroethene (PCE)	0.02	nd	0.054	0.042	0.020	nd
Surrogate Recovery						
Dibromofluoromethane		99	103	101	104	101
1,2-Dichloroethane-d4		107	105	105	107	108
Toluene-d8		100	99	102	103	101
4-Bromofluorobenzene		93	95	92	95	92

"E" Indicates reported result is an estimate because it exceeds the calibration range.
"nd" Indicates not detected at listed detection limit.
"int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE : 65% TO 135%

ANALYSES PERFORMED BY: Paul Burke

Libby Environmental, Inc.

3322 South Bay Road NE
Olympia, WA 98506
Phone: (360) 352-2110
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F200 PROJECT
O'Neill Service Group
Federal Way, Washington
Libby Project # L200723-1
Client Project # 2021

QA/QC for Volatile Organic Compounds by EPA Method 8260D in Soil

Matrix Spike Sample Identification: 358-PEX-46-1

	Spiked Conc. (mg/kg)	MS Response (mg/kg)	MSD Response (mg/kg)	MS Recovery (%)	MSD Recovery (%)	RPD (%)	Limits Recovery (%)	Data Flag
Vinyl Chloride (VC)	0.25	0.29	0.29	116	116	0.0	65-135	
1,1-Dichloroethene	0.25	0.27	0.27	108	108	0.0	65-135	
trans-1,2-Dichloroethene	0.25	0.27	0.27	108	108	0.0	65-135	
cis -1,2-Dichloroethene	0.25	0.29	0.29	116	116	0.0	65-135	
Trichloroethene (TCE)	0.25	0.29	0.29	116	116	0.0	65-135	
Tetrachloroethene (PCE)	0.25	0.33	0.32	132	128	3.1	65-135	

Surrogate Recovery (%)	MS	MSD	
Dibromofluoromethane	94	93	65-135
1,2-Dichloroethane-d4	104	105	65-135
Toluene-d8	109	110	65-135
4-Bromofluorobenzene	105	106	65-135

ACCEPTABLE RPD IS 35%

ANALYSES PERFORMED BY: Paul Burke

Libby Environmental, Inc.

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Olympia, WA 98506
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F200 PROJECT
O'Neill Service Group
Federal Way, Washington
Libby Project # L200723-1
Client Project # 2021

Laboratory Control Sample

	Spiked Conc. (mg/kg)	LCS Response (mg/kg)	LCS Recovery (%)	LCS Recovery Limits (%)	Data Flag
Vinyl Chloride (VC)	0.25	0.23	92	80-120	
1,1-Dichloroethene	0.25	0.23	91	80-120	
trans-1,2-Dichloroethene	0.25	0.21	84	80-120	
cis -1,2-Dichloroethene	0.25	0.27	108	80-120	
Trichloroethene (TCE)	0.25	0.28	112	80-120	
Tetrachloroethene (PCE)	0.25	0.23	92	80-120	

Surrogate Recovery		
Dibromofluoromethane	123	65-135
1,2-Dichloroethane-d4	129	65-135
Toluene-d8	122	65-135
4-Bromofluorobenzene	102	65-135

ANALYSES PERFORMED BY: Paul Burke

Libby Environmental, Inc.

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Olympia, WA 98506
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F200 PROJECT
O'Neill Service Group
Federal Way, Washington
Libby Project # L200723-1
Client Project # 2021

Analysis of Moisture in Soil

Sample Number	Percent Moisture
358-PEX-44-1	7.3%
358-PEX-45-1	7.9%
358-PEX-46-1	6.1%
Reporting Limit	0.5

ANALYSES PERFORMED BY: Melissa Harrington & Jodie Childress

Libby Environmental, Inc.

3322 South Bay Road NE
Olympia, WA 98506
Phone: (360) 352-2110
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Email: libbyenv@gmail.com

F200 PROJECT
O'Neill Service Group
Libby Project # L200723-1
Date Received 7/23/2020
Time Received 9:32 AM

Received By MH

Sample Receipt Checklist

Chain of Custody

1. Is the Chain of Custody complete?	☑ Yes	☐ No	
2. How was the sample delivered?	☐ Hand Delivered	☑ Picked Up	☐ Shipped

Log In

3. Cooler or Shipping Container is present.	☑ Yes	☐ No	☐ N/A
4. Cooler or Shipping Container is in good condition.	☑ Yes	☐ No	☐ N/A
5. Cooler or Shipping Container has Custody Seals present.	☐ Yes	☑ No	☐ N/A
6. Was an attempt made to cool the samples?	☑ Yes	☐ No	☐ N/A
7. Temperature of cooler (0°C to 8°C recommended)	8.4 °C		
8. Temperature of sample(s) (0°C to 8°C recommended)	8.4 °C		
9. Did all containers arrive in good condition (unbroken)?	☑ Yes	☐ No	
10. Is it clear what analyses were requested?	☑ Yes	☐ No	
11. Did container labels match Chain of Custody?	☑ Yes	☐ No	
12. Are matrices correctly identified on Chain of Custody?	☑ Yes	☐ No	
13. Are correct containers used for the analysis indicated?	☑ Yes	☐ No	
14. Is there sufficient sample volume for indicated analysis?	☑ Yes	☐ No	
15. Were all containers properly preserved per each analysis?	☑ Yes	☐ No	
16. Were VOA vials collected correctly (no headspace)?	☑ Yes	☐ No	☐ N/A
17. Were all holding times able to be met?	☑ Yes	☐ No	

Discrepancies/ Notes

18. Was client notified of all discrepancies?	☐ Yes	☐ No	☑ N/A

Person Notified: _____ Date: _____

By Whom: _____ Via: _____

Regarding: _____

19. Comments. _____

Libby Environmental, Inc.

3322 South Bay Road NE • Olympia, WA 98506-2957

July 24, 2020

Vance Atkins
O'Neill Service Group
17619 NE 67th Ct, Suite 100
Redmond, WA 98052

Dear Mr. Atkins:

Please find enclosed the analytical data report for the F200 Project located in Federal Way, Washington.

The results of the analyses are summarized in the attached tables. Applicable detection limits and QA/QC data are included. The sample(s) will be disposed of within 30 days unless we are contacted to arrange long term storage.

Libby Environmental, Inc. appreciates the opportunity to have provided analytical services for this project. If you have any further questions about the data report, please give me a call. It was a pleasure working with you on this project, and we are looking forward to the next opportunity to work together.

Sincerely,

Sherry L. Chilcutt
Senior Chemist
Libby Environmental, Inc.

Phone (360) 352-2110 • Fax (360) 352-4154 • libbyenv@gmail.com

Libby Environmental, Inc.

Chain of Custody Record

www.LibbyEnvironmental.com

3322 South Bay Road NE
Olympia, WA 98506
Ph: 360-352-2110
Fax: 360-352-4154

Client: DSG

Address:

City: State: Zip:

Phone: 425-677-3009 Fax:

Client Project # 2021

Date: 7/22/20 Page: 1 of 1

Project Manager: Atkins

Project Name: F200

Location: F3558 City, State: F-0 Way

Collector: Atkins Date of Collection: 7/22/20

Email:

	Sample Number	Depth	Time	Sample Type	Container Type	VOC 8260	PCE & Daughter Prod.	NWTPH-Gx	BTEX (8260) / (8021)	NWTPH-HCID	NWTPH-Dx / Dx	PCB 8082	MTCA 5 Metals	RCRA 8 Metals	c PAH 8270	PAH 8270	Semi Vol 8270				Field Notes
1	358-PE3-47-7	6-7	1505	~~[illegible]~~ Soil	4oz Non		X														
2	-48-10	~~[illegible]~~ 9-10	1508																		
3	-49-11	11	1515																		
4	-50-4	4-5	1518																		
5	-51-10	~~[illegible]~~ 9-10	1523																		
6	-52-7	6-7	1528																		
7	-53-10	9-10	1531				X														
8																					
9																					
10																					
11																					
12																					
13																					
14																					
15																					
16																					
17																					

Relinquished by:	Date / Time	Received by:	Date / Time
[signature]	7/22/20 1703	[signature] Childers	7/22/20 5:03p
Relinquished by:	Date / Time	Received by:	Date / Time
Relinquished by:	Date / Time	Received by:	Date / Time

Sample Receipt

Good Condition?	Y	N
Cooler Temp.		°C
Sample Temp.		°C
Total Number of Containers		

Remarks:

Rush Am

TAT: 24HR 48HR 5-DAY

Distribution: White - Lab, Yellow - Originator

Libby Environmental, Inc.

3322 South Bay Road NE
Olympia, WA 98506
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Email: libbyenv@gmail.com

F200 PROJECT
O"Neill Service Group
Federal Way, Washington
Libby Project # L200722-12
Client Project # 2021

Volatile Organic Compounds by EPA Method 8260D in Soil

Sample Description		Method Blank	358-PEX-47-7	358-PEX-48-10	358-PEX-49-11	358-PEX-49-11 Dup	358-PEX-50-4
Date Sampled		N/A	7/22/2020	7/22/2020	7/22/2020	7/22/2020	7/22/2020
Date Analyzed	PQL (mg/kg)	7/23/2020 (mg/kg)	7/23/2020 (mg/kg)	7/23/2020 (mg/kg)	7/23/2020 (mg/kg)	7/23/2020 (mg/kg)	7/23/2020 (mg/kg)
Vinyl Chloride (VC)	0.02	nd	nd	nd	nd	nd	nd
1,1-Dichloroethene	0.05	nd	nd	nd	nd	nd	nd
trans-1,2-Dichloroethene	0.02	nd	nd	nd	nd	nd	nd
cis -1,2-Dichloroethene	0.02	nd	nd	nd	nd	nd	nd
Trichloroethene (TCE)	0.02	nd	nd	0.083	0.024	0.019 J	nd
Tetrachloroethene (PCE)	0.02	nd	nd	nd	0.14	0.079	nd
Surrogate Recovery							
Dibromofluoromethane		112	91	118	121	119	86
1,2-Dichloroethane-d4		117	108	131	133	131	113
Toluene-d8		99	74	97	97	97	96
4-Bromofluorobenzene		87	92	91	91	90	92

"nd" Indicates not detected at listed detection limit.
"int" Indicates that interference prevents determination.
“J” Result is less than the PQL but greater than the MDL. Reported value is approximate.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE : 65% TO 135%

ANALYSES PERFORMED BY: Melissa Harrington & Sherry Chilcutt

Libby Environmental, Inc.

3322 South Bay Road NE
Olympia, WA 98506
Phone: (360) 352-2110
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F200 PROJECT
O"Neill Service Group
Federal Way, Washington
Libby Project # L200722-12
Client Project # 2021

Volatile Organic Compounds by EPA Method 8260D in Soil

Sample Description		358-PEX-51-10	358-PEX-52-7	358-PEX-53-10	358-PEX-53-10 Dup
Date Sampled		7/22/20	7/22/20	7/22/20	7/22/20
Date Analyzed	PQL (mg/kg)	7/23/20 (mg/kg)	7/23/20 (mg/kg)	7/23/20 (mg/kg)	7/23/20 (mg/kg)
Vinyl Chloride (VC)	0.02	nd	nd	nd	nd
1,1-Dichloroethene	0.05	nd	nd	nd	nd
trans-1,2-Dichloroethene	0.02	nd	nd	nd	nd
cis -1,2-Dichloroethene	0.02	nd	0.032	0.31	0.29
Trichloroethene (TCE)	0.02	nd	nd	0.034	0.033
Tetrachloroethene (PCE)	0.02	nd	nd	0.15	0.15
Surrogate Recovery					
Dibromofluoromethane		113	94	114	121
1,2-Dichloroethane-d4		126	107	131	135
Toluene-d8		92	75	100	97
4-Bromofluorobenzene		81	115	90	92

"nd" Indicates not detected at listed detection limit.
"int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE : 65% TO 135%

ANALYSES PERFORMED BY: Melissa Harrington & Sherry Chilcutt

Libby Environmental, Inc.

3322 South Bay Road NE
Olympia, WA 98506
Phone: (360) 352-2110
FAX: (360) 352-4154
Email: libbyenv@gmail.com

F200 PROJECT
O"Neill Service Group
Federal Way, Washington
Libby Project # L200722-12
Client Project # 2021

QA/QC for Volatile Organic Compounds by EPA Method 8260D in Soil

Matrix Spike Sample Identification: 358-PEX-53-10

	Spiked Conc. (mg/kg)	MS Response (mg/kg)	MSD Response (mg/kg)	MS Recovery (%)	MSD Recovery (%)	RPD (%)	Limits Recovery (%)	Data Flag
Vinyl Chloride (VC)	0.25	0.20	0.23	78	90	14.7	65-135	
1,1-Dichloroethene	0.25	0.24	0.26	98	106	7.9	65-135	
trans-1,2-Dichloroethene	0.25	0.15	0.17	62	69	11.0	65-135	S
cis -1,2-Dichloroethene	0.25	0.08	0.13	31	50	47.5	65-135	R, S
Trichloroethene (TCE)	0.25	0.19	0.20	75	82	8.7	65-135	
Tetrachloroethene (PCE)	0.25	0.13	0.15	51	58	12.5	65-135	S

Surrogate Recovery (%)	MS	MSD	
Dibromofluoromethane	117	117	65-135
1,2-Dichloroethane-d4	118	121	65-135
Toluene-d8	102	101	65-135
4-Bromofluorobenzene	97	94	65-135

ACCEPTABLE RPD IS 35%
"R" High relative percent difference observed.
"S" Spike recovery outside accepted recovery limits.

ANALYSES PERFORMED BY: Melissa Harrington & Sherry Chilcutt

Libby Environmental, Inc.

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F200 PROJECT
O"Neill Service Group
Federal Way, Washington
Libby Project # L200722-12
Client Project # 2021

Laboratory Control Sample

	Spiked Conc. (mg/kg)	LCS Response (mg/kg)	LCS Recovery (%)	LCS Recovery Limits (%)	Data Flag
Vinyl Chloride (VC)	0.25	0.20	82	80-120	
1,1-Dichloroethene	0.25	0.24	96	80-120	
trans-1,2-Dichloroethene	0.25	0.22	86	80-120	
cis -1,2-Dichloroethene	0.25	0.23	92	80-120	
Trichloroethene (TCE)	0.25	0.24	95	80-120	
Tetrachloroethene (PCE)	0.25	0.22	86	80-120	

Surrogate Recovery		
Dibromofluoromethane	116	65-135
1,2-Dichloroethane-d4	132	65-135
Toluene-d8	104	65-135
4-Bromofluorobenzene	96	65-135

ANALYSES PERFORMED BY: Melissa Harrington & Sherry Chilcutt

Libby Environmental, Inc.

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F200 PROJECT
O"Neill Service Group
Federal Way, Washington
Libby Project # L200722-12
Client Project # 2021

Analysis of Moisture in Soil

Sample Number	Percent Moisture
358-PEX-47-7	19.2%
358-PEX-48-10	14.2%
358-PEX-49-11	15.2%
358-PEX-50-4	8.6%
358-PEX-51-10	13.2%
358-PEX-52-7	23.6%
358-PEX-53-10	11.5%
Reporting Limit	0.5

ANALYSES PERFORMED BY: Melissa Harrington & Jodie Childress

Libby Environmental, Inc.

3322 South Bay Road NE
Olympia, WA 98506
Phone: (360) 352-2110
FAX: (360) 352-4154
Email: libbyenv@gmail.com

F200 PROJECT
O"Neill Service Group
Libby Project # L200722-12
Date Received 7/22/2020
Time Received 5:03 PM

Received By JC

Sample Receipt Checklist

Chain of Custody

1. Is the Chain of Custody complete?	☑ Yes	☐ No	
2. How was the sample delivered?	☑ Hand Delivered	☑ Picked Up	☐ Shipped

Log In

3. Cooler or Shipping Container is present.	☑ Yes	☐ No	☐ N/A
4. Cooler or Shipping Container is in good condition.	☑ Yes	☐ No	☐ N/A
5. Cooler or Shipping Container has Custody Seals present.	☐ Yes	☑ No	☐ N/A
6. Was an attempt made to cool the samples?	☑ Yes	☐ No	☐ N/A
7. Temperature of cooler (0°C to 8°C recommended)	8.4 °C		
8. Temperature of sample(s) (0°C to 8°C recommended)	8.4 °C		
9. Did all containers arrive in good condition (unbroken)?	☑ Yes	☐ No	
10. Is it clear what analyses were requested?	☑ Yes	☐ No	
11. Did container labels match Chain of Custody?	☑ Yes	☐ No	
12. Are matrices correctly identified on Chain of Custody?	☑ Yes	☐ No	
13. Are correct containers used for the analysis indicated?	☑ Yes	☐ No	
14. Is there sufficient sample volume for indicated analysis?	☑ Yes	☐ No	
15. Were all containers properly preserved per each analysis?	☑ Yes	☐ No	
16. Were VOA vials collected correctly (no headspace)?	☑ Yes	☐ No	☐ N/A
17. Were all holding times able to be met?	☑ Yes	☐ No	

Discrepancies/ Notes

18. Was client notified of all discrepancies?	☐ Yes	☐ No	☑ N/A

Person Notified: _____ Date: _____

By Whom: _____ Via: _____

Regarding: _____

19. Comments. _____

Libby Environmental, Inc.

3322 South Bay Road NE • Olympia, WA 98506-2957

July 23, 2020

Vance Atkins
O'Neill Service Group
17619 NE 67th Ct, Suite 100
Redmond, WA 98052

Dear Mr. Atkins:

Please find enclosed the analytical data report for the F200 Project located in Federal Way, Washington.

The results of the analyses are summarized in the attached tables. Applicable detection limits and QA/QC data are included. The sample(s) will be disposed of within 30 days unless we are contacted to arrange long term storage.

Libby Environmental, Inc. appreciates the opportunity to have provided analytical services for this project. If you have any further questions about the data report, please give me a call. It was a pleasure working with you on this project, and we are looking forward to the next opportunity to work together.

Sincerely,

Sherry L. Chilcutt
Senior Chemist
Libby Environmental, Inc.

Phone (360) 352-2110 • Fax (360) 352-4154 • libbyenv@gmail.com

Libby Environmental, Inc.

Chain of Custody Record

www.LibbyEnvironmental.com

3322 South Bay Road NE
Olympia, WA 98506
Ph: 360-352-2110
Fax: 360-352-4154

Date: 7/22/20 Page: 1 of 1

Client: OSS

Project Manager: ATKINS, VANCE

Address:

Project Name: F200

City: State: Zip:

Location: FUBSB City, State: Roy WA

Phone: 425-677-3009 Fax:

Collector: Atkins Date of Collection: 7/22/20

Client Project # 2021

Email:

Sample Number	Depth	Time	Sample Type	Container Type	VOC 8260	PCE & Daughter Prod.	NWTPH-Gx	BTEX (8260) / (8021)	NWTPH-HCID	NWTPH-Dx / Dx	PCB 8082	MTCA 5 Metals	RCRA 8 Metals	c PAH 8270	PAH 8270	Semi Vol 8270					Field Notes
1 355-TRENCH-SP	—	8:15	Soil	4oz/WA		X															
2																					
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					
13																					
14																					
15																					
16																					
17																					

Relinquished by:	Date / Time	Received by:	Date / Time
[signature]	7/22/20 1:03	Jodie Childress	7/24/20 5:03
Relinquished by:	Date / Time	Received by:	Date / Time
Relinquished by:	Date / Time	Received by:	Date / Time

Sample Receipt

Good Condition?	Y	N
Cooler Temp.		°C
Sample Temp.		°C
Total Number of Containers		

Remarks:

TAT: ~~24HR~~ 48HR 5-DAY

Distribution: White - Lab, Yellow - Originator

Libby Environmental, Inc.

3322 South Bay Road NE
Olympia, WA 98506
Phone: (360) 352-2110
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Email: libbyenv@gmail.com

F200 PROJECT
O'Neill Service Group
Federal Way, Washington
Libby Project # L200722-13
Client Project # 2021

Volatile Organic Compounds by EPA Method 8260D in Soil

Sample Description		Method Blank	358-Trench-SP
Date Sampled		N/A	7/22/2020
Date Analyzed	PQL (mg/kg)	7/23/2020 (mg/kg)	7/23/2020 (mg/kg)
Vinyl Chloride (VC)	0.02	nd	nd
1,1-Dichloroethene	0.05	nd	nd
trans-1,2-Dichloroethene	0.02	nd	nd
cis -1,2-Dichloroethene	0.02	nd	nd
Trichloroethene (TCE)	0.02	nd	nd
Tetrachloroethene (PCE)	0.02	nd	nd
Surrogate Recovery			
Dibromofluoromethane		112	112
1,2-Dichloroethane-d4		117	129
Toluene-d8		99	88
4-Bromofluorobenzene		87	92

"nd" Indicates not detected at listed detection limit.
"int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE : 65% TO 135%

ANALYSES PERFORMED BY: Sherry Chilcutt

Libby Environmental, Inc.

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Olympia, WA 98506
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F200 PROJECT
O'Neill Service Group
Federal Way, Washington
Libby Project # L200722-13
Client Project # 2021

QA/QC for Volatile Organic Compounds by EPA Method 8260D in Soil

Matrix Spike Sample Identification: L200722-12

	Spiked Conc. (mg/kg)	MS Response (mg/kg)	MSD Response (mg/kg)	MS Recovery (%)	MSD Recovery (%)	RPD (%)	Limits Recovery (%)	Data Flag
Vinyl Chloride (VC)	0.25	0.20	0.23	78	90	14.7	65-135	
1,1-Dichloroethene	0.25	0.24	0.26	98	106	7.9	65-135	
trans-1,2-Dichloroethene	0.25	0.15	0.17	62	69	11.0	65-135	S
cis -1,2-Dichloroethene	0.25	0.08	0.13	31	50	47.5	65-135	R, S
Trichloroethene (TCE)	0.25	0.19	0.20	75	82	8.7	65-135	
Tetrachloroethene (PCE)	0.25	0.13	0.15	51	58	12.5	65-135	S

Surrogate Recovery (%)	MS	MSD	
Dibromofluoromethane	117	117	65-135
1,2-Dichloroethane-d4	118	121	65-135
Toluene-d8	102	101	65-135
4-Bromofluorobenzene	97	94	65-135

ACCEPTABLE RPD IS 35%
R' High relative percent difference observed.
S' Spike recovery outside accepted recovery limits.

ANALYSES PERFORMED BY: Sherry Chilcutt

Libby Environmental, Inc.

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F200 PROJECT
O'Neill Service Group
Federal Way, Washington
Libby Project # L200722-13
Client Project # 2021

Laboratory Control Sample

	Spiked Conc. (mg/kg)	LCS Response (mg/kg)	LCS Recovery (%)	LCS Recovery Limits (%)	Data Flag
Vinyl Chloride (VC)	0.25	0.20	82	80-120	
1,1-Dichloroethene	0.25	0.24	96	80-120	
trans-1,2-Dichloroethene	0.25	0.22	86	80-120	
cis -1,2-Dichloroethene	0.25	0.23	92	80-120	
Trichloroethene (TCE)	0.25	0.24	95	80-120	
Tetrachloroethene (PCE)	0.25	0.22	86	80-120	

Surrogate Recovery		
Dibromofluoromethane	116	65-135
1,2-Dichloroethane-d4	132	65-135
Toluene-d8	104	65-135
4-Bromofluorobenzene	96	65-135

ANALYSES PERFORMED BY: Sherry Chilcutt

Libby Environmental, Inc.

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Email: libbyenv@gmail.com

F200 PROJECT
O'Neill Service Group
Federal Way, Washington
Libby Project # L200722-13
Client Project # 2021

Analysis of Moisture in Soil

Sample Number	Percent Moisture
358-Trench-SP	11.7%
Reporting Limit	0.5

ANALYSES PERFORMED BY: Melissa Harrington & Jodie Childress

Libby Environmental, Inc.

3322 South Bay Road NE
Olympia, WA 98506
Phone: (360) 352-2110
FAX: (360) 352-4154
Email: libbyenv@gmail.com

F200 PROJECT
O'Neill Service Group
Libby Project # L200722-13
Date Received 7/22/2020
Time Received 5:03 PM

Received By JD

Sample Receipt Checklist

Chain of Custody

1. Is the Chain of Custody complete?	☑ Yes	☐ No	
2. How was the sample delivered?	☐ Hand Delivered	☑ Picked Up	☐ Shipped

Log In

3. Cooler or Shipping Container is present.	☑ Yes	☐ No	☐ N/A
4. Cooler or Shipping Container is in good condition.	☑ Yes	☐ No	☐ N/A
5. Cooler or Shipping Container has Custody Seals present.	☐ Yes	☑ No	☐ N/A
6. Was an attempt made to cool the samples?	☑ Yes	☐ No	☐ N/A
7. Temperature of cooler (0°C to 8°C recommended)	8.4 °C		
8. Temperature of sample(s) (0°C to 8°C recommended)	8.4 °C		
9. Did all containers arrive in good condition (unbroken)?	☑ Yes	☐ No	
10. Is it clear what analyses were requested?	☑ Yes	☐ No	
11. Did container labels match Chain of Custody?	☑ Yes	☐ No	
12. Are matrices correctly identified on Chain of Custody?	☑ Yes	☐ No	
13. Are correct containers used for the analysis indicated?	☑ Yes	☐ No	
14. Is there sufficient sample volume for indicated analysis?	☑ Yes	☐ No	
15. Were all containers properly preserved per each analysis?	☑ Yes	☐ No	
16. Were VOA vials collected correctly (no headspace)?	☑ Yes	☐ No	☐ N/A
17. Were all holding times able to be met?	☑ Yes	☐ No	

Discrepancies/ Notes

18. Was client notified of all discrepancies?	☐ Yes	☐ No	☑ N/A

Person Notified: _____ Date: _____

By Whom: _____ Via: _____

Regarding: _____

19. Comments. _____

Libby Environmental, Inc.

3322 South Bay Road NE • Olympia, WA 98506-2957

July 30, 2020

Vance Atkins
O'Neill Service Group
17619 NE 67th Ct, Suite 100
Redmond, WA 98052

Dear Mr. Atkins:

Please find enclosed the analytical data report for the F200 Project located in Federal Way, Washington.

No moisture was analyzed, sample was solids.

The results of the analyses are summarized in the attached tables. Applicable detection limits and QA/QC data are included. The sample(s) will be disposed of within 30 days unless we are contacted to arrange long term storage.

Libby Environmental, Inc. appreciates the opportunity to have provided analytical services for this project. If you have any further questions about the data report, please give me a call. It was a pleasure working with you on this project, and we are looking forward to the next opportunity to work together.

Sincerely,

Sherry L. Chilcutt
Senior Chemist
Libby Environmental, Inc.

Phone (360) 352-2110 • Fax (360) 352-4154 • libbyenv@gmail.com

Libby Environmental, Inc.

Chain of Custody Record

www.LibbyEnvironmental.com

3322 South Bay Road NE
Olympia, WA 98506

Ph: 360-352-2110
Fax: 360-352-4154

Date: 7/22/20 Page: 1 of 1

Client: OSG

Project Manager: Atkins, VANCE

Address:

Project Name: FRED

City: State: Zip:

Location: FU358 City, State: Fed way

Phone: 425-677-3009 Fax:

Collector: Atkins Date of Collection:

Client Project # 2021

Email:

	Sample Number	Depth	Time	Sample Type	Container Type	VOC 8260	PCE & Daughter Prod.	NWTPH-Gx	BTEX (8260) / (8021)	NWTPH-HCID	NWTPH-Dx / Dx	PCB 8082	MTCA 5 Metals	RCRA 8 Metals	c PAH 8270	PAH 8270	Semi Vol 8270				Field Notes
1	358_Dock	—	1610	Soil	4oz/voa		✓														
2																					
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					
13																					
14																					
15																					
16																					
17																					

Relinquished by:	Date / Time	Received by:	Date / Time
[signature]	7/22/20 1703	[signature] Childers	7/22/20 1703
Relinquished by:	Date / Time	Received by:	Date / Time
Relinquished by:	Date / Time	Received by:	Date / Time

Sample Receipt

Good Condition?	Y	N
Cooler Temp.		°C
Sample Temp.		°C
Total Number of Containers		

Remarks:

TAT: 24HR 48HR 5-DAY

LEGAL ACTION CLAUSE: *In the event of default of payment and/or failure to pay, Client agrees to pay the costs of collection including court costs and reasonable attorney fees to be determined by a court of law.*

Distribution: White - Lab, Yellow - Originator

Libby Environmental, Inc.

3322 South Bay Road NE
Olympia, WA 98506
Phone: (360) 352-2110
FAX: (360) 352-4154
Email: libbyenv@gmail.com

F200 PROJECT
O'Neill Service Group
Federal Way, Washington
Libby Project # L200722-14
Client Project # 2021

Volatile Organic Compounds by EPA Method 8260D in Soil

Sample Description		Method Blank	358-Dock
Date Sampled		N/A	7/22/2020
Date Analyzed	PQL (mg/kg)	7/23/2020 (mg/kg)	7/23/2020 (mg/kg)
Vinyl Chloride (VC)	0.02	nd	nd
1,1-Dichloroethene	0.05	nd	nd
trans-1,2-Dichloroethene	0.02	nd	nd
cis -1,2-Dichloroethene	0.02	nd	nd
Trichloroethene (TCE)	0.02	nd	nd
Tetrachloroethene (PCE)	0.02	nd	nd
Surrogate Recovery			
Dibromofluoromethane		112	101
1,2-Dichloroethane-d4		117	114
Toluene-d8		99	81
4-Bromofluorobenzene		87	90

"nd" Indicates not detected at listed detection limit.
"int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE : 65% TO 135%

ANALYSES PERFORMED BY: Sherry Chilcutt

Libby Environmental, Inc.

3322 South Bay Road NE
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FAX: (360) 352-4154
Email: libbyenv@gmail.com

F200 PROJECT
O'Neill Service Group
Federal Way, Washington
Libby Project # L200722-14
Client Project # 2021

QA/QC for Volatile Organic Compounds by EPA Method 8260D in Soil

Matrix Spike Sample Identification: L200722-12

	Spiked Conc. (mg/kg)	MS Response (mg/kg)	MSD Response (mg/kg)	MS Recovery (%)	MSD Recovery (%)	RPD (%)	Limits Recovery (%)	Data Flag
Vinyl Chloride (VC)	0.25	0.20	0.23	78	90	14.7	65-135	
1,1-Dichloroethene	0.25	0.24	0.26	98	106	7.9	65-135	
trans-1,2-Dichloroethene	0.25	0.15	0.17	62	69	11.0	65-135	S
cis -1,2-Dichloroethene	0.25	0.08	0.13	31	50	47.5	65-135	R, S
Trichloroethene (TCE)	0.25	0.19	0.20	75	82	8.7	65-135	
Tetrachloroethene (PCE)	0.25	0.13	0.15	51	58	12.5	65-135	S

Surrogate Recovery (%)	MS	MSD	
Dibromofluoromethane	117	117	65-135
1,2-Dichloroethane-d4	118	121	65-135
Toluene-d8	102	101	65-135
4-Bromofluorobenzene	97	94	65-135

ACCEPTABLE RPD IS 35%
R' High relative percent difference observed.
S' Spike recovery outside accepted recovery limits.

ANALYSES PERFORMED BY: Sherry Chilcutt

Libby Environmental, Inc.

3322 South Bay Road NE
Olympia, WA 98506
Phone: (360) 352-2110
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Email: libbyenv@gmail.com

F200 PROJECT
O'Neill Service Group
Federal Way, Washington
Libby Project # L200722-14
Client Project # 2021

Laboratory Control Sample

	Spiked Conc. (mg/kg)	LCS Response (mg/kg)	LCS Recovery (%)	LCS Recovery Limits (%)	Data Flag
Vinyl Chloride (VC)	0.25	0.20	82	80-120	
1,1-Dichloroethene	0.25	0.24	96	80-120	
trans-1,2-Dichloroethene	0.25	0.22	86	80-120	
cis -1,2-Dichloroethene	0.25	0.23	92	80-120	
Trichloroethene (TCE)	0.25	0.24	95	80-120	
Tetrachloroethene (PCE)	0.25	0.22	86	80-120	

Surrogate Recovery		
Dibromofluoromethane	116	65-135
1,2-Dichloroethane-d4	132	65-135
Toluene-d8	104	65-135
4-Bromofluorobenzene	96	65-135

ANALYSES PERFORMED BY: Sherry Chilcutt

Libby Environmental, Inc.

3322 South Bay Road NE
Olympia, WA 98506
Phone: (360) 352-2110
FAX: (360) 352-4154
Email: libbyenv@gmail.com

F200 PROJECT
O'Neill Service Group
Libby Project # L200722-14
Date Received 7/22/2020
Time Received 5:03 PM

Received By JC

Sample Receipt Checklist

Chain of Custody

1. Is the Chain of Custody complete?	☑ Yes	☐ No	
2. How was the sample delivered?	☐ Hand Delivered	☑ Picked Up	☐ Shipped

Log In

3. Cooler or Shipping Container is present.	☑ Yes	☐ No	☐ N/A
4. Cooler or Shipping Container is in good condition.	☑ Yes	☐ No	☐ N/A
5. Cooler or Shipping Container has Custody Seals present.	☐ Yes	☑ No	☐ N/A
6. Was an attempt made to cool the samples?	☑ Yes	☐ No	☐ N/A
7. Temperature of cooler (0°C to 8°C recommended)	8.4 °C		
8. Temperature of sample(s) (0°C to 8°C recommended)	8.4 °C		
9. Did all containers arrive in good condition (unbroken)?	☑ Yes	☐ No	
10. Is it clear what analyses were requested?	☑ Yes	☐ No	
11. Did container labels match Chain of Custody?	☑ Yes	☐ No	
12. Are matrices correctly identified on Chain of Custody?	☑ Yes	☐ No	
13. Are correct containers used for the analysis indicated?	☑ Yes	☐ No	
14. Is there sufficient sample volume for indicated analysis?	☑ Yes	☐ No	
15. Were all containers properly preserved per each analysis?	☑ Yes	☐ No	
16. Were VOA vials collected correctly (no headspace)?	☑ Yes	☐ No	☐ N/A
17. Were all holding times able to be met?	☑ Yes	☐ No	

Discrepancies/ Notes

18. Was client notified of all discrepancies?	☐ Yes	☐ No	☑ N/A

Person Notified: _____ Date: _____

By Whom: _____ Via: _____

Regarding: _____

19. Comments. _____

Libby Environmental, Inc.

3322 South Bay Road NE • Olympia, WA 98506-2957

July 24, 2020

Vance Atkins
O'Neill Service Group
17619 NE 67th Ct, Suite 100
Redmond, WA 98052

Dear Mr. Atkins:

Please find enclosed the analytical data report for the F200 Project located in Federal Way, Washington.

The results of the analyses are summarized in the attached tables. Applicable detection limits and QA/QC data are included. The sample(s) will be disposed of within 30 days unless we are contacted to arrange long term storage.

Libby Environmental, Inc. appreciates the opportunity to have provided analytical services for this project. If you have any further questions about the data report, please give me a call. It was a pleasure working with you on this project, and we are looking forward to the next opportunity to work together.

Sincerely,

Sherry L. Chilcutt
Senior Chemist
Libby Environmental, Inc.

Phone (360) 352-2110 • Fax (360) 352-4154 • libbyenv@gmail.com

Libby Environmental, Inc.

Chain of Custody Record

www.LibbyEnvironmental.com

3322 South Bay Road NE
Olympia, WA 98506
Ph: 360-352-2110
Fax: 360-352-4154

Date: 7/22/20 Page: 2 of 7

Client: OSG

Project Manager: ATKINS, VANCE

Address:

Project Name: F200

City: State: Zip:

Location: FL358 City, State: FEDERAL WAY

Phone: Fax:

Collector: ATKINS Date of Collection: 7/23/20

Client Project # 2021

Email:

	Sample Number	Depth	Time	Sample Type	Container Type	VOC 8260	PCE & Daughter Prod.	NWTPH-Gx	BTEX (8260) / (8021)	NWTPH-HCID	NWTPH-Dx / Dx	PCB 8082	MTCA 5 Metals	RCRA 8 Metals	c PAH 8270	PAH 8270	Semi Vol 8270				Field Notes
1	FL358-PSS-56-6	5-6	1012	Soil	4oz/VOA																
2	-57-6	5-6	1015																		
3	-58-6	5-6	1020																		
4	-59-10	10	1030																		
5	-60-8	8	1445																		
6	-61-6	5-6	1450																		
7	-62-2	1-2	1452																		
8	-63-2	1-2	1455																		
9	-64-6	5-6	1500																		
10	-65-4	4	1503																		
11	-66-2	1-2	1506																		
12	-67-2	1-2	1510																		
13	-68-9	9	1515																		
14	-69-6	5-6	1522																		
15	70-6	5-6	1525																		
16	71-6	5-6	1535																		
17																					

Relinquished by:	Date / Time	Received by:	Date / Time
[signature]	7/23/20 1703	[signature]	7/27/20 503
Relinquished by:	Date / Time	Received by:	Date / Time
Relinquished by:	Date / Time	Received by:	Date / Time

Sample Receipt

Good Condition?	Y	N
Cooler Temp.		°C
Sample Temp.		°C
Total Number of Containers		

Remarks: RUSH

TAT: 24HR 48HR 5-DAY

Distribution: White - Lab, Yellow - Originator

Libby Environmental, Inc.

Chain of Custody Record

www.LibbyEnvironmental.com

3322 South Bay Road NE
Olympia, WA 98506
Ph: 360-352-2110
Fax: 360-352-4154

Date: 7/23/20 Page: 1 of 2

Client: OSS

Project Manager: ATKINS, VANCE

Address:

Project Name: F200

City: State: Zip:

Location: F0858 City, State: Fed Way

Phone: 425-677-3009 Fax:

Collector: Atkins — Date of Collection: 7/23/20

Client Project # 2021

Email:

	Sample Number	Depth	Time	Sample Type	Container Type	VOC 8260	PCE & Daughter Prod.	NWTPH-Gx	BTEX (8260) / (8021)	NWTPH-HCID	NWTPH-Dx / Dx	PCB 8082	MTCA 5 Metals	RCRA 8 Metals	c PAH 8270	PAH 8270	Semi Vol 8270				Field Notes
1	358-PEx-54-10	10	957	Soil	4oz/Jar		X														
2	-55-10	10	1000	Soil	" "		X														
3	~~-56-6~~	~~5-6~~	~~1012~~																		
4	~~-57-6~~	~~5-6~~	~~1015~~																		
5	~~-58-6~~	~~5-6~~	~~1020~~	SSS																	
6	~~-59-10~~	~~10~~	~~1070~~	P.2																	
7																					
8																					
9																					
10																					
11																					
12																					
13																					
14																					
15																					
16																					
17																					

Relinquished by:	Date / Time	Received by:	Date / Time
[signature]	7/23/20 - 1707	[signature]	7/23/20 5:03
Relinquished by:	Date / Time	Received by:	Date / Time
Relinquished by:	Date / Time	Received by:	Date / Time

Sample Receipt

Good Condition?	Y	N
Cooler Temp.		°C
Sample Temp.		°C
Total Number of Containers		

Remarks: Rush!

TAT: 24HR 48HR 5-DAY

Distribution: White - Lab, Yellow - Originator

Libby Environmental, Inc.

Chain of Custody Record

www.LibbyEnvironmental.com

3322 South Bay Road NE
Olympia, WA 98506
Ph: 360-352-2110
Fax: 360-352-4154

Date: 7/23/20 Page: 1 of 1

Client: OSS

Project Manager: ATKINS, VANCE

Address:

Project Name: F200

City: State: Zip:

Location: FL358 City, State: FED WAY

Phone: Fax:

Collector: ATKINS Date of Collection: 7/23/20

Client Project # 2021

Email:

	Sample Number	Depth	Time	Sample Type	Container Type	VOC 8260	PCE & Daughter Prod.	NWTPH-Gx	BTEX (8260) / (8021)	NWTPH-HCID	NWTPH-Dx / Dx	PCB 8082	MTCA 5 Metals	RCRA 8 Metals	c PAH 8270	PAH 8270	Semi Vol 8270				Field Notes
1	B58-PGA-72-4	3-4	1545	Soil	4oz/VOA		X														
2	-73-10	9-10	1548																		
3	-74-10	9-10	1550																		
4	-75-4	3-4	1558				X														
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					
13																					
14																					
15																					
16																					
17																					

Relinquished by:	Date / Time	Received by:	Date / Time
[signature]	7/23/20 1703	[signature]	7/23/20 503
Relinquished by:	Date / Time	Received by:	Date / Time
Relinquished by:	Date / Time	Received by:	Date / Time

Sample Receipt

Good Condition?	Y	N
Cooler Temp.		°C
Sample Temp.		°C
Total Number of Containers		

Remarks:

RUSH

TAT: 24HR 48HR 5-DAY

Distribution: White - Lab, Yellow - Originator

Libby Environmental, Inc.

3322 South Bay Road NE
Olympia, WA 98506
Phone: (360) 352-2110
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Email: libbyenv@gmail.com

F200 PROJECT
O'Neill Service Group
Federal Way, Washington
Libby Project # L200723-4
Client Project # 2021

Volatile Organic Compounds by EPA Method 8260D in Soil

Sample Description		Method Blank	358-PEX-54-10	358-PEX-55-10	358-PEX-56-6	358-PEX-57-6	358-PEX-58-6
Date Sampled		N/A	7/23/2020	7/23/2020	7/23/2020	7/23/2020	7/23/2020
Date Analyzed	PQL (mg/kg)	7/23/2020 (mg/kg)	7/23/2020 (mg/kg)	7/23/2020 (mg/kg)	7/24/2020 (mg/kg)	7/23/2020 (mg/kg)	7/22/2020 (mg/kg)
Vinyl Chloride (VC)	0.02	nd	nd	nd	nd	nd	nd
1,1-Dichloroethene	0.05	nd	nd	nd	nd	nd	nd
trans-1,2-Dichloroethene	0.02	nd	nd	nd	nd	nd	nd
cis -1,2-Dichloroethene	0.02	nd	nd	nd	nd	0.062	nd
Trichloroethene (TCE)	0.02	nd	nd	nd	nd	nd	nd
Tetrachloroethene (PCE)	0.02	nd	nd	nd	nd	nd	nd
Surrogate Recovery							
Dibromofluoromethane		122	128	124	122	130	122
1,2-Dichloroethane-d4		120	135	134	126	132	125
Toluene-d8		98	94	94	96	95	95
4-Bromofluorobenzene		94	89	91	97	91	90

"nd" Indicates not detected at listed detection limit.
"int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE : 65% TO 135%

ANALYSES PERFORMED BY: Sherry Chilcutt

Libby Environmental, Inc.

3322 South Bay Road NE
Olympia, WA 98506
Phone: (360) 352-2110
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Email: libbyenv@gmail.com

F200 PROJECT
O'Neill Service Group
Federal Way, Washington
Libby Project # L200723-4
Client Project # 2021

Volatile Organic Compounds by EPA Method 8260D in Soil

Sample Description		358-PEX-59-10	358-PEX-60-8	358-PEX-61-6	358-PEX-62-2	358-PEX-63-2	358-PEX-64-6
Date Sampled		7/23/20	7/23/20	7/23/20	7/23/20	7/23/20	7/23/20
Date Analyzed	PQL (mg/kg)	7/23/20 (mg/kg)	7/24/20 (mg/kg)	7/24/20 (mg/kg)	7/24/20 (mg/kg)	7/23/20 (mg/kg)	7/22/20 (mg/kg)
Vinyl Chloride (VC)	0.02	nd	nd	nd	nd	nd	nd
1,1-Dichloroethene	0.05	nd	nd	nd	nd	nd	nd
trans-1,2-Dichloroethene	0.02	nd	nd	nd	nd	nd	nd
cis -1,2-Dichloroethene	0.02	nd	nd	nd	nd	nd	nd
Trichloroethene (TCE)	0.02	nd	nd	nd	nd	nd	nd
Tetrachloroethene (PCE)	0.02	nd	nd	nd	nd	nd	nd
Surrogate Recovery							
Dibromofluoromethane		125	120	130	114	99	113
1,2-Dichloroethane-d4		125	118	129	132	113	113
Toluene-d8		98	96	95	121	104	104
4-Bromofluorobenzene		94	91	93	89	89	92

"nd" Indicates not detected at listed detection limit.
"int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE : 65% TO 135%

ANALYSES PERFORMED BY: Sherry Chilcutt

Libby Environmental, Inc.

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F200 PROJECT
O'Neill Service Group
Federal Way, Washington
Libby Project # L200723-4
Client Project # 2021

Volatile Organic Compounds by EPA Method 8260D in Soil

Sample Description		358-PEX-65-4	358-PEX-66-2	358-PEX-67-2	358-PEX-68-9	358-PEX-69-6	358-PEX-70-6
Date Sampled		7/23/20	7/23/20	7/23/20	7/23/20	7/23/20	7/23/20
Date Analyzed	PQL (mg/kg)	7/23/20 (mg/kg)	7/23/20 (mg/kg)	7/23/20 (mg/kg)	7/23/20 (mg/kg)	7/23/20 (mg/kg)	7/23/20 (mg/kg)
Vinyl Chloride (VC)	0.02	nd	nd	nd	nd	nd	nd
1,1-Dichloroethene	0.05	nd	nd	nd	nd	nd	nd
trans-1,2-Dichloroethene	0.02	nd	nd	nd	nd	0.027	nd
cis -1,2-Dichloroethene	0.02	nd	nd	nd	nd	1.4	0.062
Trichloroethene (TCE)	0.02	nd	nd	nd	nd	nd	nd
Tetrachloroethene (PCE)	0.02	nd	nd	nd	nd	nd	nd
Surrogate Recovery							
Dibromofluoromethane		84	84	84	84	110	119
1,2-Dichloroethane-d4		92	91	90	90	117	121
Toluene-d8		76	74	76	88	100	97
4-Bromofluorobenzene		90	87	90	88	99	93

"nd" Indicates not detected at listed detection limit.
"int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE : 65% TO 135%

ANALYSES PERFORMED BY: Sherry Chilcutt

Libby Environmental, Inc.

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F200 PROJECT
O'Neill Service Group
Federal Way, Washington
Libby Project # L200723-4
Client Project # 2021

Volatile Organic Compounds by EPA Method 8260D in Soil

Sample Description		358-PEX-70-6 Dup	358-PEX-71-6	358-PEX-72-4	358-PEX-73-10	358-PEX-74-10	358-PEX-75-4
Date Sampled		7/23/20	7/23/20	7/23/20	7/23/20	7/23/20	7/23/20
Date Analyzed	PQL (mg/kg)	7/23/20 (mg/kg)	7/23/20 (mg/kg)	7/24/20 (mg/kg)	7/23/20 (mg/kg)	7/23/20 (mg/kg)	7/23/20 (mg/kg)
Vinyl Chloride (VC)	0.02	nd	nd	nd	nd	nd	nd
1,1-Dichloroethene	0.05	nd	nd	nd	nd	nd	nd
trans-1,2-Dichloroethene	0.02	nd	nd	nd	nd	nd	nd
cis -1,2-Dichloroethene	0.02	0.066	0.037	nd	0.10	nd	nd
Trichloroethene (TCE)	0.02	nd	nd	nd	0.15	0.027	nd
Tetrachloroethene (PCE)	0.02	nd	nd	0.041	1.9	0.097	nd
Surrogate Recovery							
Dibromofluoromethane		121	123	122	123	95	120
1,2-Dichloroethane-d4		132	126	122	130	133	120
Toluene-d8		95	94	95	94	94	96
4-Bromofluorobenzene		93	88	94	97	90	95

"nd" Indicates not detected at listed detection limit.
"int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE : 65% TO 135%

ANALYSES PERFORMED BY: Sherry Chilcutt

Libby Environmental, Inc.

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Olympia, WA 98506
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Email: libbyenv@gmail.com

F200 PROJECT
O'Neill Service Group
Federal Way, Washington
Libby Project # L200723-4
Client Project # 2021

Volatile Organic Compounds by EPA Method 8260D in Soil

Sample Description		Method Blank
Date Sampled		N/A
Date Analyzed	PQL (mg/kg)	7/23/2020 (mg/kg)
Vinyl Chloride (VC)	0.02	nd
1,1-Dichloroethene	0.05	nd
trans-1,2-Dichloroethene	0.02	nd
cis -1,2-Dichloroethene	0.02	nd
Trichloroethene (TCE)	0.02	nd
Tetrachloroethene (PCE)	0.02	nd
Surrogate Recovery		
Dibromofluoromethane		99
1,2-Dichloroethane-d4		107
Toluene-d8		100
4-Bromofluorobenzene		93

"nd" Indicates not detected at listed detection limit.
"int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE : 65% TO 135%

ANALYSES PERFORMED BY: Sherry Chilcutt

Libby Environmental, Inc.

3322 South Bay Road NE
Olympia, WA 98506
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Email: libbyenv@gmail.com

F200 PROJECT
O'Neill Service Group
Federal Way, Washington
Libby Project # L200723-4
Client Project # 2021

QA/QC for Volatile Organic Compounds by EPA Method 8260D in Soil

Matrix Spike Sample Identification: L200723-1

	Spiked Conc. (mg/kg)	MS Response (mg/kg)	MSD Response (mg/kg)	MS Recovery (%)	MSD Recovery (%)	RPD (%)	Limits Recovery (%)	Data Flag
Vinyl Chloride (VC)	0.25	0.29	0.29	116	116	0.0	65-135	
1,1-Dichloroethene	0.25	0.27	0.27	108	108	0.0	65-135	
trans-1,2-Dichloroethene	0.25	0.27	0.27	108	108	0.0	65-135	
cis -1,2-Dichloroethene	0.25	0.29	0.29	116	116	0.0	65-135	
Trichloroethene (TCE)	0.25	0.29	0.29	116	116	0.0	65-135	
Tetrachloroethene (PCE)	0.25	0.33	0.32	132	128	3.1	65-135	

Surrogate Recovery (%)	MS	MSD	
Dibromofluoromethane	94	93	65-135
1,2-Dichloroethane-d4	104	105	65-135
Toluene-d8	109	110	65-135
4-Bromofluorobenzene	105	106	65-135

ACCEPTABLE RPD IS 35%

ANALYSES PERFORMED BY: Paul Burke

Libby Environmental, Inc.

3322 South Bay Road NE
Olympia, WA 98506
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Email: libbyenv@gmail.com

F200 PROJECT
O'Neill Service Group
Federal Way, Washington
Libby Project # L200723-4
Client Project # 2021

Laboratory Control Sample

	Spiked Conc. (mg/kg)	LCS Response (mg/kg)	LCS Recovery (%)	LCS Recovery Limits (%)	Data Flag
Vinyl Chloride (VC)	0.25	0.23	92	80-120	
1,1-Dichloroethene	0.25	0.23	91	80-120	
trans-1,2-Dichloroethene	0.25	0.21	84	80-120	
cis -1,2-Dichloroethene	0.25	0.27	108	80-120	
Trichloroethene (TCE)	0.25	0.28	112	80-120	
Tetrachloroethene (PCE)	0.25	0.23	92	80-120	

Surrogate Recovery		
Dibromofluoromethane	123	65-135
1,2-Dichloroethane-d4	129	65-135
Toluene-d8	122	65-135
4-Bromofluorobenzene	102	65-135

ANALYSES PERFORMED BY: Paul Burke

Libby Environmental, Inc.

3322 South Bay Road NE
Olympia, WA 98506
Phone: (360) 352-2110
FAX: (360) 352-4154
Email: libbyenv@gmail.com

F200 PROJECT
O'Neill Service Group
Federal Way, Washington
Libby Project # L200723-4
Client Project # 2021

QA/QC for Volatile Organic Compounds by EPA Method 8260D in Soil

Matrix Spike Sample Identification: 358-PEX-70-6

	Spiked Conc. (mg/kg)	MS Response (mg/kg)	MSD Response (mg/kg)	MS Recovery (%)	MSD Recovery (%)	RPD (%)	Limits Recovery (%)	Data Flag
Vinyl Chloride (VC)	0.25	0.22	0.24	89	95	6.1	65-135	
1,1-Dichloroethene	0.25	0.25	0.26	100	106	5.0	65-135	
trans-1,2-Dichloroethene	0.25	0.23	0.22	92	86	6.3	65-135	
cis -1,2-Dichloroethene	0.25	0.29	0.31	117	125	6.6	65-135	
Trichloroethene (TCE)	0.25	0.24	0.26	96	103	6.4	65-135	
Tetrachloroethene (PCE)	0.25	0.24	0.28	96	112	14.6	65-135	

Surrogate Recovery (%)	MS	MSD	
Dibromofluoromethane	116	119	65-135
1,2-Dichloroethane-d4	127	124	65-135
Toluene-d8	100	99	65-135
4-Bromofluorobenzene	99	99	65-135

ACCEPTABLE RPD IS 35%

ANALYSES PERFORMED BY: Sherry Chilcutt

Libby Environmental, Inc.

3322 South Bay Road NE
Olympia, WA 98506
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Email: libbyenv@gmail.com

F200 PROJECT
O'Neill Service Group
Federal Way, Washington
Libby Project # L200723-4
Client Project # 2021

Laboratory Control Sample

	Spiked Conc. (mg/kg)	LCS Response (mg/kg)	LCS Recovery (%)	LCS Recovery Limits (%)	Data Flag
Vinyl Chloride (VC)	0.25	0.22	88	80-120	
1,1-Dichloroethene	0.25	0.28	112	80-120	
trans-1,2-Dichloroethene	0.25	0.28	114	80-120	
cis -1,2-Dichloroethene	0.25	0.25	99	80-120	
Trichloroethene (TCE)	0.25	0.24	95	80-120	
Tetrachloroethene (PCE)	0.25	0.26	103	80-120	

Surrogate Recovery		
Dibromofluoromethane	116	65-135
1,2-Dichloroethane-d4	125	65-135
Toluene-d8	100	65-135
4-Bromofluorobenzene	98	65-135

ANALYSES PERFORMED BY: Sherry Chilcutt

Libby Environmental, Inc.

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Olympia, WA 98506
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F200 PROJECT
O'Neill Service Group
Federal Way, Washington
Libby Project # L200723-4
Client Project # 2021

Analysis of Moisture in Soil

Sample Number	Percent Moisture
358-PEX-54-10	10.4%
358-PEX-55-10	8.2%
358-PEX-56-6	12.0%
358-PEX-57-6	11.6%
358-PEX-58-6	15.5%
358-PEX-59-10	16.0%
358-PEX-60-8	14.1%
358-PEX-61-6	21.1%
358-PEX-62-2	15.7%
358-PEX-63-2	3.8%
358-PEX-64-6	20.2%
358-PEX-65-4	8.5%
358-PEX-66-2	5.0%
358-PEX-67-2	5.4%
358-PEX-68-9	11.1%
358-PEX-69-6	12.3%
358-PEX-70-6	9.6%
358-PEX-71-6	14.0%
358-PEX-72-4	19.2%
358-PEX-73-10	12.5%
358-PEX-74-10	15.2%
358-PEX-75-4	18.9%
Reporting Limit	0.5

ANALYSES PERFORMED BY: Melissa Harrington & Jodie Childress

Libby Environmental, Inc.

3322 South Bay Road NE
Olympia, WA 98506
Phone: (360) 352-2110
FAX: (360) 352-4154
Email: libbyenv@gmail.com

F200 PROJECT
O'Neill Service Group
Libby Project # L200723-4
Date Received 7/23/2020
Time Received 5:03 PM

Received By JC

Sample Receipt Checklist

Chain of Custody

1. Is the Chain of Custody complete?	☑ Yes	☐ No	
2. How was the sample delivered?	☐ Hand Delivered	☑ Picked Up	☐ Shipped

Log In

3. Cooler or Shipping Container is present.	☑ Yes	☐ No	☐ N/A
4. Cooler or Shipping Container is in good condition.	☑ Yes	☐ No	☐ N/A
5. Cooler or Shipping Container has Custody Seals present.	☐ Yes	☑ No	☐ N/A
6. Was an attempt made to cool the samples?	☑ Yes	☐ No	☐ N/A
7. Temperature of cooler (0°C to 8°C recommended)	3.9 °C		
8. Temperature of sample(s) (0°C to 8°C recommended)	3.9 °C		
9. Did all containers arrive in good condition (unbroken)?	☑ Yes	☐ No	
10. Is it clear what analyses were requested?	☑ Yes	☐ No	
11. Did container labels match Chain of Custody?	☑ Yes	☐ No	
12. Are matrices correctly identified on Chain of Custody?	☑ Yes	☐ No	
13. Are correct containers used for the analysis indicated?	☑ Yes	☐ No	
14. Is there sufficient sample volume for indicated analysis?	☑ Yes	☐ No	
15. Were all containers properly preserved per each analysis?	☑ Yes	☐ No	
16. Were VOA vials collected correctly (no headspace)?	☑ Yes	☐ No	☐ N/A
17. Were all holding times able to be met?	☑ Yes	☐ No	

Discrepancies/ Notes

18. Was client notified of all discrepancies? ☐ Yes ☐ No ☑ N/A

Person Notified: _____ Date: _____

By Whom: _____ Via: _____

Regarding: _____

19. Comments. Samples 358-PEX-69-6 through 75-4 are prepreserved with 5 ml MeOH

Libby Environmental, Inc.

3322 South Bay Road NE • Olympia, WA 98506-2957

July 27, 2020

Vance Atkins
O'Neill Service Group
17619 NE 67th Ct, Suite 100
Redmond, WA 98052

Dear Mr. Atkins:

Please find enclosed the analytical data report for the F200 Project located in Federal Way, Washington.

The results of the analyses are summarized in the attached tables. Applicable detection limits and QA/QC data are included. The sample(s) will be disposed of within 30 days unless we are contacted to arrange long term storage.

Libby Environmental, Inc. appreciates the opportunity to have provided analytical services for this project. If you have any further questions about the data report, please give me a call. It was a pleasure working with you on this project, and we are looking forward to the next opportunity to work together.

Sincerely,

Sherry L. Chilcutt
Senior Chemist
Libby Environmental, Inc.

Phone (360) 352-2110 • Fax (360) 352-4154 • libbyenv@gmail.com

Libby Environmental, Inc.

Chain of Custody Record

www.LibbyEnvironmental.com

3322 South Bay Road NE
Olympia, WA 98506
Ph: 360-352-2110
Fax: 360-352-4154

Date: 7/21/20 Page: 1 of 1

Client: OSS

Project Manager: ATKINS, VANCE

Address:

Project Name: F203

City: State: Zip:

Location: FL358 City, State:

Phone: 425-677-3009 Fax:

Collector: ATKINS Date of Collection:

Client Project # 2021

Email:

	Sample Number	Depth	Time	Sample Type	Container Type	VOC 8260	PCE & Daughter Prod.	NWTPH-Gx	BTEX (8260) / (8021)	NWTPH-HCID	NWTPH-Dx / Dx	PCB 8082	MTCA 5 Metals	RCRA 8 Metals	c PAH 8270	PAH 8270	Semi Vol 8270				Field Notes
1	358-PEX-76-6	5-6	1350	Soil	4oz/VOA		X														
2	358-PEX-77-1	0-1	1430																		
3	358-PEX-78-10	9-10	1445																		
4	358-PEX-79-10	9-10	1410				X														
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					
13																					
14																					
15																					
16																					
17																					

Relinquished by:	Date / Time	Received by:	Date / Time
[signature]	7/21/20 1610	[signature]	7/21 4:10p
Relinquished by:	Date / Time	Received by:	Date / Time
Relinquished by:	Date / Time	Received by:	Date / Time

Sample Receipt

Good Condition?	Y	N
Cooler Temp.		°C
Sample Temp.		°C
Total Number of Containers		

Remarks:

Rush
Stat

TAT: 24HR 48HR 5-DAY

Distribution: White - Lab, Yellow - Originator

Libby Environmental, Inc.

3322 South Bay Road NE
Olympia, WA 98506
Phone: (360) 352-2110
FAX: (360) 352-4154
Email: libbyenv@gmail.com

F200 PROJECT
O'Neill Service Group
Federal Way, Washington
Libby Project # L200724-6
Client Project # 2021

Volatile Organic Compounds by EPA Method 8260D in Soil

Sample Description		Method Blank	358-PEX-76-6	358-PEX-76-6 Dup	358-PEX-77-1	358-PEX-78-10	358-PEX-79-10
Date Sampled		N/A	7/24/2020	7/24/2020	7/24/2020	7/24/2020	7/24/2020
Date Analyzed	PQL (mg/kg)	7/24/2020 (mg/kg)	7/24/2020 (mg/kg)	7/24/2020 (mg/kg)	7/24/2020 (mg/kg)	7/24/2020 (mg/kg)	7/24/2020 (mg/kg)
Vinyl Chloride (VC)	0.02	nd	nd	nd	nd	nd	nd
1,1-Dichloroethene	0.05	nd	nd	nd	nd	nd	nd
trans-1,2-Dichloroethene	0.02	nd	nd	nd	nd	nd	nd
cis -1,2-Dichloroethene	0.02	nd	nd	nd	nd	nd	nd
Trichloroethene (TCE)	0.02	nd	nd	nd	nd	0.043	nd
Tetrachloroethene (PCE)	0.02	nd	nd	nd	nd	0.050	nd
Surrogate Recovery							
Dibromofluoromethane		84	85	109	84	115	85
1,2-Dichloroethane-d4		89	90	114	89	119	91
Toluene-d8		81	71	90	71	95	72
4-Bromofluorobenzene		91	90	92	90	90	93

"nd" Indicates not detected at listed detection limit.
"int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE : 65% TO 135%

ANALYSES PERFORMED BY: Paul Burke

Libby Environmental, Inc.

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F200 PROJECT
O'Neill Service Group
Federal Way, Washington
Libby Project # L200724-6
Client Project # 2021

QA/QC for Volatile Organic Compounds by EPA Method 8260D in Soil

Matrix Spike Sample Identification: L200722-4

	Spiked Conc. (mg/kg)	MS Response (mg/kg)	MSD Response (mg/kg)	MS Recovery (%)	MSD Recovery (%)	RPD (%)	Limits Recovery (%)	Data Flag
Vinyl Chloride (VC)	0.25	0.18	0.23	70	92	26.7	65-135	
1,1-Dichloroethene	0.25	0.19	0.26	75	104	32.3	65-135	
trans-1,2-Dichloroethene	0.25	0.18	0.23	72	92	25.4	65-135	
cis -1,2-Dichloroethene	0.25	0.22	0.31	87	124	34.5	65-135	
Trichloroethene (TCE)	0.25	0.25	0.27	98	107	8.6	65-135	
Tetrachloroethene (PCE)	0.25	0.27	0.24	107	96	10.8	65-135	

Surrogate Recovery (%)	MS	MSD	
Dibromofluoromethane	84	113	65-135
1,2-Dichloroethane-d4	90	115	65-135
Toluene-d8	80	97	65-135
4-Bromofluorobenzene	103	98	65-135

ACCEPTABLE RPD IS 35%

ANALYSES PERFORMED BY: Paul Burke

Libby Environmental, Inc.

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F200 PROJECT
O'Neill Service Group
Federal Way, Washington
Libby Project # L200724-6
Client Project # 2021

Laboratory Control Sample

	Spiked Conc. (mg/kg)	LCS Response (mg/kg)	LCS Recovery (%)	LCS Recovery Limits (%)	Data Flag
Vinyl Chloride (VC)	0.25	0.21	84	80-120	
1,1-Dichloroethene	0.25	0.22	88	80-120	
trans-1,2-Dichloroethene	0.25	0.23	90	80-120	
cis -1,2-Dichloroethene	0.25	0.24	96	80-120	
Trichloroethene (TCE)	0.25	0.28	112	80-120	
Tetrachloroethene (PCE)	0.25	0.27	108	80-120	

Surrogate Recovery		
Dibromofluoromethane	97	65-135
1,2-Dichloroethane-d4	104	65-135
Toluene-d8	97	65-135
4-Bromofluorobenzene	98	65-135

ANALYSES PERFORMED BY: Paul Burke

Libby Environmental, Inc.

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F200 PROJECT
O'Neill Service Group
Federal Way, Washington
Libby Project # L200724-6
Client Project # 2021

Analysis of Moisture in Soil

Sample Number	Percent Moisture
358-PEX-76-6	8.7%
358-PEX-77-1	6.9%
358-PEX-78-10	15.1%
358-PEX-79-10	10.6%
Reporting Limit	0.5

ANALYSES PERFORMED BY: Sherry Chilcutt

Libby Environmental, Inc.

3322 South Bay Road NE
Olympia, WA 98506
Phone: (360) 352-2110
FAX: (360) 352-4154
Email: libbyenv@gmail.com

F200 PROJECT
O'Neill Service Group
Libby Project # L200724-6
Date Received 7/24/2020
Time Received 4:10 PM

Received By JC

Sample Receipt Checklist

Chain of Custody

1. Is the Chain of Custody complete?	☑ Yes	☐ No	
2. How was the sample delivered?	☐ Hand Delivered	☑ Picked Up	☐ Shipped

Log In

3. Cooler or Shipping Container is present.	☑ Yes	☐ No	☐ N/A
4. Cooler or Shipping Container is in good condition.	☑ Yes	☐ No	☐ N/A
5. Cooler or Shipping Container has Custody Seals present.	☐ Yes	☑ No	☐ N/A
6. Was an attempt made to cool the samples?	☑ Yes	☐ No	☐ N/A
7. Temperature of cooler (0°C to 8°C recommended)	3.5 °C		
8. Temperature of sample(s) (0°C to 8°C recommended)	18.9 °C		
9. Did all containers arrive in good condition (unbroken)?	☑ Yes	☐ No	
10. Is it clear what analyses were requested?	☑ Yes	☐ No	
11. Did container labels match Chain of Custody?	☑ Yes	☐ No	
12. Are matrices correctly identified on Chain of Custody?	☑ Yes	☐ No	
13. Are correct containers used for the analysis indicated?	☑ Yes	☐ No	
14. Is there sufficient sample volume for indicated analysis?	☑ Yes	☐ No	
15. Were all containers properly preserved per each analysis?	☑ Yes	☐ No	
16. Were VOA vials collected correctly (no headspace)?	☑ Yes	☐ No	☐ N/A
17. Were all holding times able to be met?	☑ Yes	☐ No	

Discrepancies/ Notes

18. Was client notified of all discrepancies?	☐ Yes	☐ No	☑ N/A

Person Notified: _____ Date: _____

By Whom: _____ Via: _____

Regarding: _____

19. Comments. _____

Libby Environmental, Inc.

3322 South Bay Road NE • Olympia, WA 98506-2957

July 28, 2020

Vance Atkins
O'Neill Service Group
17619 NE 67th Ct, Suite 100
Redmond, WA 98052

Dear Mr. Atkins:

Please find enclosed the analytical data report for the F200 Project located in Federal Way, Washington.

The results of the analyses are summarized in the attached tables. Applicable detection limits and QA/QC data are included. The sample(s) will be disposed of within 30 days unless we are contacted to arrange long term storage.

Libby Environmental, Inc. appreciates the opportunity to have provided analytical services for this project. If you have any further questions about the data report, please give me a call. It was a pleasure working with you on this project, and we are looking forward to the next opportunity to work together.

Sincerely,

Sherry L. Chilcutt
Senior Chemist
Libby Environmental, Inc.

Phone (360) 352-2110 • Fax (360) 352-4154 • libbyenv@gmail.com

Libby Environmental, Inc.

Chain of Custody Record

www.LibbyEnvironmental.com

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Olympia, WA 98506
Ph: 360-352-2110
Fax: 360-352-4154

Client: DSS

Address:

City: State: Zip:

Phone: Fax:

Client Project #

Date: 7/27/20 Page: 1 of 1

Project Manager: Atkins

Project Name: F200

Location: @ FL 358 City, State: Fox Way -

Collector: Atkins Date of Collection: 7/27/20

Email: VANCOAC@PNWRLSS.COM

Sample Number	Depth	Time	Sample Type	Container Type	VOC 8260	PCE & Daughter Prod.	NWTPH-Gx	BTEX (8260) / (8021)	NWTPH-HCID	NWTPH-Dx / Dx	PCB 8082	MTCA 5 Metals	RCRA 8 Metals	c PAH 8270	PAH 8270	Semi Vol 8270				Field Notes
1 358-PSA-80-6	5-6	1435	S	4oz/VOA		X														
2 358-PSA-81-8	8	1440	S	"		X														
3																				
4																				
5																				
6																				
7																				
8																				
9																				
10																				
11																				
12																				
13																				
14																				
15																				
16																				
17																				

Relinquished by:	Date / Time	Received by:	Date / Time
Van C	7/27/20 1100	Jodie Childers	7/27/20 400
Relinquished by:	Date / Time	Received by:	Date / Time
Relinquished by:	Date / Time	Received by:	Date / Time

Sample Receipt

Good Condition?	Y	N
Cooler Temp.		°C
Sample Temp.		°C
Total Number of Containers		

Remarks: Rush

TAT: 24HR 48HR 5-DAY

Distribution: White - Lab, Yellow - Originator

Libby Environmental, Inc.

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Email: libbyenv@gmail.com

F200 PROJECT
O'Neill Service Group
Federal Way, Washington
Libby Project # L200727-3
Client Project # 2021

Volatile Organic Compounds by EPA Method 8260D in Soil

Sample Description		Method Blank	358-PEX-80-6	358-PEX-80-6 Dup	358-PEX-81-8
Date Sampled		N/A	7/27/2020	7/27/2020	7/27/2020
Date Analyzed	PQL (mg/kg)	7/27/2020 (mg/kg)	7/27/2020 (mg/kg)	7/27/2020 (mg/kg)	7/28/2020 (mg/kg)
Vinyl Chloride (VC)	0.02	nd	nd	nd	nd
1,1-Dichloroethene	0.05	nd	nd	nd	nd
trans-1,2-Dichloroethene	0.02	nd	nd	nd	nd
cis -1,2-Dichloroethene	0.02	nd	nd	0.020	nd
Trichloroethene (TCE)	0.02	nd	nd	nd	nd
Tetrachloroethene (PCE)	0.02	nd	nd	nd	nd
Surrogate Recovery					
Dibromofluoromethane		111	114	127	131
1,2-Dichloroethane-d4		113	119	132	130
Toluene-d8		74	82	95	96
4-Bromofluorobenzene		89	88	93	90

"nd" Indicates not detected at listed detection limit.
"int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE : 65% TO 135%

ANALYSES PERFORMED BY: Sherry Chilcutt

Libby Environmental, Inc.

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Olympia, WA 98506
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F200 PROJECT
O'Neill Service Group
Federal Way, Washington
Libby Project # L200727-3
Client Project # 2021

QA/QC for Volatile Organic Compounds by EPA Method 8260D in Soil

Matrix Spike Sample Identification: 358-PEX-81-8

	Spiked Conc. (mg/kg)	MS Response (mg/kg)	MSD Response (mg/kg)	MS Recovery (%)	MSD Recovery (%)	RPD (%)	Limits Recovery (%)	Data Flag
Vinyl Chloride (VC)	0.25	0.25	0.27	99	106	7.4	65-135	
1,1-Dichloroethene	0.25	0.32	0.31	127	122	3.8	65-135	
trans-1,2-Dichloroethene	0.25	0.33	0.28	131	110	17.6	65-135	
cis -1,2-Dichloroethene	0.25	0.24	0.24	96	96	0.0	65-135	
Trichloroethene (TCE)	0.25	0.23	0.30	92	118	25.2	65-135	
Tetrachloroethene (PCE)	0.25	0.31	0.30	125	119	4.9	65-135	

Surrogate Recovery (%)	MS	MSD	
Dibromofluoromethane	125	120	65-135
1,2-Dichloroethane-d4	122	126	65-135
Toluene-d8	99	101	65-135
4-Bromofluorobenzene	97	100	65-135

ACCEPTABLE RPD IS 35%

ANALYSES PERFORMED BY: Sherry Chilcutt

Libby Environmental, Inc.

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Email: libbyenv@gmail.com

F200 PROJECT
O'Neill Service Group
Federal Way, Washington
Libby Project # L200727-3
Client Project # 2021

Laboratory Control Sample

	Spiked Conc. (mg/kg)	LCS Response (mg/kg)	LCS Recovery (%)	LCS Recovery Limits (%)	Data Flag
Vinyl Chloride (VC)	0.25	0.29	115	80-120	
1,1-Dichloroethene	0.25	0.29	114	80-120	
trans-1,2-Dichloroethene	0.25	0.30	118	80-120	
cis -1,2-Dichloroethene	0.25	0.29	117	80-120	
Trichloroethene (TCE)	0.25	0.24	96	80-120	
Tetrachloroethene (PCE)	0.25	0.30	120	80-120	

Surrogate Recovery		
Dibromofluoromethane	108	65-135
1,2-Dichloroethane-d4	121	65-135
Toluene-d8	88	65-135
4-Bromofluorobenzene	100	65-135

ANALYSES PERFORMED BY: Sherry Chilcutt

Libby Environmental, Inc.

3322 South Bay Road NE
Olympia, WA 98506
Phone: (360) 352-2110
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Email: libbyenv@gmail.com

F200 PROJECT
O'Neill Service Group
Federal Way, Washington
Libby Project # L200727-3
Client Project # 2021

Analysis of Moisture in Soil

Sample Number	Percent Moisture
358-PEX-80-6	9.1%
358-PEX-81-8	7.4%
Reporting Limit	0.5

ANALYSES PERFORMED BY: Jodie Childress

Libby Environmental, Inc.

3322 South Bay Road NE
Olympia, WA 98506
Phone: (360) 352-2110
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Email: libbyenv@gmail.com

F200 PROJECT
O'Neill Service Group
Libby Project # L200727-3
Date Received 7/27/2020
Time Received 4:00 PM

Received By JC

Sample Receipt Checklist

Chain of Custody

1. Is the Chain of Custody complete?	☑ Yes	☐ No	
2. How was the sample delivered?	☐ Hand Delivered	☑ Picked Up	☐ Shipped

Log In

3. Cooler or Shipping Container is present.	☑ Yes	☐ No	☐ N/A
4. Cooler or Shipping Container is in good condition.	☑ Yes	☐ No	☐ N/A
5. Cooler or Shipping Container has Custody Seals present.	☐ Yes	☑ No	☐ N/A
6. Was an attempt made to cool the samples?	☑ Yes	☐ No	☐ N/A
7. Temperature of cooler (0°C to 8°C recommended)	0.6 °C		
8. Temperature of sample(s) (0°C to 8°C recommended)	23.7 °C		
9. Did all containers arrive in good condition (unbroken)?	☑ Yes	☐ No	
10. Is it clear what analyses were requested?	☑ Yes	☐ No	
11. Did container labels match Chain of Custody?	☑ Yes	☐ No	
12. Are matrices correctly identified on Chain of Custody?	☑ Yes	☐ No	
13. Are correct containers used for the analysis indicated?	☑ Yes	☐ No	
14. Is there sufficient sample volume for indicated analysis?	☑ Yes	☐ No	
15. Were all containers properly preserved per each analysis?	☑ Yes	☐ No	
16. Were VOA vials collected correctly (no headspace)?	☑ Yes	☐ No	☐ N/A
17. Were all holding times able to be met?	☑ Yes	☐ No	

Discrepancies/ Notes

18. Was client notified of all discrepancies?	☐ Yes	☐ No	☑ N/A

Person Notified: _____ Date: _____

By Whom: _____ Via: _____

Regarding: _____

19. Comments. _____

Libby Environmental, Inc.

3322 South Bay Road NE • Olympia, WA 98506-2957

July 29, 2020

Vance Atkins
O'Neill Service Group
17619 NE 67th Ct, Suite 100
Redmond, WA 98052

Dear Mr. Atkins:

Please find enclosed the analytical data report for the F200 Project located in Federal Way, Washington.

The results of the analyses are summarized in the attached tables. Applicable detection limits and QA/QC data are included. The sample(s) will be disposed of within 30 days unless we are contacted to arrange long term storage.

Libby Environmental, Inc. appreciates the opportunity to have provided analytical services for this project. If you have any further questions about the data report, please give me a call. It was a pleasure working with you on this project, and we are looking forward to the next opportunity to work together.

Sincerely,

Sherry L. Chilcutt
Senior Chemist
Libby Environmental, Inc.

Phone (360) 352-2110 • Fax (360) 352-4154 • libbyenv@gmail.com

Libby Environmental, Inc.

Chain of Custody Record

www.LibbyEnvironmental.com

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Olympia, WA 98506
Ph: 360-352-2110
Fax: 360-352-4154

Date: 7/28/20 Page: 1 of 1

Client: OSG

Project Manager: Atkins, VANCE

Address:

Project Name: F203

City: State: Zip:

Location: F1358 City, State: Fox Way

Phone: 425-677-3009 Fax:

Collector: Atkins Date of Collection: 7/28/20

Client Project # 2021

Email: On File

	Sample Number	Depth	Time	Sample Type	Container Type	VOC 8260	PCE & Daughter Prod.	NWTPH-Gx	BTEX (8260) / (8021)	NWTPH-HCID	NWTPH-Dx / Dx	PCB 8082	MTCA 5 Metals	RCRA 8 Metals	c PAH 8270	PAH 8270	Semi Vol 8270				Field Notes
1	358-Pos-S2-10	9-10	935	S	4oz/VOA		X														
2	-S3-10	9-10	1350																		
3	-S4-10	10	1353																		
4	-S5-10	10	1357																		
5	-S6-10	9-10	1405																		
6	-S7-10	10	1410																		
7	-S8-10	10	1415																		
8	-S9-10	9-10	1418				X														
9																					
10																					
11																					
12																					
13																					
14																					
15																					
16																					
17																					

Relinquished by:	Date / Time	Received by:	Date / Time
Van G	7/28/20 1515	Logan Black	7/28/20 1515
Logan Black	7/28/20 16 1607	[illegible]	7/28/2020 16:05
Relinquished by:	Date / Time	Received by:	Date / Time

Sample Receipt

Good Condition?	Y	N
Cooler Temp.		°C
Sample Temp.		°C
Total Number of Containers		

Remarks: RUSH

TAT: 24HR 48HR 5-DAY

Distribution: White - Lab, Yellow - Originator

Libby Environmental, Inc.

3322 South Bay Road NE
Olympia, WA 98506
Phone: (360) 352-2110
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Email: libbyenv@gmail.com

F200 PROJECT
O'Neill Service Group
Federal Way, Washington
Libby Project # L200728-5
Client Project # 2021

Volatile Organic Compounds by EPA Method 8260D in Soil

Sample Description		Method Blank	358-PEX-82-10	358-PEX-82-10 Dup	358-PEX-83-10	358-PEX-84-10	358-PEX-85-10
Date Sampled		N/A	7/28/2020	7/28/2020	7/28/2020	7/28/2020	7/28/2020
Date Analyzed	PQL (mg/kg)	7/28/2020 (mg/kg)	7/28/2020 (mg/kg)	7/28/2020 (mg/kg)	7/28/2020 (mg/kg)	7/29/2020 (mg/kg)	7/29/2020 (mg/kg)
Vinyl Chloride (VC)	0.02	nd	nd	nd	nd	nd	nd
1,1-Dichloroethene	0.05	nd	nd	nd	nd	nd	nd
trans-1,2-Dichloroethene	0.02	nd	nd	nd	nd	nd	nd
cis -1,2-Dichloroethene	0.02	nd	0.095	0.094	nd	nd	0.042
Trichloroethene (TCE)	0.02	nd	0.14	0.15	nd	nd	0.099
Tetrachloroethene (PCE)	0.02	nd	0.62	0.85	nd	0.028	1.1
Surrogate Recovery							
Dibromofluoromethane		127	129	117	132	129	85
1,2-Dichloroethane-d4		133	132	115	130	126	85
Toluene-d8		98	96	87	96	95	69
4-Bromofluorobenzene		98	94	90	92	90	88

"nd" Indicates not detected at listed detection limit.
"int" Indicates that interference prevents determination.
“J” Result is less than the PQL but greater than the MDL. Reported value is approximate.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE : 65% TO 135%

ANALYSES PERFORMED BY: Sherry Chilcutt

Libby Environmental, Inc.

3322 South Bay Road NE
Olympia, WA 98506
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FAX: (360) 352-4154
Email: libbyenv@gmail.com

F200 PROJECT
O'Neill Service Group
Federal Way, Washington
Libby Project # L200728-5
Client Project # 2021

Volatile Organic Compounds by EPA Method 8260D in Soil

Sample Description		358-PEX-86-10	358-PEX-87-10	358-PEX-88-10	358-PEX-89-10
Date Sampled		7/28/2020	7/28/2020	7/28/2020	7/28/2020
Date Analyzed	PQL (mg/kg)	7/29/2020 (mg/kg)	7/29/2020 (mg/kg)	7/28/2020 (mg/kg)	7/28/2020 (mg/kg)
Vinyl Chloride (VC)	0.02	nd	nd	nd	nd
1,1-Dichloroethene	0.05	nd	nd	nd	nd
trans-1,2-Dichloroethene	0.02	nd	nd	nd	nd
cis -1,2-Dichloroethene	0.02	0.034	nd	nd	nd
Trichloroethene (TCE)	0.02	0.037	0.028	nd	nd
Tetrachloroethene (PCE)	0.02	0.39	0.33	0.029	nd
Surrogate Recovery					
Dibromofluoromethane		127	129	133	134
1,2-Dichloroethane-d4		125	126	131	135
Toluene-d8		96	96	95	96
4-Bromofluorobenzene		108	94	94	92

"nd" Indicates not detected at listed detection limit.
"int" Indicates that interference prevents determination.
“J” Result is less than the PQL but greater than the MDL. Reported value is approximate.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE : 65% TO 135%

ANALYSES PERFORMED BY: Sherry Chilcutt

Libby Environmental, Inc.

3322 South Bay Road NE
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F200 PROJECT
O'Neill Service Group
Federal Way, Washington
Libby Project # L200728-5
Client Project # 2021

QA/QC for Volatile Organic Compounds by EPA Method 8260D in Soil

Matrix Spike Sample Identification: 358-PEX-86-10

	Spiked Conc. (mg/kg)	MS Response (mg/kg)	MSD Response (mg/kg)	MS Recovery (%)	MSD Recovery (%)	RPD (%)	Limits Recovery (%)	Data Flag
Vinyl Chloride (VC)	0.25	0.20	0.20	80	80	0.5	65-135	
1,1-Dichloroethene	0.25	0.25	0.23	99	92	7.7	65-135	
trans-1,2-Dichloroethene	0.25	0.27	0.30	108	120	10.5	65-135	
cis -1,2-Dichloroethene	0.25	0.18	0.18	73	73	0.5	65-135	
Trichloroethene (TCE)	0.25	0.19	0.20	74	80	7.3	65-135	
Tetrachloroethene (PCE)	0.25	0.11	0.18	45	73	47.6	65-135	R, S

Surrogate Recovery (%)	MS	MSD	
Dibromofluoromethane	126	124	65-135
1,2-Dichloroethane-d4	134	131	65-135
Toluene-d8	99	98	65-135
4-Bromofluorobenzene	104	105	65-135

ACCEPTABLE RPD IS 35%

S" Spike compound recovery is outside acceptance limits.

R" High relative percent difference observed.

ANALYSES PERFORMED BY: Sherry Chilcutt

Libby Environmental, Inc.

3322 South Bay Road NE
Olympia, WA 98506
Phone: (360) 352-2110
FAX: (360) 352-4154
Email: libbyenv@gmail.com

F200 PROJECT
O'Neill Service Group
Federal Way, Washington
Libby Project # L200728-5
Client Project # 2021

Laboratory Control Sample

	Spiked Conc. (mg/kg)	LCS Response (mg/kg)	LCS Recovery (%)	LCS Recovery Limits (%)	Data Flag
Vinyl Chloride (VC)	0.25	0.26	106	80-120	
1,1-Dichloroethene	0.25	0.30	118	80-120	
trans-1,2-Dichloroethene	0.25	0.29	116	80-120	
cis -1,2-Dichloroethene	0.25	0.24	94	80-120	
Trichloroethene (TCE)	0.25	0.21	85	80-120	
Tetrachloroethene (PCE)	0.25	0.23	92	80-120	

Surrogate Recovery		
Dibromofluoromethane	119	65-135
1,2-Dichloroethane-d4	133	65-135
Toluene-d8	100	65-135
4-Bromofluorobenzene	105	65-135

ANALYSES PERFORMED BY: Sherry Chilcutt

Libby Environmental, Inc.

3322 South Bay Road NE
Olympia, WA 98506
Phone: (360) 352-2110
FAX: (360) 352-4154
Email: libbyenv@gmail.com

F200 PROJECT
O'Neill Service Group
Federal Way, Washington
Libby Project # L200728-5
Client Project # 2021

Analysis of Moisture in Soil

Sample Number	Percent Moisture
358-PEX-82-10	13.2%
358-PEX-83-10	22.6%
358-PEX-84-10	13.6%
358-PEX-85-10	9.6%
358-PEX-86-10	9.9%
358-PEX-87-10	9.1%
358-PEX-88-10	9.9%
358-PEX-89-10	10.1%
Reporting Limit	0.5

ANALYSES PERFORMED BY: Jodie Childress

Libby Environmental, Inc.

3322 South Bay Road NE
Olympia, WA 98506
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FAX: (360) 352-4154
Email: libbyenv@gmail.com

F200 PROJECT
O'Neill Service Group
Libby Project # L200728-5
Date Received 7/28/2020
Time Received 4:05 PM

Received By JC

Sample Receipt Checklist

Chain of Custody

1. Is the Chain of Custody complete?	☑ Yes	☐ No	
2. How was the sample delivered?	☐ Hand Delivered	☑ Picked Up	☐ Shipped

Log In

3. Cooler or Shipping Container is present.	☑ Yes	☐ No	☐ N/A
4. Cooler or Shipping Container is in good condition.	☑ Yes	☐ No	☐ N/A
5. Cooler or Shipping Container has Custody Seals present.	☐ Yes	☑ No	☐ N/A
6. Was an attempt made to cool the samples?	☑ Yes	☐ No	☐ N/A
7. Temperature of cooler (0°C to 8°C recommended)	2.7 °C		
8. Temperature of sample(s) (0°C to 8°C recommended)	6.7 °C		
9. Did all containers arrive in good condition (unbroken)?	☑ Yes	☐ No	
10. Is it clear what analyses were requested?	☑ Yes	☐ No	
11. Did container labels match Chain of Custody?	☑ Yes	☐ No	
12. Are matrices correctly identified on Chain of Custody?	☑ Yes	☐ No	
13. Are correct containers used for the analysis indicated?	☑ Yes	☐ No	
14. Is there sufficient sample volume for indicated analysis?	☑ Yes	☐ No	
15. Were all containers properly preserved per each analysis?	☑ Yes	☐ No	
16. Were VOA vials collected correctly (no headspace)?	☑ Yes	☐ No	☐ N/A
17. Were all holding times able to be met?	☑ Yes	☐ No	

Discrepancies/ Notes

18. Was client notified of all discrepancies?	☐ Yes	☐ No	☑ N/A

Person Notified: _____ Date: _____

By Whom: _____ Via: _____

Regarding: _____

19. Comments. Samples prepreserved with 5ml MeOH

Libby Environmental, Inc.

3322 South Bay Road NE • Olympia, WA 98506-2957

July 30, 2020

Vance Atkins
O'Neill Service Group
17619 NE 67th Ct, Suite 100
Redmond, WA 98052

Dear Mr. Atkins:

Please find enclosed the analytical data report for the F200 Project located in Federal Way, Washington.

The results of the analyses are summarized in the attached tables. Applicable detection limits and QA/QC data are included. The sample(s) will be disposed of within 30 days unless we are contacted to arrange long term storage.

Libby Environmental, Inc. appreciates the opportunity to have provided analytical services for this project. If you have any further questions about the data report, please give me a call. It was a pleasure working with you on this project, and we are looking forward to the next opportunity to work together.

Sincerely,

Sherry L. Chilcutt
Senior Chemist
Libby Environmental, Inc.

Phone (360) 352-2110 • Fax (360) 352-4154 • libbyenv@gmail.com

Libby Environmental, Inc.

Chain of Custody Record

www.LibbyEnvironmental.com

3322 South Bay Road NE
Olympia, WA 98506
Ph: 360-352-2110
Fax: 360-352-4154

Client: OSG

Address:

City: State: Zip:

Phone: 425-677-3009 Fax:

Client Project # 2021

Date: 7/29/20 Page: 1 of 1

Project Manager: Aiken, VANCE

Project Name: F200

Location: F358 City, State: Fowler

Collector: Aiken Date of Collection: 7/29/20

Email:

Sample Number	Depth	Time	Sample Type	Container Type	VOC 8260	PCE & Daughter Prod.	NWTPH-Gx	BTEX (8260) / (8021)	NWTPH-HCID	NWTPH-Dx / Dx	PCB 8082	MTCA 5 Metals	RCRA 8 Metals	c PAH 8270	PAH 8270	Semi Vol 8270				Field Notes
1 358-SD-SP	—	935	S	4oz/VOA		X														
2 358-SD-1-3	2-3	940				X														
3 358-SB-2-3	2-3	943				X														
4 358-SD-3-4	4	945				X														
5																				
6																				
7																				
8																				
9																				
10																				
11																				
12																				
13																				
14																				
15																				
16																				
17																				

Relinquished by:	Date / Time	Received by:	Date / Time
[signature]	7/29/20 1500	[signature]	7/29/20 3:30
Relinquished by:	Date / Time	Received by:	Date / Time
Relinquished by:	Date / Time	Received by:	Date / Time

Sample Receipt

Good Condition?	Y	N
Cooler Temp.		°C
Sample Temp.		°C
Total Number of Containers		

Remarks:

TAT: 24HR 48HR 5-DAY

Distribution: White - Lab, Yellow - Originator

Libby Environmental, Inc.

3322 South Bay Road NE
Olympia, WA 98506
Phone: (360) 352-2110
FAX: (360) 352-4154
Email: libbyenv@gmail.com

F200 PROJECT
O'Neill Service Group
Federal Way, Washington
Libby Project # L200729-3
Client Project # 2021

Volatile Organic Compounds by EPA Method 8260D in Soil

Sample Description		Method Blank	358-SD-SP	358-SD-SP Dup	358-SD-1-3	358-SD-2-3	358-SD-3-4
Date Sampled		N/A	7/29/2020	7/29/2020	7/29/2020	7/29/2020	7/29/2020
Date Analyzed	PQL (mg/kg)	7/29/2020 (mg/kg)	7/29/2020 (mg/kg)	7/29/2020 (mg/kg)	7/29/2020 (mg/kg)	7/29/2020 (mg/kg)	7/29/2020 (mg/kg)
Vinyl Chloride (VC)	0.02	nd	nd	nd	nd	nd	nd
1,1-Dichloroethene	0.05	nd	nd	nd	nd	nd	nd
trans-1,2-Dichloroethene	0.02	nd	nd	nd	nd	nd	nd
cis -1,2-Dichloroethene	0.02	nd	nd	nd	nd	nd	nd
Trichloroethene (TCE)	0.02	nd	nd	nd	nd	nd	nd
Tetrachloroethene (PCE)	0.02	nd	0.028	0.017 J	nd	nd	nd
Surrogate Recovery							
Dibromofluoromethane		132	134	135	132	131	106
1,2-Dichloroethane-d4		113	117	114	115	116	125
Toluene-d8		93	91	92	90	90	76
4-Bromofluorobenzene		100	99	97	97	99	91

"nd" Indicates not detected at listed detection limit.
"int" Indicates that interference prevents determination.
“J” Result is less than the PQL but greater than the MDL. Reported value is approximate.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE : 65% TO 135%

ANALYSES PERFORMED BY: Sherry Chilcutt

Libby Environmental, Inc.

3322 South Bay Road NE
Olympia, WA 98506
Phone: (360) 352-2110
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Email: libbyenv@gmail.com

F200 PROJECT
O'Neill Service Group
Federal Way, Washington
Libby Project # L200729-3
Client Project # 2021

QA/QC for Volatile Organic Compounds by EPA Method 8260D in Soil

Matrix Spike Sample Identification: 358-SD-SP

	Spiked Conc. (mg/kg)	MS Response (mg/kg)	MSD Response (mg/kg)	MS Recovery (%)	MSD Recovery (%)	RPD (%)	Limits Recovery (%)	Data Flag
Vinyl Chloride (VC)	0.25	0.18	0.19	72	78	7.5	65-135	
1,1-Dichloroethene	0.25	0.21	0.24	82	95	14.4	65-135	
trans-1,2-Dichloroethene	0.25	0.24	0.27	96	109	12.1	65-135	
cis -1,2-Dichloroethene	0.25	0.24	0.27	94	108	13.8	65-135	
Trichloroethene (TCE)	0.25	0.24	0.25	96	101	5.3	65-135	
Tetrachloroethene (PCE)	0.25	0.31	0.32	123	128	4.1	65-135	

Surrogate Recovery (%)	MS	MSD	
Dibromofluoromethane	124	133	65-135
1,2-Dichloroethane-d4	120	107	65-135
Toluene-d8	94	94	65-135
4-Bromofluorobenzene	112	104	65-135

ACCEPTABLE RPD IS 35%

ANALYSES PERFORMED BY: Sherry Chilcutt

Libby Environmental, Inc.

3322 South Bay Road NE
Olympia, WA 98506
Phone: (360) 352-2110
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Email: libbyenv@gmail.com

F200 PROJECT
O'Neill Service Group
Federal Way, Washington
Libby Project # L200729-3
Client Project # 2021

Laboratory Control Sample

	Spiked Conc. (mg/kg)	LCS Response (mg/kg)	LCS Recovery (%)	LCS Recovery Limits (%)	Data Flag
Vinyl Chloride (VC)	0.25	0.24	96	80-120	
1,1-Dichloroethene	0.25	0.22	88	80-120	
trans-1,2-Dichloroethene	0.25	0.22	90	80-120	
cis -1,2-Dichloroethene	0.25	0.27	106	80-120	
Trichloroethene (TCE)	0.25	0.21	83	80-120	
Tetrachloroethene (PCE)	0.25	0.22	90	80-120	

Surrogate Recovery		
Dibromofluoromethane	123	65-135
1,2-Dichloroethane-d4	114	65-135
Toluene-d8	96	65-135
4-Bromofluorobenzene	111	65-135

ANALYSES PERFORMED BY: Sherry Chilcutt

Libby Environmental, Inc.

3322 South Bay Road NE
Olympia, WA 98506
Phone: (360) 352-2110
FAX: (360) 352-4154
Email: libbyenv@gmail.com

F200 PROJECT
O'Neill Service Group
Federal Way, Washington
Libby Project # L200729-3
Client Project # 2021

Analysis of Moisture in Soil

Sample Number	Percent Moisture
358-SD-SP	12.2%
358-SD-1-3	22.5%
358-SD-2-3	13.9%
358-SD-3-4	15.0%
Reporting Limit	0.5

ANALYSES PERFORMED BY: Jodie Childress

Libby Environmental, Inc.

3322 South Bay Road NE
Olympia, WA 98506
Phone: (360) 352-2110
FAX: (360) 352-4154
Email: libbyenv@gmail.com

F200 PROJECT
O'Neill Service Group
Libby Project # L200729-3
Date Received 7/29/2020
Time Received 3:00 PM

Received By JC

Sample Receipt Checklist

Chain of Custody

1. Is the Chain of Custody complete?	☑ Yes	☐ No	
2. How was the sample delivered?	☐ Hand Delivered	☑ Picked Up	☐ Shipped

Log In

3. Cooler or Shipping Container is present.	☑ Yes	☐ No	☐ N/A
4. Cooler or Shipping Container is in good condition.	☑ Yes	☐ No	☐ N/A
5. Cooler or Shipping Container has Custody Seals present.	☐ Yes	☑ No	☐ N/A
6. Was an attempt made to cool the samples?	☑ Yes	☐ No	☐ N/A
7. Temperature of cooler (0°C to 8°C recommended)	4.9 °C		
8. Temperature of sample(s) (0°C to 8°C recommended)	14.0 °C		
9. Did all containers arrive in good condition (unbroken)?	☑ Yes	☐ No	
10. Is it clear what analyses were requested?	☑ Yes	☐ No	
11. Did container labels match Chain of Custody?	☑ Yes	☐ No	
12. Are matrices correctly identified on Chain of Custody?	☑ Yes	☐ No	
13. Are correct containers used for the analysis indicated?	☑ Yes	☐ No	
14. Is there sufficient sample volume for indicated analysis?	☑ Yes	☐ No	
15. Were all containers properly preserved per each analysis?	☑ Yes	☐ No	
16. Were VOA vials collected correctly (no headspace)?	☑ Yes	☐ No	☐ N/A
17. Were all holding times able to be met?	☑ Yes	☐ No	

Discrepancies/ Notes

18. Was client notified of all discrepancies?	☐ Yes	☐ No	☑ N/A

Person Notified: _____ Date: _____

By Whom: _____ Via: _____

Regarding: _____

19. Comments. _____

Libby Environmental, Inc.

3322 South Bay Road NE • Olympia, WA 98506-2957

August 3, 2020

Vance Atkins
O'Neill Service Group
17619 NE 67th Ct, Suite 100
Redmond, WA 98052

Dear Mr. Atkins:

Please find enclosed the analytical data report for the F200 Project located in Federal Way, Washington.

The results of the analyses are summarized in the attached tables. Applicable detection limits and QA/QC data are included. The sample(s) will be disposed of within 30 days unless we are contacted to arrange long term storage.

Libby Environmental, Inc. appreciates the opportunity to have provided analytical services for this project. If you have any further questions about the data report, please give me a call. It was a pleasure working with you on this project, and we are looking forward to the next opportunity to work together.

Sincerely,

Sherry L. Chilcutt
Senior Chemist
Libby Environmental, Inc.

Phone (360) 352-2110 • Fax (360) 352-4154 • libbyenv@gmail.com

Libby Environmental, Inc.

Chain of Custody Record

www.LibbyEnvironmental.com

3322 South Bay Road NE
Olympia, WA 98506
Ph: 360-352-2110
Fax: 360-352-4154

Date: 7/31/20 Page: 1 of 1

Client: OSG

Project Manager: ATKINS, VANCE

Address:

Project Name: F200

City: State: Zip:

Location: FL358 City, State: FED WAY

Phone: 425-677-3009 Fax:

Collector: ATKINS Date of Collection: 7/31/20

Client Project # 2021

Email:

Sample Number	Depth	Time	Sample Type	Container Type	VOC 8260	PCE & Daughter Prod.	NWTPH-Gx	BTEX (8260) / (8021)	NWTPH-HCID	NWTPH-Dx / Dx	PCB 8082	MTCA 5 Metals	RCRA 8 Metals	c PAH 8270	PAH 8270	Semi Vol 8270				Field Notes
1 358-PEx-90-10	9-10	1145	Soil	4oz/VOA		X														
2 358-PEx-91-11	11	1120																		
3 358-PEx-92-10	9-10	1123																		
4 358-PEx-93-10	9-10	1130																		
5 358-PEx-94-10	9-10	1355																		
6 358-PEx-95-10	10	1400																		
7 358-PEx-96-10	9-10	1410				X														
8																				
9																				
10																				
11																				
12																				
13																				
14																				
15																				
16																				
17																				

Relinquished by:	Date / Time	Received by:	Date / Time
Van Atkins	7/31/20 1455	Logan Black	7/31/20 1455
Logan Black	7/31/20 1600	Jodie Cullinan	7/31/20 4:00

Sample Receipt

Good Condition?	Y	N
Cooler Temp.		°C
Sample Temp.		°C
Total Number of Containers		

Remarks: Saturday

TAT: 24HR 48HR 5-DAY

Distribution: White - Lab, Yellow - Originator

Libby Environmental, Inc.

3322 South Bay Road NE
Olympia, WA 98506
Phone: (360) 352-2110
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Email: libbyenv@gmail.com

F200 PROJECT
O'Neill Service Group
Federal Way, Washington
Libby Project # L200731-2
Client Project # 2021

Volatile Organic Compounds by EPA Method 8260D in Soil

Sample Description		Method Blank	358-PEX-90-10	358-PEX-91-11	358-PEX-91-11 Dup	358-PEX-92-10	358-PEX-93-10
Date Sampled		N/A	7/31/2020	7/31/2020	7/31/2020	7/31/2020	7/31/2020
Date Analyzed	PQL (mg/kg)	7/31/2020 (mg/kg)	7/31/2020 (mg/kg)	7/31/2020 (mg/kg)	7/31/2020 (mg/kg)	7/31/2020 (mg/kg)	7/31/2020 (mg/kg)
Vinyl Chloride (VC)	0.02	nd	nd	nd	nd	nd	nd
1,1-Dichloroethene	0.05	nd	nd	nd	nd	nd	nd
trans-1,2-Dichloroethene	0.02	nd	nd	nd	nd	nd	nd
cis -1,2-Dichloroethene	0.02	nd	0.11	0.082	0.049	nd	nd
Trichloroethene (TCE)	0.02	nd	0.12	0.091	0.071	nd	nd
Tetrachloroethene (PCE)	0.02	nd	0.044	0.58	0.36	nd	nd
Surrogate Recovery							
Dibromofluoromethane		133	132	129	122	132	123
1,2-Dichloroethane-d4		106	97	111	106	107	102
Toluene-d8		94	93	89	90	90	91
4-Bromofluorobenzene		102	97	96	96	99	97

"nd" Indicates not detected at listed detection limit.
"int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE : 65% TO 135%

ANALYSES PERFORMED BY: Sherry Chilcutt

Libby Environmental, Inc.

3322 South Bay Road NE
Olympia, WA 98506
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Email: libbyenv@gmail.com

F200 PROJECT
O'Neill Service Group
Federal Way, Washington
Libby Project # L200731-2
Client Project # 2021

Volatile Organic Compounds by EPA Method 8260D in Soil

Sample Description		358-PEX-94-10	358-PEX-95-10	358-PEX-96-10
Date Sampled		7/31/2020	7/31/2020	7/31/2020
Date Analyzed	PQL (mg/kg)	7/31/2020 (mg/kg)	7/31/2020 (mg/kg)	7/31/2020 (mg/kg)
Vinyl Chloride (VC)	0.02	nd	nd	nd
1,1-Dichloroethene	0.05	nd	nd	nd
trans-1,2-Dichloroethene	0.02	nd	nd	nd
cis -1,2-Dichloroethene	0.02	nd	nd	nd
Trichloroethene (TCE)	0.02	nd	nd	nd
Tetrachloroethene (PCE)	0.02	0.11	0.13	nd
Surrogate Recovery				
Dibromofluoromethane		130	132	128
1,2-Dichloroethane-d4		102	98	106
Toluene-d8		89	90	88
4-Bromofluorobenzene		96	95	94

"nd" Indicates not detected at listed detection limit.
"int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE : 65% TO 135%

ANALYSES PERFORMED BY: Sherry Chilcutt

Libby Environmental, Inc.

3322 South Bay Road NE
Olympia, WA 98506
Phone: (360) 352-2110
FAX: (360) 352-4154
Email: libbyenv@gmail.com

F200 PROJECT
O'Neill Service Group
Federal Way, Washington
Libby Project # L200731-2
Client Project # 2021

QA/QC for Volatile Organic Compounds by EPA Method 8260D in Soil

Matrix Spike Sample Identification: 358-PEX-95-10

	Spiked Conc. (mg/kg)	MS Response (mg/kg)	MSD Response (mg/kg)	MS Recovery (%)	MSD Recovery (%)	RPD (%)	Limits Recovery (%)	Data Flag
Vinyl Chloride (VC)	0.25	0.21	0.17	84	68	20.6	65-135	
1,1-Dichloroethene	0.25	0.20	0.17	80	67	16.9	65-135	
trans-1,2-Dichloroethene	0.25	0.19	0.21	75	83	10.2	65-135	
cis -1,2-Dichloroethene	0.25	0.24	0.20	95	80	17.4	65-135	
Trichloroethene (TCE)	0.25	0.23	0.21	92	84	9.6	65-135	
Tetrachloroethene (PCE)	0.25	0.32	0.22	128	86	39.3	65-135	R

Surrogate Recovery (%)	MS	MSD	
Dibromofluoromethane	130	135	65-135
1,2-Dichloroethane-d4	109	97	65-135
Toluene-d8	94	94	65-135
4-Bromofluorobenzene	105	121	65-135

ACCEPTABLE RPD IS 35%
"R" High relative percent difference observed.

ANALYSES PERFORMED BY: Sherry Chilcutt

Libby Environmental, Inc.

3322 South Bay Road NE
Olympia, WA 98506
Phone: (360) 352-2110
FAX: (360) 352-4154
Email: libbyenv@gmail.com

F200 PROJECT
O'Neill Service Group
Federal Way, Washington
Libby Project # L200731-2
Client Project # 2021

Laboratory Control Sample

	Spiked Conc. (mg/kg)	LCS Response (mg/kg)	LCS Recovery (%)	LCS Recovery Limits (%)	Data Flag
Vinyl Chloride (VC)	0.25	0.20	80	80-120	
1,1-Dichloroethene	0.25	0.27	108	80-120	
trans-1,2-Dichloroethene	0.25	0.27	107	80-120	
cis -1,2-Dichloroethene	0.25	0.29	116	80-120	
Trichloroethene (TCE)	0.25	0.21	84	80-120	
Tetrachloroethene (PCE)	0.25	0.25	100	80-120	

Surrogate Recovery		
Dibromofluoromethane	129	65-135
1,2-Dichloroethane-d4	133	65-135
Toluene-d8	127	65-135
4-Bromofluorobenzene	110	65-135

ANALYSES PERFORMED BY: Sherry Chilcutt

Libby Environmental, Inc.

3322 South Bay Road NE
Olympia, WA 98506
Phone: (360) 352-2110
FAX: (360) 352-4154
Email: libbyenv@gmail.com

F200 PROJECT
O'Neill Service Group
Federal Way, Washington
Libby Project # L200731-2
Client Project # 2021

Analysis of Moisture in Soil

Sample Number	Percent Moisture
358-PEX-90-10	12%
358-PEX-91-11	11%
358-PEX-92-10	17%
358-PEX-93-10	15%
358-PEX-94-10	19%
358-PEX-95-10	13%
358-PEX-96-10	19%
Reporting Limit	0.5

ANALYSES PERFORMED BY: Jodie Childress

Libby Environmental, Inc.

3322 South Bay Road NE
Olympia, WA 98506
Phone: (360) 352-2110
FAX: (360) 352-4154
Email: libbyenv@gmail.com

F200 PROJECT
O'Neill Service Group
Libby Project # L200731-2
Date Received 7/31/2020
Time Received 3:00 PM

Received By JC

Sample Receipt Checklist

Chain of Custody

1. Is the Chain of Custody complete?	☑ Yes	☐ No	
2. How was the sample delivered?	☐ Hand Delivered	☑ Picked Up	☐ Shipped

Log In

3. Cooler or Shipping Container is present.	☑ Yes	☐ No	☐ N/A
4. Cooler or Shipping Container is in good condition.	☑ Yes	☐ No	☐ N/A
5. Cooler or Shipping Container has Custody Seals present.	☐ Yes	☑ No	☐ N/A
6. Was an attempt made to cool the samples?	☑ Yes	☐ No	☐ N/A
7. Temperature of cooler (0°C to 8°C recommended)	2.7 °C		
8. Temperature of sample(s) (0°C to 8°C recommended)	15.2 °C		
9. Did all containers arrive in good condition (unbroken)?	☑ Yes	☐ No	
10. Is it clear what analyses were requested?	☑ Yes	☐ No	
11. Did container labels match Chain of Custody?	☑ Yes	☐ No	
12. Are matrices correctly identified on Chain of Custody?	☑ Yes	☐ No	
13. Are correct containers used for the analysis indicated?	☑ Yes	☐ No	
14. Is there sufficient sample volume for indicated analysis?	☑ Yes	☐ No	
15. Were all containers properly preserved per each analysis?	☑ Yes	☐ No	
16. Were VOA vials collected correctly (no headspace)?	☑ Yes	☐ No	☐ N/A
17. Were all holding times able to be met?	☑ Yes	☐ No	

Discrepancies/ Notes

18. Was client notified of all discrepancies?	☐ Yes	☐ No	☑ N/A

Person Notified: _____ Date: _____

By Whom: _____ Via: _____

Regarding: _____

19. Comments. _____

Libby Environmental, Inc.

3322 South Bay Road NE • Olympia, WA 98506-2957

August 4, 2020

Vance Atkins
O'Neill Service Group
17619 NE 67th Ct, Suite 100
Redmond, WA 98052

Dear Mr. Atkins:

Please find enclosed the analytical data report for the F200 Project located in Federal Way, Washington.

The results of the analyses are summarized in the attached tables. Applicable detection limits and QA/QC data are included. The sample(s) will be disposed of within 30 days unless we are contacted to arrange long term storage.

Libby Environmental, Inc. appreciates the opportunity to have provided analytical services for this project. If you have any further questions about the data report, please give me a call. It was a pleasure working with you on this project, and we are looking forward to the next opportunity to work together.

Sincerely,

Sherry L. Chilcutt
Senior Chemist
Libby Environmental, Inc.

Phone (360) 352-2110 • Fax (360) 352-4154 • libbyenv@gmail.com

Libby Environmental, Inc.

Chain of Custody Record

www.LibbyEnvironmental.com

3322 South Bay Road NE
Olympia, WA 98506
Ph: 360-352-2110
Fax: 360-352-4154

Date: 8/3/20 Page: 1 of 1

Client: O38

Project Manager: ATKINS, VANCE

Address:

Project Name: F200

City: State: Zip:

Location: FL558 City, State: FOD WA

Phone: 425-677-3009 Fax:

Collector: ATKINS Date of Collection: 8/3/20

Client Project # 2021

Email:

	Sample Number	Depth	Time	Sample Type	Container Type	VOC 8260	PCE & Daughter Prod.	NWTPH-Gx	BTEX (8260) / (8021)	NWTPH-HCID	NWTPH-Dx / Dx	PCB 8082	MTCA 5 Metals	RCRA 8 Metals	c PAH 8270	PAH 8270	Semi Vol 8270				Field Notes
1	358-Pro-97-11	11	1130	S	4oz/VOA		X														
2	-98-10	9-10	1135	|	|		|													
3	-99-10	9-10	1138	|	|		|													
4	-100-6	5-6	1430	—			X														
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					
13																					
14																					
15																					
16																					
17																					

Relinquished by:	Date / Time	Received by:	Date / Time
[signature]	8/3/20 1523	Jodie Childers	8/3/20 3:23
Relinquished by:	Date / Time	Received by:	Date / Time
Relinquished by:	Date / Time	Received by:	Date / Time

Sample Receipt

Good Condition?	Y	N
Cooler Temp.		°C
Sample Temp.		°C
Total Number of Containers		

Remarks: Rush

TAT: 24HR 48HR 5-DAY

Distribution: White - Lab, Yellow - Originator

Libby Environmental, Inc.

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Phone: (360) 352-2110
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F200 PROJECT
O'Neill Service Group
Federal Way, Washington
Libby Project # L200803-6
Client Project # 2021

Volatile Organic Compounds by EPA Method 8260D in Soil

Sample Description		Method Blank	358-PEX-97-11	358-PEX-98-10	358-PEX-99-10	358-PEX-100-6
Date Sampled		N/A	8/3/2020	8/3/2020	8/3/2020	8/3/2020
Date Analyzed	PQL (mg/kg)	8/3/2020 (mg/kg)	8/3/2020 (mg/kg)	8/3/2020 (mg/kg)	8/3/2020 (mg/kg)	8/3/2020 (mg/kg)
Vinyl Chloride (VC)	0.02	nd	nd	nd	nd	nd
1,1-Dichloroethene	0.05	nd	nd	nd	nd	nd
trans-1,2-Dichloroethene	0.02	nd	nd	nd	nd	nd
cis -1,2-Dichloroethene	0.02	nd	nd	nd	nd	nd
Trichloroethene (TCE)	0.02	nd	nd	nd	nd	nd
Tetrachloroethene (PCE)	0.02	nd	0.12	0.076	nd	nd
Surrogate Recovery						
Dibromofluoromethane		133	134	132	132	135
1,2-Dichloroethane-d4		111	111	137	111	111
Toluene-d8		93	92	103	92	92
4-Bromofluorobenzene		98	96	92	96	96

"nd" Indicates not detected at listed detection limit.
"int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE : 65% TO 135%

ANALYSES PERFORMED BY: Melissa Harrington

Libby Environmental, Inc.

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F200 PROJECT
O'Neill Service Group
Federal Way, Washington
Libby Project # L200803-6
Client Project # 2021

QA/QC for Volatile Organic Compounds by EPA Method 8260D in Soil

Matrix Spike Sample Identification: 358-PEX-100-6

	Spiked Conc. (mg/kg)	MS Response (mg/kg)	MSD Response (mg/kg)	MS Recovery (%)	MSD Recovery (%)	RPD (%)	Limits Recovery (%)	Data Flag
Vinyl Chloride (VC)	0.25	0.17	0.19	70	76	8.8	65-135	
1,1-Dichloroethene	0.25	0.23	0.23	92	92	0.0	65-135	
trans-1,2-Dichloroethene	0.25	0.24	0.23	96	92	4.3	65-135	
cis -1,2-Dichloroethene	0.25	0.17	0.23	68	92	30.0	65-135	
Trichloroethene (TCE)	0.25	0.23	0.22	92	88	4.4	65-135	
Tetrachloroethene (PCE)	0.25	0.33	0.33	132	132	0.0	65-135	

Surrogate Recovery (%)	MS	MSD	
Dibromofluoromethane	113	135	65-135
1,2-Dichloroethane-d4	110	106	65-135
Toluene-d8	100	102	65-135
4-Bromofluorobenzene	130	109	65-135

ACCEPTABLE RPD IS 35%
"R" High relative percent difference observed.

ANALYSES PERFORMED BY: Melissa Harrington

Libby Environmental, Inc.

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F200 PROJECT
O'Neill Service Group
Federal Way, Washington
Libby Project # L200803-6
Client Project # 2021

Laboratory Control Sample

	Spiked Conc. (mg/kg)	LCS Response (mg/kg)	LCS Recovery (%)	LCS Recovery Limits (%)	Data Flag
Vinyl Chloride (VC)	0.25	0.20	81	80-120	
1,1-Dichloroethene	0.25	0.26	103	80-120	
trans-1,2-Dichloroethene	0.25	0.30	119	80-120	
cis -1,2-Dichloroethene	0.25	0.25	100	80-120	
Trichloroethene (TCE)	0.25	0.24	96	80-120	
Tetrachloroethene (PCE)	0.25	0.29	118	80-120	

Surrogate Recovery		
Dibromofluoromethane	135	65-135
1,2-Dichloroethane-d4	115	65-135
Toluene-d8	102	65-135
4-Bromofluorobenzene	96	65-135

ANALYSES PERFORMED BY: Melissa Harrington

Libby Environmental, Inc.

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F200 PROJECT
O'Neill Service Group
Federal Way, Washington
Libby Project # L200803-6
Client Project # 2021

Analysis of Moisture in Soil

Sample Number	Percent Moisture
358-PEX-97-11	11%
358-PEX-98-10	15%
358-PEX-99-10	12%
358-PEX-100-6	15%
Reporting Limit	0.5

ANALYSES PERFORMED BY: Jodie Childress

Libby Environmental, Inc.

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Phone: (360) 352-2110
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Email: libbyenv@gmail.com

F200 PROJECT
O'Neill Service Group
Libby Project # L200803-6
Date Received 8/3/2020
Time Received 3:23 PM

Received By JC

Sample Receipt Checklist

Chain of Custody

1. Is the Chain of Custody complete?	☑ Yes	☐ No	
2. How was the sample delivered?	☐ Hand Delivered	☑ Picked Up	☐ Shipped

Log In

3. Cooler or Shipping Container is present.	☑ Yes	☐ No	☐ N/A
4. Cooler or Shipping Container is in good condition.	☑ Yes	☐ No	☐ N/A
5. Cooler or Shipping Container has Custody Seals present.	☐ Yes	☑ No	☐ N/A
6. Was an attempt made to cool the samples?	☑ Yes	☐ No	☐ N/A
7. Temperature of cooler (0°C to 8°C recommended)	3.5 °C		
8. Temperature of sample(s) (0°C to 8°C recommended)	10.0 °C		
9. Did all containers arrive in good condition (unbroken)?	☑ Yes	☐ No	
10. Is it clear what analyses were requested?	☑ Yes	☐ No	
11. Did container labels match Chain of Custody?	☑ Yes	☐ No	
12. Are matrices correctly identified on Chain of Custody?	☑ Yes	☐ No	
13. Are correct containers used for the analysis indicated?	☑ Yes	☐ No	
14. Is there sufficient sample volume for indicated analysis?	☑ Yes	☐ No	
15. Were all containers properly preserved per each analysis?	☑ Yes	☐ No	
16. Were VOA vials collected correctly (no headspace)?	☑ Yes	☐ No	☐ N/A
17. Were all holding times able to be met?	☑ Yes	☐ No	

Discrepancies/ Notes

18. Was client notified of all discrepancies?	☐ Yes	☐ No	☑ N/A

Person Notified: _____ Date: _____

By Whom: _____ Via: _____

Regarding: _____

19. Comments. _____

Libby Environmental, Inc.

3322 South Bay Road NE • Olympia, WA 98506-2957

August 5, 2020

Vance Atkins
O'Neill Service Group
17619 NE 67th Ct, Suite 100
Redmond, WA 98052

Dear Mr. Atkins:

Please find enclosed the analytical data report for the F200 Project located in Federal Way, Washington.

The results of the analyses are summarized in the attached tables. Applicable detection limits and QA/QC data are included. The sample(s) will be disposed of within 30 days unless we are contacted to arrange long term storage.

Libby Environmental, Inc. appreciates the opportunity to have provided analytical services for this project. If you have any further questions about the data report, please give me a call. It was a pleasure working with you on this project, and we are looking forward to the next opportunity to work together.

Sincerely,

Sherry L. Chilcutt
Senior Chemist
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Libby Environmental, Inc.

Chain of Custody Record

www.LibbyEnvironmental.com

3322 South Bay Road NE
Olympia, WA 98506
Ph: 360-352-2110
Fax: 360-352-4154

Client: OSG
Address:
City: State: Zip:
Phone: 425-677-3009 Fax:
Client Project # 2021

Date: 8/4/20 Page: 1 of 1
Project Manager: Atkins, VANCE
Project Name: F200
Location: FL358 City, State: Fed Way
Collector: Atkins Date of Collection: 8/4/20
Email:

Sample Number	Depth	Time	Sample Type	Container Type	VOC 8260	PCE & Daughter Prod.	NWTPH-Gx	BTEX (8260) / (8021)	NWTPH-HCID	NWTPH-Dx / Dx	PCB 8082	MTCA 5 Metals	RCRA 8 Metals	c PAH 8270	PAH 8270	Semi Vol 8270				Field Notes
1 358-PJT-101-11	11	1025	S	4oz/VOA		X														
2 -102-10	9-10	1030	S			X														
3 -103-6	5-6	1035	S			X														
4																				
5																				
6																				
7																				
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13																				
14																				
15																				
16																				
17																				

Relinquished by:	Date / Time	Received by:	Date / Time
[signature]	8/4/20 1254	Jodie Childers	8/4/20 12:54
Relinquished by:	Date / Time	Received by:	Date / Time
Relinquished by:	Date / Time	Received by:	Date / Time

Sample Receipt

Good Condition?	Y	N
Cooler Temp.		°C
Sample Temp.		°C
Total Number of Containers		

Remarks: Rush

TAT: 24HR 48HR 5-DAY

Distribution: White - Lab, Yellow - Originator

Libby Environmental, Inc.

3322 South Bay Road NE
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F200 PROJECT
O'Neill Service Group
Federal Way, Washington
Libby Project # L200804-3
Client Project # 2021

Volatile Organic Compounds by EPA Method 8260D in Soil

Sample Description		Method Blank	358-PEX-101-11	358-PEX-102-10	358-PEX-103-6
Date Sampled		N/A	8/4/2020	8/4/2020	8/4/2020
Date Analyzed	PQL (mg/kg)	8/4/2020 (mg/kg)	8/4/2020 (mg/kg)	8/4/2020 (mg/kg)	8/4/2020 (mg/kg)
Vinyl Chloride (VC)	0.02	nd	nd	nd	nd
1,1-Dichloroethene	0.05	nd	nd	nd	nd
trans-1,2-Dichloroethene	0.02	nd	nd	nd	nd
cis -1,2-Dichloroethene	0.02	nd	nd	nd	nd
Trichloroethene (TCE)	0.02	nd	0.042	nd	nd
Tetrachloroethene (PCE)	0.02	nd	0.044	nd	nd
Surrogate Recovery					
Dibromofluoromethane		130	133	132	131
1,2-Dichloroethane-d4		135	113	116	111
Toluene-d8		93	90	91	92
4-Bromofluorobenzene		92	99	96	97

"nd" Indicates not detected at listed detection limit.
"int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE : 65% TO 135%

ANALYSES PERFORMED BY: Melissa Harrington

Libby Environmental, Inc.

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F200 PROJECT
O'Neill Service Group
Federal Way, Washington
Libby Project # L200804-3
Client Project # 2021

QA/QC for Volatile Organic Compounds by EPA Method 8260D in Soil

Matrix Spike Sample Identification: L200730-3

	Spiked Conc. (mg/kg)	MS Response (mg/kg)	MSD Response (mg/kg)	MS Recovery (%)	MSD Recovery (%)	RPD (%)	Limits Recovery (%)	Data Flag
Vinyl Chloride (VC)	0.25	0.21	0.20	84	80	4.9	65-135	
1,1-Dichloroethene	0.25	0.27	0.25	108	100	7.7	65-135	
trans-1,2-Dichloroethene	0.25	0.25	0.28	100	112	11.3	65-135	
cis -1,2-Dichloroethene	0.25	0.22	0.33	88	132	40.0	65-135	R
Trichloroethene (TCE)	0.25	0.21	0.23	84	92	9.1	65-135	
Tetrachloroethene (PCE)	0.25	0.29	0.34	116	136	15.9	65-135	S

Surrogate Recovery (%)	MS	MSD	
Dibromofluoromethane	119	132	65-135
1,2-Dichloroethane-d4	121	116	65-135
Toluene-d8	95	96	65-135
4-Bromofluorobenzene	112	115	65-135

ACCEPTABLE RPD IS 35%
"R" High relative percent difference observed.
"S" Spike compound recovery is outside acceptance limits.

ANALYSES PERFORMED BY: Melissa Harrington

Libby Environmental, Inc.

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F200 PROJECT
O'Neill Service Group
Federal Way, Washington
Libby Project # L200804-3
Client Project # 2021

Laboratory Control Sample

	Spiked Conc. (mg/kg)	LCS Response (mg/kg)	LCS Recovery (%)	LCS Recovery Limits (%)	Data Flag
Vinyl Chloride (VC)	0.25	0.21	84	80-120	
1,1-Dichloroethene	0.25	0.24	96	80-120	
trans-1,2-Dichloroethene	0.25	0.27	108	80-120	
cis -1,2-Dichloroethene	0.25	0.26	104	80-120	
Trichloroethene (TCE)	0.25	0.25	100	80-120	
Tetrachloroethene (PCE)	0.25	0.30	120	80-120	

Surrogate Recovery		
Dibromofluoromethane	133	65-135
1,2-Dichloroethane-d4	121	65-135
Toluene-d8	105	65-135
4-Bromofluorobenzene	99	65-135

ANALYSES PERFORMED BY: Melissa Harrington

Libby Environmental, Inc.

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Olympia, WA 98506
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Email: libbyenv@gmail.com

F200 PROJECT
O'Neill Service Group
Federal Way, Washington
Libby Project # L200804-3
Client Project # 2021

Analysis of Moisture in Soil

Sample Number	Percent Moisture
358-PEX-101-11	11%
358-PEX-102-10	11%
358-PEX-103-6	19%
Reporting Limit	0.5

ANALYSES PERFORMED BY: Jodie Childress

Libby Environmental, Inc.

3322 South Bay Road NE
Olympia, WA 98506
Phone: (360) 352-2110
FAX: (360) 352-4154
Email: libbyenv@gmail.com

F200 PROJECT
O'Neill Service Group
Libby Project # L200804-3
Date Received 8/4/2020
Time Received 12:54 PM

Received By JC

Sample Receipt Checklist

Chain of Custody

1. Is the Chain of Custody complete?	☑ Yes	☐ No	
2. How was the sample delivered?	☐ Hand Delivered	☑ Picked Up	☐ Shipped

Log In

3. Cooler or Shipping Container is present.	☑ Yes	☐ No	☐ N/A
4. Cooler or Shipping Container is in good condition.	☑ Yes	☐ No	☐ N/A
5. Cooler or Shipping Container has Custody Seals present.	☐ Yes	☑ No	☐ N/A
6. Was an attempt made to cool the samples?	☑ Yes	☐ No	☐ N/A
7. Temperature of cooler (0°C to 8°C recommended)	5.5 °C		
8. Temperature of sample(s) (0°C to 8°C recommended)	15.8 °C		
9. Did all containers arrive in good condition (unbroken)?	☑ Yes	☐ No	
10. Is it clear what analyses were requested?	☑ Yes	☐ No	
11. Did container labels match Chain of Custody?	☑ Yes	☐ No	
12. Are matrices correctly identified on Chain of Custody?	☑ Yes	☐ No	
13. Are correct containers used for the analysis indicated?	☑ Yes	☐ No	
14. Is there sufficient sample volume for indicated analysis?	☑ Yes	☐ No	
15. Were all containers properly preserved per each analysis?	☑ Yes	☐ No	
16. Were VOA vials collected correctly (no headspace)?	☑ Yes	☐ No	☐ N/A
17. Were all holding times able to be met?	☑ Yes	☐ No	

Discrepancies/ Notes

18. Was client notified of all discrepancies?	☐ Yes	☐ No	☑ N/A

Person Notified: _____ Date: _____

By Whom: _____ Via: _____

Regarding: _____

19. Comments. _____

Libby Environmental, Inc.

3322 South Bay Road NE • Olympia, WA 98506-2957

August 6, 2020

Vance Atkins
O'Neill Service Group
17619 NE 67th Ct, Suite 100
Redmond, WA 98052

Dear Mr. Atkins:

Please find enclosed the analytical data report for the F200 Project located in Federal Way, Washington.

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Libby Environmental, Inc. appreciates the opportunity to have provided analytical services for this project. If you have any further questions about the data report, please give me a call. It was a pleasure working with you on this project, and we are looking forward to the next opportunity to work together.

Sincerely,

Sherry L. Chilcutt
Senior Chemist
Libby Environmental, Inc.

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Libby Environmental, Inc.

Chain of Custody Record

www.LibbyEnvironmental.com

3322 South Bay Road NE
Olympia, WA 98506
Ph: 360-352-2110
Fax: 360-352-4154

Date: 8/5/20 Page: 1 of 1

Client: OSP

Project Manager: ATKINS, VANCE

Address:

Project Name: F200

City: State: Zip:

Location: FL358 City, State: FOO WA

Phone: 425-677-3009 Fax:

Collector: ATKINS Date of Collection: 8/5/20

Client Project # 2021

Email:

Sample Number	Depth	Time	Sample Type	Container Type	VOC 8260	PCE & Daughter Prod.	NWTPH-Gx	BTEX (8260) / (8021)	NWTPH-HCID	NWTPH-Dx / Dx	PCB 8082	MTCA 5 Metals	RCRA 8 Metals	c PAH 8270	PAH 8270	Semi Vol 8270				Field Notes
1 358-PST-104-7	6-7'	835	S	4 oz/VOA		X														
2																				
3																				
4																				
5																				
6																				
7																				
8																				
9																				
10																				
11																				
12																				
13																				
14																				
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16																				
17																				

Relinquished by:	Date / Time	Received by:	Date / Time
[illegible]	8/5/20 1205	Jake Chalkins	8/5/20 12:05
Relinquished by:	Date / Time	Received by:	Date / Time
Relinquished by:	Date / Time	Received by:	Date / Time

Sample Receipt

Good Condition?	(Y) N
Cooler Temp.	-1.8 °C
Sample Temp.	6.4 °C
Total Number of Containers	

Remarks:

TAT: (24HR) 48HR 5-DAY

Distribution: White - Lab, Yellow - Originator

Libby Environmental, Inc.

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Olympia, WA 98506
Phone: (360) 352-2110
FAX: (360) 352-4154
Email: libbyenv@gmail.com

F200 PROJECT
O'Neill Service Group
Federal Way, Washington
Libby Project # L200805-4
Client Project # 2021

Volatile Organic Compounds by EPA Method 8260D in Soil

Sample Description		Method Blank	358-PEX-104-7	358-PEX-104-7 Dup
Date Sampled		N/A	8/5/2020	8/5/2020
Date Analyzed	PQL (mg/kg)	8/5/2020 (mg/kg)	8/5/2020 (mg/kg)	8/5/2020 (mg/kg)
Vinyl Chloride (VC)	0.02	nd	nd	nd
1,1-Dichloroethene	0.05	nd	nd	nd
trans-1,2-Dichloroethene	0.02	nd	nd	nd
cis -1,2-Dichloroethene	0.02	nd	nd	nd
Trichloroethene (TCE)	0.02	nd	nd	nd
Tetrachloroethene (PCE)	0.02	nd	nd	nd
Surrogate Recovery				
Dibromofluoromethane		119	127	129
1,2-Dichloroethane-d4		125	129	125
Toluene-d8		94	92	92
4-Bromofluorobenzene		101	91	89

"nd" Indicates not detected at listed detection limit.
"int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE : 65% TO 135%

ANALYSES PERFORMED BY: Sherry Chilcutt

Libby Environmental, Inc.

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Olympia, WA 98506
Phone: (360) 352-2110
FAX: (360) 352-4154
Email: libbyenv@gmail.com

F200 PROJECT
O'Neill Service Group
Federal Way, Washington
Libby Project # L200805-4
Client Project # 2021

QA/QC for Volatile Organic Compounds by EPA Method 8260D in Soil

Matrix Spike Sample Identification: L200805-10

	Spiked Conc. (mg/kg)	MS Response (mg/kg)	MSD Response (mg/kg)	MS Recovery (%)	MSD Recovery (%)	RPD (%)	Limits Recovery (%)	Data Flag
Vinyl Chloride (VC)	0.25	0.21	0.22	82	89	8.4	65-135	
1,1-Dichloroethene	0.25	0.32	0.28	127	110	14.2	65-135	
trans-1,2-Dichloroethene	0.25	0.31	0.32	125	126	1.0	65-135	
cis -1,2-Dichloroethene	0.25	0.26	0.25	104	100	3.9	65-135	
Trichloroethene (TCE)	0.25	0.25	0.23	99	92	7.5	65-135	
Tetrachloroethene (PCE)	0.25	0.29	0.31	116	124	6.7	65-135	

Surrogate Recovery (%)	MS	MSD	
Dibromofluoromethane	123	131	65-135
1,2-Dichloroethane-d4	118	131	65-135
Toluene-d8	89	84	65-135
4-Bromofluorobenzene	113	111	65-135

ACCEPTABLE RPD IS 35%

ANALYSES PERFORMED BY: Sherry Chilcutt

Libby Environmental, Inc.

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Olympia, WA 98506
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FAX: (360) 352-4154
Email: libbyenv@gmail.com

F200 PROJECT
O'Neill Service Group
Federal Way, Washington
Libby Project # L200805-4
Client Project # 2021

Laboratory Control Sample

	Spiked Conc. (mg/kg)	LCS Response (mg/kg)	LCS Recovery (%)	LCS Recovery Limits (%)	Data Flag
Vinyl Chloride (VC)	0.25	0.21	84	80-120	
1,1-Dichloroethene	0.25	0.24	94	80-120	
trans-1,2-Dichloroethene	0.25	0.25	100	80-120	
cis -1,2-Dichloroethene	0.25	0.24	94	80-120	
Trichloroethene (TCE)	0.25	0.23	93	80-120	
Tetrachloroethene (PCE)	0.25	0.27	109	80-120	

Surrogate Recovery		
Dibromofluoromethane	128	65-135
1,2-Dichloroethane-d4	117	65-135
Toluene-d8	96	65-135
4-Bromofluorobenzene	116	65-135

ANALYSES PERFORMED BY: Sherry Chilcutt

Libby Environmental, Inc.

3322 South Bay Road NE
Olympia, WA 98506
Phone: (360) 352-2110
FAX: (360) 352-4154
Email: libbyenv@gmail.com

F200 PROJECT
O'Neill Service Group
Federal Way, Washington
Libby Project # L200805-4
Client Project # 2021

Analysis of Moisture in Soil

Sample Number	Percent Moisture
358-PEX-104-7	13%
Reporting Limit	0.5

ANALYSES PERFORMED BY: Jodie Childress & Melissa Harrington

Libby Environmental, Inc.

3322 South Bay Road NE
Olympia, WA 98506
Phone: (360) 352-2110
FAX: (360) 352-4154
Email: libbyenv@gmail.com

F200 PROJECT
O'Neill Service Group
Libby Project # L200805-4
Date Received 8/5/2020
Time Received 12:05 PM

Received By JC

Sample Receipt Checklist

Chain of Custody

1. Is the Chain of Custody complete?	☑ Yes	☐ No	
2. How was the sample delivered?	☐ Hand Delivered	☑ Picked Up	☐ Shipped

Log In

3. Cooler or Shipping Container is present.	☑ Yes	☐ No	☐ N/A
4. Cooler or Shipping Container is in good condition.	☑ Yes	☐ No	☐ N/A
5. Cooler or Shipping Container has Custody Seals present.	☑ Yes	☐ No	☐ N/A
6. Was an attempt made to cool the samples?	☑ Yes	☐ No	☐ N/A
7. Temperature of cooler (0°C to 8°C recommended)	-1.8 °C		
8. Temperature of sample(s) (0°C to 8°C recommended)	6.4 °C		
9. Did all containers arrive in good condition (unbroken)?	☑ Yes	☐ No	
10. Is it clear what analyses were requested?	☑ Yes	☐ No	
11. Did container labels match Chain of Custody?	☑ Yes	☐ No	
12. Are matrices correctly identified on Chain of Custody?	☑ Yes	☐ No	
13. Are correct containers used for the analysis indicated?	☑ Yes	☐ No	
14. Is there sufficient sample volume for indicated analysis?	☑ Yes	☐ No	
15. Were all containers properly preserved per each analysis?	☑ Yes	☐ No	
16. Were VOA vials collected correctly (no headspace)?	☑ Yes	☐ No	☐ N/A
17. Were all holding times able to be met?	☑ Yes	☐ No	

Discrepancies/ Notes

18. Was client notified of all discrepancies?	☐ Yes	☐ No	☑ N/A

Person Notified: _____ Date: _____
By Whom: _____ Via: _____
Regarding: _____

19. Comments. _____

Libby Environmental, Inc.

3322 South Bay Road NE • Olympia, WA 98506-2957

August 18, 2020

Vance Atkins
O'Neill Service Group
17619 NE 67th Ct, Suite 100
Redmond, WA 98052

Dear Mr. Atkins:

Please find enclosed the analytical data report for the F200 Project located in Federal Way, Washington.

The results of the analyses are summarized in the attached tables. Applicable detection limits and QA/QC data are included. The sample(s) will be disposed of within 30 days unless we are contacted to arrange long term storage.

Libby Environmental, Inc. appreciates the opportunity to have provided analytical services for this project. If you have any further questions about the data report, please give me a call. It was a pleasure working with you on this project, and we are looking forward to the next opportunity to work together.

Sincerely,

Sherry L. Chilcutt
Senior Chemist
Libby Environmental, Inc.

Phone (360) 352-2110 • Fax (360) 352-4154 • libbyenv@gmail.com

Libby Environmental, Inc.

Chain of Custody Record

www.LibbyEnvironmental.com

3322 South Bay Road NE
Olympia, WA 98506
Ph: 360-352-2110
Fax: 360-352-4154

Date: 8/14/20 Page: 1 of 1

Client: OSS

Project Manager: Atkins

Address:

Project Name: FR03

City: State: Zip:

Location: FR358 City, State: Fortson Way

Phone: 425-677-3009 Fax:

Collector: Atkins Date of Collection: 8/14/20

Client Project # 2021

Email:

Sample Number	Depth	Time	Sample Type	Container Type	VOC 8260	PCE & Daughter Prod.	NWTPH-Gx	BTEX (8260) / (8021)	NWTPH-HCID	NWTPH-Dx / Dx	PCB 8082	MTCA 5 Metals	RCRA 8 Metals	c PAH 8270	PAH 8270	Semi Vol 8270				Field Notes
1 SS-1-1.5	1.5	1125	S	4oz/Vas		X														
2 SS-2-1.5	1.5	1127	S			X														
3 SS-3-2.5	2.5	1130	S			X														
4																				
5																				
6																				
7																				
8																				
9																				
10																				
11																				
12																				
13																				
14																				
15																				
16																				
17																				

Relinquished by:	Date / Time	Received by:	Date / Time
[signature]	8/14/20 1305	Jodie Childress	8/14/20 13:05
Relinquished by:	Date / Time	Received by:	Date / Time
Relinquished by:	Date / Time	Received by:	Date / Time

Sample Receipt

Good Condition?	Y	N
Cooler Temp.		°C
Sample Temp.		°C
Total Number of Containers		

Remarks:

TAT: 24HR 48HR 5-DAY

Distribution: White - Lab, Yellow - Originator

Libby Environmental, Inc.

3322 South Bay Road NE
Olympia, WA 98506
Phone: (360) 352-2110
FAX: (360) 352-4154
Email: libbyenv@gmail.com

F200 PROJECT
O'Neill Service Group
Federal Way, Washington
Libby Project # L200814-2
Client Project # 2021

Volatile Organic Compounds by EPA Method 8260D in Soil

Sample Description		Method Blank	SS-1-1.5	SS-2-1.5	SS-3-2.5
Date Sampled		N/A	8/14/2020	8/14/2020	8/14/2020
Date Analyzed	PQL (mg/kg)	8/15/2020 (mg/kg)	8/15/2020 (mg/kg)	8/15/2020 (mg/kg)	8/15/2020 (mg/kg)
Vinyl Chloride (VC)	0.02	nd	nd	nd	nd
1,1-Dichloroethene	0.05	nd	nd	nd	nd
trans-1,2-Dichloroethene	0.03	nd	nd	nd	nd
cis -1,2-Dichloroethene	0.03	nd	nd	nd	nd
Trichloroethene (TCE)	0.02	nd	nd	nd	nd
Tetrachloroethene (PCE)	0.03	nd	nd	nd	nd
Surrogate Recovery					
Dibromofluoromethane		119	120	129	132
1,2-Dichloroethane-d4		99	98	102	102
Toluene-d8		89	91	89	88
4-Bromofluorobenzene		101	98	98	93

"nd" Indicates not detected at listed detection limit.
"int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE : 65% TO 135%

ANALYSES PERFORMED BY: Sherry Chilcutt

Libby Environmental, Inc.

3322 South Bay Road NE
Olympia, WA 98506
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Email: libbyenv@gmail.com

F200 PROJECT
O'Neill Service Group
Federal Way, Washington
Libby Project # L200814-2
Client Project # 2021

QA/QC for Volatile Organic Compounds by EPA Method 8260D in Soil

Matrix Spike Sample Identification: L200814-1

	Spiked Conc. (mg/kg)	MS Response (mg/kg)	MSD Response (mg/kg)	MS Recovery (%)	MSD Recovery (%)	RPD (%)	Limits Recovery (%)	Data Flag
Vinyl Chloride (VC)	0.25	0.22	0.23	89	91	2.2	65-135	
1,1-Dichloroethene	0.25	0.32	0.32	129	130	0.6	65-135	
trans-1,2-Dichloroethene	0.25	0.31	0.34	123	135	9.3	65-135	
cis -1,2-Dichloroethene	0.25	0.24	0.26	95	102	6.9	65-135	
Trichloroethene (TCE)	0.25	0.29	0.29	117	114	2.4	65-135	
Tetrachloroethene (PCE)	0.25	0.34	0.32	134	129	4.0	65-135	

Surrogate Recovery (%)	MS	MSD	
Dibromofluoromethane	122	131	65-135
1,2-Dichloroethane-d4	131	130	65-135
Toluene-d8	95	92	65-135
4-Bromofluorobenzene	114	113	65-135

ACCEPTABLE RPD IS 35%

ANALYSES PERFORMED BY: Sherry Chilcutt

Libby Environmental, Inc.

3322 South Bay Road NE
Olympia, WA 98506
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FAX: (360) 352-4154
Email: libbyenv@gmail.com

F200 PROJECT
O'Neill Service Group
Federal Way, Washington
Libby Project # L200814-2
Client Project # 2021

Laboratory Control Sample

	Spiked Conc. (mg/kg)	LCS Response (mg/kg)	LCS Recovery (%)	LCS Recovery Limits (%)	Data Flag
Vinyl Chloride (VC)	0.25	0.21	86	80-120	
1,1-Dichloroethene	0.25	0.24	97	80-120	
trans-1,2-Dichloroethene	0.25	0.29	116	80-120	
cis -1,2-Dichloroethene	0.25	0.27	109	80-120	
Trichloroethene (TCE)	0.25	0.29	116	80-120	
Tetrachloroethene (PCE)	0.25	0.29	116	80-120	
Surrogate Recovery					
Dibromofluoromethane			127	65-135	
1,2-Dichloroethane-d4			107	65-135	
Toluene-d8			94	65-135	
4-Bromofluorobenzene			110	65-135	

ANALYSES PERFORMED BY: Sherry Chilcutt

Libby Environmental, Inc.

3322 South Bay Road NE
Olympia, WA 98506
Phone: (360) 352-2110
FAX: (360) 352-4154
Email: libbyenv@gmail.com

F200 PROJECT
O'Neill Service Group
Federal Way, Washington
Libby Project # L200814-2
Client Project # 2021

Analysis of Moisture in Soil

Sample Number	Percent Moisture
SS-1-1.5	93%
SS-2-1.5	90%
SS-3-2.5	93%
Reporting Limit	0.5

ANALYSES PERFORMED BY: Jennie Anderson & Sherry Chilcutt

Libby Environmental, Inc.

3322 South Bay Road NE
Olympia, WA 98506
Phone: (360) 352-2110
FAX: (360) 352-4154
Email: libbyenv@gmail.com

F200 PROJECT
O'Neill Service Group
Libby Project # L200814-2
Date Received 8/14/2020
Time Received 1:05 PM

Received By JC

Sample Receipt Checklist

Chain of Custody

1. Is the Chain of Custody complete?	☑ Yes	☐ No	
2. How was the sample delivered?	☐ Hand Delivered	☑ Picked Up	☐ Shipped

Log In

3. Cooler or Shipping Container is present.	☑ Yes	☐ No	☐ N/A
4. Cooler or Shipping Container is in good condition.	☑ Yes	☐ No	☐ N/A
5. Cooler or Shipping Container has Custody Seals present.	☑ Yes	☐ No	☐ N/A
6. Was an attempt made to cool the samples?	☑ Yes	☐ No	☐ N/A
7. Temperature of cooler (0°C to 8°C recommended)	-0.5 °C		
8. Temperature of sample(s) (0°C to 8°C recommended)	10.5 °C		
9. Did all containers arrive in good condition (unbroken)?	☑ Yes	☐ No	
10. Is it clear what analyses were requested?	☑ Yes	☐ No	
11. Did container labels match Chain of Custody?	☑ Yes	☐ No	
12. Are matrices correctly identified on Chain of Custody?	☑ Yes	☐ No	
13. Are correct containers used for the analysis indicated?	☑ Yes	☐ No	
14. Is there sufficient sample volume for indicated analysis?	☑ Yes	☐ No	
15. Were all containers properly preserved per each analysis?	☑ Yes	☐ No	
16. Were VOA vials collected correctly (no headspace)?	☑ Yes	☐ No	☐ N/A
17. Were all holding times able to be met?	☑ Yes	☐ No	

Discrepancies/ Notes

18. Was client notified of all discrepancies? ☐ Yes ☐ No ☑ N/A

Person Notified: _____ Date: _____

By Whom: _____ Via: _____

Regarding: _____

19. Comments. _____

3600 Fremont Ave. N.
Seattle, WA 98103
T: (206) 352-3790
F: (206) 352-7178
info@fremontanalytical.com

O'Neill Service Group
Vance Atkins
17619 NE 67th Court, Suite 100
Redmond, WA 98052

RE: F200
Work Order Number: 2008386

September 03, 2020

Attention Vance Atkins:

Fremont Analytical, Inc. received 3 sample(s) on 8/27/2020 for the analyses presented in the following report.

Sample Moisture (Percent Moisture)
Volatile Organic Compounds by EPA Method 8260D

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Brianna Barnes
Project Manager

Date: *09/03/2020*

CLIENT: O'Neill Service Group
Project: F200
Work Order: 2008386

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
2008386-001	358-SP1	08/27/2020 12:30 PM	08/27/2020 3:17 PM
2008386-002	358-SP2	08/27/2020 12:32 PM	08/27/2020 3:17 PM
2008386-003	358-SP3	08/27/2020 12:34 PM	08/27/2020 3:17 PM

Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned

Case Narrative

WO#: **2008386**

Date: **9/3/2020**

CLIENT: O'Neill Service Group

Project: F200

I. SAMPLE RECEIPT:
Samples receipt information is recorded on the attached Sample Receipt Checklist.

II. GENERAL REPORTING COMMENTS:
Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

III. ANALYSES AND EXCEPTIONS:
Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

Qualifiers:

* - Flagged value is not within established control limits
B - Analyte detected in the associated Method Blank
D - Dilution was required
E - Value above quantitation range
H - Holding times for preparation or analysis exceeded
I - Analyte with an internal standard that does not meet established acceptance criteria
J - Analyte detected below Reporting Limit
N - Tentatively Identified Compound (TIC)
Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF)
S - Spike recovery outside accepted recovery limits
ND - Not detected at the Reporting Limit
R - High relative percent difference observed

Acronyms:

%Rec - Percent Recovery
CCB - Continued Calibration Blank
CCV - Continued Calibration Verification
DF - Dilution Factor
DUP - Sample Duplicate
HEM - Hexane Extractable Material
ICV - Initial Calibration Verification
LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
MB or MBLANK - Method Blank
MDL - Method Detection Limit
MS/MSD - Matrix Spike / Matrix Spike Duplicate
PDS - Post Digestion Spike
Ref Val - Reference Value
REP - Sample Replicate
RL - Reporting Limit
RPD - Relative Percent Difference
SD - Serial Dilution
SGT - Silica Gel Treatment
SPK - Spike
Surr - Surrogate

Analytical Report

Work Order: **2008386**
Date Reported: **9/3/2020**

CLIENT: O'Neill Service Group
Project: F200

Lab ID: 2008386-001 **Collection Date:** 8/27/2020 12:30:00 PM
Client Sample ID: **358-SP1** **Matrix:** Soil

Volatile Organic Compounds by EPA Method 8260D Batch ID: 29534 Analyst: KT

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0273		mg/Kg-dry	1	9/1/2020 9:42:09 PM
Chloromethane	ND	0.0682		mg/Kg-dry	1	9/1/2020 9:42:09 PM
Vinyl chloride	ND	0.0273		mg/Kg-dry	1	9/1/2020 9:42:09 PM
Bromomethane	ND	0.0682		mg/Kg-dry	1	9/1/2020 9:42:09 PM
Trichlorofluoromethane (CFC-11)	ND	0.0273		mg/Kg-dry	1	9/1/2020 9:42:09 PM
Chloroethane	ND	0.0682		mg/Kg-dry	1	9/1/2020 9:42:09 PM
1,1-Dichloroethene	ND	0.0273		mg/Kg-dry	1	9/1/2020 9:42:09 PM
Methylene chloride	ND	0.0273		mg/Kg-dry	1	9/1/2020 9:42:09 PM
trans-1,2-Dichloroethene	ND	0.0273		mg/Kg-dry	1	9/1/2020 9:42:09 PM
1,1-Dichloroethane	ND	0.0273		mg/Kg-dry	1	9/1/2020 9:42:09 PM
cis-1,2-Dichloroethene	ND	0.0273		mg/Kg-dry	1	9/1/2020 9:42:09 PM
Chloroform	ND	0.0273		mg/Kg-dry	1	9/1/2020 9:42:09 PM
1,1,1-Trichloroethane (TCA)	ND	0.0273		mg/Kg-dry	1	9/1/2020 9:42:09 PM
1,1-Dichloropropene	ND	0.0273		mg/Kg-dry	1	9/1/2020 9:42:09 PM
Carbon tetrachloride	ND	0.0273		mg/Kg-dry	1	9/1/2020 9:42:09 PM
1,2-Dichloroethane (EDC)	ND	0.0273		mg/Kg-dry	1	9/1/2020 9:42:09 PM
Trichloroethene (TCE)	ND	0.0273		mg/Kg-dry	1	9/1/2020 9:42:09 PM
1,2-Dichloropropane	ND	0.0273		mg/Kg-dry	1	9/1/2020 9:42:09 PM
Bromodichloromethane	ND	0.0273		mg/Kg-dry	1	9/1/2020 9:42:09 PM
Dibromomethane	ND	0.0273		mg/Kg-dry	1	9/1/2020 9:42:09 PM
cis-1,3-Dichloropropene	ND	0.0273		mg/Kg-dry	1	9/1/2020 9:42:09 PM
trans-1,3-Dichloropropylene	ND	0.0273		mg/Kg-dry	1	9/1/2020 9:42:09 PM
1,1,2-Trichloroethane	ND	0.0273		mg/Kg-dry	1	9/1/2020 9:42:09 PM
1,3-Dichloropropane	ND	0.0341		mg/Kg-dry	1	9/1/2020 9:42:09 PM
Tetrachloroethene (PCE)	ND	0.0273		mg/Kg-dry	1	9/1/2020 9:42:09 PM
Dibromochloromethane	ND	0.0273		mg/Kg-dry	1	9/1/2020 9:42:09 PM
1,2-Dibromoethane (EDB)	ND	0.00682		mg/Kg-dry	1	9/1/2020 9:42:09 PM
Chlorobenzene	ND	0.0273		mg/Kg-dry	1	9/1/2020 9:42:09 PM
1,1,1,2-Tetrachloroethane	ND	0.0273		mg/Kg-dry	1	9/1/2020 9:42:09 PM
Bromoform	ND	0.0682		mg/Kg-dry	1	9/1/2020 9:42:09 PM
1,1,2,2-Tetrachloroethane	ND	0.0273		mg/Kg-dry	1	9/1/2020 9:42:09 PM
Bromobenzene	ND	0.0273		mg/Kg-dry	1	9/1/2020 9:42:09 PM
2-Chlorotoluene	ND	0.0341		mg/Kg-dry	1	9/1/2020 9:42:09 PM
4-Chlorotoluene	ND	0.0273		mg/Kg-dry	1	9/1/2020 9:42:09 PM
1,2,3-Trichloropropane	ND	0.0341		mg/Kg-dry	1	9/1/2020 9:42:09 PM
1,2,4-Trichlorobenzene	ND	0.0273		mg/Kg-dry	1	9/1/2020 9:42:09 PM
1,3-Dichlorobenzene	ND	0.0273	*	mg/Kg-dry	1	9/1/2020 9:42:09 PM
1,4-Dichlorobenzene	ND	0.0273	*	mg/Kg-dry	1	9/1/2020 9:42:09 PM

Analytical Report

Work Order: **2008386**
Date Reported: **9/3/2020**

CLIENT: O'Neill Service Group
Project: F200

Volatile Organic Compounds by EPA Method 8260D

Batch ID: 29534 Analyst: KT

1,2-Dichlorobenzene	ND	0.0273		mg/Kg-dry	1	9/1/2020 9:42:09 PM
1,2-Dibromo-3-chloropropane	ND	0.682		mg/Kg-dry	1	9/1/2020 9:42:09 PM
Hexachloro-1,3-butadiene	ND	0.0341	Q	mg/Kg-dry	1	9/1/2020 9:42:09 PM
1,2,3-Trichlorobenzene	ND	0.0273		mg/Kg-dry	1	9/1/2020 9:42:09 PM
Surr: Dibromofluoromethane	104	83.3 - 111		%Rec	1	9/1/2020 9:42:09 PM
Surr: Toluene-d8	99.7	87.9 - 111		%Rec	1	9/1/2020 9:42:09 PM
Surr: 1-Bromo-4-fluorobenzene	97.5	85.1 - 111		%Rec	1	9/1/2020 9:42:09 PM

NOTES:
Q - Indicates an analyte with a continuing calibration that does not meet established acceptance criteria
* - Flagged value is not within established control limits.

Sample Moisture (Percent Moisture)

Batch ID: R61527 Analyst: SBM

Percent Moisture	9.57	0.500		wt%	1	9/1/2020 8:02:50 AM

Analytical Report

Work Order: **2008386**
Date Reported: **9/3/2020**

CLIENT: O'Neill Service Group
Project: F200

Lab ID: 2008386-002 **Collection Date:** 8/27/2020 12:32:00 PM
Client Sample ID: **358-SP2** **Matrix:** Soil

Volatile Organic Compounds by EPA Method 8260D Batch ID: 29534 Analyst: KT

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0124		mg/Kg-dry	1	9/1/2020 10:12:16 PM
Chloromethane	ND	0.0310		mg/Kg-dry	1	9/1/2020 10:12:16 PM
Vinyl chloride	ND	0.0124		mg/Kg-dry	1	9/1/2020 10:12:16 PM
Bromomethane	ND	0.0310		mg/Kg-dry	1	9/1/2020 10:12:16 PM
Trichlorofluoromethane (CFC-11)	ND	0.0124		mg/Kg-dry	1	9/1/2020 10:12:16 PM
Chloroethane	ND	0.0310		mg/Kg-dry	1	9/1/2020 10:12:16 PM
1,1-Dichloroethene	ND	0.0124		mg/Kg-dry	1	9/1/2020 10:12:16 PM
Methylene chloride	ND	0.0124		mg/Kg-dry	1	9/1/2020 10:12:16 PM
trans-1,2-Dichloroethene	ND	0.0124		mg/Kg-dry	1	9/1/2020 10:12:16 PM
1,1-Dichloroethane	ND	0.0124		mg/Kg-dry	1	9/1/2020 10:12:16 PM
cis-1,2-Dichloroethene	ND	0.0124		mg/Kg-dry	1	9/1/2020 10:12:16 PM
Chloroform	ND	0.0124		mg/Kg-dry	1	9/1/2020 10:12:16 PM
1,1,1-Trichloroethane (TCA)	ND	0.0124		mg/Kg-dry	1	9/1/2020 10:12:16 PM
1,1-Dichloropropene	ND	0.0124		mg/Kg-dry	1	9/1/2020 10:12:16 PM
Carbon tetrachloride	ND	0.0124		mg/Kg-dry	1	9/1/2020 10:12:16 PM
1,2-Dichloroethane (EDC)	ND	0.0124		mg/Kg-dry	1	9/1/2020 10:12:16 PM
Trichloroethene (TCE)	ND	0.0124		mg/Kg-dry	1	9/1/2020 10:12:16 PM
1,2-Dichloropropane	ND	0.0124		mg/Kg-dry	1	9/1/2020 10:12:16 PM
Bromodichloromethane	ND	0.0124		mg/Kg-dry	1	9/1/2020 10:12:16 PM
Dibromomethane	ND	0.0124		mg/Kg-dry	1	9/1/2020 10:12:16 PM
cis-1,3-Dichloropropene	ND	0.0124		mg/Kg-dry	1	9/1/2020 10:12:16 PM
trans-1,3-Dichloropropylene	ND	0.0124		mg/Kg-dry	1	9/1/2020 10:12:16 PM
1,1,2-Trichloroethane	ND	0.0124		mg/Kg-dry	1	9/1/2020 10:12:16 PM
1,3-Dichloropropane	ND	0.0155		mg/Kg-dry	1	9/1/2020 10:12:16 PM
Tetrachloroethene (PCE)	ND	0.0124		mg/Kg-dry	1	9/1/2020 10:12:16 PM
Dibromochloromethane	ND	0.0124		mg/Kg-dry	1	9/1/2020 10:12:16 PM
1,2-Dibromoethane (EDB)	ND	0.00310		mg/Kg-dry	1	9/1/2020 10:12:16 PM
Chlorobenzene	ND	0.0124		mg/Kg-dry	1	9/1/2020 10:12:16 PM
1,1,1,2-Tetrachloroethane	ND	0.0124		mg/Kg-dry	1	9/1/2020 10:12:16 PM
Bromoform	ND	0.0310		mg/Kg-dry	1	9/1/2020 10:12:16 PM
1,1,2,2-Tetrachloroethane	ND	0.0124		mg/Kg-dry	1	9/1/2020 10:12:16 PM
Bromobenzene	ND	0.0124		mg/Kg-dry	1	9/1/2020 10:12:16 PM
2-Chlorotoluene	ND	0.0155		mg/Kg-dry	1	9/1/2020 10:12:16 PM
4-Chlorotoluene	ND	0.0124		mg/Kg-dry	1	9/1/2020 10:12:16 PM
1,2,3-Trichloropropane	ND	0.0155		mg/Kg-dry	1	9/1/2020 10:12:16 PM
1,2,4-Trichlorobenzene	ND	0.0124		mg/Kg-dry	1	9/1/2020 10:12:16 PM
1,3-Dichlorobenzene	ND	0.0124	*	mg/Kg-dry	1	9/1/2020 10:12:16 PM
1,4-Dichlorobenzene	ND	0.0124	*	mg/Kg-dry	1	9/1/2020 10:12:16 PM

Analytical Report

Work Order: **2008386**
Date Reported: **9/3/2020**

CLIENT: O'Neill Service Group
Project: F200

Volatile Organic Compounds by EPA Method 8260D

Batch ID: 29534 Analyst: KT

1,2-Dichlorobenzene	ND	0.0124		mg/Kg-dry	1	9/1/2020 10:12:16 PM
1,2-Dibromo-3-chloropropane	ND	0.310		mg/Kg-dry	1	9/1/2020 10:12:16 PM
Hexachloro-1,3-butadiene	ND	0.0155	Q	mg/Kg-dry	1	9/1/2020 10:12:16 PM
1,2,3-Trichlorobenzene	ND	0.0124		mg/Kg-dry	1	9/1/2020 10:12:16 PM
Surr: Dibromofluoromethane	106	83.3 - 111		%Rec	1	9/1/2020 10:12:16 PM
Surr: Toluene-d8	101	87.9 - 111		%Rec	1	9/1/2020 10:12:16 PM
Surr: 1-Bromo-4-fluorobenzene	97.8	85.1 - 111		%Rec	1	9/1/2020 10:12:16 PM

NOTES:
Q - Indicates an analyte with a continuing calibration that does not meet established acceptance criteria
* - Flagged value is not within established control limits.

Sample Moisture (Percent Moisture)

Batch ID: R61527 Analyst: SBM

Percent Moisture	9.94	0.500		wt%	1	9/1/2020 8:02:50 AM

Analytical Report

Work Order: **2008386**
Date Reported: **9/3/2020**

CLIENT: O'Neill Service Group
Project: F200

Lab ID: 2008386-003 **Collection Date:** 8/27/2020 12:34:00 PM
Client Sample ID: **358-SP3** **Matrix:** Soil

Volatile Organic Compounds by EPA Method 8260D Batch ID: 29534 Analyst: KT

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0203		mg/Kg-dry	1	9/1/2020 10:42:24 PM
Chloromethane	ND	0.0508		mg/Kg-dry	1	9/1/2020 10:42:24 PM
Vinyl chloride	ND	0.0203		mg/Kg-dry	1	9/1/2020 10:42:24 PM
Bromomethane	ND	0.0508		mg/Kg-dry	1	9/1/2020 10:42:24 PM
Trichlorofluoromethane (CFC-11)	ND	0.0203		mg/Kg-dry	1	9/1/2020 10:42:24 PM
Chloroethane	ND	0.0508		mg/Kg-dry	1	9/1/2020 10:42:24 PM
1,1-Dichloroethene	ND	0.0203		mg/Kg-dry	1	9/1/2020 10:42:24 PM
Methylene chloride	ND	0.0203		mg/Kg-dry	1	9/1/2020 10:42:24 PM
trans-1,2-Dichloroethene	ND	0.0203		mg/Kg-dry	1	9/1/2020 10:42:24 PM
1,1-Dichloroethane	ND	0.0203		mg/Kg-dry	1	9/1/2020 10:42:24 PM
cis-1,2-Dichloroethene	ND	0.0203		mg/Kg-dry	1	9/1/2020 10:42:24 PM
Chloroform	ND	0.0203		mg/Kg-dry	1	9/1/2020 10:42:24 PM
1,1,1-Trichloroethane (TCA)	ND	0.0203		mg/Kg-dry	1	9/1/2020 10:42:24 PM
1,1-Dichloropropene	ND	0.0203		mg/Kg-dry	1	9/1/2020 10:42:24 PM
Carbon tetrachloride	ND	0.0203		mg/Kg-dry	1	9/1/2020 10:42:24 PM
1,2-Dichloroethane (EDC)	ND	0.0203		mg/Kg-dry	1	9/1/2020 10:42:24 PM
Trichloroethene (TCE)	ND	0.0203		mg/Kg-dry	1	9/1/2020 10:42:24 PM
1,2-Dichloropropane	ND	0.0203		mg/Kg-dry	1	9/1/2020 10:42:24 PM
Bromodichloromethane	ND	0.0203		mg/Kg-dry	1	9/1/2020 10:42:24 PM
Dibromomethane	ND	0.0203		mg/Kg-dry	1	9/1/2020 10:42:24 PM
cis-1,3-Dichloropropene	ND	0.0203		mg/Kg-dry	1	9/1/2020 10:42:24 PM
trans-1,3-Dichloropropylene	ND	0.0203		mg/Kg-dry	1	9/1/2020 10:42:24 PM
1,1,2-Trichloroethane	ND	0.0203		mg/Kg-dry	1	9/1/2020 10:42:24 PM
1,3-Dichloropropane	ND	0.0254		mg/Kg-dry	1	9/1/2020 10:42:24 PM
Tetrachloroethene (PCE)	ND	0.0203		mg/Kg-dry	1	9/1/2020 10:42:24 PM
Dibromochloromethane	ND	0.0203		mg/Kg-dry	1	9/1/2020 10:42:24 PM
1,2-Dibromoethane (EDB)	ND	0.00508		mg/Kg-dry	1	9/1/2020 10:42:24 PM
Chlorobenzene	ND	0.0203		mg/Kg-dry	1	9/1/2020 10:42:24 PM
1,1,1,2-Tetrachloroethane	ND	0.0203		mg/Kg-dry	1	9/1/2020 10:42:24 PM
Bromoform	ND	0.0508		mg/Kg-dry	1	9/1/2020 10:42:24 PM
1,1,2,2-Tetrachloroethane	ND	0.0203		mg/Kg-dry	1	9/1/2020 10:42:24 PM
Bromobenzene	ND	0.0203		mg/Kg-dry	1	9/1/2020 10:42:24 PM
2-Chlorotoluene	ND	0.0254		mg/Kg-dry	1	9/1/2020 10:42:24 PM
4-Chlorotoluene	ND	0.0203		mg/Kg-dry	1	9/1/2020 10:42:24 PM
1,2,3-Trichloropropane	ND	0.0254		mg/Kg-dry	1	9/1/2020 10:42:24 PM
1,2,4-Trichlorobenzene	ND	0.0203		mg/Kg-dry	1	9/1/2020 10:42:24 PM
1,3-Dichlorobenzene	ND	0.0203	*	mg/Kg-dry	1	9/1/2020 10:42:24 PM
1,4-Dichlorobenzene	ND	0.0203	*	mg/Kg-dry	1	9/1/2020 10:42:24 PM

Analytical Report

Work Order: **2008386**
Date Reported: **9/3/2020**

CLIENT: O'Neill Service Group
Project: F200

Volatile Organic Compounds by EPA Method 8260D

Batch ID: 29534 Analyst: KT

1,2-Dichlorobenzene	ND	0.0203		mg/Kg-dry	1	9/1/2020 10:42:24 PM
1,2-Dibromo-3-chloropropane	ND	0.508		mg/Kg-dry	1	9/1/2020 10:42:24 PM
Hexachloro-1,3-butadiene	ND	0.0254	Q	mg/Kg-dry	1	9/1/2020 10:42:24 PM
1,2,3-Trichlorobenzene	ND	0.0203		mg/Kg-dry	1	9/1/2020 10:42:24 PM
Surr: Dibromofluoromethane	106	83.3 - 111		%Rec	1	9/1/2020 10:42:24 PM
Surr: Toluene-d8	101	87.9 - 111		%Rec	1	9/1/2020 10:42:24 PM
Surr: 1-Bromo-4-fluorobenzene	97.8	85.1 - 111		%Rec	1	9/1/2020 10:42:24 PM

NOTES:
Q - Indicates an analyte with a continuing calibration that does not meet established acceptance criteria
* - Flagged value is not within established control limits.

Sample Moisture (Percent Moisture)

Batch ID: R61527 Analyst: SBM

Percent Moisture	10.7	0.500		wt%	1	9/1/2020 8:02:50 AM

Fremont Analytical

Date: *9/3/2020*

Work Order: 2008386
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **LCS-29534** SampType: **LCS** Units: **mg/Kg** Prep Date: **9/1/2020** RunNo: **61575**
Client ID: **LCSS** Batch ID: **29534** Analysis Date: **9/1/2020** SeqNo: **1235260**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	0.928	0.0200	1.000	0	92.8	13.4	185				
Chloromethane	0.860	0.0500	1.000	0	86.0	38.5	158				
Vinyl chloride	0.844	0.0200	1.000	0	84.4	53.6	138				
Bromomethane	1.19	0.0500	1.000	0	119	56.6	151				
Trichlorofluoromethane (CFC-11)	0.883	0.0200	1.000	0	88.3	64.2	137				
Chloroethane	1.24	0.0500	1.000	0	124	54.1	134				
1,1-Dichloroethene	0.853	0.0200	1.000	0	85.3	66	133				
Methylene chloride	0.880	0.0200	1.000	0	88.0	74.3	117				
trans-1,2-Dichloroethene	0.850	0.0200	1.000	0	85.0	79.6	115				
1,1-Dichloroethane	0.875	0.0200	1.000	0	87.5	75.8	117				
cis-1,2-Dichloroethene	0.857	0.0200	1.000	0	85.7	77.8	115				
(MEK) 2-Butanone	2.32	0.250	2.500	0	92.9	66.2	129				
Chloroform	0.893	0.0200	1.000	0	89.3	78.2	115				
1,1,1-Trichloroethane (TCA)	0.874	0.0200	1.000	0	87.4	76	121				
1,1-Dichloropropene	0.860	0.0200	1.000	0	86.0	77.2	120				
Carbon tetrachloride	0.846	0.0200	1.000	0	84.6	74	122				
1,2-Dichloroethane (EDC)	0.942	0.0200	1.000	0	94.2	74.7	115				
Trichloroethene (TCE)	0.868	0.0200	1.000	0	86.8	79.6	118				
1,2-Dichloropropane	0.865	0.0200	1.000	0	86.5	78.2	115				
Bromodichloromethane	0.903	0.0200	1.000	0	90.3	76.6	116				
Dibromomethane	0.913	0.0200	1.000	0	91.3	77.9	115				
cis-1,3-Dichloropropene	0.870	0.0200	1.000	0	87.0	74.6	119				
trans-1,3-Dichloropropylene	0.885	0.0200	1.000	0	88.5	70.6	124				
1,1,2-Trichloroethane	0.916	0.0200	1.000	0	91.6	75.6	116				
1,3-Dichloropropane	0.896	0.0250	1.000	0	89.6	75.3	116				
Tetrachloroethene (PCE)	0.860	0.0200	1.000	0	86.0	78.8	119				
Dibromochloromethane	0.884	0.0200	1.000	0	88.4	72.5	123				
1,2-Dibromoethane (EDB)	0.897	0.00500	1.000	0	89.7	75	116				
Chlorobenzene	0.848	0.0200	1.000	0	84.8	83.4	113				
1,1,1,2-Tetrachloroethane	0.844	0.0200	1.000	0	84.4	80.8	117				

Fremont Analytical

Date: *9/3/2020*

Work Order: 2008386
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **LCS-29534** SampType: **LCS** Units: **mg/Kg** Prep Date: **9/1/2020** RunNo: **61575**
Client ID: **LCSS** Batch ID: **29534** Analysis Date: **9/1/2020** SeqNo: **1235260**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromoform	0.859	0.0500	1.000	0	85.9	71	129				
1,1,2,2-Tetrachloroethane	0.898	0.0200	1.000	0	89.8	71.3	119				
Bromobenzene	0.849	0.0200	1.000	0	84.9	78.6	115				
2-Chlorotoluene	0.849	0.0250	1.000	0	84.9	78.6	116				
4-Chlorotoluene	0.868	0.0200	1.000	0	86.8	78.8	117				
1,2,3-Trichloropropane	0.904	0.0250	1.000	0	90.4	67.5	129				
1,2,4-Trichlorobenzene	0.896	0.0200	1.000	0	89.6	79.6	124				
1,3-Dichlorobenzene	0.868	0.0200	1.000	0	86.8	87.1	117				S
1,4-Dichlorobenzene	0.863	0.0200	1.000	0	86.3	87.6	115				S
1,2-Dichlorobenzene	0.891	0.0200	1.000	0	89.1	87.9	115				
1,2-Dibromo-3-chloropropane	0.903	0.500	1.000	0	90.3	65.6	132				
Hexachloro-1,3-butadiene	0.794	0.0250	1.000	0	79.4	75	130				
1,2,3-Trichlorobenzene	0.923	0.0200	1.000	0	92.3	74.3	128				
Surr: Dibromofluoromethane	1.29		1.250		104	83.3	111				
Surr: Toluene-d8	1.30		1.250		104	87.9	111				
Surr: 1-Bromo-4-fluorobenzene	1.25		1.250		99.8	85.1	111				

NOTES:
S - Outlying spike recovery observed (low bias). Samples will be qualified with a *.

Sample ID: **MB-29534** SampType: **MBLK** Units: **mg/Kg** Prep Date: **9/1/2020** RunNo: **61575**
Client ID: **MBLKS** Batch ID: **29534** Analysis Date: **9/1/2020** SeqNo: **1235261**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	0.0200									
Chloromethane	ND	0.0500									
Vinyl chloride	ND	0.0200									
Bromomethane	ND	0.0500									
Trichlorofluoromethane (CFC-11)	ND	0.0200									
Chloroethane	ND	0.0500									
1,1-Dichloroethene	ND	0.0200									
Methylene chloride	ND	0.0200									

Date: *9/3/2020*

Work Order: 2008386
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **MB-29534** SampType: **MBLK** Units: **mg/Kg** Prep Date: **9/1/2020** RunNo: **61575**
Client ID: **MBLKS** Batch ID: **29534** Analysis Date: **9/1/2020** SeqNo: **1235261**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
trans-1,2-Dichloroethene	ND	0.0200									
1,1-Dichloroethane	ND	0.0200									
cis-1,2-Dichloroethene	ND	0.0200									
(MEK) 2-Butanone	ND	0.250									
Chloroform	ND	0.0200									
1,1,1-Trichloroethane (TCA)	ND	0.0200									
1,1-Dichloropropene	ND	0.0200									
Carbon tetrachloride	ND	0.0200									
1,2-Dichloroethane (EDC)	ND	0.0200									
Trichloroethene (TCE)	ND	0.0200									
1,2-Dichloropropane	ND	0.0200									
Bromodichloromethane	ND	0.0200									
Dibromomethane	ND	0.0200									
cis-1,3-Dichloropropene	ND	0.0200									
trans-1,3-Dichloropropylene	ND	0.0200									
1,1,2-Trichloroethane	ND	0.0200									
1,3-Dichloropropane	ND	0.0250									
Tetrachloroethene (PCE)	ND	0.0200									
Dibromochloromethane	ND	0.0200									
1,2-Dibromoethane (EDB)	ND	0.00500									
Chlorobenzene	ND	0.0200									
1,1,1,2-Tetrachloroethane	ND	0.0200									
Bromoform	ND	0.0500									
1,1,2,2-Tetrachloroethane	ND	0.0200									
Bromobenzene	ND	0.0200									
2-Chlorotoluene	ND	0.0250									
4-Chlorotoluene	ND	0.0200									
1,2,3-Trichloropropane	ND	0.0250									
1,2,4-Trichlorobenzene	ND	0.0200									
1,3-Dichlorobenzene	ND	0.0200									*

Work Order: 2008386
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **MB-29534** SampType: **MBLK** Units: **mg/Kg** Prep Date: **9/1/2020** RunNo: **61575**
Client ID: **MBLKS** Batch ID: **29534** Analysis Date: **9/1/2020** SeqNo: **1235261**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,4-Dichlorobenzene	ND	0.0200									*
1,2-Dichlorobenzene	ND	0.0200									
1,2-Dibromo-3-chloropropane	ND	0.500									
Hexachloro-1,3-butadiene	ND	0.0250									Q
1,2,3-Trichlorobenzene	ND	0.0200									
Surr: Dibromofluoromethane	1.28		1.250		102	83.3	111				
Surr: Toluene-d8	1.25		1.250		100	87.9	111				
Surr: 1-Bromo-4-fluorobenzene	1.22		1.250		97.4	85.1	111				

NOTES:
Q - Indicates an analyte with a continuing calibration that does not meet established acceptance criteria
* - Flagged value is not within established control limits.

Sample ID: **2008361-001BDUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **9/1/2020** RunNo: **61575**
Client ID: **BATCH** Batch ID: **29534** Analysis Date: **9/1/2020** SeqNo: **1235234**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	0.0226						0		30	
Chloromethane	ND	0.0566						0		30	
Vinyl chloride	ND	0.0226						0		30	
Bromomethane	ND	0.0566						0		30	
Trichlorofluoromethane (CFC-11)	ND	0.0226						0		30	
Chloroethane	ND	0.0566						0		30	
1,1-Dichloroethene	ND	0.0226						0		30	
Methylene chloride	ND	0.0226						0		30	
trans-1,2-Dichloroethene	ND	0.0226						0		30	
1,1-Dichloroethane	ND	0.0226						0		30	
cis-1,2-Dichloroethene	ND	0.0226						0		30	
(MEK) 2-Butanone	ND	0.283						0		30	
Chloroform	ND	0.0226						0		30	
1,1,1-Trichloroethane (TCA)	ND	0.0226						0		30	
1,1-Dichloropropene	ND	0.0226						0		30	

Date: *9/3/2020*

Work Order: 2008386
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2008361-001BDUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **9/1/2020** RunNo: **61575**
Client ID: **BATCH** Batch ID: **29534** Analysis Date: **9/1/2020** SeqNo: **1235234**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Carbon tetrachloride	ND	0.0226						0		30	
1,2-Dichloroethane (EDC)	ND	0.0226						0		30	
Trichloroethene (TCE)	ND	0.0226						0		30	
1,2-Dichloropropane	ND	0.0226						0		30	
Bromodichloromethane	ND	0.0226						0		30	
Dibromomethane	ND	0.0226						0		30	
cis-1,3-Dichloropropene	ND	0.0226						0		30	
trans-1,3-Dichloropropylene	ND	0.0226						0		30	
1,1,2-Trichloroethane	ND	0.0226						0		30	
1,3-Dichloropropane	ND	0.0283						0		30	
Tetrachloroethene (PCE)	ND	0.0226						0		30	
Dibromochloromethane	ND	0.0226						0		30	
1,2-Dibromoethane (EDB)	ND	0.00566						0		30	
Chlorobenzene	ND	0.0226						0		30	
1,1,1,2-Tetrachloroethane	ND	0.0226						0		30	
Bromoform	ND	0.0566						0		30	
1,1,2,2-Tetrachloroethane	ND	0.0226						0		30	
Bromobenzene	ND	0.0226						0		30	
2-Chlorotoluene	ND	0.0283						0		30	
4-Chlorotoluene	ND	0.0226						0		30	
1,2,3-Trichloropropane	ND	0.0283						0		30	
1,2,4-Trichlorobenzene	ND	0.0226						0		30	
1,3-Dichlorobenzene	ND	0.0226						0		30	*
1,4-Dichlorobenzene	ND	0.0226						0		30	*
1,2-Dichlorobenzene	ND	0.0226						0		30	
1,2-Dibromo-3-chloropropane	ND	0.566						0		30	
Hexachloro-1,3-butadiene	ND	0.0283						0		30	Q
1,2,3-Trichlorobenzene	ND	0.0226						0		30	
Surr: Dibromofluoromethane	1.46		1.414		103	83.3	111		0		
Surr: Toluene-d8	1.43		1.414		101	87.9	111		0		

Work Order: 2008386
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2008361-001BDUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **9/1/2020** RunNo: **61575**
Client ID: **BATCH** Batch ID: **29534** Analysis Date: **9/1/2020** SeqNo: **1235234**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: 1-Bromo-4-fluorobenzene	1.38		1.414		97.7	85.1	111		0		

NOTES:
Q - Indicates an analyte with a continuing calibration that does not meet established acceptance criteria
* - Flagged value is not within established control limits.

Sample ID: **2008407-002BDUP** SampType: **DUP** Units: **mg/Kg** Prep Date: **9/1/2020** RunNo: **61575**
Client ID: **BATCH** Batch ID: **29534** Analysis Date: **9/1/2020** SeqNo: **1235248**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	0.0188						0		30	
Chloromethane	ND	0.0469						0		30	
Vinyl chloride	ND	0.0188						0		30	
Bromomethane	ND	0.0469						0		30	
Trichlorofluoromethane (CFC-11)	ND	0.0188						0		30	
Chloroethane	ND	0.0469						0		30	
1,1-Dichloroethene	ND	0.0188						0		30	
Methylene chloride	ND	0.0188						0		30	
trans-1,2-Dichloroethene	ND	0.0188						0		30	
1,1-Dichloroethane	ND	0.0188						0		30	
cis-1,2-Dichloroethene	ND	0.0188						0		30	
(MEK) 2-Butanone	ND	0.235						0		30	
Chloroform	ND	0.0188						0		30	
1,1,1-Trichloroethane (TCA)	ND	0.0188						0		30	
1,1-Dichloropropene	ND	0.0188						0		30	
Carbon tetrachloride	ND	0.0188						0		30	
1,2-Dichloroethane (EDC)	ND	0.0188						0		30	
Trichloroethene (TCE)	ND	0.0188						0		30	
1,2-Dichloropropane	ND	0.0188						0		30	
Bromodichloromethane	ND	0.0188						0		30	
Dibromomethane	ND	0.0188						0		30	
cis-1,3-Dichloropropene	ND	0.0188						0		30	

Date: *9/3/2020*

Work Order: 2008386
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2008407-002BDUP** SampType: **DUP** Units: **mg/Kg** Prep Date: **9/1/2020** RunNo: **61575**
Client ID: **BATCH** Batch ID: **29534** Analysis Date: **9/1/2020** SeqNo: **1235248**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
trans-1,3-Dichloropropylene	ND	0.0188						0		30	
1,1,2-Trichloroethane	ND	0.0188						0		30	
1,3-Dichloropropane	ND	0.0235						0		30	
Tetrachloroethene (PCE)	ND	0.0188						0		30	
Dibromochloromethane	ND	0.0188						0		30	
1,2-Dibromoethane (EDB)	ND	0.00469						0		30	
Chlorobenzene	ND	0.0188						0		30	
1,1,1,2-Tetrachloroethane	ND	0.0188						0		30	
Bromoform	ND	0.0469						0		30	
1,1,2,2-Tetrachloroethane	ND	0.0188						0		30	
Bromobenzene	ND	0.0188						0		30	
2-Chlorotoluene	ND	0.0235						0		30	
4-Chlorotoluene	ND	0.0188						0		30	
1,2,3-Trichloropropane	ND	0.0235						0		30	
1,2,4-Trichlorobenzene	ND	0.0188						0		30	
1,3-Dichlorobenzene	ND	0.0188						0		30	*
1,4-Dichlorobenzene	ND	0.0188						0		30	*
1,2-Dichlorobenzene	ND	0.0188						0		30	
1,2-Dibromo-3-chloropropane	ND	0.469						0		30	
Hexachloro-1,3-butadiene	ND	0.0235						0		30	Q
1,2,3-Trichlorobenzene	ND	0.0188						0		30	
Surr: Dibromofluoromethane	1.21		1.174		103	83.3	111		0		
Surr: Toluene-d8	1.19		1.174		102	87.9	111		0		
Surr: 1-Bromo-4-fluorobenzene	1.15		1.174		97.8	85.1	111		0		

NOTES:
Q - Indicates an analyte with a continuing calibration that does not meet established acceptance criteria
* - Flagged value is not within established control limits.

Fremont Analytical

Date: *9/3/2020*

Work Order: 2008386
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2008361-002BMS** SampType: **MS** Units: **mg/Kg-dry** Prep Date: **9/1/2020** RunNo: **61575**
Client ID: **BATCH** Batch ID: **29534** Analysis Date: **9/1/2020** SeqNo: **1235236**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	0.654	0.0230	1.152	0	56.8	5.73	173				
Chloromethane	0.811	0.0576	1.152	0	70.3	41.3	150				
Vinyl chloride	0.784	0.0230	1.152	0	68.0	49.5	138				
Bromomethane	1.29	0.0576	1.152	0	112	48.5	158				
Trichlorofluoromethane (CFC-11)	0.726	0.0230	1.152	0	63.0	40.6	159				
Chloroethane	1.22	0.0576	1.152	0	106	30.4	166				
1,1-Dichloroethene	0.822	0.0230	1.152	0	71.3	55	138				
Methylene chloride	0.933	0.0230	1.152	0	81.0	70.3	123				
trans-1,2-Dichloroethene	0.869	0.0230	1.152	0	75.4	73.1	121				
1,1-Dichloroethane	0.916	0.0230	1.152	0	79.5	70.8	122				
cis-1,2-Dichloroethene	0.908	0.0230	1.152	0	78.8	71.8	122				
(MEK) 2-Butanone	3.65	0.288	2.881	0	127	52.2	149				
Chloroform	0.948	0.0230	1.152	0	82.3	72.9	122				
1,1,1-Trichloroethane (TCA)	0.852	0.0230	1.152	0	73.9	69.6	125				
1,1-Dichloropropene	0.840	0.0230	1.152	0	72.9	69.3	126				
Carbon tetrachloride	0.812	0.0230	1.152	0	70.5	65	127				
1,2-Dichloroethane (EDC)	1.08	0.0230	1.152	0	93.4	70.1	121				
Trichloroethene (TCE)	0.932	0.0230	1.152	0	80.9	70.1	129				
1,2-Dichloropropane	0.965	0.0230	1.152	0	83.7	74.6	120				
Bromodichloromethane	0.962	0.0230	1.152	0	83.5	70.9	122				
Dibromomethane	1.08	0.0230	1.152	0	93.7	75.6	120				
cis-1,3-Dichloropropene	0.961	0.0230	1.152	0	83.4	68.3	120				
trans-1,3-Dichloropropylene	1.01	0.0230	1.152	0	87.9	62.2	127				
1,1,2-Trichloroethane	1.12	0.0230	1.152	0	97.0	72.9	120				
1,3-Dichloropropane	1.10	0.0288	1.152	0	95.9	71.9	119				
Tetrachloroethene (PCE)	0.889	0.0230	1.152	0	77.2	71.1	122				
Dibromochloromethane	1.02	0.0230	1.152	0	88.7	65.9	126				
1,2-Dibromoethane (EDB)	1.11	0.00576	1.152	0	96.6	72	119				
Chlorobenzene	0.938	0.0230	1.152	0	81.4	81.4	116				
1,1,1,2-Tetrachloroethane	0.964	0.0230	1.152	0	83.6	72.9	125				

Fremont Analytical

Date: *9/3/2020*

Work Order: 2008386
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2008361-002BMS** SampType: **MS** Units: **mg/Kg-dry** Prep Date: **9/1/2020** RunNo: **61575**
Client ID: **BATCH** Batch ID: **29534** Analysis Date: **9/1/2020** SeqNo: **1235236**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromoform	1.08	0.0576	1.152	0	93.6	63.4	133				
1,1,2,2-Tetrachloroethane	1.19	0.0230	1.152	0	103	61	128				
Bromobenzene	0.970	0.0230	1.152	0	84.2	77	120				
2-Chlorotoluene	0.896	0.0288	1.152	0	77.8	71.4	126				
4-Chlorotoluene	0.930	0.0230	1.152	0	80.7	73.6	124				
1,2,3-Trichloropropane	1.21	0.0288	1.152	0	105	65.7	132				
1,2,4-Trichlorobenzene	1.10	0.0230	1.152	0	95.5	70.5	130				
1,3-Dichlorobenzene	0.947	0.0230	1.152	0	82.2	83.8	121				S
1,4-Dichlorobenzene	0.961	0.0230	1.152	0	83.4	85.7	117				S
1,2-Dichlorobenzene	1.00	0.0230	1.152	0	87.0	81.8	120				
1,2-Dibromo-3-chloropropane	1.25	0.576	1.152	0	109	56.9	139				
Hexachloro-1,3-butadiene	0.852	0.0288	1.152	0	74.0	61.1	140				
1,2,3-Trichlorobenzene	1.24	0.0230	1.152	0	108	67.8	132				
Surr: Dibromofluoromethane	1.48		1.440		103	83.3	111				
Surr: Toluene-d8	1.48		1.440		103	87.9	111				
Surr: 1-Bromo-4-fluorobenzene	1.47		1.440		102	85.1	111				

NOTES:
S - Outlying spike recovery(ies) observed. A duplicate analysis was performed and recovered within range.

Sample ID: **2008361-002BMSD** SampType: **MSD** Units: **mg/Kg-dry** Prep Date: **9/1/2020** RunNo: **61575**
Client ID: **BATCH** Batch ID: **29534** Analysis Date: **9/1/2020** SeqNo: **1235237**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	0.699	0.0230	1.152	0	60.7	5.73	173	0.6543	6.63	30	
Chloromethane	0.852	0.0576	1.152	0	73.9	41.3	150	0.8106	4.98	30	
Vinyl chloride	0.818	0.0230	1.152	0	71.0	49.5	138	0.7840	4.29	30	
Bromomethane	1.26	0.0576	1.152	0	109	48.5	158	1.287	2.47	30	
Trichlorofluoromethane (CFC-11)	0.815	0.0230	1.152	0	70.7	40.6	159	0.7262	11.6	30	
Chloroethane	1.27	0.0576	1.152	0	110	30.4	166	1.223	3.96	30	
1,1-Dichloroethene	0.886	0.0230	1.152	0	76.9	55	138	0.8218	7.50	30	
Methylene chloride	0.978	0.0230	1.152	0	84.9	70.3	123	0.9334	4.71	30	

Fremont Analytical

Date: *9/3/2020*

Work Order: 2008386
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2008361-002BMSD** SampType: **MSD** Units: **mg/Kg-dry** Prep Date: **9/1/2020** RunNo: **61575**
Client ID: **BATCH** Batch ID: **29534** Analysis Date: **9/1/2020** SeqNo: **1235237**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
trans-1,2-Dichloroethene	0.906	0.0230	1.152	0	78.6	73.1	121	0.8691	4.16	30	
1,1-Dichloroethane	0.967	0.0230	1.152	0	83.9	70.8	122	0.9158	5.45	30	
cis-1,2-Dichloroethene	0.947	0.0230	1.152	0	82.2	71.8	122	0.9079	4.19	30	
(MEK) 2-Butanone	3.59	0.288	2.881	0	125	52.2	149	3.650	0	30	
Chloroform	0.977	0.0230	1.152	0	84.8	72.9	122	0.9479	3.01	30	
1,1,1-Trichloroethane (TCA)	0.905	0.0230	1.152	0	78.5	69.6	125	0.8520	6.02	30	
1,1-Dichloropropene	0.919	0.0230	1.152	0	79.8	69.3	126	0.8403	8.97	30	
Carbon tetrachloride	0.857	0.0230	1.152	0	74.3	65	127	0.8119	5.36	30	
1,2-Dichloroethane (EDC)	1.11	0.0230	1.152	0	95.9	70.1	121	1.076	2.72	30	
Trichloroethene (TCE)	0.980	0.0230	1.152	0	85.1	70.1	129	0.9323	5.00	30	
1,2-Dichloropropane	1.00	0.0230	1.152	0	87.1	74.6	120	0.9647	3.92	30	
Bromodichloromethane	0.993	0.0230	1.152	0	86.2	70.9	122	0.9622	3.15	30	
Dibromomethane	1.12	0.0230	1.152	0	97.1	75.6	120	1.080	3.53	30	
cis-1,3-Dichloropropene	1.00	0.0230	1.152	0	87.1	68.3	120	0.9613	4.27	30	
trans-1,3-Dichloropropylene	1.06	0.0230	1.152	0	92.2	62.2	127	1.013	4.75	30	
1,1,2-Trichloroethane	1.15	0.0230	1.152	0	99.8	72.9	120	1.117	2.86	30	
1,3-Dichloropropane	1.13	0.0288	1.152	0	97.6	71.9	119	1.105	1.84	30	
Tetrachloroethene (PCE)	0.949	0.0230	1.152	0	82.4	71.1	122	0.8890	6.58	30	
Dibromochloromethane	1.05	0.0230	1.152	0	91.3	65.9	126	1.022	2.89	30	
1,2-Dibromoethane (EDB)	1.15	0.00576	1.152	0	99.8	72	119	1.113	3.23	30	
Chlorobenzene	0.975	0.0230	1.152	0	84.6	81.4	116	0.9384	3.85	30	
1,1,1,2-Tetrachloroethane	1.01	0.0230	1.152	0	87.6	72.9	125	0.9637	4.59	30	
Bromoform	1.10	0.0576	1.152	0	95.0	63.4	133	1.078	1.57	30	
1,1,2,2-Tetrachloroethane	1.23	0.0230	1.152	0	107	61	128	1.189	3.32	30	
Bromobenzene	1.01	0.0230	1.152	0	87.8	77	120	0.9698	4.26	30	
2-Chlorotoluene	0.936	0.0288	1.152	0	81.3	71.4	126	0.8964	4.36	30	
4-Chlorotoluene	0.974	0.0230	1.152	0	84.5	73.6	124	0.9301	4.62	30	
1,2,3-Trichloropropane	1.22	0.0288	1.152	0	106	65.7	132	1.207	1.47	30	
1,2,4-Trichlorobenzene	1.16	0.0230	1.152	0	101	70.5	130	1.101	5.43	30	
1,3-Dichlorobenzene	0.985	0.0230	1.152	0	85.5	83.8	121	0.9473	3.90	30	

Date: *9/3/2020*

Work Order: 2008386
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2008361-002BMSD** SampType: **MSD** Units: **mg/Kg-dry** Prep Date: **9/1/2020** RunNo: **61575**
Client ID: **BATCH** Batch ID: **29534** Analysis Date: **9/1/2020** SeqNo: **1235237**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,4-Dichlorobenzene	1.00	0.0230	1.152	0	86.7	85.7	117	0.9611	3.92	30	
1,2-Dichlorobenzene	1.06	0.0230	1.152	0	91.6	81.8	120	1.002	5.17	30	
1,2-Dibromo-3-chloropropane	1.30	0.576	1.152	0	113	56.9	139	1.255	3.47	30	
Hexachloro-1,3-butadiene	0.904	0.0288	1.152	0	78.4	61.1	140	0.8523	5.86	30	
1,2,3-Trichlorobenzene	1.28	0.0230	1.152	0	111	67.8	132	1.245	3.16	30	
Surr: Dibromofluoromethane	1.50		1.440		104	83.3	111		0		
Surr: Toluene-d8	1.48		1.440		103	87.9	111		0		
Surr: 1-Bromo-4-fluorobenzene	1.47		1.440		102	85.1	111		0		

Fremont Analytical
3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790
Fax: 206-352-7178

Chain of Custody Record & Laboratory Services Agreement

Date: 8/27/20 Page: 1 of: 1

Laboratory Project No (internal): 20083846

Project Name: F200

Special Remarks:

Client: OSG

Project No: 2021

Address:

Collected by: Atkins

City, State, Zip:

Location: FL358

Telephone:

Report To (PM): Atkins

Sample Disposal: ☐ Return to client ☐ Disposal by lab (after 30 days)

Fax:

PM Email:

#	Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	HVOCs (EPA 8260 / 624)	GX/BTEX	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DX)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T) | Dissolved (D)	Anions (IC)***	EDB (8011)					Comments
1	358-SP1	8/27/20	1230	S	X																	
2	358-SP2		1232	S	X																	
3	358-SP3		1234	S	X																	
4																						
5																						
6																						
7																						
8																						
9																						
10																						

*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

**Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL *Individual:* Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti Tl U V Zn

***Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite

Turn-around Time:
- ☑ Standard
- ☐ 3 Day
- ☐ 2 Day
- ☐ Next Day
- Same Day ____ (specify)

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above and that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished	Date/Time	Received	Date/Time
x [signature]	8/27/20 1500	x [signature]	8/27/20 @ 1517
Relinquished	Date/Time	Received	Date/Time
x		x	

3600 Fremont Ave. N.
Seattle, WA 98103
T: (206) 352-3790
F: (206) 352-7178
info@fremontanalytical.com

O'Neill Service Group
Vance Atkins
17619 NE 67th Court, Suite 100
Redmond, WA 98052

RE: F200
Work Order Number: 2008387

December 10, 2020

Attention Vance Atkins:

Fremont Analytical, Inc. received 1 sample(s) on 8/27/2020 for the analyses presented in the following report.

Sample Moisture (Percent Moisture)
Volatile Organic Compounds by EPA Method 8260D

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Brianna Barnes
Project Manager

Date: *12/10/2020*

CLIENT: O'Neill Service Group
Project: F200
Work Order: 2008387

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
2008387-001	358-PH-105-10	08/23/2020 11:00 AM	08/27/2020 3:17 PM

Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned

Case Narrative

WO#: **2008387**

Date: **12/10/2020**

CLIENT: O'Neill Service Group

Project: F200

I. SAMPLE RECEIPT:
Samples receipt information is recorded on the attached Sample Receipt Checklist.

II. GENERAL REPORTING COMMENTS:
Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

III. ANALYSES AND EXCEPTIONS:
Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

10/27/2020: Revision 1 includes sample ID revision per client request.
12/10/2020: Revision 2 includes sample ID revision per client request.

Qualifiers:

* - Flagged value is not within established control limits
B - Analyte detected in the associated Method Blank
D - Dilution was required
E - Value above quantitation range
H - Holding times for preparation or analysis exceeded
I - Analyte with an internal standard that does not meet established acceptance criteria
J - Analyte detected below Reporting Limit
N - Tentatively Identified Compound (TIC)
Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF)
S - Spike recovery outside accepted recovery limits
ND - Not detected at the Reporting Limit
R - High relative percent difference observed

Acronyms:

%Rec - Percent Recovery
CCB - Continued Calibration Blank
CCV - Continued Calibration Verification
DF - Dilution Factor
DUP - Sample Duplicate
HEM - Hexane Extractable Material
ICV - Initial Calibration Verification
LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
MB or MBLANK - Method Blank
MDL - Method Detection Limit
MS/MSD - Matrix Spike / Matrix Spike Duplicate
PDS - Post Digestion Spike
Ref Val - Reference Value
REP - Sample Replicate
RL - Reporting Limit
RPD - Relative Percent Difference
SD - Serial Dilution
SGT - Silica Gel Treatment
SPK - Spike
Surr - Surrogate

Analytical Report

Work Order: **2008387**
Date Reported: **12/10/2020**

Client: O'Neill Service Group
Collection Date: 8/23/2020 11:00:00 AM
Project: F200
Lab ID: 2008387-001
Matrix: Soil
Client Sample ID: 358-PH-105-10

Volatile Organic Compounds by EPA Method 8260D Batch ID: 29534 Analyst: KT

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dichlorodifluoromethane (CFC-12)	ND	0.0196		mg/Kg-dry	1	9/1/2020 11:12:34 PM
Chloromethane	ND	0.0489		mg/Kg-dry	1	9/1/2020 11:12:34 PM
Vinyl chloride	ND	0.0196		mg/Kg-dry	1	9/1/2020 11:12:34 PM
Bromomethane	ND	0.0489		mg/Kg-dry	1	9/1/2020 11:12:34 PM
Trichlorofluoromethane (CFC-11)	ND	0.0196		mg/Kg-dry	1	9/1/2020 11:12:34 PM
Chloroethane	ND	0.0489		mg/Kg-dry	1	9/1/2020 11:12:34 PM
1,1-Dichloroethene	ND	0.0196		mg/Kg-dry	1	9/1/2020 11:12:34 PM
Methylene chloride	ND	0.0196		mg/Kg-dry	1	9/1/2020 11:12:34 PM
trans-1,2-Dichloroethene	ND	0.0196		mg/Kg-dry	1	9/1/2020 11:12:34 PM
1,1-Dichloroethane	ND	0.0196		mg/Kg-dry	1	9/1/2020 11:12:34 PM
cis-1,2-Dichloroethene	ND	0.0196		mg/Kg-dry	1	9/1/2020 11:12:34 PM
Chloroform	ND	0.0196		mg/Kg-dry	1	9/1/2020 11:12:34 PM
1,1,1-Trichloroethane (TCA)	ND	0.0196		mg/Kg-dry	1	9/1/2020 11:12:34 PM
1,1-Dichloropropene	ND	0.0196		mg/Kg-dry	1	9/1/2020 11:12:34 PM
Carbon tetrachloride	ND	0.0196		mg/Kg-dry	1	9/1/2020 11:12:34 PM
1,2-Dichloroethane (EDC)	ND	0.0196		mg/Kg-dry	1	9/1/2020 11:12:34 PM
Trichloroethene (TCE)	ND	0.0196		mg/Kg-dry	1	9/1/2020 11:12:34 PM
1,2-Dichloropropane	ND	0.0196		mg/Kg-dry	1	9/1/2020 11:12:34 PM
Bromodichloromethane	ND	0.0196		mg/Kg-dry	1	9/1/2020 11:12:34 PM
Dibromomethane	ND	0.0196		mg/Kg-dry	1	9/1/2020 11:12:34 PM
cis-1,3-Dichloropropene	ND	0.0196		mg/Kg-dry	1	9/1/2020 11:12:34 PM
trans-1,3-Dichloropropylene	ND	0.0196		mg/Kg-dry	1	9/1/2020 11:12:34 PM
1,1,2-Trichloroethane	ND	0.0196		mg/Kg-dry	1	9/1/2020 11:12:34 PM
1,3-Dichloropropane	ND	0.0245		mg/Kg-dry	1	9/1/2020 11:12:34 PM
Tetrachloroethene (PCE)	ND	0.0196		mg/Kg-dry	1	9/1/2020 11:12:34 PM
Dibromochloromethane	ND	0.0196		mg/Kg-dry	1	9/1/2020 11:12:34 PM
1,2-Dibromoethane (EDB)	ND	0.00489		mg/Kg-dry	1	9/1/2020 11:12:34 PM
Chlorobenzene	ND	0.0196		mg/Kg-dry	1	9/1/2020 11:12:34 PM
1,1,1,2-Tetrachloroethane	ND	0.0196		mg/Kg-dry	1	9/1/2020 11:12:34 PM
Bromoform	ND	0.0489		mg/Kg-dry	1	9/1/2020 11:12:34 PM
1,1,2,2-Tetrachloroethane	ND	0.0196		mg/Kg-dry	1	9/1/2020 11:12:34 PM
Bromobenzene	ND	0.0196		mg/Kg-dry	1	9/1/2020 11:12:34 PM
2-Chlorotoluene	ND	0.0245		mg/Kg-dry	1	9/1/2020 11:12:34 PM
4-Chlorotoluene	ND	0.0196		mg/Kg-dry	1	9/1/2020 11:12:34 PM
1,2,3-Trichloropropane	ND	0.0245		mg/Kg-dry	1	9/1/2020 11:12:34 PM
1,2,4-Trichlorobenzene	ND	0.0196		mg/Kg-dry	1	9/1/2020 11:12:34 PM
1,3-Dichlorobenzene	ND	0.0196	*	mg/Kg-dry	1	9/1/2020 11:12:34 PM
1,4-Dichlorobenzene	ND	0.0196	*	mg/Kg-dry	1	9/1/2020 11:12:34 PM
1,2-Dichlorobenzene	ND	0.0196		mg/Kg-dry	1	9/1/2020 11:12:34 PM

Analytical Report

Work Order: **2008387**
Date Reported: **12/10/2020**

Client: O'Neill Service Group
Collection Date: 8/23/2020 11:00:00 AM
Project: F200
Lab ID: 2008387-001
Matrix: Soil
Client Sample ID: 358-PH-105-10

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 29534		Analyst: KT
1,2-Dibromo-3-chloropropane	ND	0.489		mg/Kg-dry	1	9/1/2020 11:12:34 PM
Hexachloro-1,3-butadiene	ND	0.0245	Q	mg/Kg-dry	1	9/1/2020 11:12:34 PM
1,2,3-Trichlorobenzene	ND	0.0196		mg/Kg-dry	1	9/1/2020 11:12:34 PM
Surr: Dibromofluoromethane	102	83.3 - 111		%Rec	1	9/1/2020 11:12:34 PM
Surr: Toluene-d8	100	87.9 - 111		%Rec	1	9/1/2020 11:12:34 PM
Surr: 1-Bromo-4-fluorobenzene	98.4	85.1 - 111		%Rec	1	9/1/2020 11:12:34 PM

NOTES:
Q - Indicates an analyte with a continuing calibration that does not meet established acceptance criteria
* - Flagged value is not within established control limits.

Sample Moisture (Percent Moisture)				Batch ID: R61559		Analyst: MM
Percent Moisture	11.0	0.500		wt%	1	9/2/2020 8:14:39 AM

Date: *12/10/2020*

Work Order: 2008387
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **LCS-29534** SampType: **LCS** Units: **mg/Kg** Prep Date: **9/1/2020** RunNo: **61575**
Client ID: **LCSS** Batch ID: **29534** Analysis Date: **9/1/2020** SeqNo: **1235260**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	0.928	0.0200	1.000	0	92.8	13.4	185				
Chloromethane	0.860	0.0500	1.000	0	86.0	38.5	158				
Vinyl chloride	0.844	0.0200	1.000	0	84.4	53.6	138				
Bromomethane	1.19	0.0500	1.000	0	119	56.6	151				
Trichlorofluoromethane (CFC-11)	0.883	0.0200	1.000	0	88.3	64.2	137				
Chloroethane	1.24	0.0500	1.000	0	124	54.1	134				
1,1-Dichloroethene	0.853	0.0200	1.000	0	85.3	66	133				
Methylene chloride	0.880	0.0200	1.000	0	88.0	74.3	117				
trans-1,2-Dichloroethene	0.850	0.0200	1.000	0	85.0	79.6	115				
1,1-Dichloroethane	0.875	0.0200	1.000	0	87.5	75.8	117				
cis-1,2-Dichloroethene	0.857	0.0200	1.000	0	85.7	77.8	115				
(MEK) 2-Butanone	2.32	0.250	2.500	0	92.9	66.2	129				
Chloroform	0.893	0.0200	1.000	0	89.3	78.2	115				
1,1,1-Trichloroethane (TCA)	0.874	0.0200	1.000	0	87.4	76	121				
1,1-Dichloropropene	0.860	0.0200	1.000	0	86.0	77.2	120				
Carbon tetrachloride	0.846	0.0200	1.000	0	84.6	74	122				
1,2-Dichloroethane (EDC)	0.942	0.0200	1.000	0	94.2	74.7	115				
Trichloroethene (TCE)	0.868	0.0200	1.000	0	86.8	79.6	118				
1,2-Dichloropropane	0.865	0.0200	1.000	0	86.5	78.2	115				
Bromodichloromethane	0.903	0.0200	1.000	0	90.3	76.6	116				
Dibromomethane	0.913	0.0200	1.000	0	91.3	77.9	115				
cis-1,3-Dichloropropene	0.870	0.0200	1.000	0	87.0	74.6	119				
trans-1,3-Dichloropropylene	0.885	0.0200	1.000	0	88.5	70.6	124				
1,1,2-Trichloroethane	0.916	0.0200	1.000	0	91.6	75.6	116				
1,3-Dichloropropane	0.896	0.0250	1.000	0	89.6	75.3	116				
Tetrachloroethene (PCE)	0.860	0.0200	1.000	0	86.0	78.8	119				
Dibromochloromethane	0.884	0.0200	1.000	0	88.4	72.5	123				
1,2-Dibromoethane (EDB)	0.897	0.00500	1.000	0	89.7	75	116				
Chlorobenzene	0.848	0.0200	1.000	0	84.8	83.4	113				
1,1,1,2-Tetrachloroethane	0.844	0.0200	1.000	0	84.4	80.8	117				

Date: *12/10/2020*

Work Order: 2008387
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **LCS-29534** SampType: **LCS** Units: **mg/Kg** Prep Date: **9/1/2020** RunNo: **61575**
Client ID: **LCSS** Batch ID: **29534** Analysis Date: **9/1/2020** SeqNo: **1235260**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromoform	0.859	0.0500	1.000	0	85.9	71	129				
1,1,2,2-Tetrachloroethane	0.898	0.0200	1.000	0	89.8	71.3	119				
Bromobenzene	0.849	0.0200	1.000	0	84.9	78.6	115				
2-Chlorotoluene	0.849	0.0250	1.000	0	84.9	78.6	116				
4-Chlorotoluene	0.868	0.0200	1.000	0	86.8	78.8	117				
1,2,3-Trichloropropane	0.904	0.0250	1.000	0	90.4	67.5	129				
1,2,4-Trichlorobenzene	0.896	0.0200	1.000	0	89.6	79.6	124				
1,3-Dichlorobenzene	0.868	0.0200	1.000	0	86.8	87.1	117				S
1,4-Dichlorobenzene	0.863	0.0200	1.000	0	86.3	87.6	115				S
1,2-Dichlorobenzene	0.891	0.0200	1.000	0	89.1	87.9	115				
1,2-Dibromo-3-chloropropane	0.903	0.500	1.000	0	90.3	65.6	132				
Hexachloro-1,3-butadiene	0.794	0.0250	1.000	0	79.4	75	130				
1,2,3-Trichlorobenzene	0.923	0.0200	1.000	0	92.3	74.3	128				
Surr: Dibromofluoromethane	1.29		1.250		104	83.3	111				
Surr: Toluene-d8	1.30		1.250		104	87.9	111				
Surr: 1-Bromo-4-fluorobenzene	1.25		1.250		99.8	85.1	111				

NOTES:
S - Outlying spike recovery observed (low bias). Samples will be qualified with a *.

Sample ID: **MB-29534** SampType: **MBLK** Units: **mg/Kg** Prep Date: **9/1/2020** RunNo: **61575**
Client ID: **MBLKS** Batch ID: **29534** Analysis Date: **9/1/2020** SeqNo: **1235261**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	0.0200									
Chloromethane	ND	0.0500									
Vinyl chloride	ND	0.0200									
Bromomethane	ND	0.0500									
Trichlorofluoromethane (CFC-11)	ND	0.0200									
Chloroethane	ND	0.0500									
1,1-Dichloroethene	ND	0.0200									
Methylene chloride	ND	0.0200									

Date: *12/10/2020*

Work Order: 2008387
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **MB-29534** SampType: **MBLK** Units: **mg/Kg** Prep Date: **9/1/2020** RunNo: **61575**
Client ID: **MBLKS** Batch ID: **29534** Analysis Date: **9/1/2020** SeqNo: **1235261**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
trans-1,2-Dichloroethene	ND	0.0200									
1,1-Dichloroethane	ND	0.0200									
cis-1,2-Dichloroethene	ND	0.0200									
(MEK) 2-Butanone	ND	0.250									
Chloroform	ND	0.0200									
1,1,1-Trichloroethane (TCA)	ND	0.0200									
1,1-Dichloropropene	ND	0.0200									
Carbon tetrachloride	ND	0.0200									
1,2-Dichloroethane (EDC)	ND	0.0200									
Trichloroethene (TCE)	ND	0.0200									
1,2-Dichloropropane	ND	0.0200									
Bromodichloromethane	ND	0.0200									
Dibromomethane	ND	0.0200									
cis-1,3-Dichloropropene	ND	0.0200									
trans-1,3-Dichloropropylene	ND	0.0200									
1,1,2-Trichloroethane	ND	0.0200									
1,3-Dichloropropane	ND	0.0250									
Tetrachloroethene (PCE)	ND	0.0200									
Dibromochloromethane	ND	0.0200									
1,2-Dibromoethane (EDB)	ND	0.00500									
Chlorobenzene	ND	0.0200									
1,1,1,2-Tetrachloroethane	ND	0.0200									
Bromoform	ND	0.0500									
1,1,2,2-Tetrachloroethane	ND	0.0200									
Bromobenzene	ND	0.0200									
2-Chlorotoluene	ND	0.0250									
4-Chlorotoluene	ND	0.0200									
1,2,3-Trichloropropane	ND	0.0250									
1,2,4-Trichlorobenzene	ND	0.0200									
1,3-Dichlorobenzene	ND	0.0200									*

Work Order: 2008387
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **MB-29534** SampType: **MBLK** Units: **mg/Kg** Prep Date: **9/1/2020** RunNo: **61575**
Client ID: **MBLKS** Batch ID: **29534** Analysis Date: **9/1/2020** SeqNo: **1235261**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,4-Dichlorobenzene	ND	0.0200									*
1,2-Dichlorobenzene	ND	0.0200									
1,2-Dibromo-3-chloropropane	ND	0.500									
Hexachloro-1,3-butadiene	ND	0.0250									Q
1,2,3-Trichlorobenzene	ND	0.0200									
Surr: Dibromofluoromethane	1.28		1.250		102	83.3	111				
Surr: Toluene-d8	1.25		1.250		100	87.9	111				
Surr: 1-Bromo-4-fluorobenzene	1.22		1.250		97.4	85.1	111				

NOTES:
Q - Indicates an analyte with a continuing calibration that does not meet established acceptance criteria
* - Flagged value is not within established control limits.

Sample ID: **2008361-001BDUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **9/1/2020** RunNo: **61575**
Client ID: **BATCH** Batch ID: **29534** Analysis Date: **9/1/2020** SeqNo: **1235234**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	0.0226						0		30	
Chloromethane	ND	0.0566						0		30	
Vinyl chloride	ND	0.0226						0		30	
Bromomethane	ND	0.0566						0		30	
Trichlorofluoromethane (CFC-11)	ND	0.0226						0		30	
Chloroethane	ND	0.0566						0		30	
1,1-Dichloroethene	ND	0.0226						0		30	
Methylene chloride	ND	0.0226						0		30	
trans-1,2-Dichloroethene	ND	0.0226						0		30	
1,1-Dichloroethane	ND	0.0226						0		30	
cis-1,2-Dichloroethene	ND	0.0226						0		30	
(MEK) 2-Butanone	ND	0.283						0		30	
Chloroform	ND	0.0226						0		30	
1,1,1-Trichloroethane (TCA)	ND	0.0226						0		30	
1,1-Dichloropropene	ND	0.0226						0		30	

Date: *12/10/2020*

Work Order: 2008387
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2008361-001BDUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **9/1/2020** RunNo: **61575**
Client ID: **BATCH** Batch ID: **29534** Analysis Date: **9/1/2020** SeqNo: **1235234**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Carbon tetrachloride	ND	0.0226						0		30	
1,2-Dichloroethane (EDC)	ND	0.0226						0		30	
Trichloroethene (TCE)	ND	0.0226						0		30	
1,2-Dichloropropane	ND	0.0226						0		30	
Bromodichloromethane	ND	0.0226						0		30	
Dibromomethane	ND	0.0226						0		30	
cis-1,3-Dichloropropene	ND	0.0226						0		30	
trans-1,3-Dichloropropylene	ND	0.0226						0		30	
1,1,2-Trichloroethane	ND	0.0226						0		30	
1,3-Dichloropropane	ND	0.0283						0		30	
Tetrachloroethene (PCE)	ND	0.0226						0		30	
Dibromochloromethane	ND	0.0226						0		30	
1,2-Dibromoethane (EDB)	ND	0.00566						0		30	
Chlorobenzene	ND	0.0226						0		30	
1,1,1,2-Tetrachloroethane	ND	0.0226						0		30	
Bromoform	ND	0.0566						0		30	
1,1,2,2-Tetrachloroethane	ND	0.0226						0		30	
Bromobenzene	ND	0.0226						0		30	
2-Chlorotoluene	ND	0.0283						0		30	
4-Chlorotoluene	ND	0.0226						0		30	
1,2,3-Trichloropropane	ND	0.0283						0		30	
1,2,4-Trichlorobenzene	ND	0.0226						0		30	
1,3-Dichlorobenzene	ND	0.0226						0		30	*
1,4-Dichlorobenzene	ND	0.0226						0		30	*
1,2-Dichlorobenzene	ND	0.0226						0		30	
1,2-Dibromo-3-chloropropane	ND	0.566						0		30	
Hexachloro-1,3-butadiene	ND	0.0283						0		30	Q
1,2,3-Trichlorobenzene	ND	0.0226						0		30	
Surr: Dibromofluoromethane	1.46		1.414		103	83.3	111		0		
Surr: Toluene-d8	1.43		1.414		101	87.9	111		0		

Work Order: 2008387
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2008361-001BDUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **9/1/2020** RunNo: **61575**
Client ID: **BATCH** Batch ID: **29534** Analysis Date: **9/1/2020** SeqNo: **1235234**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: 1-Bromo-4-fluorobenzene	1.38		1.414		97.7	85.1	111		0		

NOTES:
Q - Indicates an analyte with a continuing calibration that does not meet established acceptance criteria
* - Flagged value is not within established control limits.

Sample ID: **2008407-002BDUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **9/1/2020** RunNo: **61575**
Client ID: **BATCH** Batch ID: **29534** Analysis Date: **9/1/2020** SeqNo: **1235248**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	0.0232						0		30	
Chloromethane	ND	0.0581						0		30	
Vinyl chloride	ND	0.0232						0		30	
Bromomethane	ND	0.0581						0		30	
Trichlorofluoromethane (CFC-11)	ND	0.0232						0		30	
Chloroethane	ND	0.0581						0		30	
1,1-Dichloroethene	ND	0.0232						0		30	
Methylene chloride	ND	0.0232						0		30	
trans-1,2-Dichloroethene	ND	0.0232						0		30	
1,1-Dichloroethane	ND	0.0232						0		30	
cis-1,2-Dichloroethene	ND	0.0232						0		30	
(MEK) 2-Butanone	ND	0.290						0		30	
Chloroform	ND	0.0232						0		30	
1,1,1-Trichloroethane (TCA)	ND	0.0232						0		30	
1,1-Dichloropropene	ND	0.0232						0		30	
Carbon tetrachloride	ND	0.0232						0		30	
1,2-Dichloroethane (EDC)	ND	0.0232						0		30	
Trichloroethene (TCE)	ND	0.0232						0		30	
1,2-Dichloropropane	ND	0.0232						0		30	
Bromodichloromethane	ND	0.0232						0		30	
Dibromomethane	ND	0.0232						0		30	
cis-1,3-Dichloropropene	ND	0.0232						0		30	

Date: *12/10/2020*

Work Order: 2008387
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2008407-002BDUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **9/1/2020** RunNo: **61575**
Client ID: **BATCH** Batch ID: **29534** Analysis Date: **9/1/2020** SeqNo: **1235248**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
trans-1,3-Dichloropropylene	ND	0.0232						0		30	
1,1,2-Trichloroethane	ND	0.0232						0		30	
1,3-Dichloropropane	ND	0.0290						0		30	
Tetrachloroethene (PCE)	ND	0.0232						0		30	
Dibromochloromethane	ND	0.0232						0		30	
1,2-Dibromoethane (EDB)	ND	0.00581						0		30	
Chlorobenzene	ND	0.0232						0		30	
1,1,1,2-Tetrachloroethane	ND	0.0232						0		30	
Bromoform	ND	0.0581						0		30	
1,1,2,2-Tetrachloroethane	ND	0.0232						0		30	
Bromobenzene	ND	0.0232						0		30	
2-Chlorotoluene	ND	0.0290						0		30	
4-Chlorotoluene	ND	0.0232						0		30	
1,2,3-Trichloropropane	ND	0.0290						0		30	
1,2,4-Trichlorobenzene	ND	0.0232						0		30	
1,3-Dichlorobenzene	ND	0.0232						0		30	*
1,4-Dichlorobenzene	ND	0.0232						0		30	*
1,2-Dichlorobenzene	ND	0.0232						0		30	
1,2-Dibromo-3-chloropropane	ND	0.581						0		30	
Hexachloro-1,3-butadiene	ND	0.0290						0		30	Q
1,2,3-Trichlorobenzene	ND	0.0232						0		30	
Surr: Dibromofluoromethane	1.50		1.452		103	83.3	111		0		
Surr: Toluene-d8	1.47		1.452		102	87.9	111		0		
Surr: 1-Bromo-4-fluorobenzene	1.42		1.452		97.8	85.1	111		0		

NOTES:
Q - Indicates an analyte with a continuing calibration that does not meet established acceptance criteria
* - Flagged value is not within established control limits.

Date: *12/10/2020*

Work Order: 2008387
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2008361-002BMS** SampType: **MS** Units: **mg/Kg-dry** Prep Date: **9/1/2020** RunNo: **61575**
Client ID: **BATCH** Batch ID: **29534** Analysis Date: **9/1/2020** SeqNo: **1235236**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	0.654	0.0230	1.152	0	56.8	5.73	173				
Chloromethane	0.811	0.0576	1.152	0	70.3	41.3	150				
Vinyl chloride	0.784	0.0230	1.152	0	68.0	49.5	138				
Bromomethane	1.29	0.0576	1.152	0	112	48.5	158				
Trichlorofluoromethane (CFC-11)	0.726	0.0230	1.152	0	63.0	40.6	159				
Chloroethane	1.22	0.0576	1.152	0	106	30.4	166				
1,1-Dichloroethene	0.822	0.0230	1.152	0	71.3	55	138				
Methylene chloride	0.933	0.0230	1.152	0	81.0	70.3	123				
trans-1,2-Dichloroethene	0.869	0.0230	1.152	0	75.4	73.1	121				
1,1-Dichloroethane	0.916	0.0230	1.152	0	79.5	70.8	122				
cis-1,2-Dichloroethene	0.908	0.0230	1.152	0	78.8	71.8	122				
(MEK) 2-Butanone	3.65	0.288	2.881	0	127	52.2	149				
Chloroform	0.948	0.0230	1.152	0	82.3	72.9	122				
1,1,1-Trichloroethane (TCA)	0.852	0.0230	1.152	0	73.9	69.6	125				
1,1-Dichloropropene	0.840	0.0230	1.152	0	72.9	69.3	126				
Carbon tetrachloride	0.812	0.0230	1.152	0	70.5	65	127				
1,2-Dichloroethane (EDC)	1.08	0.0230	1.152	0	93.4	70.1	121				
Trichloroethene (TCE)	0.932	0.0230	1.152	0	80.9	70.1	129				
1,2-Dichloropropane	0.965	0.0230	1.152	0	83.7	74.6	120				
Bromodichloromethane	0.962	0.0230	1.152	0	83.5	70.9	122				
Dibromomethane	1.08	0.0230	1.152	0	93.7	75.6	120				
cis-1,3-Dichloropropene	0.961	0.0230	1.152	0	83.4	68.3	120				
trans-1,3-Dichloropropylene	1.01	0.0230	1.152	0	87.9	62.2	127				
1,1,2-Trichloroethane	1.12	0.0230	1.152	0	97.0	72.9	120				
1,3-Dichloropropane	1.10	0.0288	1.152	0	95.9	71.9	119				
Tetrachloroethene (PCE)	0.889	0.0230	1.152	0	77.2	71.1	122				
Dibromochloromethane	1.02	0.0230	1.152	0	88.7	65.9	126				
1,2-Dibromoethane (EDB)	1.11	0.00576	1.152	0	96.6	72	119				
Chlorobenzene	0.938	0.0230	1.152	0	81.4	81.4	116				
1,1,1,2-Tetrachloroethane	0.964	0.0230	1.152	0	83.6	72.9	125				

Date: *12/10/2020*

Work Order: 2008387
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2008361-002BMS** SampType: **MS** Units: **mg/Kg-dry** Prep Date: **9/1/2020** RunNo: **61575**
Client ID: **BATCH** Batch ID: **29534** Analysis Date: **9/1/2020** SeqNo: **1235236**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromoform	1.08	0.0576	1.152	0	93.6	63.4	133				
1,1,2,2-Tetrachloroethane	1.19	0.0230	1.152	0	103	61	128				
Bromobenzene	0.970	0.0230	1.152	0	84.2	77	120				
2-Chlorotoluene	0.896	0.0288	1.152	0	77.8	71.4	126				
4-Chlorotoluene	0.930	0.0230	1.152	0	80.7	73.6	124				
1,2,3-Trichloropropane	1.21	0.0288	1.152	0	105	65.7	132				
1,2,4-Trichlorobenzene	1.10	0.0230	1.152	0	95.5	70.5	130				
1,3-Dichlorobenzene	0.947	0.0230	1.152	0	82.2	83.8	121				S
1,4-Dichlorobenzene	0.961	0.0230	1.152	0	83.4	85.7	117				S
1,2-Dichlorobenzene	1.00	0.0230	1.152	0	87.0	81.8	120				
1,2-Dibromo-3-chloropropane	1.25	0.576	1.152	0	109	56.9	139				
Hexachloro-1,3-butadiene	0.852	0.0288	1.152	0	74.0	61.1	140				
1,2,3-Trichlorobenzene	1.24	0.0230	1.152	0	108	67.8	132				
Surr: Dibromofluoromethane	1.48		1.440		103	83.3	111				
Surr: Toluene-d8	1.48		1.440		103	87.9	111				
Surr: 1-Bromo-4-fluorobenzene	1.47		1.440		102	85.1	111				

NOTES:
S - Outlying spike recovery(ies) observed. A duplicate analysis was performed and recovered within range.

Sample ID: **2008361-002BMSD** SampType: **MSD** Units: **mg/Kg-dry** Prep Date: **9/1/2020** RunNo: **61575**
Client ID: **BATCH** Batch ID: **29534** Analysis Date: **9/1/2020** SeqNo: **1235237**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	0.699	0.0230	1.152	0	60.7	5.73	173	0.6543	6.63	30	
Chloromethane	0.852	0.0576	1.152	0	73.9	41.3	150	0.8106	4.98	30	
Vinyl chloride	0.818	0.0230	1.152	0	71.0	49.5	138	0.7840	4.29	30	
Bromomethane	1.26	0.0576	1.152	0	109	48.5	158	1.287	2.47	30	
Trichlorofluoromethane (CFC-11)	0.815	0.0230	1.152	0	70.7	40.6	159	0.7262	11.6	30	
Chloroethane	1.27	0.0576	1.152	0	110	30.4	166	1.223	3.96	30	
1,1-Dichloroethene	0.886	0.0230	1.152	0	76.9	55	138	0.8218	7.50	30	
Methylene chloride	0.978	0.0230	1.152	0	84.9	70.3	123	0.9334	4.71	30	

Date: *12/10/2020*

Work Order: 2008387
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2008361-002BMSD** SampType: **MSD** Units: **mg/Kg-dry** Prep Date: **9/1/2020** RunNo: **61575**
Client ID: **BATCH** Batch ID: **29534** Analysis Date: **9/1/2020** SeqNo: **1235237**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
trans-1,2-Dichloroethene	0.906	0.0230	1.152	0	78.6	73.1	121	0.8691	4.16	30	
1,1-Dichloroethane	0.967	0.0230	1.152	0	83.9	70.8	122	0.9158	5.45	30	
cis-1,2-Dichloroethene	0.947	0.0230	1.152	0	82.2	71.8	122	0.9079	4.19	30	
(MEK) 2-Butanone	3.59	0.288	2.881	0	125	52.2	149	3.650	0	30	
Chloroform	0.977	0.0230	1.152	0	84.8	72.9	122	0.9479	3.01	30	
1,1,1-Trichloroethane (TCA)	0.905	0.0230	1.152	0	78.5	69.6	125	0.8520	6.02	30	
1,1-Dichloropropene	0.919	0.0230	1.152	0	79.8	69.3	126	0.8403	8.97	30	
Carbon tetrachloride	0.857	0.0230	1.152	0	74.3	65	127	0.8119	5.36	30	
1,2-Dichloroethane (EDC)	1.11	0.0230	1.152	0	95.9	70.1	121	1.076	2.72	30	
Trichloroethene (TCE)	0.980	0.0230	1.152	0	85.1	70.1	129	0.9323	5.00	30	
1,2-Dichloropropane	1.00	0.0230	1.152	0	87.1	74.6	120	0.9647	3.92	30	
Bromodichloromethane	0.993	0.0230	1.152	0	86.2	70.9	122	0.9622	3.15	30	
Dibromomethane	1.12	0.0230	1.152	0	97.1	75.6	120	1.080	3.53	30	
cis-1,3-Dichloropropene	1.00	0.0230	1.152	0	87.1	68.3	120	0.9613	4.27	30	
trans-1,3-Dichloropropylene	1.06	0.0230	1.152	0	92.2	62.2	127	1.013	4.75	30	
1,1,2-Trichloroethane	1.15	0.0230	1.152	0	99.8	72.9	120	1.117	2.86	30	
1,3-Dichloropropane	1.13	0.0288	1.152	0	97.6	71.9	119	1.105	1.84	30	
Tetrachloroethene (PCE)	0.949	0.0230	1.152	0	82.4	71.1	122	0.8890	6.58	30	
Dibromochloromethane	1.05	0.0230	1.152	0	91.3	65.9	126	1.022	2.89	30	
1,2-Dibromoethane (EDB)	1.15	0.00576	1.152	0	99.8	72	119	1.113	3.23	30	
Chlorobenzene	0.975	0.0230	1.152	0	84.6	81.4	116	0.9384	3.85	30	
1,1,1,2-Tetrachloroethane	1.01	0.0230	1.152	0	87.6	72.9	125	0.9637	4.59	30	
Bromoform	1.10	0.0576	1.152	0	95.0	63.4	133	1.078	1.57	30	
1,1,2,2-Tetrachloroethane	1.23	0.0230	1.152	0	107	61	128	1.189	3.32	30	
Bromobenzene	1.01	0.0230	1.152	0	87.8	77	120	0.9698	4.26	30	
2-Chlorotoluene	0.936	0.0288	1.152	0	81.3	71.4	126	0.8964	4.36	30	
4-Chlorotoluene	0.974	0.0230	1.152	0	84.5	73.6	124	0.9301	4.62	30	
1,2,3-Trichloropropane	1.22	0.0288	1.152	0	106	65.7	132	1.207	1.47	30	
1,2,4-Trichlorobenzene	1.16	0.0230	1.152	0	101	70.5	130	1.101	5.43	30	
1,3-Dichlorobenzene	0.985	0.0230	1.152	0	85.5	83.8	121	0.9473	3.90	30	

Date: *12/10/2020*

Work Order: 2008387
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **2008361-002BMSD** SampType: **MSD** Units: **mg/Kg-dry** Prep Date: **9/1/2020** RunNo: **61575**
Client ID: **BATCH** Batch ID: **29534** Analysis Date: **9/1/2020** SeqNo: **1235237**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,4-Dichlorobenzene	1.00	0.0230	1.152	0	86.7	85.7	117	0.9611	3.92	30	
1,2-Dichlorobenzene	1.06	0.0230	1.152	0	91.6	81.8	120	1.002	5.17	30	
1,2-Dibromo-3-chloropropane	1.30	0.576	1.152	0	113	56.9	139	1.255	3.47	30	
Hexachloro-1,3-butadiene	0.904	0.0288	1.152	0	78.4	61.1	140	0.8523	5.86	30	
1,2,3-Trichlorobenzene	1.28	0.0230	1.152	0	111	67.8	132	1.245	3.16	30	
Surr: Dibromofluoromethane	1.50		1.440		104	83.3	111		0		
Surr: Toluene-d8	1.48		1.440		103	87.9	111		0		
Surr: 1-Bromo-4-fluorobenzene	1.47		1.440		102	85.1	111		0		

Sample Log-In Check List

Client Name:	**ONEILL**	Work Order Number:	**2008387**
Logged by:	**Gabrielle Coeuille**	Date Received:	**8/27/2020 3:17:00 PM**

Chain of Custody

1.	Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
2.	How was the sample delivered?	Client		

Log In

3.	Coolers are present?	Yes ☑	No ☐	NA ☐
4.	Shipping container/cooler in good condition?	Yes ☑	No ☐	
5.	Custody Seals present on shipping container/cooler? (Refer to comments for Custody Seals not intact)	Yes ☐	No ☐	Not Present ☑
6.	Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
7.	Were all items received at a temperature of >2°C to 6°C *	Yes ☑	No ☐	NA ☐
8.	Sample(s) in proper container(s)?	Yes ☑	No ☐	
9.	Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
10.	Are samples properly preserved?	Yes ☑	No ☐	
11.	Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
12.	Is there headspace in the VOA vials?	Yes ☐	No ☐	NA ☑
13.	Did all samples containers arrive in good condition(unbroken)?	Yes ☑	No ☐	
14.	Does paperwork match bottle labels?	Yes ☑	No ☐	
15.	Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
16.	Is it clear what analyses were requested?	Yes ☑	No ☐	
17.	Were all holding times able to be met?	Yes ☑	No ☐	

Special Handling (if applicable)

18.	Was client notified of all discrepancies with this order?	Yes ☑	No ☐	NA ☐

Person Notified:	Vance tt ins	Date:	
By Whom:	a rielle Coeuille	Via:	☑ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:	No indicated on the C C		
Client Instructions:	tandard o		

19. Additional remarks:

Item Information

Item #	Temp ºC
Sample 1	5.2

* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C

Fremont Analytical
3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790
Fax: 206-352-7178

Chain of Custody Record & Laboratory Services Agreement

Date: 8/27/20 Page: 1 of: 1

Laboratory Project No (internal): 2008387

Project Name: F200

Special Remarks:

Client: OJ9

Project No: 2021

Address:

Collected by: ATK-J

City, State, Zip:

Location: FL358

Telephone:

Report To (PM): ATK-J

Sample Disposal: ☐ Return to client ☐ Disposal by lab (after 30 days)

Fax:

PM Email:

	Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	VOCs (EPA 8260 / 624)	GX/BTEX	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DX)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T) | Dissolved (D)	Anions (IC)***	EDB (8011)					Comments
1	358-PGX-104-10	8/27/20	1100	S	X																	
2																						
3																						
4																						
5																						
6																						
7																						
8																						
9																						
10																						

*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

**Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL *Individual:* Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti Tl U V Zn

***Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above and that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished	Date/Time	Received	Date/Time
x [signature]	8/27/20 1500	x [signature]	8/27/20 @ 1517
Relinquished	Date/Time	Received	Date/Time
x		x	

Turn-around Time:

- ☐ Standard
- ☐ 3 Day
- ☐ 2 Day
- ☐ Next Day
- Same Day ____ (specify)

Fremont Analytical
3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790
Fax: 206-352-7178

Chain of Custody Record & Laboratory Services Agreement

Date: 8/27/20 Page: 1 of: 1

Laboratory Project No (internal): 2008387

Project Name: F200

Special Remarks:

Sample ID revision per V.A. 10/27/2020 -BB

Client: OJ9

Project No: 2021

Address:

Collected by: ATK-J

City, State, Zip:

Location: FL358

Telephone:

Report To (PM): ATK-J

Sample Disposal: ☐ Return to client ☐ Disposal by lab (after 30 days)

Fax:

PM Email:

	Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	VOCs (EPA 8260 / 624)	GX/BTEX	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DX)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T) | Dissolved (D)	Anions (IC)***	EDB (8011)					Comments
1	358-PGX-~~104~~ 105-10	8/25/20	1100	S	X																	
2																						
3																						
4																						
5																						
6																						
7																						
8																						
9																						
10																						

*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

**Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL *Individual:* Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti Tl U V Zn

***Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite

Turn-around Time:

☐ Standard
☐ 3 Day
☐ 2 Day
☐ Next Day
Same Day ____ (specify)

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above and that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished	Date/Time	Received	Date/Time
x [signature]	8/27/20 1500	x [signature]	8/27/20 @ 1517
Relinquished	Date/Time	Received	Date/Time
x		x	

Fremont Analytical
3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790
Fax: 206-352-7178

Chain of Custody Record & Laboratory Services Agreement

Date: 8/27/20 Page: 1 of: 1

Laboratory Project No (internal): 2008387

Project Name: F200

Special Remarks:
Sample ID revision per V.A. 10/27/2020 -BB
Sample ID revision per V.A. 12/9/20-BB

Client: OJ9

Project No: 2021

Address:

Collected by: ATK-J

City, State, Zip:

Location: FL358

Telephone:

Report To (PM): ATK-J

Sample Disposal: ☐ Return to client ☐ Disposal by lab (after 30 days)

Fax:

PM Email:

	Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	VOCs (EPA 8260 / 624)	GX/BTEX	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DX)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T) | Dissolved (D)	Anions (IC)***	EDB (8011)					Comments
1	~~358-PCX-104-10~~ 105	8/27/20	1100	S	X																	"358-PH-105-10"
2																						
3																						
4																						
5																						
6																						
7																						
8																						
9																						
10																						

*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

**Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL *Individual:* Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti Tl U V Zn

***Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above and that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished	Date/Time	Received	Date/Time
x [signature]	8/27/20 1500	x [signature]	8/27/20 @ 1517
Relinquished	Date/Time	Received	Date/Time
x		x	

Turn-around Time:
- ☐ Standard
- ☐ 3 Day
- ☐ 2 Day
- ☐ Next Day
- Same Day ____ (specify)

APPENDIX F

Contained-In Determination

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
Northwest Regional Office • 3190 160th Avenue SE • Bellevue, Washington 98008-5452 • (425) 649-7000
711 for Washington Relay Service • Persons with a speech disability can call (877) 833-6341

July 9, 2020

Ross Stainsby
Sr. Environmental Planner
Sound Transit
401 S. Jackson Street
Seattle, WA 98104-2826

Re: Contained-In Determination for F002 Contaminated Soils at the Parcel FL-358 Sound Transit Federal Way Link Extension Project 2200 South 320th Street, Federal Way, Washington

Reference:

1. Contained-In Determination Request, Supplemental Investigation Parcel FL-358 Sound Transit Federal Way Link Extension Project 2200 (O'Neill Service Group) to D. Yasuda (Ecology), dated June 23, 2020

Dear Ross Stainsby:

The Washington State Department of Ecology (Ecology) received a contained-in determination request from your environmental consultant, O'Neill Service Group for specific F002 listed waste perchloroethylene contaminated soils to be excavated during cleanup actions at the Parcel FL-358 Sound Transit Federal Way Link Extension Project, 2200 South 320th Street Federal Way, Washington.

Analytical data were submitted to Ecology to determine if these soils contaminated with F002 listed dangerous waste constituents may be exempt from management as dangerous wastes per the "Contained-In Policy"[1]. Ecology understands that these contaminated soils do not designate under federal characteristics (WAC 173-303-090) or State-only criteria (WAC 173-303-100).

Based on the information received and reviewed, Ecology's determination is two-fold:

(1) Ecology has determined that 70 tons of perchloroethylene (PCE) contaminated soils at and near 358-PH8 and 358-PH7 must be managed as F002 listed dangerous wastes and delivered

[1] Washington State Department of Ecology Contained-in Policy, dated February 19, 1993

to a RCRA treatment, storage and disposal facility (TSDF), per Chapter 173-303 WAC. F002 listed waste soils are located in a 10 foot by 10 footprint around 358-PH8[2] between ground surface and 6.0 feet bgs, and in a 10 foot by 10 footprint around 358-PH7 between 7.0 feet and 10.0 feet bgs. Refer to attached **figure – summary interim actions**.

Furthermore, all drums containing decontamination water with detected F002 listed dangerous waste constituents (PCE, TCE, cis/trans 1,2-DCE, and VC) and spent granular activated carbon (GAC), used to treat the PCE groundwater, are NOT environmental media subject to a contained in determination. Therefore, these drums containing decontamination water and spent GAC shall be managed as F002 listed dangerous wastes and delivered to a RCRA TSDF, per Chapter 173-303 WAC.

Submit copies of the fully signed dangerous waste manifests for these F002 dangerous waste soils, decontamination water, and spent GAC to Ecology, attention Christa Colouzis, **by October 15, 2020**.

(2) Ecology determined that **4,300 tons** of perchloroethylene (PCE) contaminated soils to be excavated (**attached figure-summary of interim action**) during cleanup activities are contaminated with F002 listed dangerous waste constituents (PCE) at concentrations that do not warrant management as dangerous wastes. These PCE contaminated soils **DO NOT** include the soils to excavated around soil boring 358-B4 or around the former grease trap. There were no detections of chlorinated solvent compounds in shallow soil samples from boring 358-B4 and there is no detected CVOC soil data to support a contained in determination for the grease trap soils.

Ecology will not require disposal of these **4,300 tons** of PCE contaminated soils as F002 listed dangerous wastes at a RCRA permitted dangerous waste treatment, storage and disposal (TSD) facility, provided that all of the following conditions are implemented. This contained-in determination applies only to the contaminated soils, and does not pertain to contaminated water or any mixture of contaminated soils and drilling fluids.

You AND your environmental consultant, O'Neill Service Group shall:

- Ensure that no standing water is present within the containers or trucks holding the contaminated soils. All water must be removed to the maximum extent possible from each container or truck and managed as F002 dangerous wastes or as otherwise allowed under Chapter 173-303 WAC. Adding bentonite or similar materials to absorb standing F002 listed waste contaminated water in the containers is not allowed. Mixtures of bentonite or similar materials and the listed waste contaminated water must be managed as F002 listed dangerous wastes;

[2] Assuming dry cleaner solvent was spilled to the ground at near 358-PH8, without shallow soil samples (1-4 feet bgs), Ecology will assume TCE and PCE soil concentrations greater than concentrations found at 358-PH8. TCE soil concentrations at 358-PH8 already exceed contained in threshold levels (MTCA Method B).

- This contained in determination letter does not pertain to any treated or untreated PCE groundwater[3]. The contained in determination threshold values for PCE, TCE, cis/trans-DCE, and VC[4] are too low and difficult to achieve via treatment proposed. You may dispose of any treated PCE groundwater in the on-site sewer line after obtaining a King County discharge authorization-following the RCRA domestic sewage exclusion rule. Or you may manage the PCE contaminated groundwater as an F002 listed dangerous waste and deliver to a RCRA Subtitle C Permitted TSDF.

- Directly deliver the soils to a solid waste landfill permitted under Chapter 173-351 WAC inside Washington State. If you plan to deliver the contaminated soils to a landfill outside Washington State, you must FIRST submit to Ecology written approval for the contaminated soil disposal from the State hazardous waste program and the out of state landfill, **before** the soils are delivered to the out of state landfill. No off-loading of the contaminated soils is allowed between the cleanup site and the permitted solid waste landfill;

- If you load the contaminated soils directly onto the truck bed or the contaminated soils are transported in roll-off bins, the truck or the roll-off bins must be lined with plastic and properly covered to prevent leaks, spills or dispersion due to wind.

- Dispose of the contaminated soils at the permitted solid waste landfill by September 30, 2020. This contained-in determination letter is no longer valid after September 30, 2020 and the contaminated soils shall be managed as dangerous wastes after this date;

- Provide copies of all signed solid waste landfill receipts or a certificate of disposal issued by the receiving landfill for these contaminated soils to Ecology, attention of Christa Colouzis, by October 15, 2020. This is an important verification step for you and your consultant to follow in order for this Ecology decision to be valid;

- Do not consolidate these contaminated soils with other soils that do not pertain to this contained-in determination;

- Notify Ecology before disposal of the contaminated soil if the amount exceeds the approved amount in this letter. Ecology needs to make sure that the additional soil qualifies for this contained-in determination;

- Ensure that the transporter is properly trained to handle hazardous waste so that the transporter manages the contained-in determination soils during transport in a manner that is protective of human health and the environment;

- Take measures to prevent unauthorized contact with these contaminated soils at all times;

---

[3] Ecology does not use a proposed treatment level for contained in determination approvals. Ecology requires the environmental chemical data PRIOR to granting any contained in determination approval.

[4] Vinyl chloride groundwater contained in determination threshold concentration is 0.02 ppb VC.

- Provide instructions to the landfill operator that these soils are **not** to be used for daily, intermediate, or final cover;
- Provide copies of all soil analytical data to the landfill operator, upon request; and
- Do not send these contaminated soils to any incinerator, thermal desorption unit or recycling facility unless that facility is a RCRA Subtitle C permitted dangerous waste TSD facility.

Ecology issued this contained in determination based on the information provided and reviewed to date. This Ecology determination will be rescinded if Ecology finds that the information submitted by the property owner or its environmental consultant is materially false, misleading, otherwise does not accurately represent the site conditions, or if the Ecology requirements listed above are not followed.

This written contained in determination approval only applies to the **4,300 tons** of specified PCE contaminated soils to be generated during excavation activities in the Ecology approved areas (figure – summary of interim action). It does not apply to any other media. Any data used for this contained-in determination is intended for use in determining the proper disposal of the **4,300 tons** of PCE contaminated soil according to the Washington State Dangerous Waste Regulations (Chapter 173-30 WAC) and Ecology Contained-in Policy. This letter is not an Ecology approval for dangerous waste designation or disposal of contaminated soils that may be generated or already excavated from other areas in this property.

This letter is not a No Further Action (NFA) letter and not written approval for any cleanup action plan you may have submitted. Instead, this letter only addresses the procedures for disposal of the contaminated soils according to the Washington State Dangerous Waste Regulations (Chapter 173-303 WAC). Regulatory decisions regarding the cleanup action, applicable soil and groundwater cleanup levels and any other cleanup issues must comply with the requirements under Ecology Model Toxics Control Act (Chapter 173-340 WAC). Local agencies may have the authority to impose additional requirements on this waste stream.

If you fail to comply with the terms of this letter, Ecology may issue an administrative order and/or penalty as provided by the Revised Code of Washington, Sections 70.105.080 and/or .095 (Hazardous Waste Management Act).

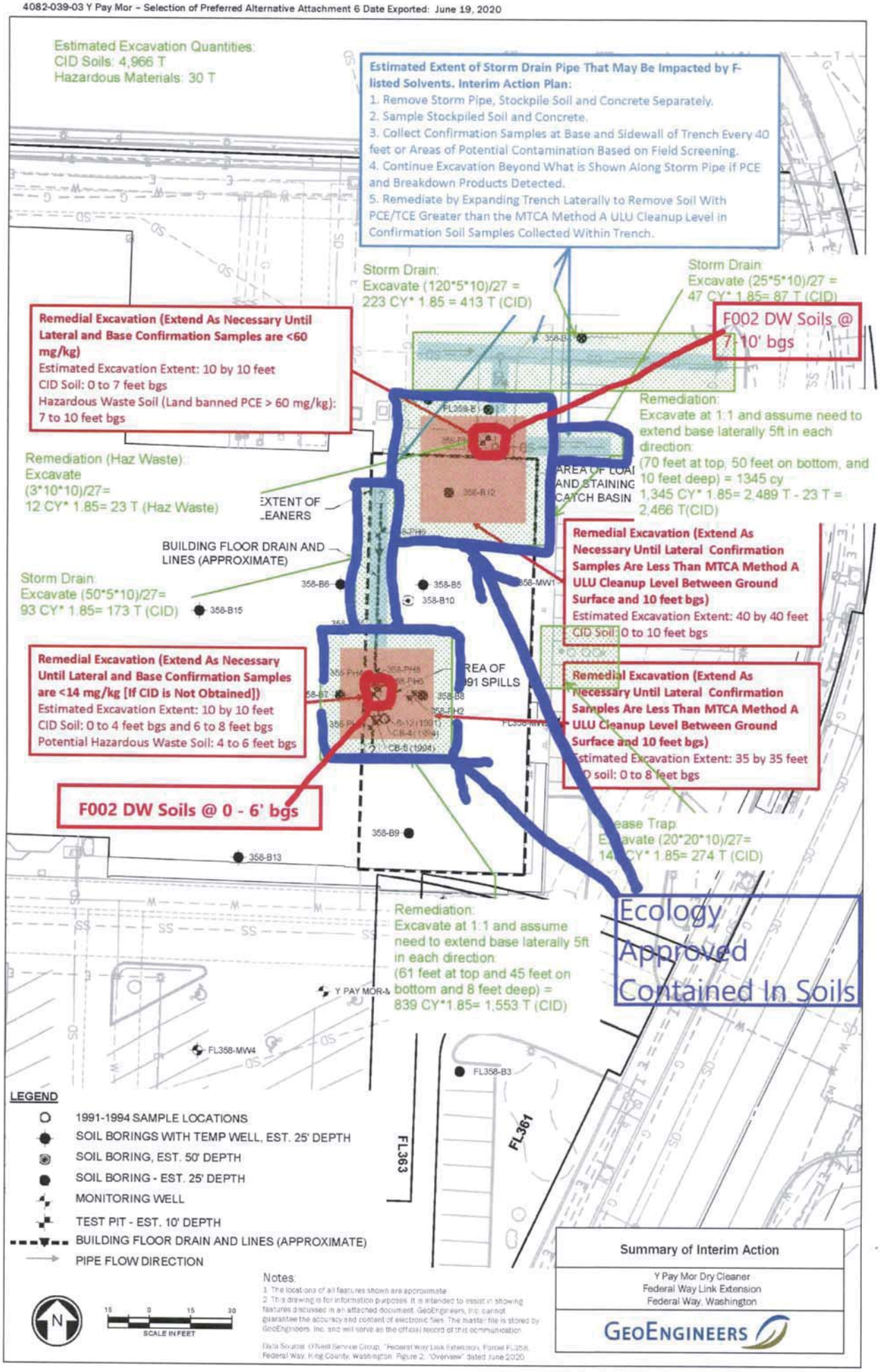
If you have any questions concerning this letter, please contact me at (425) 649-7264 or dyas461@ecy.wa.gov.

Sincerely,

Dean Yasuda, PE
Hazardous Waste and Toxics Reduction Program

Sent by Certified Mail: 9171 9690 0935 0214 2531 90

ecc: Eyasu Ayalew, Seattle-King County Public Health, eayalew@kingcounty.gov
Darshan Dhillon, Seattle-King County Public Health, darshan.dhillon@kingcounty.gov
Vance Atkins, O'Neill Service Group
Mindy Collins, Ecology
Greg Caron, Ecology
Christa Colouzis, Ecology
Chuck Hoffman, Ecology
Donna Musa, Ecology
Jing Song, Ecology
Mike Warfel, Ecology
Karen Wood, Ecology


Estimated Excavation Quantities:
CID Soils: 4,966 T
Hazardous Materials: 30 T
Estimated Extent of Storm Drain Pipe That May Be Impacted by F-listed Solvents. Interim Action Plan:
1. Remove Storm Pipe, Stockpile Soil and Concrete Separately.
2. Sample Stockpiled Soil and Concrete.
3. Collect Confirmation Samples at Base and Sidewall of Trench Every 40 feet or Areas of Potential Contamination Based on Field Screening.
4. Continue Excavation Beyond What is Shown Along Storm Pipe if PCE and Breakdown Products Detected.
5. Remediate by Expanding Trench Laterally to Remove Soil With PCE/TCE Greater than the MTCA Method A ULU Cleanup Level in Confirmation Soil Samples Collected Within Trench.
Storm Drain:
Excavate (120*5*10)/27 =
223 CY* 1.85 = 413 T (CID)
Storm Drain:
Excavate (25*5*10)/27 =
47 CY* 1.85= 87 T (CID)
Remedial Excavation (Extend As Necessary Until Lateral and Base Confirmation Samples are <60 mg/kg)
Estimated Excavation Extent: 10 by 10 feet
CID Soil: 0 to 7 feet bgs
Hazardous Waste Soil (Land banned PCE > 60 mg/kg): 7 to 10 feet bgs
F002 DW Soils @ 7-10' bgs
Remediation:
Excavate at 1:1 and assume need to extend base laterally 5ft in each direction
(70 feet at top, 50 feet on bottom, and 10 feet deep) = 1345 cy
1,345 CY* 1.85= 2,489 T - 23 T = 2,466 T(CID)
Remediation (Haz Waste):
Excavate
(3*10*10)/27=
12 CY* 1.85= 23 T (Haz Waste)
EXTENT OF
LEANERS
AREA OF LOAI
AND STAINING
CATCH BASIN
BUILDING FLOOR DRAIN AND LINES (APPROXIMATE)
Storm Drain:
Excavate (50*5*10)/27=
93 CY* 1.85= 173 T (CID)
Remedial Excavation (Extend As Necessary Until Lateral Confirmation Samples Are Less Than MTCA Method A ULU Cleanup Level Between Ground Surface and 10 feet bgs)
Estimated Excavation Extent: 40 by 40 feet
CID Soil: 0 to 10 feet bgs
Remedial Excavation (Extend As Necessary Until Lateral and Base Confirmation Samples are <14 mg/kg [If CID is Not Obtained])
Estimated Excavation Extent: 10 by 10 feet
CID Soil: 0 to 4 feet bgs and 6 to 8 feet bgs
Potential Hazardous Waste Soil: 4 to 6 feet bgs
REA OF
991 SPILLS
Remedial Excavation (Extend As Necessary Until Lateral Confirmation Samples Are Less Than MTCA Method A ULU Cleanup Level Between Ground Surface and 10 feet bgs)
Estimated Excavation Extent: 35 by 35 feet
CID soil: 0 to 8 feet bgs
F002 DW Soils @ 0 - 6' bgs
ease Trap
Excavate (20*20*10)/27=
14 CY* 1.85= 274 T (CID)
Ecology Approved Contained In Soils
Remediation:
Excavate at 1:1 and assume need to extend base laterally 5ft in each direction
(61 feet at top and 45 feet on bottom and 8 feet deep) =
839 CY*1.85= 1,553 T (CID)
358-B6
358-B5
358-B10
358-B15
358-B9
358-B13
358-MW1
358-B8
358-PH2
CB-8 (1994)
Y PAY MOR-M
FL358-MW4
FL358-B3
FL363
FL361
LEGEND
1991-1994 SAMPLE LOCATIONS
SOIL BORINGS WITH TEMP WELL, EST. 25' DEPTH
SOIL BORING, EST. 50' DEPTH
SOIL BORING - EST. 25' DEPTH
MONITORING WELL
TEST PIT - EST. 10' DEPTH
BUILDING FLOOR DRAIN AND LINES (APPROXIMATE)
PIPE FLOW DIRECTION
N
15 0 15 30
SCALE IN FEET
Notes:
1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.
Data Source: Otwell Service Group, "Federal Way Link Extension, Parcel FL358, Federal Way, King County, Washington, Figure 2, "Overview" dated June 2020
Summary of Interim Action
Y Pay Mor Dry Cleaner
Federal Way Link Extension
Federal Way, Washington
GEOENGINEERS

APPENDIX G

Hazardous Waste Soil and Water Disposal Information

CWMI

Please print or type. 477451 7/28 Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
WAD980983084	2	(800)424-9300	013223996 FLE

5. Generator's Name and Mailing Address
SOUND TRANSIT
2210 SOUTH 320TH STREET
FEDERAL WAY WA 98003
Generator's Phone: (206)398-5227

Generator's Site Address (if different than mailing address)

6. Transporter 1 Company Name: R TRANSPORT — U.S. EPA ID Number: WAH000028338

7. Transporter 2 Company Name: UNION PACIFIC RAILROAD — U.S. EPA ID Number: NED001792910

8. Designated Facility Name and Site Address
CHEMICAL WASTE MANAGEMENT, INC.
17629 CEDAR SPRINGS LANE
ARLINGTON OR 97812-9709
Facility's Phone: (541)454-2643
U.S. EPA ID Number: ORD089452353

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. UN3077, WASTE ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S., (F002), 9, PGIII	1	CM	20,000	P	F002
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1. PROFILE ~~OR243553~~ OR245220: F002 WASTE, PCE CONTAMINATED SOILS; ERG # = 171; CHEMTREC CCN: 24117
CONTAINER # WMXU 8725 18240p.

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Ross Stainsby — Signature: [signature] — Month 7 Day 27 Year 2020

INT'L
16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER
17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Jason Edmonds — Signature: [signature] — Month 7 Day 27 Year 20
Transporter 2 Printed/Typed Name: Jason Stearns — Signature: [signature] — Month 7 Day 27 Year 20

DESIGNATED FACILITY
18. Discrepancy — 9m 8-6-2020
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) — Month Day Year
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H132 2. 3. 4.
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Morgan Wolf — Signature: [signature] — Month 08 Day 03 Year 20

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete.

DESIGNATED FACILITY TO EPA's e-MANIFEST SYSTEM

9m

Please print or type. 477451

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)

21. Generator ID Number: WAD980983084

22. Page: 2-2

23. Manifest Tracking Number: 013223996 FLE

24. Generator's Name: Sound transit

25. Transporter 3 Company Name: CRL — U.S. EPA ID Number: ORD987173457

26. Transporter _____ Company Name — U.S. EPA ID Number:

27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers No.	28. Containers Type	29. Total Quantity	30. Unit Wt./Vol.	31. Waste Codes		

32. Special Handling Instructions and Additional Information

PC WMVU 8725

33. Transporter 3 Acknowledgment of Receipt of Materials

Printed/Typed Name: JM 8-6-2020 — Signature: — Month 7 Day 30 Year 2020

34. Transporter 3 Acknowledgment of Receipt of Materials

Printed/Typed Name: Jennifer Williams — Signature: — Month Day Year

35. Discrepancy

36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

GENERATOR

TRANSPORTER

DESIGNATED FACILITY

EPA Form 8700-22A (Rev. 12-17) Previous editions are obsolete.

DESIGNATED FACILITY TO EPA's e-MANIFEST SYSTEM

CWMI

7/20

Please print or type. 477290

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
	WAD980983084	2	(800)424-9300	013223955 FLE

5. Generator's Name and Mailing Address
SOUND TRANSIT
2210 SOUTH 320TH STREET
FEDERAL WAY WA 98003
Generator's Phone: (206)398-5227

Generator's Site Address (if different than mailing address)

6. Transporter 1 Company Name: R TRANSPORT — U.S. EPA ID Number: WAH000028338

7. Transporter 2 Company Name: UNION PACIFIC RAILROAD — U.S. EPA ID Number: NED001792910

8. Designated Facility Name and Site Address
CHEMICAL WASTE MANAGEMENT, INC.
17629 CEDAR SPRINGS LANE
ARLINGTON OR 97812-9709
Facility's Phone: (541)454-2643
U.S. EPA ID Number: ORD089452353

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. UN3077, WASTE ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S., (F002), 9, PGIII	1	CM	20,000	P	F002		
	2. In @ site = 7:56am out of site = 9:39am > (1hr demurrage)							
	3.							
	4.							

14. Special Handling Instructions and Additional Information
1. PROFILE OR345220 F002 WASTE, PCE CONTAMINATED SOILS, ERG # = 171; CHETREC CCN: 24117
CONTAINER # WMXU 8631 199000p.

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Ross Stainsby — Signature: [signature] — Month 7 Day 17 Year 2020

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Jason Edmondson — Signature: [signature] — Month 7 Day 17 Year 20
Transporter 2 Printed/Typed Name: H. Malo — Signature: H. Malo — Month 7 Day 17 Year 20

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H132 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Morgan Wolf — Signature: [signature] — Month 07 Day 23 Year 20

GENERATOR — INT'L — TRANSPORTER — DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete.

DESIGNATED FACILITY TO EPA's e-MANIFEST SYSTEM

RMS

CWMI

Please print or type. 477290

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)	21. Generator ID Number WAD980983084	22. Page 2 of 2	23. Manifest Tracking Number 013223955 FLE

24. Generator's Name SOUND TRANSIT

25. Transporter 3 Company Name COLUMBIA RIDGE LANDFILL — U.S. EPA ID Number ORD987173457

26. Transporter _____ Company Name — U.S. EPA ID Number

27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers No.	28. Containers Type	29. Total Quantity	30. Unit Wt./Vol.	31. Waste Codes		

32. Special Handling Instructions and Additional Information

3 CWMXU 8631

GENERATOR

33. Transporter 3 Acknowledgment of Receipt of Materials

Printed/Typed Name | Signature | Month | Day | Year

34. Transporter _____ Acknowledgment of Receipt of Materials

Printed/Typed Name Jennifer Williams | Signature | Month 7 | Day 21 | Year 20

TRANSPORTER

35. Discrepancy

DESIGNATED FACILITY

36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

EPA Form 8700-22A (Rev. 12-17) Previous editions are obsolete.

DESIGNATED FACILITY TO EPA's e-MANIFEST SYSTEM

7120

CWMI

Please print or type. 477289

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: WAD980983084
2. Page 1 of 2
3. Emergency Response Phone: (800)424-9300
4. Manifest Tracking Number: 013223952 FLE

5. Generator's Name and Mailing Address
SOUND TRANSIT
2210 SOUTH 320TH STREET
FEDERAL WAY WA 98003
Generator's Phone: (206)398-5227

Generator's Site Address (if different than mailing address)

6. Transporter 1 Company Name: R TRANSPORT
U.S. EPA ID Number: WAH000028338

7. Transporter 2 Company Name: UNION PACIFIC RAILROAD
U.S. EPA ID Number: NED001792910

8. Designated Facility Name and Site Address
CHEMICAL WASTE MANAGEMENT, INC.
17629 CEDAR SPRINGS LANE
ARLINGTON OR 97812-9709
Facility's Phone: (541)454-2643
U.S. EPA ID Number: ORD089452353

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. UN3077, WASTE ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S., (F002), 9, PGIII	1	CM	20,000	P	F002		
	2. In @ site = 7:56am out of site = 9:39am (1hr demurrage)							
	3.							
	4.							

14. Special Handling Instructions and Additional Information
1. PROFILE OR345220: F002 WASTE, PCE CONTAMINATED SOILS; ERG # = 171; CHETREC CCN: 24117
CONTAINER # WMXU 8794
21320p.

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

GENERATOR

Generator's/Offeror's Printed/Typed Name: Ross Stanosy
Signature: Ross Stanosy
Month 7 Day 17 Year 2020

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Jason Edmonds
Signature:
Month 7 Day 17 Year 20
Transporter 2 Printed/Typed Name: H. Malo
Signature: H. Malo
Month 7 Day 17 Year 20

DESIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator) U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H132 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: morgan wolf
Signature: Mwolf
Month 07 Day 23 Year 20

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete.

DESIGNATED FACILITY TO EPA's e-MANIFEST SYSTEM

BMS

CWMI

Please print or type. 477289

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)	21. Generator ID Number WAD980983084	22. Page 2 of 2	23. Manifest Tracking Number 018223952 FCE

24. Generator's Name SOUND TRANSIT

25. Transporter 3 Company Name COLUMBIA RIDGE LANDFILL — U.S. EPA ID Number ORD987173457

26. Transporter _____ Company Name — U.S. EPA ID Number

27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers No.	28. Containers Type	29. Total Quantity	30. Unit Wt./Vol.	31. Waste Codes		

32. Special Handling Instructions and Additional Information

3 CWMW 8794

33. Transporter 3 Acknowledgment of Receipt of Materials

Printed/Typed Name — Signature — Month — Day — Year

34. Transporter _____ Acknowledgment of Receipt of Materials

Printed/Typed Name Jennifer Williams — Signature — Month 7 — Day 21 — Year 20

35. Discrepancy

36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

GENERATOR

TRANSPORTER

DESIGNATED FACILITY

EPA Form 8700-22A (Rev. 12-17) Previous editions are obsolete.

DESIGNATED FACILITY TO EPA's e-MANIFEST SYSTEM

CWMI

7/20

Please print or type. 477285

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
WAD980983084	2	(800)424-9300	013223954 FLE

5. Generator's Name and Mailing Address
SOUND TRANSIT
2210 SOUTH 320TH STREET
FEDERAL WAY WA 98003
Generator's Phone: (206)398-5227

Generator's Site Address (if different than mailing address)

6. Transporter 1 Company Name: R TRANSPORT — U.S. EPA ID Number: WAH000028338

7. Transporter 2 Company Name: UNION PACIFIC RAILROAD — U.S. EPA ID Number: NED001792910

8. Designated Facility Name and Site Address
CHEMICAL WASTE MANAGEMENT, INC.
17629 CEDAR SPRINGS LANE
ARLINGTON OR 97812-9709
Facility's Phone: (541)454-2643
U.S. EPA ID Number: ORD089452353

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. UN3077, WASTE ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S., (F002), 9, PGIII	1	CM	20,000	P	F002
	2. In @ site = 11:26am out of site = 11:44am					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1. PROFILE OR345220. F002 WASTE, PCE CONTAMINATED SOILS; ERG # = 171; CHETREC CCN: 24117
CONTAINER # WMXU 8770
212600p.

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Ross Stainsby — Signature: [signature] — Month 7 Day 17 Year 20

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Jason Edmonds — Signature: [signature] — Month 7 Day 17 Year 20

Transporter 2 Printed/Typed Name: H. Male — Signature: H. Male — Month 7 Day 17 Year 20

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H132			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Morgan Wolf — Signature: [signature] — Month 07 Day 23 Year 20

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete.

DESIGNATED FACILITY TO EPA's e-MANIFEST SYSTEM

BMS

CWMI

Please print or type. 477285

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)	21. Generator ID Number WAD980983084	22. Page 2 of 2	23. Manifest Tracking Number 013223954FLE

24. Generator's Name SOUND TRANSIT

25. Transporter 3 Company Name COLUMBIA RIDGE LANDFILL — U.S. EPA ID Number ORD987173457

26. Transporter _____ Company Name — U.S. EPA ID Number

27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers No.	28. Containers Type	29. Total Quantity	30. Unit Wt./Vol.	31. Waste Codes		

32. Special Handling Instructions and Additional Information

3 CWMXU 8770

33. Transporter 3 Acknowledgment of Receipt of Materials

Printed/Typed Name | Signature | Month | Day | Year

34. Transporter _____ Acknowledgment of Receipt of Materials

Printed/Typed Name | Signature | Month 7 | Day 21 | Year 20

35. Discrepancy

36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

GENERATOR

TRANSPORTER

DESIGNATED FACILITY

EPA Form 8700-22A (Rev. 12-17) Previous editions are obsolete.

DESIGNATED FACILITY TO EPA's e-MANIFEST SYSTEM

CWMI

7/20

477286

Please print or type.

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: WAD980983084
2. Page 1 of 2
3. Emergency Response Phone: (800)424-9300
4. Manifest Tracking Number: 013223953 FLE

GENERATOR

5. Generator's Name and Mailing Address: SOUND TRANSIT, 2210 SOUTH 320TH STREET, FEDERAL WAY WA 98003
Generator's Phone: (206)398-5227
Generator's Site Address (if different than mailing address)

6. Transporter 1 Company Name: R TRANSPORT
U.S. EPA ID Number: WAH000028338

7. Transporter 2 Company Name: UNION PACIFIC RAILROAD
U.S. EPA ID Number: NED001792910

8. Designated Facility Name and Site Address: CHEMICAL WASTE MANAGEMENT, INC. 17629 CEDAR SPRINGS LANE ARLINGTON OR 97812-9709
Facility's Phone: (541)454-2843
U.S. EPA ID Number: ORD089452353

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. UN3077, WASTE ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S., (F002), 9, PGIII	1	CM	20,000	P	F002		
	2. In site = 11:26 am out of site = 11:44 am							
	3.							
	4.							

14. Special Handling Instructions and Additional Information
1. PROFILE OR345220: F002 WASTE, PCE CONTAMINATED SOILS; ERG # = 171; CHETREC CCN: 24117
CONTAINER # WMXU 8634
21700p.

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Ross Stainsby
Signature: [signature]
Month 7 Day 17 Year 2020

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Jason Edmonds
Signature: [signature]
Month 7 Day 17 Year 20

Transporter 2 Printed/Typed Name: H. Malo
Signature: H. Malo
Month 7 Day 17 Year 20

DESIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H132 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Morgan Wolf
Signature: [signature]
Month 07 Day 23 Year 20

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete.

DESIGNATED FACILITY TO EPA's e-MANIFEST SYSTEM

BMS1

CWMI

Please print or type. 4T1280 Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)	21. Generator ID Number WAD980983084	22. Page 2 of 2	23. Manifest Tracking Number 013223953 FLE

24. Generator's Name SOUND TRANSIT

25. Transporter 3 Company Name COLUMBIA RIDGE LANDFILL — U.S. EPA ID Number ORD987173457

26. Transporter _____ Company Name — U.S. EPA ID Number

27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers No.	28. Containers Type	29. Total Quantity	30. Unit Wt./Vol.	31. Waste Codes		

32. Special Handling Instructions and Additional Information

WMXU 8634

GENERATOR

33. Transporter 3 Acknowledgment of Receipt of Materials

Printed/Typed Name | Signature | Month | Day | Year

34. Transporter _____ Acknowledgment of Receipt of Materials

Printed/Typed Name | Signature | Month | Day | Year 7 | 21 | 20

TRANSPORTER

35. Discrepancy

DESIGNATED FACILITY

36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

EPA Form 8700-22A (Rev. 12-17) Previous editions are obsolete.

DESIGNATED FACILITY TO EPA's e-MANIFEST SYSTEM

WASTE MANAGEMENT

CWM OF THE NORTHWEST
Federal EPA ID: ORD089452353
17629 CEDAR SPRINGS LANE
ARLINGTON, OR 97812

SOUND TRANSIT
ATTN: MANIFEST SECTION
WAD980983084
2210 SOUTH 320TH STREET
FEDERAL WAY WA 98003

CERTIFICATE OF DISPOSAL

CWM OF THE NORTHWEST, EPA ID: ORD089452353, has received waste material from SOUND TRANSIT on 07/22/20 as described on Shipping Document number 013223954FLE.

Profile Number: OR345220
CWM Tracking ID: 47728501
CWM Unit #: 1*0
Disposal Date: 07/23/20

I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the date listed above.

Becky Sumner

CWMNW RECORDS DEPARTMENT
Certificate # 250398
08/03/20

WASTE MANAGEMENT

CWM OF THE NORTHWEST
Federal EPA ID: ORD089452353
17629 CEDAR SPRINGS LANE
ARLINGTON, OR 97812

SOUND TRANSIT
ATTN: MANIFEST SECTION
WAD980983084
2210 SOUTH 320TH STREET
FEDERAL WAY WA 98003

CERTIFICATE OF DISPOSAL

CWM OF THE NORTHWEST, EPA ID: ORD089452353, has received waste material from SOUND TRANSIT on 07/22/20 as described on Shipping Document number 013223953FLE.

Profile Number: OR345220
CWM Tracking ID: 47728601
CWM Unit #: 1*0
Disposal Date: 07/23/20

I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the date listed above.

Becky Sumner

CWMNW RECORDS DEPARTMENT
Certificate # 250399
08/03/20

WASTE MANAGEMENT

CWM OF THE NORTHWEST
Federal EPA ID: ORD089452353
17629 CEDAR SPRINGS LANE
ARLINGTON, OR 97812

SOUND TRANSIT
ATTN: MANIFEST SECTION
WAD980983084
2210 SOUTH 320TH STREET
FEDERAL WAY WA 98003

CERTIFICATE OF DISPOSAL

CWM OF THE NORTHWEST, EPA ID: ORD089452353, has received waste material from SOUND TRANSIT on 07/22/20 as described on Shipping Document number 013223952FLE.

Profile Number: OR345220
CWM Tracking ID: 47728901
CWM Unit #: 1*0
Disposal Date: 07/23/20

I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the date listed above.

Becky Sumner

CWMNW RECORDS DEPARTMENT
Certificate # 250400
08/03/20

WASTE MANAGEMENT

CWM OF THE NORTHWEST
Federal EPA ID: ORD089452353
17629 CEDAR SPRINGS LANE
ARLINGTON, OR 97812

SOUND TRANSIT
ATTN: MANIFEST SECTION
WAD980983084
2210 SOUTH 320TH STREET
FEDERAL WAY WA 98003

CERTIFICATE OF DISPOSAL

CWM OF THE NORTHWEST, EPA ID: ORD089452353, has received waste material from SOUND TRANSIT on 07/22/20 as described on Shipping Document number 013223955FLE.

Profile Number: OR345220
CWM Tracking ID: 47729001
CWM Unit #: 1*0
Disposal Date: 07/23/20

I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the date listed above.

Becky Sumner

CWMNW RECORDS DEPARTMENT
Certificate # 250401
08/03/20

WASTE MANAGEMENT

CWM OF THE NORTHWEST
Federal EPA ID: ORD089452353
17629 CEDAR SPRINGS LANE
ARLINGTON, OR 97812

SOUND TRANSIT
ATTN: MANIFEST SECTION
WAD980983084
2210 SOUTH 320TH STREET
FEDERAL WAY WA 98003

CERTIFICATE OF DISPOSAL

CWM OF THE NORTHWEST, EPA ID: ORD089452353, has received waste material from SOUND TRANSIT on 08/03/20 as described on Shipping Document number 013223996FLE.

Profile Number: OR345220
CWM Tracking ID: 47745101
CWM Unit #: 1*0
Disposal Date: 08/03/20

I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the date listed above.

Becky Sumner

CWMNW RECORDS DEPARTMENT
Certificate # 250557
08/07/20

CWMI

477352 7/24

Please print or type. Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
WAD980983084	2	(800)424-9300	013223994 FLE

GENERATOR

5. Generator's Name and Mailing Address
SOUND TRANSIT
2210 SOUTH 320TH STREET
FEDERAL WAY WA 98003
Generator's Phone: (206)398-5227

Generator's Site Address (if different than mailing address)

6. Transporter 1 Company Name: R TRANSPORT — U.S. EPA ID Number: WAH000028338

7. Transporter 2 Company Name: UNION PACIFIC RAILROAD — U.S. EPA ID Number: NED001792910

8. Designated Facility Name and Site Address
CHEMICAL WASTE MANAGEMENT, INC.
17629 CEDAR SPRINGS LANE
ARLINGTON OR 97812-9709
Facility's Phone: (541)454-2643
U.S. EPA ID Number: ORD089452353

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. UN3077, WASTE ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S., (F002), 9, PGIII	1	CM	24800 ~~30,000~~ KR 7/30/2020	P	F002		
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information
1. PROFILE OR343853. F002 WASTE, PCE CONTAMINATED SOILS; ERG # = 171; CHEMTREC CCN: 24117
CONTAINER # WMXU 8621

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Ross Stadsby — Signature: [signature] — Month 7 Day 22 Year 2020

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Jason Edmonds — Signature: [signature] — Month 7 Day 22 Year 20

Transporter 2 Printed/Typed Name: H. Malo — Signature: H. Malo — Month 7 Day 22 Year 20

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☒ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Corrected quantity to match amount received per vance Atkins/Project Mgr O'Neill Service Group KR 7/30/2020

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H040			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Tina Weiser — Signature: [signature] — Month 7 Day 28 Year 20

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete.

DESIGNATED FACILITY TO EPA's e-MANIFEST SYSTEM

cmm

Please print or type

477352

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)

21. Generator ID Number: WAD980983084

22. Page: 2-2

23. Manifest Tracking Number: 013223994FLE

24. Generator's Name: Sound transit

25. Transporter 3 Company Name: CRC

U.S. EPA ID Number: ORD987173457

26. Transporter _____ Company Name

U.S. EPA ID Number

27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers No.	28. Containers Type	29. Total Quantity	30. Unit WL/Vol.	31. Waste Codes		

32. Special Handling Instructions and Additional Information

Cumyu 8621

TRANSPORTER

33. Transporter 2 Acknowledgment of Receipt of Materials

Printed/Typed Name: gm 8-3-2020 | Signature | Month | Day | Year

34. Transporter 3 Acknowledgment of Receipt of Materials

Printed/Typed Name: Yonker Williams | Signature | Month 7 | Day 27 | Year 20

DESIGNATED FACILITY

35. Discrepancy

36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

GENERATOR

EPA Form 8700-22A (Rev. 12-17) Previous editions are obsolete.

DESIGNATED FACILITY TO EPA's e-MANIFEST SYSTEM

7123

CWMI

Please print or type. 477355

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: WAD980983084
2. Page 1 of 2
3. Emergency Response Phone: (800)424-9300
4. Manifest Tracking Number: 013223995 FLE

GENERATOR

5. Generator's Name and Mailing Address
SOUND TRANSIT
2210 SOUTH 320TH STREET
FEDERAL WAY WA 98003
Generator's Phone: (206)398-5227

Generator's Site Address (if different than mailing address)

6. Transporter 1 Company Name: R TRANSPORT — U.S. EPA ID Number: WAH000028338

7. Transporter 2 Company Name: UNION PACIFIC RAILROAD — U.S. EPA ID Number: NED001792910

8. Designated Facility Name and Site Address
CHEMICAL WASTE MANAGEMENT, INC.
17629 CEDAR SPRINGS LANE
ARLINGTON OR 97812-9709
Facility's Phone: (541)454-2643
U.S. EPA ID Number: ORD089452353

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. UN3077, WASTE ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S., (F002), 9, PGIII	1	CM	~~20,000~~ 16040 KR 7/28/2020	P	F002		
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information
1. PROFILE OR343853: F002 WASTE, PCE CONTAMINATED SOILS; ERG # = 171; CHEMTREC CCN: 24117
CONTAINER # WMXU 8546 16040 P

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Ross Strainsby — Signature: [signature] — Month 7 Day 22 Year 2020

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Jason Edmonds — Signature: [signature] — Month 7 Day 22 Year 20
Transporter 2 Printed/Typed Name: H. Malo — Signature: H. Malo — Month 7 Day 22 Year 20

DESIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space ☒ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Corrected quantity to match amount received per Vance Atkins/Project mng/O'neill Service Group. KR 7/30/2020
Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H040 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Tina Weiser — Signature: [signature] — Month 7 Day 28 Year 20

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete.

DESIGNATED FACILITY TO EPA's e-MANIFEST SYSTEM

gm

Please print or type. 477355

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)

21. Generator ID Number: WAD980983084

22. Page: 2-2

23. Manifest Tracking Number: 013222399SFCE

24. Generator's Name: Sound transit

25. Transporter 3 Company Name: CRC — U.S. EPA ID Number: ORD 987173457

26. Transporter _____ Company Name — U.S. EPA ID Number

27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers No.	28. Containers Type	29. Total Quantity	30. Unit Wt./Vol.	31. Waste Codes		

32. Special Handling Instructions and Additional Information

3 WMXU 8546

GENERATOR

TRANSPORTER

33. Transporter 3 Acknowledgment of Receipt of Materials

Printed/Typed Name: Jennifer Williams — Signature — Month 7 Day 23 Year 20

34. Transporter _____ Acknowledgment of Receipt of Materials

Printed/Typed Name — Signature — Month — Day — Year

DESIGNATED FACILITY

35. Discrepancy

36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

EPA Form 8700-22A (Rev. 12-17) Previous editions are obsolete.

DESIGNATED FACILITY TO EPA's e-MANIFEST SYSTEM

477357 7/23 CWMI

Please print or type. Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: WAD980983084
2. Page 1 of 2
3. Emergency Response Phone: (800)424-9300
4. Manifest Tracking Number: 013223993 FLE

5. Generator's Name and Mailing Address
SOUND TRANSIT
2210 SOUTH 320TH STREET
FEDERAL WAY WA 98003
Generator's Phone: (206)398-5227
Generator's Site Address (if different than mailing address)

6. Transporter 1 Company Name: R TRANSPORT — U.S. EPA ID Number: WAH000028338

7. Transporter 2 Company Name: UNION PACIFIC RAILROAD — U.S. EPA ID Number: NED001792910

8. Designated Facility Name and Site Address
CHEMICAL WASTE MANAGEMENT, INC.
17629 CEDAR SPRINGS LANE
ARLINGTON OR 97812-9709
Facility's Phone: (541)454-2643
U.S. EPA ID Number: ORD089452353

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. UN3077, WASTE ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S., (F002), 9, PGIII	1	CM	28280 ~~20,000~~ KR 7/29/20	P	F002		
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information
28280p.
1. PROFILE OR343853: F002 WASTE, PCE CONTAMINATED SOILS; ERG # = 171; CHEMTREC CCN: 24117
CONTAINER # WMXU 8789

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Ross Stainsby — Signature: [signature] — Month 7 Day 22 Year 2020

INT'L
16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER
17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Jason Edmonds — Signature: [signature] — Month 7 Day 22 Year 20
Transporter 2 Printed/Typed Name: H. Malo — Signature: H. Malo — Month 7 Day 22 Year 20

DESIGNATED FACILITY
18. Discrepancy
18a. Discrepancy Indication Space ☒ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Corrected quantity to match amount received per Vance Atkins/Project Manager/O'Neill Service Group. KR 7/29/20
Manifest Reference Number:
18b. Alternate Facility (or Generator) U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) Month Day Year
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H040 2. 3. 4.
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Morgan Wolf — Signature: MWolf — Month 07 Day 27 Year 20

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete. DESIGNATED FACILITY TO EPA's e-MANIFEST SYSTEM

Please print or type. 477357

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)

21. Generator ID Number: WAD980983084

22. Page: 2-2

23. Manifest Tracking Number: 013223993 FLE

24. Generator's Name: Sound transit

25. Transporter 3 Company Name: CRC — U.S. EPA ID Number: ORD 987173457

26. Transporter ____ Company Name — U.S. EPA ID Number:

27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers No.	28. Containers Type	29. Total Quantity	30. Unit Wt./Vol.	31. Waste Codes		

32. Special Handling Instructions and Additional Information

8 CMVU 8789

TRANSPORTER

33. Transporter 8 Acknowledgment of Receipt of Materials

Printed/Typed Name: gm 9-1-2020 — Signature: — Month — Day — Year

34. Transporter 3 Acknowledgment of Receipt of Materials

Printed/Typed Name: Jennifer Williams — Signature: — Month 7 — Day 23 — Year 20

DESIGNATED FACILITY

35. Discrepancy

36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

EPA Form 8700-22A (Rev. 12-17) Previous editions are obsolete.

DESIGNATED FACILITY TO EPA's e-MANIFEST SYSTEM

WASTE MANAGEMENT

CWM OF THE NORTHWEST
Federal EPA ID: ORD089452353
17629 CEDAR SPRINGS LANE
ARLINGTON, OR 97812

SOUND TRANSIT
ATTN: MANIFEST SECTION
WAD980983084
2210 SOUTH 320TH STREET
FEDERAL WAY WA 98003

CERTIFICATE OF DISPOSAL

CWM OF THE NORTHWEST, EPA ID: ORD089452353, has received waste material from SOUND TRANSIT on 07/27/20 as described on Shipping Document number 013223995FLE.

Profile Number: OR343853
CWM Tracking ID: 47735501
CWM Unit #: 1*0
Disposal Date: 07/28/20

I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the date listed above.

CWMNW RECORDS DEPARTMENT
Certificate # 251546
10/08/20

WASTE MANAGEMENT

CWM OF THE NORTHWEST
Federal EPA ID: ORD089452353
17629 CEDAR SPRINGS LANE
ARLINGTON, OR 97812

SOUND TRANSIT
ATTN: MANIFEST SECTION
WAD980983084
2210 SOUTH 320TH STREET
FEDERAL WAY WA 98003

CERTIFICATE OF DISPOSAL

CWM OF THE NORTHWEST, EPA ID: ORD089452353, has received waste material from SOUND TRANSIT on 07/27/20 as described on Shipping Document number 013223993FLE.

Profile Number: OR343853
CWM Tracking ID: 47735701
CWM Unit #: 1*0
Disposal Date: 08/31/20

I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the date listed above.

CWMNW RECORDS DEPARTMENT
Certificate # 251547
10/08/20

WASTE MANAGEMENT

CWM OF THE NORTHWEST
Federal EPA ID: ORD089452353
17629 CEDAR SPRINGS LANE
ARLINGTON, OR 97812

SOUND TRANSIT
ATTN: MANIFEST SECTION
WAD980983084
2210 SOUTH 320TH STREET
FEDERAL WAY WA 98003

CERTIFICATE OF DISPOSAL

CWM OF THE NORTHWEST, EPA ID: ORD089452353, has received waste material from SOUND TRANSIT on 07/27/20 as described on Shipping Document number 013223994FLE.

Profile Number: OR343853
CWM Tracking ID: 47735201
CWM Unit #: 1*0
Disposal Date: 07/28/20

I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the date listed above.

CWMNW RECORDS DEPARTMENT
Certificate # 251548
10/08/20

477533 8/5 CWMI

Please print or type. Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: WAD988083084
2. Page 1 of: 2
3. Emergency Response Phone: (800)424-9300
4. Manifest Tracking Number: 013851231 FLE

5. Generator's Name and Mailing Address
SOUND TRANSIT
2210 SOUTH 320TH STREET
FEDERAL WAY WA 98003
Generator's Phone: (206) 398-5227
Generator's Site Address (if different than mailing address)

6. Transporter 1 Company Name: R TRANSPORT
U.S. EPA ID Number: WAH000028338

7. Transporter 2 Company Name: UNION PACIFIC RAILROAD
U.S. EPA ID Number: NED000179210

8. Designated Facility Name and Site Address
CHEMICAL WASTE MANAGEMENT, INC.
17629 CEDAR SPRINGS LANE
ARLINGTON OR 97812-9709
Facility's Phone: (541)454-2843
U.S. EPA ID Number: ORD098452353

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
K	1. UN3082, WASTE ENVIRONMENTALLY HAZARDOUS LIQUID, N.O.S,III (TETRACHLOROETHELYNE, PCE)	01	CM	6,000	G	F002		
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information
1. Profile OR345291, Waste, TETRACHLOROETHELYNE & PCE contaminated water; ERG= 171, RQ= 100 LBS
E/R/P= CHEMTREC #CCN24117 CONTAINER # WMXU 112279 50240p. 6053 g

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Ross Stainsby
Signature: [signature]
Month 8 Day 5 Year 2020

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Jason Edmonds
Signature: [signature]
Month 8 Day 5 Year 20
Transporter 2 Printed/Typed Name: JR
Signature: [signature]
Month 8 Day 5 Year 20

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator) U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) Month Day Year
JM 8-13-2020

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H040 H122 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Morgan Wolf
Signature: [signature]
Month 08 Day 10 Year 20

GENERATOR | INT'L | TRANSPORTER | DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete.

DESIGNATED FACILITY TO EPA's e-MANIFEST SYSTEM

Please print or type. 477533 084 Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)

21. Generator ID Number: WAD980983~~84~~ | 22. Page: 2-2 | 23. Manifest Tracking Number: 013851231 FLE

8m 8-13-2020

24. Generator's Name: Sound transit

25. Transporter 3 Company Name: CRC | U.S. EPA ID Number: ORD987173457

26. Transporter _____ Company Name | U.S. EPA ID Number

27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers No.	28. Containers Type	29. Total Quantity	30. Unit Wt./Vol.	31. Waste Codes		

32. Special Handling Instructions and Additional Information

3 WMXU 112279

33. Transporter 3 Acknowledgment of Receipt of Materials

Printed/Typed Name | Signature | Month 8 Day 10 Year 20

34. Transporter _____ Acknowledgment of Receipt of Materials

Printed/Typed Name: Jennifer Williams | Signature | Month | Day | Year

35. Discrepancy

36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

GENERATOR | TRANSPORTER | DESIGNATED FACILITY

EPA Form 8700-22A (Rev. 12-17) Previous editions are obsolete.

DESIGNATED FACILITY TO EPA's e-MANIFEST SYSTEM

477534

8/6

CWMI

Please print or type.

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number

2. Page 1 of 2

3. Emergency Response Phone 800-424-9300

4. Manifest Tracking Number 013851245 FLE

5. Generator's Name and Mailing Address D 8 6 0 8 8 3 0 8 4 1

SOUND TRANSIT
2210 SOUTH 320TH STREET
FEDERAL WAY WA 98003

Generator's Site Address (if different than mailing address)

Generator's Phone: (206) 398-5227

6. Transporter 1 Company Name

U.S. EPA ID Number

7. Transporter 2 Company Name

U.S. EPA ID Number

8. Designated Facility Name and Site Address

CHEMICAL WASTE MANAGEMENT, INC.
17629 CEDAR SPRINGS LANE
ARLINGTON OR 97812-9709

U.S. EPA ID Number ORD089452353

Facility's Phone:

9a. HM	9b. U.S. DOT Description (Including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
K	1. UN3082, WASTE ENVIRONMENTALLY HAZARDOUS LIQUID, N.O.S.,III (TETRACHLOROETHELYNE, PCE)	01	CM	6,000	G	F002
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information

50860P
6128G

1. Profile OR345291; Waste, TETRACHLOROETHELYNE & PCE contaminated water; ERG= 171; RQ= 100 LBS

E/R/P= CHEMTREC #CCN24117 CONTAINER # PNWU 112297

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Ross Stainsby

Signature

Month 8 Day 5 Year 2020

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Jason Edmonds

Signature

Month 8 Day 5 Year 20

Transporter 2 Printed/Typed Name: JR

Signature

Month 8 Day 5 Year 20

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator)

U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator)

Month Day Year

8-13-2020

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H040 H122			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Morgan Wolf

Signature

Month 8 Day 10 Year 20

GENERATOR

INT'L

TRANSPORTER

DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete.

DESIGNATED FACILITY TO EPA's e-MANIFEST SYSTEM

477534

Please print or type.

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)

21. Generator ID Number: WA9 8098 3084

22. Page: 2-2

23. Manifest Tracking Number: 013851245FCE

24. Generator's Name: South transit

25. Transporter 3 Company Name: CRC — U.S. EPA ID Number: ORD 987173457

26. Transporter ____ Company Name — U.S. EPA ID Number

27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers No.	28. Containers Type	29. Total Quantity	30. Unit WL/Vol.	31. Waste Codes		

32. Special Handling Instructions and Additional Information

3 PNWU 112297

TRANSPORTER

33. Transporter 3 Acknowledgment of Receipt of Materials

Printed/Typed Name — Signature — Month 8 Day 10 Year 20

34. Transporter ____ Acknowledgment of Receipt of Materials

Printed/Typed Name: Jennifer Williams — Signature — Month — Day — Year

DESIGNATED FACILITY

35. Discrepancy

36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

GENERATOR

EPA Form 8700-22A (Rev. 12-17) Previous editions are obsolete.

DESIGNATED FACILITY TO EPA's e-MANIFEST SYSTEM

477535 8/5

CWMI

Please print or type.

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: WAD 0 8 8 8 8 8 8 8 8 4
2. Page 1 of 2
3. Emergency Response Phone: 800 424 9300
4. Manifest Tracking Number: 013851246 FLE

5. Generator's Name and Mailing Address
SOUND TRANSIT
2210 SOUTH 320TH STREET
FEDERAL WAY WA 98003
Generator's Phone: (206) 398-5227

Generator's Site Address (if different than mailing address)

6. Transporter 1 Company Name: STERICYCLE
U.S. EPA ID Number: WAD 0 8 8 8 8 8 8 8 8

7. Transporter 2 Company Name: UNION PACIFIC RAILROAD
U.S. EPA ID Number: CAD 0 1 7 8 2 8 1 0

8. Designated Facility Name and Site Address
CHEMICAL WASTE MANAGEMENT, INC.
17629 CEDAR SPRINGS LANE
ARLINGTON OR 97812-9709
Facility's Phone: 541 1423-2043
U.S. EPA ID Number: ORD 0 8 9 4 5 2 3 5 3

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. UN3082, WASTE ENVIRONMENTALLY HAZARDOUS LIQUID, N.O.S,III (TETRACHLOROETHELYNE, PCE)	01	CM	6,000	G	F002
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information

44820p

1. Profile OR345291; Waste, TETRACHLOROETHELYNE & PCE contaminated water; ERG= 171; RQ= 100 LBS

E/R/P= CHEMTREC #CCN24117 CONTAINER # wmxy 121010 53286

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Ross Stanzer
Signature: Ross Stanzer
Month 8 Day 5 Year 2020

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Jason Edmonds
Signature:
Month 8 Day 5 Year 20
Transporter 2 Printed/Typed Name: JR
Signature:
Month 8 Day 5 Year 20

DESIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator) U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) Month Day Year
JM 8-13-2020
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. ~~H040~~ H122 2. 3. 4.
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Morgan Wolf
Signature: Morgan Wolf
Month 8 Day 10 Year 20

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete.

DESIGNATED FACILITY TO EPA's e-MANIFEST SYSTEM

m

Please print or type. 477535

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)

21. Generator ID Number: WAD ~~990983084~~ 980983084

22. Page: 2-2

23. Manifest Tracking Number: 013851246FLE

24. Generator's Name: SOUND transit

gm 8-13-2020

25. Transporter 3 Company Name: CRC

U.S. EPA ID Number: ORD 987173457

26. Transporter _____ Company Name

U.S. EPA ID Number

27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers No.	28. Containers Type	29. Total Quantity	30. Unit Wt./Vol.	31. Waste Codes		

32. Special Handling Instructions and Additional Information

3 WMXU 121010

TRANSPORTER

33. Transporter 3 Acknowledgment of Receipt of Materials

Printed/Typed Name | Signature | Month 8 | Day 10 | Year 20

34. Transporter _____ Acknowledgment of Receipt of Materials

Printed/Typed Name: Jennifer Williams | Signature | Month | Day | Year

DESIGNATED FACILITY

35. Discrepancy

36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

EPA Form 8700-22A (Rev. 12-17) Previous editions are obsolete.

DESIGNATED FACILITY TO EPA's e-MANIFEST SYSTEM

477536 8/6

CWMI

Please print or type.

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: WAD980983084
2. Page 1 of: 2
3. Emergency Response Phone: (800)424-9300
4. Manifest Tracking Number: 013851232 FLE

5. Generator's Name and Mailing Address
SOUND TRANSIT
2210 SOUTH 320TH STREET
FEDERAL WAY WA 98003
Generator's Phone: (206) 398-5227

Generator's Site Address (if different than mailing address)

6. Transporter 1 Company Name: R TRANSPORT
U.S. EPA ID Number: WAH000028338

7. Transporter 2 Company Name: UNION PACIFIC RAIL ROAD
U.S. EPA ID Number: NED001792810

8. Designated Facility Name and Site Address
CHEMICAL WASTE MANAGEMENT, INC.
17629 CEDAR SPRINGS LANE
ARLINGTON OR 97812-9709
Facility's Phone: (541)454-2843
U.S. EPA ID Number: ORD089452353

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. UN3082, WASTE ENVIRONMENTALLY HAZARDOUS LIQUID, N.O.S,III (TETRACHLOROETHELYNE, PCE)	01	CM	6,000	G	F002
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
47300p.
1. Profile OR345291; Waste, TETRACHLOROETHELYNE & PCE contaminated water; ERG= 171, RQ= 100 LBS
E/R/P= CHEMTREC #CCN24117 CONTAINER # WMXn 112302 5699G

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Ross Stansby
Signature: [signature]
Month 8 Day 5 Year 2020

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Jason Edmonds
Signature: [signature]
Month 8 Day 6 Year 20
Transporter 2 Printed/Typed Name: H. Malo
Signature: H. Malo
Month 8 Day 6 Year 20

DESIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator) U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) Month Day Year
JM 8-13-2020
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. ~~H040~~ H122 2. 3. 4.
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Morgan Wolf
Signature: [signature]
Month 8 Day 10 Year 20

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete.

DESIGNATED FACILITY TO EPA's e-MANIFEST SYSTEM

JM

477536

Please print or type

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)

21. Generator ID Number: WAD980983084

22. Page: 2-2

23. Manifest Tracking Number: 013851232 FLE

24. Generator's Name: Sound transit

25. Transporter 3 Company Name: CRC — U.S. EPA ID Number: ORD987173457

26. Transporter _____ Company Name — U.S. EPA ID Number:

27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers No.	28. Containers Type	29. Total Quantity	30. Unit Wt./Vol.	31. Waste Codes		

32. Special Handling Instructions and Additional Information

3 CWMXU 112302

33. Transporter 3 Acknowledgment of Receipt of Materials

Printed/Typed Name: Jennifer Williams — Signature: — Month 8 Day 10 Year 20

34. Transporter _____ Acknowledgment of Receipt of Materials

Printed/Typed Name: — Signature: — Month Day Year

35. Discrepancy

36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

GENERATOR

TRANSPORTER

DESIGNATED FACILITY

EPA Form 8700-22A (Rev. 12-17) Previous editions are obsolete.

DESIGNATED FACILITY TO EPA's e-MANIFEST SYSTEM

CWMI

Please print or type. 477685 gm 8-25-2020 Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: WAD980983084
2. Page 1 of 2
3. Emergency Response Phone: (800) 424-9300
4. Manifest Tracking Number: 013851238 FLE

5. Generator's Name and Mailing Address
SOUND TRANSIT
2210 SOUTH 320TH STREET
FEDERAL WAY WA 98003
Generator's Phone: (206) 398-5227
Generator's Site Address (if different than mailing address)

6. Transporter 1 Company Name: R TRANSPORT — U.S. EPA ID Number: WAH000028338

7. Transporter 2 Company Name: UNION PACIFIC RAIL ROAD — U.S. EPA ID Number: NED001792910

8. Designated Facility Name and Site Address
CHEMICAL WASTE MANAGEMENT, INC.
17629 CEDAR SPRINGS LANE
ARLINGTON OR 97812-9709
Facility's Phone: (541) 454-2813
U.S. EPA ID Number: ORD089452353

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. UN3032, WASTE ENVIRONMENTALLY HAZARDOUS LIQUID, N.O.S.,III (TETRACHLOROETHELYNE, PCE)	01	CM	4911 ~~6000~~ KR 8/25/2020	G	F002
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1. Profile OR345291; Waste, TETRACHLOROETHELYNE & PCE contaminated water; ERG= 171; RQ= 100 LBS gm 8-25-20
E/R/P= CHEMTREC #CCN24117 CONTAINER # WMXU 121010 4911 G

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Ross Spaniosky — Signature: [signature] — Month 8 Day 13 Year 2020

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Jason Edmonds — Signature: [signature] — Month 8 Day 13 Year 20
Transporter 2 Printed/Typed Name: Stephen Holbrook — Signature: [signature] — Month 8 Day 13 Year 20

DESIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space: ☒ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Corrected quantity to match amount received per Vance Arkins/Project Manager/Shell Service Group. KR 8/25/2020
Manifest Reference Number:
18b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H122 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Dawn Dunlap — Signature: [signature] — Month 8 Day 26 Year 20

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete.

DESIGNATED FACILITY TO EPA's e-MANIFEST SYSTEM

gm

477685

Please print or type.

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)

21. Generator ID Number: WAD980983084

22. Page: 2-2

23. Manifest Tracking Number: 013851238 FLE

24. Generator's Name: Sound transit

25. Transporter 3 Company Name: CRC — U.S. EPA ID Number: ORD987173457

26. Transporter _____ Company Name — U.S. EPA ID Number

27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers No.	28. Containers Type	29. Total Quantity	30. Unit Wt./Vol.	31. Waste Codes		

32. Special Handling Instructions and Additional Information

3 WMXU 121010

33. Transporter 3 Acknowledgment of Receipt of Materials

Printed/Typed Name | Signature | Month Day Year 8 18 20

34. Transporter _____ Acknowledgment of Receipt of Materials

Printed/Typed Name: Jennifer Williams | Signature | Month Day Year

35. Discrepancy

36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

GENERATOR

TRANSPORTER

DESIGNATED FACILITY

EPA Form 8700-22A (Rev. 12-17) Previous editions are obsolete.

DESIGNATED FACILITY TO EPA's e-MANIFEST SYSTEM

CWMI

8/16

Please print or type. 477698 9m 8-25-2020 Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: WAD980983084
2. Page 1 of: 1/2
3. Emergency Response Phone: (800) 424-9300
4. Manifest Tracking Number: 013851235 FLE

5. Generator's Name and Mailing Address
SOUND TRANSIT
2210 SOUTH 320TH STREET
FEDERAL WAY WA 98003
Generator's Phone: (206) 399-5227
Generator's Site Address (if different than mailing address)

6. Transporter 1 Company Name: R TRANSPORT — U.S. EPA ID Number: WAH000028338

7. Transporter 2 Company Name: UNION PACIFIC RAIL ROAD — U.S. EPA ID Number: NED001792910

8. Designated Facility Name and Site Address
CHEMICAL WASTE MANAGEMENT, INC.
17629 CEDAR SPRINGS LANE
ARLINGTON OR 97812-9709
Facility's Phone: (541) 454-2643
U.S. EPA ID Number: ORD089452353

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt/Vol.	13. Waste Codes
K	1. UN3082, WASTE ENVIRONMENTALLY HAZARDOUS LIQUID, N.O.S,III (TETRACHLOROETHELYNE, PCE)	01	CM	~~6,000~~ 5027 KR 8/25/2020	G	F002
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1. Profile OR345291; Waste, TETRACHLOROETHELYNE & PCE contaminated water, ERG= 171; RQ= 100 LBS
E/R/P= CHEMTREC #CCN24117 CONTAINER # WMXU 112302 5027G

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Cass Stainsby — Signature: [signature] — Month 8 Day 13 Year 2020

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Jason Edmonds — Signature: [signature] — Month 8 Day 13 Year 20
Transporter 2 Printed/Typed Name: Jason Stearns — Signature: [signature] — Month 8 Day 19 Year 20

18. Discrepancy
18a. Discrepancy Indication Space ☒ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Corrected quantity to match amount received per Vance Atkins/Project Manager/Overall Service Group. KR 8/25/2020
Manifest Reference Number:

18b. Alternate Facility (or Generator) U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator) Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H122 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: [illegible] — Signature: [signature] — Month 8 Day 20 Year 2020

GENERATOR / INT'L / TRANSPORTER / DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete.

DESIGNATED FACILITY TO EPA's e-MANIFEST SYSTEM

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Please print or type.

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)

21. Generator ID Number: WAD980983084

22. Page: 2-2

23. Manifest Tracking Number: 013851235FCE

24. Generator's Name: Sound transit

25. Transporter 3 Company Name: CRC

U.S. EPA ID Number: ORD987173457

26. Transporter _____ Company Name

U.S. EPA ID Number

27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers No.	28. Containers Type	29. Total Quantity	30. Unit Wt./Vol.	31. Waste Codes		

32. Special Handling Instructions and Additional Information

33. Transporter 3 Acknowledgment of Receipt of Materials

Printed/Typed Name: Brittney Havins

Signature: Brittney Havins

Month: 8 Day: 19 Year: 20

34. Transporter _____ Acknowledgment of Receipt of Materials

Printed/Typed Name

Signature

Month Day Year

35. Discrepancy

36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

GENERATOR

TRANSPORTER

DESIGNATED FACILITY

EPA Form 8700-22A (Rev. 12-17) Previous editions are obsolete.

DESIGNATED FACILITY TO EPA's e-MANIFEST SYSTEM

477879 8/26 CVM

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UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: WAD980983084
2. Page 1 of: 2
3. Emergency Response Phone: (800) 424-9300
4. Manifest Tracking Number: 013851234 FLE

5. Generator's Name and Mailing Address
SOUND TRANSIT
2210 SOUTH 320TH STREET
FEDERAL WAY WA 98003
Generator's Phone: (206) 398-5227
Generator's Site Address (if different than mailing address)

6. Transporter 1 Company Name: R TRANSPORT — U.S. EPA ID Number: WAH000028338

7. Transporter 2 Company Name: UNION PACIFIC RAIL ROAD — U.S. EPA ID Number: NED001792910

8. Designated Facility Name and Site Address
CHEMICAL WASTE MANAGEMENT, INC.
17629 CEDAR SPRINGS LANE
ARLINGTON OR 97812-9709
Facility's Phone: (541) 454-2843
U.S. EPA ID Number: ORD089452353

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. UN3082, WASTE ENVIRONMENTALLY HAZARDOUS LIQUID, N.O.S,III (TETRACHLOROETHELYNE, PCE)	01	CM	1304 ~~6000~~	G KR 9/2/2020	F002
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1. Profile OR345291, Waste, TETRACHLOROETHELYNE & PCE contaminated water, ERG= 171, RQ= 100 LBS
E/R/P= CHEMTREC #CCN24117 CONTAINER # PNWU 112297
10820 p 1304g.

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Ross Strinsky — Signature: [signature] — Month 8 Day 13 Year 2020

INT'L
16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER
17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Jason Edmonds — Signature: [signature] — Month 8 Day 13 Year 20
Transporter 2 Printed/Typed Name: JR — Signature: [signature] — Month 8 Day 25 Year 20

DESIGNATED FACILITY
18. Discrepancy
18a. Discrepancy Indication Space ☒ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Corrected quantity to match amount received per vance Atkins/ Project manager/ Oneill Service Group. KR 9/2/20
Manifest Reference Number:
18b. Alternate Facility (or Generator) U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H132 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Morgan Wolf — Signature: [signature] — Month 8 Day 31 Year 20

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete.

DESIGNATED FACILITY TO EPA's e-MANIFEST SYSTEM

AMS

477879

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Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)

21. Generator ID Number: WAD980983084

22. Page: 2

23. Manifest Tracking Number: 013851234FLE

24. Generator's Name: Sound transit

25. Transporter 3 Company Name: CRC — U.S. EPA ID Number: ORD987173457

26. Transporter _____ Company Name — U.S. EPA ID Number:

27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers No.	28. Containers Type	29. Total Quantity	30. Unit Wt./Vol.	31. Waste Codes		

32. Special Handling Instructions and Additional Information

3 PNWU 112297

TRANSPORTER

33. Transporter 3 Acknowledgment of Receipt of Materials

Printed/Typed Name: | Signature: | Month 8 Day 28 Year 20

34. Transporter _____ Acknowledgment of Receipt of Materials

Printed/Typed Name: Jennifer Williams | Signature: | Month | Day | Year

DESIGNATED FACILITY

35. Discrepancy

36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

GENERATOR

EPA Form 8700-22A (Rev. 12-17) Previous editions are obsolete.

DESIGNATED FACILITY TO EPA's e-MANIFEST SYSTEM

WASTE MANAGEMENT

CWM OF THE NORTHWEST
Federal EPA ID: ORD089452353
17629 CEDAR SPRINGS LANE
ARLINGTON, OR 97812

SOUND TRANSIT
ATTN: MANIFEST SECTION
WAD980983084
2210 SOUTH 320TH STREET
FEDERAL WAY WA 98003

CERTIFICATE OF DISPOSAL

CWM OF THE NORTHWEST, EPA ID: ORD089452353, has received waste material from SOUND TRANSIT on 08/10/20 as described on Shipping Document number 013851231FLE.

Profile Number: OR345291
CWM Tracking ID: 47753301
Process: EVAPORATION
Disposal Date: 08/10/20

I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the date listed above.

Becky Sumner

CWMNW RECORDS DEPARTMENT
Certificate # 250671
08/17/20

WASTE MANAGEMENT

CWM OF THE NORTHWEST
Federal EPA ID: ORD089452353
17629 CEDAR SPRINGS LANE
ARLINGTON, OR 97812

SOUND TRANSIT
ATTN: MANIFEST SECTION
WAD980983084
2210 SOUTH 320TH STREET
FEDERAL WAY WA 98003

CERTIFICATE OF DISPOSAL

CWM OF THE NORTHWEST, EPA ID: ORD089452353, has received waste material from SOUND TRANSIT on 08/10/20 as described on Shipping Document number 013851245FLE.

Profile Number: OR345291
CWM Tracking ID: 47753401
Process: EVAPORATION
Disposal Date: 08/10/20

I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the date listed above.

Becky Sumner

CWMNW RECORDS DEPARTMENT
Certificate # 250672
08/17/20

WASTE MANAGEMENT

CWM OF THE NORTHWEST
Federal EPA ID: ORD089452353
17629 CEDAR SPRINGS LANE
ARLINGTON, OR 97812

SOUND TRANSIT
ATTN: MANIFEST SECTION
WAD980983084
2210 SOUTH 320TH STREET
FEDERAL WAY WA 98003

CERTIFICATE OF DISPOSAL

CWM OF THE NORTHWEST, EPA ID: ORD089452353, has received waste material from SOUND TRANSIT on 08/10/20 as described on Shipping Document number 013851246FLE.

Profile Number: OR345291
CWM Tracking ID: 47753501
Process: EVAPORATION
Disposal Date: 08/10/20

I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the date listed above.

Becky Sumner

CWMNW RECORDS DEPARTMENT
Certificate # 250673
08/17/20

WASTE MANAGEMENT

CWM OF THE NORTHWEST
Federal EPA ID: ORD089452353
17629 CEDAR SPRINGS LANE
ARLINGTON, OR 97812

SOUND TRANSIT
ATTN: MANIFEST SECTION
WAD980983084
2210 SOUTH 320TH STREET
FEDERAL WAY WA 98003

CERTIFICATE OF DISPOSAL

CWM OF THE NORTHWEST, EPA ID: ORD089452353, has received waste material from SOUND TRANSIT on 08/10/20 as described on Shipping Document number 013851232FLE.

Profile Number: OR345291
CWM Tracking ID: 47753601
Process: EVAPORATION
Disposal Date: 08/10/20

I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the date listed above.

Becky Sumner

CWMNW RECORDS DEPARTMENT
Certificate # 250674
08/17/20

WASTE MANAGEMENT

CWM OF THE NORTHWEST
Federal EPA ID: ORD089452353
17629 CEDAR SPRINGS LANE
ARLINGTON, OR 97812

SOUND TRANSIT
ATTN: MANIFEST SECTION
WAD980983084
2210 SOUTH 320TH STREET
FEDERAL WAY WA 98003

CERTIFICATE OF DISPOSAL

CWM OF THE NORTHWEST, EPA ID: ORD089452353, has received waste material from SOUND TRANSIT on 08/18/20 as described on Shipping Document number 013851233FLE.

Profile Number: OR345291
CWM Tracking ID: 47768401
CWM Unit #: 1*0
Disposal Date: 08/20/20

I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the date listed above.

Becky Sumner

CWMNW RECORDS DEPARTMENT
Certificate # 250842
08/27/20

WASTE MANAGEMENT

CWM OF THE NORTHWEST
Federal EPA ID: ORD089452353
17629 CEDAR SPRINGS LANE
ARLINGTON, OR 97812

SOUND TRANSIT
ATTN: MANIFEST SECTION
WAD980983084
2210 SOUTH 320TH STREET
FEDERAL WAY WA 98003

CERTIFICATE OF DISPOSAL

CWM OF THE NORTHWEST, EPA ID: ORD089452353, has received waste material from SOUND TRANSIT on 08/18/20 as described on Shipping Document number 013851238FLE.

Profile Number: OR345291
CWM Tracking ID: 47768501
CWM Unit #: 1*0
Disposal Date: 08/20/20

I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the date listed above.

Becky Sumner

CWMNW RECORDS DEPARTMENT
Certificate # 250843
08/27/20

WASTE MANAGEMENT

CWM OF THE NORTHWEST
Federal EPA ID: ORD089452353
17629 CEDAR SPRINGS LANE
ARLINGTON, OR 97812

SOUND TRANSIT
ATTN: MANIFEST SECTION
WAD980983084
2210 SOUTH 320TH STREET
FEDERAL WAY WA 98003

CERTIFICATE OF DISPOSAL

CWM OF THE NORTHWEST, EPA ID: ORD089452353, has received waste material from SOUND TRANSIT on 08/19/20 as described on Shipping Document number 013851235FLE.

Profile Number: OR345291
CWM Tracking ID: 47769801
CWM Unit #: 1*0
Disposal Date: 08/20/20

I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the date listed above.

Becky Sumner

CWMNW RECORDS DEPARTMENT
Certificate # 250844
08/27/20

WASTE MANAGEMENT

CWM OF THE NORTHWEST
Federal EPA ID: ORD089452353
17629 CEDAR SPRINGS LANE
ARLINGTON, OR 97812

SOUND TRANSIT
ATTN: MANIFEST SECTION
WAD980983084
2210 SOUTH 320TH STREET
FEDERAL WAY WA 98003

CERTIFICATE OF DISPOSAL

CWM OF THE NORTHWEST, EPA ID: ORD089452353, has received waste material from SOUND TRANSIT on 08/31/20 as described on Shipping Document number 013851234FLE.

Profile Number: OR345291
CWM Tracking ID: 47787901
CWM Unit #: 1*0
Disposal Date: 09/01/20

I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the date listed above.

CWMNW RECORDS DEPARTMENT
Certificate # 251169
09/17/20

APPENDIX G

Contained-In Soil Disposal Information

CERTIFICATE OF DESTRUCTION

I, Joe Allen-Thompson, of Republic Services (RSI facility), hereby certify that the entire product described in Section A has been properly and legally disposed of in Roosevelt Regional MSW Landfill on 7/22 - 8/15, 2020 (attach any appropriate documentation).

I understand that due to potential concerns related to such things as health, quality, and loss of goodwill, Sound Transit (Company) does not want this product to be distributed to consumers, even through so called "distressed merchandise" channels of trade, and I further certify that these items were destroyed in such a manner that it cannot be sold, and that the company has taken every reasonable step to prevent resale of said items.

Name (print): Joe Allen-Thompson

Signature: Joseph Allen-Thompson

Title: General Manager

Date: 9/9/2020

Section A- Products Destroyed (attached additional sheets if needed):

Waste Profile Number (if applicable): 4178209005 / TB-9005

Description of Product	*Quantity or Weight*
Contained In Soils, Solvents	4,116.46 Tons

Detail Contract Activity Report

All Ticket Types
History and Waiting
* - Confirmed Qty Applied to Billing

July 01, 2020 to September 09, 2020
Specific Contract(s) : 'TB-9005'

All Facilities

TB-9005

Ticket Date	Facility & Ticket Number	Customer	Truck	Material	Contract Rate	Billing Quantity	Ordered Quantity	Minimum Quantity	Maximum Quantity	Material Total	Tax Total	Total
07/22/2020 I	6A 7023611	012976 - KLB Construction Inc.	1567	Contained in Contamir	0.00 S	25.38 TN	0.00					
07/22/2020 I	6A 7023614	012976 - KLB Construction Inc.	6812	Contained in Contamir	0.00 S	27.54 TN	0.00					
07/22/2020 I	6A 7023615	012976 - KLB Construction Inc.	5226	Contained in Contamir	0.00 S	26.54 TN	0.00					
07/22/2020 I	6A 7023617	012976 - KLB Construction Inc.	7327	Contained in Contamir	0.00 S	27.69 TN	0.00					
07/22/2020 I	6A 7023618	012976 - KLB Construction Inc.	1452	Contained in Contamir	0.00 S	24.24 TN	0.00					
07/22/2020 I	6A 7023619	012976 - KLB Construction Inc.	2783	Contained in Contamir	0.00 S	25.08 TN	0.00					
07/22/2020 I	6A 7023620	012976 - KLB Construction Inc.	1563	Contained in Contamir	0.00 S	22.92 TN	0.00					
07/22/2020 I	6A 7023621	012976 - KLB Construction Inc.	5224	Contained in Contamir	0.00 S	24.48 TN	0.00					
07/25/2020 I	6A 7023646	012976 - KLB Construction Inc.	5223	Contained in Contamir	0.00 S	30.05 TN	0.00					
07/25/2020 I	6A 7023647	012976 - KLB Construction Inc.	7329	Contained in Contamir	0.00 S	30.23 TN	0.00					
07/25/2020 I	6A 7023648	012976 - KLB Construction Inc.	1454	Contained in Contamir	0.00 S	26.73 TN	0.00					
07/25/2020 I	6A 7023663	012976 - KLB Construction Inc.	5227	Contained in Contamir	0.00 S	28.35 TN	0.00					
07/25/2020 I	6A 7023664	012976 - KLB Construction Inc.	1565	Contained in Contamir	0.00 S	30.46 TN	0.00					
07/25/2020 I	6A 7023665	012976 - KLB Construction Inc.	5222	Contained in Contamir	0.00 S	30.74 TN	0.00					
07/25/2020 I	6A 7023666	012976 - KLB Construction Inc.	7329	Contained in Contamir	0.00 S	29.04 TN	0.00					
07/25/2020 I	6A 7023667	012976 - KLB Construction Inc.	0330	Contained in Contamir	0.00 S	27.77 TN	0.00					
07/25/2020 I	6A 7023668	012976 - KLB Construction Inc.	5223	Contained in Contamir	0.00 S	27.87 TN	0.00					
07/25/2020 I	6A 7023669	012976 - KLB Construction Inc.	5227	Contained in Contamir	0.00 S	30.61 TN	0.00					
07/25/2020 I	6A 7023672	012976 - KLB Construction Inc.	5223	Contained in Contamir	0.00 S	30.56 TN	0.00					
07/25/2020 I	6A 7023673	012976 - KLB Construction Inc.	5227	Contained in Contamir	0.00 S	32.67 TN	0.00					
07/25/2020 I	6A 7023674	012976 - KLB Construction Inc.	1565	Contained in Contamir	0.00 S	28.12 TN	0.00					
07/25/2020 I	6A 7023675	012976 - KLB Construction Inc.	7329	Contained in Contamir	0.00 S	26.97 TN	0.00					
07/25/2020 I	6A 7023676	012976 - KLB Construction Inc.	0330	Contained in Contamir	0.00 S	31.44 TN	0.00					
07/25/2020 I	6A 7023677	012976 - KLB Construction Inc.	5222	Contained in Contamir	0.00 S	31.19 TN	0.00					
07/25/2020 I	6A 7023682	012976 - KLB Construction Inc.	5223	Contained in Contamir	0.00 S	29.99 TN	0.00					
07/25/2020 I	6A 7023690	012976 - KLB Construction Inc.	5227	Contained in Contamir	0.00 S	29.85 TN	0.00					
07/25/2020 I	6A 7023693	012976 - KLB Construction Inc.	7329	Contained in Contamir	0.00 S	30.52 TN	0.00					
07/25/2020 I	6A 7023698	012976 - KLB Construction Inc.	0330	Contained in Contamir	0.00 S	29.38 TN	0.00					
07/25/2020 I	6A 7023699	012976 - KLB Construction Inc.	1565	Contained in Contamir	0.00 S	27.40 TN	0.00					
07/25/2020 I	6A 7023702	012976 - KLB Construction Inc.	5222	Contained in Contamir	0.00 S	30.81 TN	0.00					
07/25/2020 I	6A 7023705	012976 - KLB Construction Inc.	5223	Contained in Contamir	0.00 S	30.01 TN	0.00					
07/25/2020 I	6A 7023706	012976 - KLB Construction Inc.	1454	Contained in Contamir	0.00 S	29.68 TN	0.00					
07/25/2020 I	6A 7023707	012976 - KLB Construction Inc.	5227	Contained in Contamir	0.00 S	29.41 TN	0.00					
07/25/2020 I	6A 7023708	012976 - KLB Construction Inc.	1565	Contained in Contamir	0.00 S	31.53 TN	0.00					
07/27/2020 I	6A 7023710	012976 - KLB Construction Inc.	8282	Contained in Contamir	0.00 S	32.66 TN	0.00					
07/27/2020 I	6A 7023714	012976 - KLB Construction Inc.	5831	Contained in Contamir	0.00 S	29.47 TN	0.00					
07/27/2020 I	6A 7023716	012976 - KLB Construction Inc.	1452	Contained in Contamir	0.00 S	28.86 TN	0.00					
07/27/2020 I	6A 7023719	012976 - KLB Construction Inc.	1564	Contained in Contamir	0.00 S	25.36 TN	0.00					

07/27/2020	I	6A	7023720	012976 - KLB Construction Inc.	3449	Contained in Contamir	0.00	S	29.60	TN	0.00
07/27/2020	I	6A	7023726	012976 - KLB Construction Inc.	5227	Contained in Contamir	0.00	S	30.79	TN	0.00
07/27/2020	I	6A	7023730	012976 - KLB Construction Inc.	8282	Contained in Contamir	0.00	S	29.99	TN	0.00
07/27/2020	I	6A	7023733	012976 - KLB Construction Inc.	2786	Contained in Contamir	0.00	S	25.40	TN	0.00
07/27/2020	I	6A	7023736	012976 - KLB Construction Inc.	1452	Contained in Contamir	0.00	S	25.28	TN	0.00
07/27/2020	I	6A	7023737	012976 - KLB Construction Inc.	5831	Contained in Contamir	0.00	S	28.29	TN	0.00
07/27/2020	I	6A	7023738	012976 - KLB Construction Inc.	1454	Contained in Contamir	0.00	S	28.74	TN	0.00
07/27/2020	I	6A	7023740	012976 - KLB Construction Inc.	0330	Contained in Contamir	0.00	S	24.29	TN	0.00
07/27/2020	I	6A	7023741	012976 - KLB Construction Inc.	1564	Contained in Contamir	0.00	S	25.79	TN	0.00
07/27/2020	I	6A	7023744	012976 - KLB Construction Inc.	3449	Contained in Contamir	0.00	S	29.00	TN	0.00
07/27/2020	I	6A	7023745	012976 - KLB Construction Inc.	5222	Contained in Contamir	0.00	S	30.78	TN	0.00
07/27/2020	I	6A	7023748	012976 - KLB Construction Inc.	5225	Contained in Contamir	0.00	S	26.53	TN	0.00
07/27/2020	I	6A	7023751	012976 - KLB Construction Inc.	7330	Contained in Contamir	0.00	S	30.39	TN	0.00
07/27/2020	I	6A	7023752	012976 - KLB Construction Inc.	7331	Contained in Contamir	0.00	S	30.30	TN	0.00
07/27/2020	I	6A	7023753	012976 - KLB Construction Inc.	5227	Contained in Contamir	0.00	S	30.75	TN	0.00
07/27/2020	I	6A	7023756	012976 - KLB Construction Inc.	7329	Contained in Contamir	0.00	S	32.91	TN	0.00
07/27/2020	I	6A	7023759	012976 - KLB Construction Inc.	5223	Contained in Contamir	0.00	S	29.03	TN	0.00
07/27/2020	I	6A	7023760	012976 - KLB Construction Inc.	2786	Contained in Contamir	0.00	S	27.73	TN	0.00
07/27/2020	I	6A	7023761	012976 - KLB Construction Inc.	1565	Contained in Contamir	0.00	S	30.77	TN	0.00
07/27/2020	I	6A	7023762	012976 - KLB Construction Inc.	8282	Contained in Contamir	0.00	S	30.51	TN	0.00
07/29/2020	I	6A	7023790	012976 - KLB Construction Inc.	5222	Contained in Contamir	0.00	S	25.03	TN	0.00
07/29/2020	I	6A	7023791	012976 - KLB Construction Inc.	5223	Contained in Contamir	0.00	S	29.36	TN	0.00
07/29/2020	I	6A	7023792	012976 - KLB Construction Inc.	5833	Contained in Contamir	0.00	S	30.24	TN	0.00
07/29/2020	I	6A	7023793	012976 - KLB Construction Inc.	0330	Contained in Contamir	0.00	S	30.06	TN	0.00
07/29/2020	I	6A	7023794	012976 - KLB Construction Inc.	1565	Contained in Contamir	0.00	S	31.53	TN	0.00
07/29/2020	I	6A	7023795	012976 - KLB Construction Inc.	7330	Contained in Contamir	0.00	S	29.31	TN	0.00
07/29/2020	I	6A	7023796	012976 - KLB Construction Inc.	5227	Contained in Contamir	0.00	S	33.44	TN	0.00
07/29/2020	I	6A	7023797	012976 - KLB Construction Inc.	7331	Contained in Contamir	0.00	S	29.67	TN	0.00
07/29/2020	I	6A	7023805	012976 - KLB Construction Inc.	5222	Contained in Contamir	0.00	S	30.58	TN	0.00
07/29/2020	I	6A	7023807	012976 - KLB Construction Inc.	7329	Contained in Contamir	0.00	S	27.82	TN	0.00
07/29/2020	I	6A	7023809	012976 - KLB Construction Inc.	5223	Contained in Contamir	0.00	S	30.68	TN	0.00
07/29/2020	I	6A	7023813	012976 - KLB Construction Inc.	0330	Contained in Contamir	0.00	S	29.65	TN	0.00
07/29/2020	I	6A	7023816	012976 - KLB Construction Inc.	5833	Contained in Contamir	0.00	S	29.43	TN	0.00
07/29/2020	I	6A	7023817	012976 - KLB Construction Inc.	1565	Contained in Contamir	0.00	S	31.17	TN	0.00
07/29/2020	I	6A	7023820	012976 - KLB Construction Inc.	5227	Contained in Contamir	0.00	S	35.19	TN	0.00
07/29/2020	I	6A	7023822	012976 - KLB Construction Inc.	7330	Contained in Contamir	0.00	S	30.61	TN	0.00
07/29/2020	I	6A	7023825	012976 - KLB Construction Inc.	7331	Contained in Contamir	0.00	S	31.58	TN	0.00
07/29/2020	I	6A	7023829	012976 - KLB Construction Inc.	5222	Contained in Contamir	0.00	S	30.40	TN	0.00
07/29/2020	I	6A	7023833	012976 - KLB Construction Inc.	5223	Contained in Contamir	0.00	S	30.64	TN	0.00
07/29/2020	I	6A	7023834	012976 - KLB Construction Inc.	7329	Contained in Contamir	0.00	S	30.40	TN	0.00
07/29/2020	I	6A	7023837	012976 - KLB Construction Inc.	0330	Contained in Contamir	0.00	S	30.14	TN	0.00
07/29/2020	I	6A	7023838	012976 - KLB Construction Inc.	1565	Contained in Contamir	0.00	S	26.29	TN	0.00
07/29/2020	I	6A	7023840	012976 - KLB Construction Inc.	5227	Contained in Contamir	0.00	S	24.96	TN	0.00

Detail Contract Activity Report

July 01, 2020 to September 09, 2020

Specific Contract(s) : 'TB-9005'

07/29/2020	I	6A	7023844	012976 - KLB Construction Inc.	7330	Contained in Contamir	0.00	S	33.14	TN	0.00
07/29/2020	I	6A	7023848	012976 - KLB Construction Inc.	7331	Contained in Contamir	0.00	S	28.76	TN	0.00
07/29/2020	I	6A	7023851	012976 - KLB Construction Inc.	5833	Contained in Contamir	0.00	S	30.91	TN	0.00
07/29/2020	I	6A	7023858	012976 - KLB Construction Inc.	5222	Contained in Contamir	0.00	S	31.04	TN	0.00
07/29/2020	I	6A	7023864	012976 - KLB Construction Inc.	5223	Contained in Contamir	0.00	S	30.46	TN	0.00
07/29/2020	I	6A	7023865	012976 - KLB Construction Inc.	1565	Contained in Contamir	0.00	S	28.50	TN	0.00
07/29/2020	I	6A	7023868	012976 - KLB Construction Inc.	7329	Contained in Contamir	0.00	S	30.56	TN	0.00
07/31/2020	I	6A	7023898	012976 - KLB Construction Inc.	7331	Contained in Contamir	0.00	S	31.26	TN	0.00
07/31/2020	I	6A	7023899	012976 - KLB Construction Inc.	5223	Contained in Contamir	0.00	S	30.04	TN	0.00
07/31/2020	I	6A	7023900	012976 - KLB Construction Inc.	0330	Contained in Contamir	0.00	S	29.94	TN	0.00
07/31/2020	I	6A	7023901	012976 - KLB Construction Inc.	5833	Contained in Contamir	0.00	S	29.34	TN	0.00
07/31/2020	I	6A	7023902	012976 - KLB Construction Inc.	5227	Contained in Contamir	0.00	S	29.35	TN	0.00
07/31/2020	I	6A	7023936	012976 - KLB Construction Inc.	0330	Contained in Contamir	0.00	S	33.34	TN	0.00
07/31/2020	I	6A	7023937	012976 - KLB Construction Inc.	5833	Contained in Contamir	0.00	S	31.70	TN	0.00
07/31/2020	I	6A	7023938	012976 - KLB Construction Inc.	7331	Contained in Contamir	0.00	S	29.02	TN	0.00
07/31/2020	I	6A	7023939	012976 - KLB Construction Inc.	5223	Contained in Contamir	0.00	S	29.17	TN	0.00
07/31/2020	I	6A	7023940	012976 - KLB Construction Inc.	5227	Contained in Contamir	0.00	S	28.83	TN	0.00
08/01/2020	I	6A	7023963	012976 - KLB Construction Inc.	3450	Contained in Contamir	0.00	S	27.30	TN	0.00
08/01/2020	I	6A	7023964	012976 - KLB Construction Inc.	7331	Contained in Contamir	0.00	S	30.79	TN	0.00
08/01/2020	I	6A	7023965	012976 - KLB Construction Inc.	3449	Contained in Contamir	0.00	S	29.52	TN	0.00
08/04/2020	I	6A	7023989	012976 - KLB Construction Inc.	5833	Contained in Contamir	0.00	S	30.55	TN	0.00
08/04/2020	I	6A	7023990	012976 - KLB Construction Inc.	5226	Contained in Contamir	0.00	S	29.80	TN	0.00
08/04/2020	I	6A	7023991	012976 - KLB Construction Inc.	7330	Contained in Contamir	0.00	S	36.00	TN	0.00
08/05/2020	I	6A	7024023	012976 - KLB Construction Inc.	2785	Contained in Contamir	0.00	S	29.47	TN	0.00
08/05/2020	I	6A	7024026	012976 - KLB Construction Inc.	5223	Contained in Contamir	0.00	S	29.09	TN	0.00
08/05/2020	I	6A	7024029	012976 - KLB Construction Inc.	5833	Contained in Contamir	0.00	S	27.75	TN	0.00
08/05/2020	I	6A	7024034	012976 - KLB Construction Inc.	5226	Contained in Contamir	0.00	S	28.02	TN	0.00
08/05/2020	I	6A	7024035	012976 - KLB Construction Inc.	7329	Contained in Contamir	0.00	S	25.30	TN	0.00
08/05/2020	I	6A	7024036	012976 - KLB Construction Inc.	5939	Contained in Contamir	0.00	S	29.05	TN	0.00
08/05/2020	I	6A	7024038	012976 - KLB Construction Inc.	7330	Contained in Contamir	0.00	S	30.57	TN	0.00
08/05/2020	I	6A	7024041	012976 - KLB Construction Inc.	0330	Contained in Contamir	0.00	S	32.00	TN	0.00
08/05/2020	I	6A	7024043	012976 - KLB Construction Inc.	2786	Contained in Contamir	0.00	S	26.02	TN	0.00
08/05/2020	I	6A	7024047	012976 - KLB Construction Inc.	2785	Contained in Contamir	0.00	S	29.22	TN	0.00
08/05/2020	I	6A	7024048	012976 - KLB Construction Inc.	3450	Contained in Contamir	0.00	S	28.81	TN	0.00
08/05/2020	I	6A	7024054	012976 - KLB Construction Inc.	303	Contained in Contamir	0.00	S	28.18	TN	0.00
08/05/2020	I	6A	7024056	012976 - KLB Construction Inc.	1565	Contained in Contamir	0.00	S	27.19	TN	0.00
08/05/2020	I	6A	7024059	012976 - KLB Construction Inc.	5223	Contained in Contamir	0.00	S	28.26	TN	0.00
08/05/2020	I	6A	7024064	012976 - KLB Construction Inc.	5833	Contained in Contamir	0.00	S	21.23	TN	0.00
08/05/2020	I	6A	7024073	012976 - KLB Construction Inc.	5227	Contained in Contamir	0.00	S	33.82	TN	0.00
08/05/2020	I	6A	7024074	012976 - KLB Construction Inc.	5939	Contained in Contamir	0.00	S	31.97	TN	0.00
08/05/2020	I	6A	7024076	012976 - KLB Construction Inc.	5226	Contained in Contamir	0.00	S	28.89	TN	0.00
08/05/2020	I	6A	7024079	012976 - KLB Construction Inc.	7329	Contained in Contamir	0.00	S	25.31	TN	0.00
08/05/2020	I	6A	7024083	012976 - KLB Construction Inc.	0330	Contained in Contamir	0.00	S	32.62	TN	0.00

08/05/2020	I	6A	7024085	012976 - KLB Construction Inc.	2786	Contained in Contamir	0.00	S	28.27	TN	0.00
08/05/2020	I	6A	7024088	012976 - KLB Construction Inc.	2785	Contained in Contamir	0.00	S	28.67	TN	0.00
08/05/2020	I	6A	7024092	012976 - KLB Construction Inc.	3450	Contained in Contamir	0.00	S	29.02	TN	0.00
08/08/2020	I	6A	7024130	012976 - KLB Construction Inc.	7330	Contained in Contamir	0.00	S	30.44	TN	0.00
08/08/2020	I	6A	7024132	012976 - KLB Construction Inc.	5227	Contained in Contamir	0.00	S	27.93	TN	0.00
08/08/2020	I	6A	7024134	012976 - KLB Construction Inc.	5222	Contained in Contamir	0.00	S	30.06	TN	0.00
08/08/2020	I	6A	7024135	012976 - KLB Construction Inc.	0330	Contained in Contamir	0.00	S	30.74	TN	0.00
08/08/2020	I	6A	7024137	012976 - KLB Construction Inc.	0331	Contained in Contamir	0.00	S	31.08	TN	0.00
08/08/2020	I	6A	7024163	012976 - KLB Construction Inc.	5227	Contained in Contamir	0.00	S	15.30	TN	0.00
08/08/2020	I	6A	7024164	012976 - KLB Construction Inc.	7330	Contained in Contamir	0.00	S	29.66	TN	0.00
08/08/2020	I	6A	7024168	012976 - KLB Construction Inc.	7329	Contained in Contamir	0.00	S	30.16	TN	0.00
08/08/2020	I	6A	7024173	012976 - KLB Construction Inc.	5223	Contained in Contamir	0.00	S	29.11	TN	0.00
08/12/2020	I	6A	7024229	012976 - KLB Construction Inc.	7331	Contained in Contamir	0.00	S	29.45	TN	0.00
08/12/2020	I	6A	7024230	012976 - KLB Construction Inc.	7327	Contained in Contamir	0.00	S	29.98	TN	0.00
08/12/2020	I	6A	7024235	012976 - KLB Construction Inc.	1565	Contained in Contamir	0.00	S	28.60	TN	0.00
08/12/2020	I	6A	7024238	012976 - KLB Construction Inc.	5226	Contained in Contamir	0.00	S	29.31	TN	0.00
08/15/2020	I	6A	7024372	012976 - KLB Construction Inc.	5222	Contained in Contamir	0.00	S	29.94	TN	0.00

Tickets Reported: 141 Items Reported: 141

Contract Totals:

Material Summary	Weight Inbound	Weight Outbound		Volume Inbound	Volume Outbound		Count Inbound	Count Outbound	Billing Quantity		Material Total	Tax Total	Total
67 - Contained in Contaminated Soil	4,116.46	0.00	TN	3,864.00	0.00	YD	0.00	0.00	4,116.46	TN			

Cash Totals:
Invoice Totals:
Report Totals:

Tickets Reported: 141 Items Reported: 141