May 4, 2023
Project No. 2390
Via Email

Re: Technical Memorandum
Phase II Environmental Site Assessment Supplemental Investigation
Land Use Feasibility Study
State Correctional Institution – Pittsburgh
Pittsburgh, Pennsylvania

Rhea Engineers & Consultants, Inc. (Rhea) was contracted by the Pennsylvania Department of General Services (PADGS) (the User) through Michael Baker International (MBI) to perform supplemental Phase II Environmental Site Assessment (ESA) sampling activities associated with the Phase II ESA completed in January 2023 at the State Correctional Institution – Pittsburgh (SCIP) property located at 3001 Beaver Avenue in Pittsburgh, PA (the subject property). The supplemental Phase II ESA sampling activities were performed in support of the determination of the highest and best use of the subject property. Authorization to proceed with this work was provided by Troy Truax of MBI, in reference to Rhea's proposal dated February 10, 2023. This memorandum summarizes the supplemental soil and groundwater sampling activities performed in April 2023, and provides a comparison of the analytical results to the appropriate standards along with conclusions and recommendations.

1.0 PROJECT BACKGROUND

The subject property is located approximately four miles northwest of downtown Pittsburgh and immediately adjacent to the Ohio River. The subject property contains the vacant SCIP facility, which contains approximately 43 buildings and comprises 17 parcels across approximately 20 acres (Figure 1). The subject property has been used as a correctional facility since at least the mid 1880's along with various support facilities, including hospitals, dining facilities, power plants, laundry facilities (including drycleaning), industrial manufacturing facilities, and machine shops, among others. Operations at these facilities likely included the use of hazardous substances. On-site chemical storage at the time of Rhea's September 2022 Phase I ESA included various quantities of sealant, air compressor oil, adhesive, paint, solvent, antifreeze, acetylene canisters, water treatment chemicals, refrigerants, lubricant, motor oil, gasoline, and lead acid batteries in multiple buildings

throughout the subject property. The subject property is surrounded by commercial and industrial properties, including Engineered Polymer Solutions Inc. and the Allegheny County Sanitary Authority to the north, various commercial warehouses to the east, a Duquesne Light Company service center to the south, and the Ohio River to the west (Figure 2). The subject property is generally flat with an elevation of approximately 720 feet (ft) above mean sea level (amsl).

Rhea completed a Phase I ESA at the subject property in September 2022. The Phase I ESA identified Recognized Environmental Conditions (RECs) on and in proximity to the subject property. Based on these RECs, a Phase II ESA involving surface/subsurface soil sampling and groundwater sampling was recommended to characterize the environmental conditions present at the subject property.

Rhea subsequently completed a Phase II ESA at the subject property in January 2023. The results of the Phase II ESA indicated that previous industrial activities have not impacted site soils to an extent that would adversely affect future earth-disturbing activities. However, the Phase II ESA indicated that historical industrial activities have likely impacted groundwater on the subject property due to the presence of tetrachloroethene (PCE) and trichloroethene (TCE) above the applicable Pennsylvania Department of Environmental Protection (PADEP) Land Recycling Program Non-Residential Statewide Health Standards (Act 2) in the central and north/northeastern portions of the subject property. Based on these findings, the Phase II ESA recommended additional samples be collected to confirm the presence of contamination, further delineate the contamination plume, and to potentially identify its source. Additionally, groundwater elevation data was collected as part of this supplemental investigation in order to develop a groundwater potentiometric map of the subject property.

2.0 SUMMARY OF FIELD ACTIVITIES

2.1 Subsurface Investigation

Erik Hartle and Tyler Newell of Rhea, under the supervision of Michael Stoehr, Professional Geologist (PG) and Zachary Wicks, Project Manager, conducted a subsurface investigation between April 3 and April 5, 2023 at the subject property. The investigation included the advancement of eight soil borings and the installation of eight temporary monitoring wells. Soil borings and temporary monitoring wells were positioned within the north/northeastern portion of the subject property to further investigate the PCE and TCE impacted groundwater. The soil borings were advanced to a depth of 15 ft below ground surface (bgs) or until sampler refusal was encountered. Each of the eight soil boring locations was converted to a temporary

monitoring well. The temporary monitoring wells were installed to a depth between approximately 15 and 25 ft bgs and screened across the groundwater interface. The location of each soil boring and temporary monitoring well is presented on Figure 3. Temporary monitoring well installation information is provided in Table 2-1. The resumes of Zachary Wicks, Michael Stoehr, Erik Hartle, and Tyler Newell are included in Attachment A.

2.1.1 Sampling and Analysis Plan

The sampling and analysis plan developed for the supplemental sampling activities was based on the recommendations of the Phase II ESA completed by Rhea in January 2023, which identified several detections of PCE and TCE above the applicable Act 2 standards in the north/northeastern portion of the subject property. As a result, the soil boring and temporary monitoring well locations have been concentrated in this area to develop a representative groundwater potentiometric map, confirm the presence of contamination, further delineate the contamination plume, and to potentially identify its source. Soil sample log sheets and groundwater sample log sheets were prepared for each sampling location, documenting characteristics of the respective environmental media sampled. At the time of sampling, a chain-of-custody (COC) document was prepared to record the date and time of the sample in addition to the analytical parameters for the respective sample.

Soil and groundwater samples collected at the subject property were delivered to ALS Global (ALS) in Middletown, PA. Soil samples collected at the subject property were analyzed for the following parameters:

+ Volatile organic compounds (VOCs) (United States Environmental Protection Agency [USEPA] Methods 8260B and 5035);
+ Target analyte list (TAL) Metals, plus trivalent chromium (USEPA Method 6020A/7471B); and
+ Hexavalent Chromium (USEPA Method 7196A).

Groundwater samples collected at the subject property were analyzed for the following parameters:

+ VOCs (USEPA Methods 8260C);
+ TAL Metals, plus trivalent chromium (USEPA Method 6020A/7470A); and
+ Hexavalent Chromium (USEPA Method 7196A).

It should be noted that, per PA Code Chapter 250.10, groundwater samples for metals analysis were field filtered in accordance with the PADEP *Groundwater Monitoring Guidance Manual*. Analytical results are discussed in Section 3.0. The soil sample collection reports, water sample field logs, and full laboratory data package, including COC forms, are included in Attachments B, C, and D, respectively.

2.2 Field Exploration and Methods

2.2.1 Utility Clearance

Prior to the subsurface investigation, a utility clearance was completed through the PA One Call system in accordance with PA Act 287. The PA One Call did not identify any utilities within the area of Rhea's drilling locations. In addition to the PA One Call, Rhea contracted Ground Penetrating Radar Systems (GPRS) to conduct a geophysical survey of each boring location to clear each location of private utility lines or subsurface features associated with the subject property's use as a correctional facility. The geophysical survey completed by GPRS included ground penetrating radar, electromagnetic pipe locator, and traceable rodder. The results of the geophysical survey were marked on the ground in real-time and soil boring locations were re-located by Rhea personnel, as needed.

2.2.2 Soil Borings

The subsurface investigation included the advancement of eight soil borings (SB-01A to SB-08A). Each boring location was marked in the field by Rhea personnel prior to drilling activities. Prior to the abandonment of each bore hole, location coordinates were recorded using a handheld Trimble Geo 7X Global Positioning System (GPS).

The soil borings were advanced to their pre-determined depths or to boring refusal using direct push technology (i.e., Geoprobe) by AllProbe Environmental Inc. (AllProbe) of Wexford, PA. Each boring was continuously sampled at 5-ft intervals using a 2¼-inch outer diameter macro-core soil sampler with an internal disposable polyethylene liner. Due to the presence of fill material beneath the building foundation at soil boring SB-02A, no soil was recovered from 10 to 16 ft bgs. As a result, soil boring SB-02A was advanced to depth of approximately 25 ft bgs.

Upon retrieval of each 5-ft soil interval, Rhea field team members characterized and recorded the lithology (i.e., physical characteristics, soil type, cohesiveness, color, grain size, and relative moisture content) of the soil in the field. While wearing disposable nitrile gloves, Rhea personnel placed discrete 2-ft samples into labeled, re-sealable plastic bags. The bags were left to sit for approximately 20 minutes before

being field screened for VOCs using a photoionization detector (PID) equipped with a 10.6 electron volt (eV) lamp. The PID was calibrated prior to use with a 100 parts per million (ppm) isobutylene air standard.

Two soil samples were selected for analysis from each soil boring. Samples selected for analysis included the surface (0-2 ft bgs) interval, when soil was present, and the subsurface (2-15 ft bgs) soil with the highest PID reading. Due to the presence of fill material and the lack of recovery between 10 and 16 ft bgs in soil boring SB-02A, this soil boring was advanced to a depth of approximately 25 ft bgs and the subsurface sample was collected from the 24-26 ft bgs interval. PID readings within each depth interval for each boring are included on the soil sample collection reports provided in Attachment B. Soil samples selected for laboratory analysis were placed into laboratory-supplied Terra-core kits and glass jars and placed in a cooler with ice. The soil samples were hand delivered under COC to an ALS service center for delivery to the laboratory following each day of sampling.

Based on visual observations, unconsolidated material within 15 ft of the ground surface consisted primarily of asphalt and fill material from 0-4 ft bgs followed by a mixture of fine clayey sand, dense sand and clay, and gravel from 4-15 ft bgs. Small coal and brick fragments were present in the borings.

2.2.3 Temporary Monitoring Well Installation and Abandonment

Eight temporary monitoring wells (MW-01A to MW-08A) were installed at each existing soil boring location across the subject property (Figure 3). Each temporary monitoring well was installed using a Geoprobe with internal disposable liners until groundwater was encountered at depths ranging from 15 ft bgs (MW-03A) to 25 ft bgs (MW-01A, MW-02A, and MW-08A). Upon encountering groundwater, the boring was advanced to a sufficient depth to permit the installation of a 10-ft well screen which bracketed the groundwater interface. The temporary monitoring wells were constructed by inserting 1-inch inner diameter, schedule 40 polyvinyl chloride (PVC), 0.010-inch machine-slotted well screen and solid PVC riser pipe in the open borehole. The ground surface elevation of each temporary monitoring well location was professionally surveyed by Paul Marks of Rhea, a Certified Survey Technician (CST). Temporary monitoring well construction details from this investigation and the January 2023 Phase II ESA, including well depth, ground surface elevation, depth to water, the height of the top of casing (TOC) above the ground surface, TOC elevation, and the groundwater elevation, is provided in Table 2-1.

Table 2-1 Temporary Monitoring Well Construction Details

Temporary Monitoring Well Construction Details						
Well ID	Well Depth (ft bgs)	Ground Surface Elevation (ft amsl)	TOC Height[1]	TOC Elevation (ft amsl)	Depth to Water (ft TOC)[2]	Groundwater Elevation (ft amsl)
January 2023 Details						
MW-01	30	726.681	0.3	726.981	17.60	709.381
MW-02	24	726.495	0.9	727.395	17.78	709.615
MW-03	19	724.039	0.25	724.289	16.50	707.789
MW-04*	17	--	0.18	--	12.57	--
MW-05	20	723.223	0.5	723.723	14.55	709.173
MW-06	20	723.369	0.5	723.869	14.67	709.199
MW-07	20	724.592	0.57	725.162	14.13	711.032
MW-08	25	719.439	0.3	719.739	18.67	701.069
MW-09	20	719.382	0.29	719.672	10.31	709.362
MW-10	25	719.879	0.45	720.329	11.50	708.829
MW-11	20	719.103	0.62	719.723	11.75	707.973
MW-12	20	720.761	0.54	721.301	11.54	709.761
April 2023 Details						
MW-01A	25	723.253	0.5	723.753	15.22	708.533
MW-02A	25	723.546	3.33	726.876	17.99	708.886
MW-03A	15	723.965	0.58	724.545	8.37	716.175
MW-04A	20	723.624	0.42	724.044	14.55	709.494
MW-05A	20	722.407	1.33	723.737	13.60	710.137
MW-06A	20	721.743	0.20	721.943	12.84	709.103
MW-07A	20	723.730	0.17	723.900	13.45	710.450
MW-08A	25	725.207	0.42	725.627	17.28	708.347

Notes:
1 - TOC height measured in feet above ground surface
2 - Depth to water measured in feet below TOC
*The ground surface, TOC, and groundwater elevations could not be calculated for MW-04 as survey data was not available for this well.
ft amsl – feet above mean sea level

Upon completion of groundwater sampling activities, each temporary monitoring well was abandoned. AllProbe performed the well abandonments by pulling the well casing and backfilling the remaining borehole with the excess drill cuttings and bentonite chips to within several inches of the ground surface. Temporary monitoring wells advanced through paved surfaces were patched with asphalt, and temporary monitoring wells advanced through grassy areas were re-established with topsoil.

2.2.4 Groundwater Potentiometric Surface

Groundwater elevations were calculated from depth-to-water measurements collected from the 8 temporary monitoring wells installed during this investigation and the 12 temporary monitoring wells installed during the January 2023 Phase II ESA (Table 2-1). The depth to water measurements were used to generate a potentiometric surface map of the subject property, which indicates that an approximate north-south trending potentiometric surface high is present in the central portion of the subject property in the area of temporary monitoring wells MW-05A, -07, and -07A (Figure 4). Groundwater flows from this potentiometric surface high to the east-northeast towards temporary monitoring wells MW-03/MW-03A and to the west-northwest towards the Ohio River.

The hydraulic gradient at the subject property is relatively flat, which may be related to the proximity of the subject property to the Ohio River. Furthermore, the likely presence of fill material and building foundations on the subject property are likely creating preferential flow pathways and affecting the groundwater flow patterns. It is important to note that groundwater flow patterns may be altered should re-grading or the demolition of buildings occur as part of future redevelopment activities.

2.2.5 Groundwater Sampling

Groundwater samples were collected using low-flow groundwater sampling techniques. Temporary monitoring wells were purged and sampled with a peristaltic pump and dedicated polyethylene tubing. The temporary monitoring wells were purged at a rate equal to, or less than, the groundwater recharge rate. Purge rates for the wells ranged from 150 milliliters per minute (ml/min) to 200 ml/min. The temporary monitoring wells were purged for a minimum of 30 minutes or until the groundwater quality field parameters (dissolved oxygen [DO], temperature, pH, conductivity, oxidation reduction potential [ORP], turbidity) and water levels stabilized. It should be noted that the turbidity readings for each monitoring well were inconsistent due to malfunctioning equipment. Groundwater quality field parameters, flow rates, and depth-to-water measurements were recorded approximately every five minutes (Attachment C). Continuous water level measurements could not be collected during purging as the probe for the water level

meter would not fit in the well casing with the sample tubing. Water level measurements were collected before and after purging. Parameters were considered stable once they met the following requirements for three consecutive readings:

+ DO (± 3 percent);
+ pH (± 0.1 standard units);
+ Conductivity (± 10 percent)
+ ORP (± 10 percent); and
+ Turbidity (less than 10 Nephelometric Turbidity Units [NTUs], or as low as practicable)

Groundwater samples were collected in laboratory-supplied and labeled bottles. Each sample was analyzed for the parameters identified in Section 2.1.1. Groundwater samples, temperature blanks, and trip blanks were packed into a cooler with ice and hand delivered to an ALS service center, located in Pittsburgh, PA, for delivery to the Middletown, PA laboratory. Each groundwater sample was logged on a COC form prior to shipment each day.

2.2.6 Investigation Derived Waste

Investigation-derived waste (IDW) consisted of soil (drill cuttings and excess soil sample material), purge water, disposable sampling materials, and personal protective equipment (PPE). IDW groundwater was placed in properly labeled DOT steel open-head drums and stored in a secure staging area at the subject property pending the results of groundwater sample analysis. IDW soil was returned to its respective borehole at the conclusion of sampling activities. PPE and disposable sampling materials, including the PVC used for the temporary monitoring wells, was bagged and properly disposed of as municipal waste.

Rhea is subcontracting with HEPACO, Inc. to properly profile, manifest, ship, and dispose of the IDW groundwater. All waste profiling analytical data, shipping papers, including non-hazardous waste manifests and bills of lading, will be provided under separate cover.

3.0 ANALYTICAL RESULTS

3.1 Soil

Tables 1A and 1B provide a summary of analytical detections for the surface and subsurface soil samples collected in comparison to the Act 2 standards, respectively. The analytical data was compared to the Direct Contact Medium Specific

Concentration (MSC) and soil-to-groundwater MSCs for a used, non-residential, aquifer with less than or equal to 2,500 ppm Total Dissolved Solids (TDS). The soil-to-groundwater MSC table within Act 2 contains two numeric values: the 100 times groundwater MSC; and a generic value. In accordance with the Act 2 Technical Guidance Manual, dated January 2019, the higher of the 100-times groundwater MSC and the generic value may be selected for use as the soil-to-groundwater value. The lower of the appropriate soil-to-groundwater value and the direct contact value is the applicable non-residential MSC for soil and was used to demonstrate compliance with the Act 2 Standard. Soil samples which contain constituents exceeding their respective Act 2 standard are presented on Figure 5. Complete laboratory reports are provided in Attachment D. Analytical detection tables and an exceedance map for surface and subsurface soil from the January 2023 Phase II ESA are provided in Attachment E.

3.1.1 Volatile Organic Compounds

Laboratory results indicate that none of the soil samples collected during the subsurface investigation contained VOCs at concentrations above their respective Act 2 standards. A review of the analytical data for soil samples at the subject property shows that acetone was detected in 8 of the 16 soil samples collected at the subject property and PCE was detected in 6 of 16 soil samples collected at the subject property and the duplicate sample collected at soil boring SB-02A. The acetone detection in the samples is most likely related to the preservation of the samples with sodium bisulfate. In soil samples with a high proportion of organic material, the sodium bisulfate will generate acetone when it reacts with organic material in the soil (California EPA, 2004). Additional VOCs were detected sporadically across the subject property at concentrations below their respective Act 2 standards.

3.1.2 Metals

One soil sample (SB-02A-0-2) contained manganese (10,600 milligrams per kilogram [mg/kg]) and lead (752 mg/kg) at concentrations above the applicable Act 2 standards of 2,000 mg/kg and 450 mg/kg, respectively. Manganese was also detected above the applicable Act 2 standard of 2,000 mg/kg in soil samples SB-07A-0-2 (7,240 mg/kg) and SB-08A-0-2 (2,490 mg/kg). The remaining soil samples collected during the subsurface investigation did not contain metals, including trivalent or hexavalent chromium, above their respective Act 2 standards.

3.2 Groundwater

Table 2 summarizes the analytical results for groundwater samples collected from the eight temporary monitoring wells installed at the subject property. The analytical results were compared to the MSC-groundwater (MSC_{gw}). The MSCs for a used, non-residential aquifer with less than or equal to 2,500 milligrams per liter (mg/L) TDS were used to determine compliance with Act 2 standards. Groundwater samples which contain constituents exceeding their respective Act 2 standard are presented on Figure 6. Complete laboratory reports are provided in Attachment D. Analytical results tables and an exceedance map for groundwater from the January 2023 Phase II ESA are provided in Attachment E.

3.2.1 Volatile Organic Compounds

Laboratory results indicate eight VOCs (1,1,1-Trichloroethane [1,1,1-TCA], 1,1-Dichloroethane [1,1-DCA], chloroform, cis-1,2-Dichloroethene [DCE], methyl acetate, PCE, toluene, and TCE) were detected in groundwater. PCE was detected in five wells (MW-01A, -02A, -04A, -06A, and -07A), and exceeded the applicable Act 2 standard (5 micrograms per liter [µg/L]) in wells MW-01A (634 µg/L), -02A (6.3 µg/L), and -06A (46.5 µg/L) located in the north-central portion of the subject property and well MW-07A (10.5 µg/L) located in the central portion of the subject property. PCE daughter products cis-1,2-DCE and/or TCE were detected below their respective Act 2 standards in temporary monitoring wells MW-01A, -02, -05A, and -06A. Five additional VOCs (1,1,1-TCA, 1,1-DCA, chloroform, methyl acetate, and toluene) were detected at other wells throughout the subject property, but at concentrations below their respective Act 2 standards.

3.2.2 Metals

One temporary monitoring well (MW-05A), located in the north-central portion of the subject property, contained aluminum (220 µg/L), arsenic (26 µg/L), iron (27,000 µg/L), and manganese (2,700 µg/L) at concentrations above the applicable Act 2 standards of 200 µg/L, 10 µg/L, 300 µg/L, and 300 µg/L, respectively. Manganese was also detected above the applicable Act 2 standard of 300 µg/L at temporary monitoring well MW07A (380 µg/L), located in the central portion of the subject property. Natural sources of arsenic in groundwater include the dissolution and desorption of naturally occurring minerals pyrite and iron oxide, respectively. The presence of arsenic in groundwater may also be related to the historic use of the coal fired power plant at the subject property as arsenic is a by-product of coal ash. Aluminum, manganese, and iron are naturally occurring in groundwater and concentrations may not be indicative of environmental contamination. It is important to note that the Act 2

standards for iron and manganese are based on Secondary Maximum Contaminant and Lifetime Health Advisory Levels, respectively, which are non-enforceable guidelines.

3.2.3 Vapor Intrusion

When releases of compounds occur near buildings, volatilization of contaminants from the dissolved or pure phases in the subsurface can result in the intrusion of vapor-phase contaminants into indoor air. For nonresidential receptors, if the levels of regulated substances do not exceed the nonresidential MSC_{gw} for used aquifers, then there is no potential vapor intrusion source and no further site evaluation is required (PADEP, 2021).

Since PCE exceeded the Act 2 Non-Residential standard of 5 µg/L at MW-01A, MW-02A, MW-06A, and MW-07A, further vapor intrusion evaluation is warranted. Given the unknown future use of the subject property, vapor intrusion has been evaluated conservatively and includes the following assumptions:

+ Any future building/structure foundations constructed in the area of temporary monitoring wells MW-01A, MW-02A, MW-06A, and MW-07A would be within five feet of the groundwater level; and
+ Any future buildings/structures would be non-residential.

When the applicable and appropriate MSC_{gw} for a compound is exceeded, given the above assumption regarding building foundation levels, a potentially complete pathway exists if an inhabited building or below grade occupied space is:

+ Within 100 feet of a source horizontally, and
+ Not separated vertically from the source by at least 30 feet (of sand) or 15 feet (of soil other than sand).

Based upon the subsurface geologic profile in the vicinity of MW-01A, MW-02A, MW-06A, and MW-07A, and the unknown future use of the subject property, there is a potential for vapor intrusion on the subject property. For a potentially complete pathway, if the groundwater concentrations are less than the appropriate and applicable MSC_{gw} or the groundwater level is greater than or equal to 5 feet from the receptor and concentrations are below the applicable PADEP Statewide Health Standard screening value (PADEP, 2021 Table IV-1), then no further vapor intrusion or IAQ activity for groundwater is warranted.

The concentration of PCE in groundwater at MW-01A, MW-02A, MW-06A, and MW-07A exceeds the MSC_{gw} of 5 µg/L. Since the groundwater concentration of PCE is

greater than the MSC_{gw}, further evaluation for vapor intrusion would be warranted in the area of MW-01A, MW-02A, MW-06A, and MW-07A if a building would be constructed over top of, or within 100 feet, of the locations. As an alternative to additional investigation, mitigation plans could be incorporated into building designs if the building fell within guidance document set-backs.

4.0 CONCLUSIONS

Based on the supplemental investigation and a review of previous investigations at the subject property, Rhea has made the following conclusions:

+ The potentiometric map generated for the subject property indicates that an approximately north-south trending potentiometric surface high is present in the central portion of the subject property in the area of temporary monitoring wells MW-05A, -07, and -07A (Figure 4). While the hydraulic gradient at the subject property is relatively flat, groundwater appears to flow from this potentiometric surface high to the east-northeast towards temporary monitoring wells MW-03/MW-03A and to the west-northwest towards the Ohio River.

+ None of the soil samples collected during the subsurface investigation contained VOCs at concentrations above their respective Act 2 standard.

+ One surface soil sample (SB-02A-0-2) contained manganese (10,600 mg/kg) and lead (752 mg/kg) at concentrations above the applicable Act 2 standards of 2,000 mg/kg and 450 mg/kg, respectively. Manganese was also detected above the applicable Act 2 standard of 2,000 mg/kg in surface soil samples SB-07A-0-2 (7,240 mg/kg) and SB-08A-0-2 (2,490 mg/kg). The presence of manganese is likely a result of natural processes as manganese is naturally occurring in rock and soil while the elevated levels of lead detected at SB-02A are likely related to the past industrial activity of the subject property and surrounding area. The remaining soil samples collected during the subsurface investigation did not contain metals, including trivalent or hexavalent chromium, above their respective Act 2 standards.

+ PCE was detected in groundwater at MW-01A (634 µg/L), MW-02A (6.3 µg/L), MW-06A (46.5 µg/L), and MW-07A (10.5 µg/L) above the applicable Act 2 standard and the MSCgw of 5 µg/L. Temporary monitoring wells MW-01A, MW-02A, and MW-06A are located in the north-central portion of the subject property and temporary monitoring well MW-07A is located

in the central portion of the subject property within the prison walls. The source of the PCE detected in MW-01A, MW-02A, MW-06A, and MW-07A is likely attributed to the historic industrial use of the subject property as a correctional facility, primarily the laundry (including drycleaning) facilities.

+ MW-01A is located in the north/northeastern portion of the subject property in a concrete-paved area within the prison walls. The source of the PCE detected in MW-01A is not well defined as this detection is an order of magnitude greater than the PCE levels found in temporary monitoring wells MW-02A, MW-06A, and MW-07A. However, based on the potentiometric map, the source may be located in the vicinity of January 2023 temporary monitoring wells MW-05 and MW-06 as groundwater appears to be flowing towards MW-01A from the potentiometric surface high in this area (Figure 4).

+ One temporary monitoring well (MW-05A), located in the north-central portion of the subject property, contained aluminum (220 µg/L), arsenic (26 µg/L), iron (27,000 µg/L), and manganese (2,700 µg/L) at concentrations above the applicable Act 2 standards of 200 µg/L, 10 µg/L, 300 µg/L, and 300 µg/L, respectively. Manganese was also detected above the applicable Act 2 standard of 300 µg/L at temporary monitoring well MW07A (380 µg/L), located in the central portion of the subject property. The presence of arsenic in the groundwater may be related to naturally occurring conditions or may be related to the historic use of the coal fired power plant at the subject property as arsenic is a by-product of coal ash. Aluminum, manganese, and iron are naturally occurring in groundwater and concentrations may not be indicative of environmental contamination.

5.0 RECOMMENDATIONS

The following recommendations regarding the subject property are based on Rhea's observations and interpretations as they relate to the results of this supplemental investigation and the January 2023 subsurface investigation, observed subject property conditions, available subject property history, and usage information. The results of this evaluation are qualified by the fact that only limited intrusive investigative activities have been conducted.

Based on the results of this subsurface investigation and the subsurface investigation from the January 2023 Phase II ESA, it is Rhea's professional opinion that the previous industrial activities have not impacted site soils to an extent that would

adversely affect future earth-disturbing activities at the subject property. Due to levels of manganese and lead above the Act 2 standard for soil, Rhea recommends that a Health and Safety Plan (HASP) and a Soil Management Plan (SMP) be prepared in order to develop procedures to limit potential exposure to impacted soil during future earth-disturbing site preparation and construction activities. No additional actions or investigations are recommended at this time for site soils.

The HASP should include appropriate health and safety procedures for site workers working within potentially impacted areas. The HASP should also provide procedures to avoid exposure to subsurface contamination. If potentially contaminated soils are planned to be transported, disposed of, or otherwise remediated, the site must abide by the provisions set forth in the PADEP Residual Waste Management regulations (25 Pa. Code Chapters 287 to 299).

The purpose of the SMP is to protect human health and the environment during the handling and/or excavation of soil as part of the redevelopment of the subject property. The SMP shall detail procedures to be followed to ensure that manganese in soil is managed at the subject property to limit exposure to workers and other receptors during earth-disturbing activities. The SMP would also address proper handling, stockpiling and disposal of any soils in proposed construction areas, maintenance of subject property grades, site surface water drainage/management and documentation.

The results of this supplemental subsurface investigation confirmed the presence of PCE contamination, further delineated the contamination plume, and confirmed that previous industrial activities as a correctional facility (primarily laundry, including drycleaning, facilities) have likely impacted groundwater on the subject property. The groundwater would not be suitable for use in its current condition; however, the subject property is served by a public water supply and there is no use of raw groundwater at the site. Furthermore, screening of VOC groundwater data indicates potential for vapor intrusion in any buildings located on the subject property. To address the groundwater (VOCs and metals) and potential IAQ impacts (VOCs) identified in this supplemental investigation and the January 2023 Phase II ESA, Rhea recommends:

+ Deed restrictions be implemented at the subject property to prohibit the use of groundwater;
+ Evaluation of the vapor intrusion pathway be conducted for select existing buildings (i.e., Buildings 2, 3, 4, 10, 11, 12, 13, and 18) that are not planned for demolition (Figure 2); and

+ Engineering controls (i.e., active or passive vapor mitigation systems) be incorporated into any future building designs to address the potential for vapor intrusion.

Additionally, the groundwater potentiometric map for the subject property indicates that the likely presence of fill material and building foundations may be creating preferential pathways and altering groundwater flow patterns. To address the effect of fill material and building foundations on the groundwater flow patterns and the contamination plume at the subject property, Rhea recommends:

+ Should re-grading or the demolition of buildings occur as part of future redevelopment activities, building foundations, particularly for Buildings 2, 3, and 4 and the prison wall, be left in place as their removal may alter the current groundwater flow patterns (Figure 2).

6.0 ENVIRONMENTAL PROFESSIONAL STATEMENT AND SIGNATURE

I declare that, to the best of my professional knowledge and belief, I meet the definition of Environmental Professional as defined in §312.10 of 40 Code of Federal Regulations (CFR) 312, and I have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the Site. I have developed and performed the appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

Zachary D. Wicks
Project Manager/Environmental Professional

MRS/zdw/mes

TABLES

Table 1A	Summary of Analytical Results – Surface Soil
Table 1B	Summary of Analytical Results – Subsurface Soil
Table 2	Summary of Analytical Results - Groundwater

FIGURES

ATTACHMENTS

TABLES

TABLE 1A
SUMMARY OF ANALYTICAL RESULTS COMPARED TO APPLICABLE ACT 2 STANDARDS FOR SURFACE SOIL
SCI Pittsburgh Phase II ESA Supplemental Investigation
3001 Beaver Avenue, Pittsburgh, Pennsylvania

SAMPLE ID / SAMPLE DATE	Used Aquifer Non-Residential 100 X GW MSC TDS ≤ 2500*	Used Aquifer Non-Residential Generic Value TDS ≤ 2500*	Non-Residential Direct Contact MSC (0-2 Feet)*	SB-01A-0-2 4/3/2023		SB-02A-0-2 4/4/2023		SB-03A-0-2 4/3/2023		SB-04A-0-2 4/4/2023		SB-05A-0-2 4/3/2023		SB-06A-0-2 4/3/2023		SB-07A-0-2 4/3/2023		SB-08A-0-2 4/3/2023	
Volatile Organic Compounds (Method 8260B)																			
Acetone	**8,800**	980	10,000	**0.0117**		**0.014**		**0.0145**		**0.0160**		**0.0084**		0.0047	U	0.0064	U	**0.0077**	
Carbon Disulfide	**620**	530	10,000	0.0013	U	0.0023	U	**0.0037**		0.0022	U	0.0013	U	0.00094	U	0.0013	U	0.0014	U
Cyclohexane	5,300	**6,900**	10,000	0.0013	U	0.0023	U	0.0016	U	0.0022	U	0.0013	U	0.00094	U	**0.0069**		0.0014	U
Methyl Cyclohexane**				0.0013	U	0.0023	U	**0.0016**		0.0022	U	0.0013	U	0.00094	U	**0.012**		0.0014	U
Methylene Chloride	**0.5**	0.076	10,000	0.0013	U	0.0023	U	0.0016	U	**0.0034**		0.0013	U	0.00094	U	0.0013	U	0.0014	U
Tetrachloroethene	**0.5**	0.43	3,200	0.0013	U	0.0023	U	**0.0037**		**0.0109**		0.0013	U	**0.0017**		0.0013	U	0.0014	U
Toluene	**100**	44	10,000	0.0013	U	0.0023	U	0.0016	U	0.0022	U	**0.0044**		0.00094	U	**0.0049**		0.0014	U
Metals - Target Analyte List (Method 6010B)																			
Aluminum, Total	NA	NA	**190,000**	**4,830**		**13,700**		**18,200**		**6,600**		**10,000**		**3,380**		**24,900**		**20,100**	
Antimony, Total	0.6	**27**	1,300	0.87	U	**4**		1	U	1.1	U	1.1	U	1	U	1.1	U	0.98	U
Arsenic, Total	1	**29**	61	**16.8**		**10.2**		**2.8**		**5.5**		**10.1**		**5.4**		**6.8**		**4.9**	
Barium, Total	200	**8,200**	190,000	**94.2**		**1,230**		**247**		**105**		**146**		**68.6**		**1,320**		**522**	
Beryllium, Total	0.4	**320**	6,400	**0.5**		**0.86**		**2.9**		0.54	U	**1.3**		0.52	U	**3.7**		**3.4**	
Cadmium, Total	0.5	**38**	1,600	0.43	U	**2.4**		0.51	U	0.54	U	0.53	U	0.52	U	**0.66**		0.49	U
Calcium, Total	NA	NA	NA	**16,900**		**57,800**		**190,000**		**51,200**		**45,600**		**4,770**		**114,000**		**148,000**	
Chromium, Total	NA	NA	NA	**9.5**		**9.0**		**7.2**		**11.1**		**13.1**		**10.3**		**28.7**		**9.6**	
Cobalt, Total	2.9	**130**	960	**5.7**		**3.9**		2.6	U	**4.7**		**7.3**		**3.7**		**3.3**		2.4	U
Copper, Total	100	**43,000**	100,000	**13.9**		**145**		**5**		**13.6**		**30**		**14.2**		**17.4**		**8.6**	
Iron, Total	NA	NA	**190,000**	**23,300**		**16,500**		**7,770**		**16,000**		**22,300**		**14,800**		**13,900**		**8,570**	
Lead, Total	0.5	**450**	1,000	**13.8**		**752**		**14.1**		**45.9**		**135**		**104**		**110**		**37.2**	
Magnesium, Total	NA	NA	NA	**2,030**		**8,870**		**11,800**		**2,100**		**5,800**		**896**		**18,600**		**16,800**	
Manganese, Total	30	**2,000**	190,000	**320**		**10,600**		**1,210**		**428**		**831**		**263**		**7,240**		**2,490**	
Mercury, Total *(Method 7471B)*	0.2	**10**	510	0.044	U	**0.054**		0.055	U	**0.13**		0.048	U	0.051	U	0.057	U	0.048	U
Nickel, Total	10	**650**	64,000	**10.9**		**10.7**		**6.1**		**11.2**		**16.7**		**11.3**		**9.1**		**8.3**	
Potassium, Total	NA	NA	NA	**652**		**1,010**		**1,470**		**711**		**1,090**		**428**		**922**		**1,030**	
Selenium, Total	5	**26**	16,000	2.2	U	2.4	U	2.6	U	2.7	U	2.7	U	2.6	U	**2.9**		**2.5**	
Silver, Total	10	**84**	16,000	0.87	U	0.94	U	1	U	1.1	U	1.1	U	1	U	1.1	U	0.98	U
Sodium, Total	NA	NA	NA	**112**		**234**		**501**		**166**		**167**		51.7	U	**523**		**998**	
Thallium, Total	0.2	**14**	32	0.43	U	0.47	U	0.51	U	0.54	U	0.53	U	0.52	U	0.57	U	0.49	U
Trivalent Chromium	10	**190,000**	190,000	**9.5**		**9**		**7.2**		**11.1**		**13.1**		**10.1**		**28.7**		**9.6**	
Vanadium, Total	0.68	680	**220**	**9.9**		**11.5**		**10**		**13.3**		**16.2**		**14.3**		**17.1**		**19**	
Zinc, Total	200	**12,000**	190,000	**52.8**		**295**		**23.4**		**30.2**		**112**		**72**		**71.7**		**35.3**	

Notes:
All concentrations presented in milligrams/kilogram (mg/kg)
*PADEP Medium Specific Concentrations (MSCs), November 2021
**No Act 2 or MSC standard could be identified for this constituent
Bold, grey shaded values shall be used to determine compliance with Act 2.
Bold values indicate detections.
Bold, red shaded values indicate an exceedance of the Act 2 Standard
U - Not detected
NA - Not applicable.
Refer to Appendix C for a full list of analytical results

TABLE 1B
SUMMARY OF ANALYTICAL RESULTS COMPARED TO APPLICABLE ACT 2 STANDARDS FOR SUBSURFACE SOIL
SCI Pittsburgh Phase II ESA Supplemental Investigation
3001 Beaver Avenue, Pittsburgh, Pennsylvania

SAMPLE ID SAMPLE DATE	Used Aquifer Non-Residential 100 X GW MSC TDS ≤ 2500*	Used Aquifer Non-Residential Generic Value TDS ≤ 2500*	Non-Residential Direct Contact MSC (2-15 Feet)*	SB-01A-14-16 4/3/2023		SB-02A-24-26 4/4/2023		SB-02A-24-26-DUP 4/4/2023		SB-03A-6-8 4/3/2023		SB-04A-14-16 4/4/2023		SB-05A-2-4 4/3/2023		SB-06A-2-4 4/3/2023		SB-07A-2-4 4/3/2023		SB-08A-10-12 4/3/2023	
Volatile Organic Compounds (Method 8260B)																					
2-Butanone	**400**	76	10,000	0.0046	U	0.0042	U	0.0074	U	0.0048	U	0.0068	U	0.0052	U	0.0069	U	**0.0132**		0.0047	U
Acetone	**8,800**	980	10,000	0.0046	U	0.0042	U	0.0074	U	0.0048	U	0.0068	U	**0.0142**		0.0069	U	**0.0704**		0.0047	U
cis-1,2-Dichloroethene	**7**	1.6	10,000	0.00091	U	**0.0011**		0.0015	U	0.00096	U	0.0014	U	0.001	U	0.0014	U	0.0012	U	0.00094	U
Tetrachloroethene	**0.5**	0.43	3,600	**0.0031**		**0.0173**		**0.0235**		0.00096	U	0.0014	U	0.001	U	**0.007**		0.0012	U	0.00094	U
Trichloroethene	**0.5**	0.17	180	0.00091	U	**0.0016**		**0.0018**		0.00096	U	0.0014	U	0.001	U	0.0014	U	0.0012	U	0.00094	U
Metals - Target Analyte List (Method 6010B)																					
Aluminum, Total	NA	NA	**190,000**	**3,690**		**5,790**		**4,690**		**4,000**		**5,330**		**10,600**		**14,300**		**8,850**		**3,670**	
Antimony, Total	0.6	**27**	190,000	0.97	U	1	U	0.96	U	**3.5**		1.2	U	**4.4**		1.1	U	**1.3**		1	U
Arsenic, Total	1	**29**	190,000	**6**		**11.9**		**9.1**		**19.5**		**10.5**		**13.7**		**7.9**		**12.9**		**4.3**	
Barium, Total	200	**8,200**	190,000	**56.3**		**124**		**75.5**		**105**		**56.8**		**238**		**217**		**87.3**		**57.5**	
Beryllium, Total	0.4	**320**	190,000	0.48	U	**0.74**		0.48	U	0.47	U	**0.63**		**0.98**		**1.1**		**0.64**		0.51	U
Cadmium, Total	0.5	**38**	190,000	0.48	U	0.5	U	0.48	U	**0.95**		0.58	U	**1.3**		0.55	U	0.55	U	0.51	U
Calcium, Total	NA	NA	NA	**681**		**841**		**801**		**127,000**		**406**		**6,310**		**4,230**		**1,950**		**16,600**	
Chromium, Total	NA	NA	NA	**9.3**		**11.2**		**9**		**192**		**11.1**		**23**		**25.5**		**13**		**13**	
Cobalt, Total	2.9	**130**	190,000	**3.9**		**8.9**		**5.7**		**16.6**		**7.9**		**9.7**		**16**		**13**		**3.3**	
Copper, Total	100	**43,000**	190,000	**10.1**		**11.9**		**14**		**380**		**10.2**		**61.1**		**18**		**33**		**8.3**	
Iron, Total	NA	NA	**190,000**	**16,300**		**45,700**		**23,300**		**171,000**		**26,200**		**24,700**		**31,500**		**40,700**		**10,600**	
Lead, Total	0.5	**450**	190,000	**6.8**		**12.9**		**37.6**		**68.1**		**9.6**		**343**		**26.8**		**50.1**		**29.2**	
Magnesium, Total	NA	NA	NA	**887**		**1,060**		**937**		**2,720**		**1,030**		**1,670**		**3,970**		**1,710**		**1,270**	
Manganese, Total	30	**2,000**	190,000	**525**		**1,800**		**572**		**1,070**		**485**		**566**		**874**		**638**		**261**	
Mercury, Total *(Method 7471B)*	0.2	**10**	190,000	0.055	U	0.056	U	0.051		0.051		0.058	U	**0.075**		0.05	U	**0.15**		**0.061**	
Nickel, Total	10	**650**	190,000	**9**		**21.1**		**13.8**		**134**		**15**		**22.8**		**27.4**		**23**		**7.4**	
Potassium, Total	NA	NA	NA	**447**		**748**		**572**		**634**		**856**		**1,750**		**1,480**		**1,090**		**527**	
Selenium, Total	5	**26**	190,000	2.4	U	2.5	U	2.4	U	2.4	U	2.9	U	2.8	U	2.8	U	2.8	U	2.6	U
Silver, Total	10	**84**	190,000	0.97	U	1	U	0.96	U	0.95	U	1.2	U	1.1	U	1.1	U	1.1	U	1	U
Sodium, Total	NA	NA	NA	**68.9**		50.5	U	**49.4**		**84**		57.8	U	**145**		**83.2**		**58.8**		**345**	
Thallium, Total	0.2	**14**	190,000	0.48	U	0.5	U	0.48	U	0.47	U	0.58	U	0.56	U	0.55	U	0.55	U	0.51	U
Trivalent Chromium	10.0	**190,000**	190,000	**9.3**		**11.1**		**9**		**192**		**11**		**23**		**25.3**		**13**		**13**	
Vanadium, Total	0.68	**680**	190,000	**8.3**		**51.2**		**12**		**16**		**15.3**		**23.7**		**28.8**		**19.4**		**10.3**	
Zinc, Total	200	**12,000**	190,000	**30.9**		**57.2**		**47.6**		**58.3**		**53.2**		**292**		**84.8**		**68.9**		**33.5**	

Notes:
All concentrations presented in milligrams/kilogram (mg/kg)
*PADEP Medium Specific Concentrations (MSCs), November 2021
Bold, grey shaded values shall be used to determine compliance with Act 2.
Bold values indicate detections.
Bold, red shaded values indicate an exceedance of the Act 2 Standard
U - Not Detected
NA - Not applicable.
Refer to Appendix C for a full list of analytical results

TABLE 2
SUMMARY OF ANALYTICAL RESULTS COMPARED TO APPLICABLE ACT 2 STANDARDS FOR GROUNDWATER
SCI Pittsburgh Phase II ESA Supplemental Investigation
3001 Beaver Avenue, Pittsburgh, Pennsylvania

SAMPLE ID / SAMPLE DATE	Used Aquifer Non-Residential TDS ≤ 2500*	MW-01A 4/4/2023		MW-02A 4/5/2023		MW-03A 4/5/2023		MW-03A-DUP 4/5/2023		MW-04A 4/5/2023		MW-05A 4/4/2023		MW-06A 4/5/2023		MW-07A 4/5/2023		MW-08A 4/4/2023	
Volatile Organic Compounds (Method 8260C)																			
1,1,1-Trichloroethane	**200**	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	**2.4**	
1,1-Dichloroethane	**160**	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	**1.8**	
Chloroform	**80**	1	U	1	U	**18**		**18.3**		1	U	1	U	1	U	1	U	1	U
cis-1,2-Dichloroethene	**70**	1	U	**1.2**		1	U	1	U	1	U	**58.4**		1	U	1	U	1	U
Methyl acetate	**97,000**	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U
Tetrachloroethene (PCE)	**5**	**634**		**6.3**		1	U	1	U	**3.2**		**1**	U	**46.5**		**10.5**		1	U
Toluene	**1,000**	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Trichloroethene (TCE)	**5**	**1.3**		1	U	1	U	1	U	1	U	1	U	**2.2**		1	U	1	U
Dissolved Metals - Target Analyte List (Method 6020A)																			
Aluminum [1]	**200**	89	U	89	U	89	U	89	U	89	U	**220**		89	U	89	U	**120**	
Arsenic	**10**	3	U	3	U	3	U	3	U	3	U	**26**		3	U	3	U	3	U
Barium	**2,000**	**140**		**43**		**8.9**		**9.3**		**84**		**71**		**30**		**53**		**190**	
Calcium	**NA**	**99,800**		**39,800**		**11,800**		**12,500**		**28,100**		**65,200**		**27,800**		**60,000**		**118,000**	
Hexavalent Chromium *(Method 7196A)* [3]	**100**	10	U	10	U	200	U	10	U	10	U	10	U	200	U	10	U	10	U
Iron [1]	**300**	56	U	56	U	56	U	56	U	56	U	**27,000**		56	U	56	U	**160**	
Lead	**5.0**	2.2	U	2.2	U	2.2	U	2.2	U	2.2	U	**4.9**		2.2	U	2.2	U	**2.5**	
Magnesium	**NA**	**16,300**		**7,600**		**1,900**		**2,200**		**5,800**		**9,200**		**4,500**		**9,200**		**23,200**	
Manganese [2]	**300**	**21**		**150**		5.6	U	5.6	U	**31**		**2,700**		**200**		**380**		**71**	
Potassium	**NA**	**9,000**		**4,100**		**4,300**		**4,600**		**4,000**		**2,900**		**3,500**		**2,400**		**9,800**	
Sodium	**NA**	**152,000**		**16,600**		**31,700**		**33,800**		**3,200**		**31,500**		**29,400**		**24,700**		**207,000**	
Zinc	**2,000**	5.6	U	5.6	U	5.6	U	5.6	U	5.6	U	**18**		5.6	U	5.6	U	**21**	

Notes:

All concentrations presented in micrograms per liter (µg/L)

*PADEP Medium Specific Concentrations (MSCs), November 2021

Bold, grey shaded values shall be used to determine compliance with Act 2.

Bold values indicate detections

Bold, red shaded values indicated an exceedance of the Act 2 Standard

(1) Indicates the standard is a Secondary Maximum Contaminant Level

(2) Indicates the standard is a Lifetime Health Advisory Level

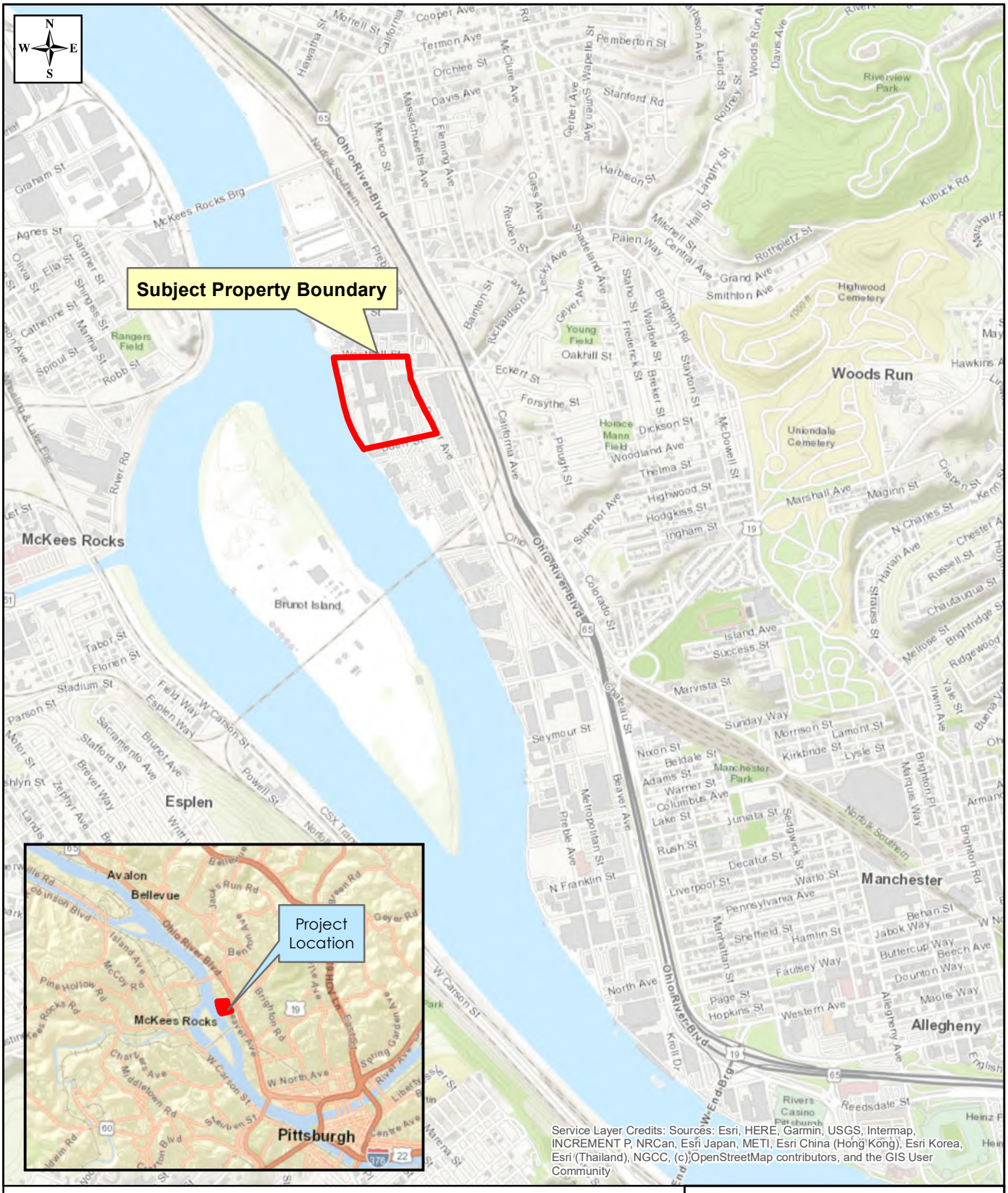
(3) No standard for Chromium (VI) in groundwater could be identified, therefore the Total Chromium standard was used

NA - Not applicable.

U - Not detected

Refer to Appendix C for a full list of analytical results

FIGURES



Legend

Subject Property Boundary

RHEA ENGINEERS & CONSULTANTS, INC.

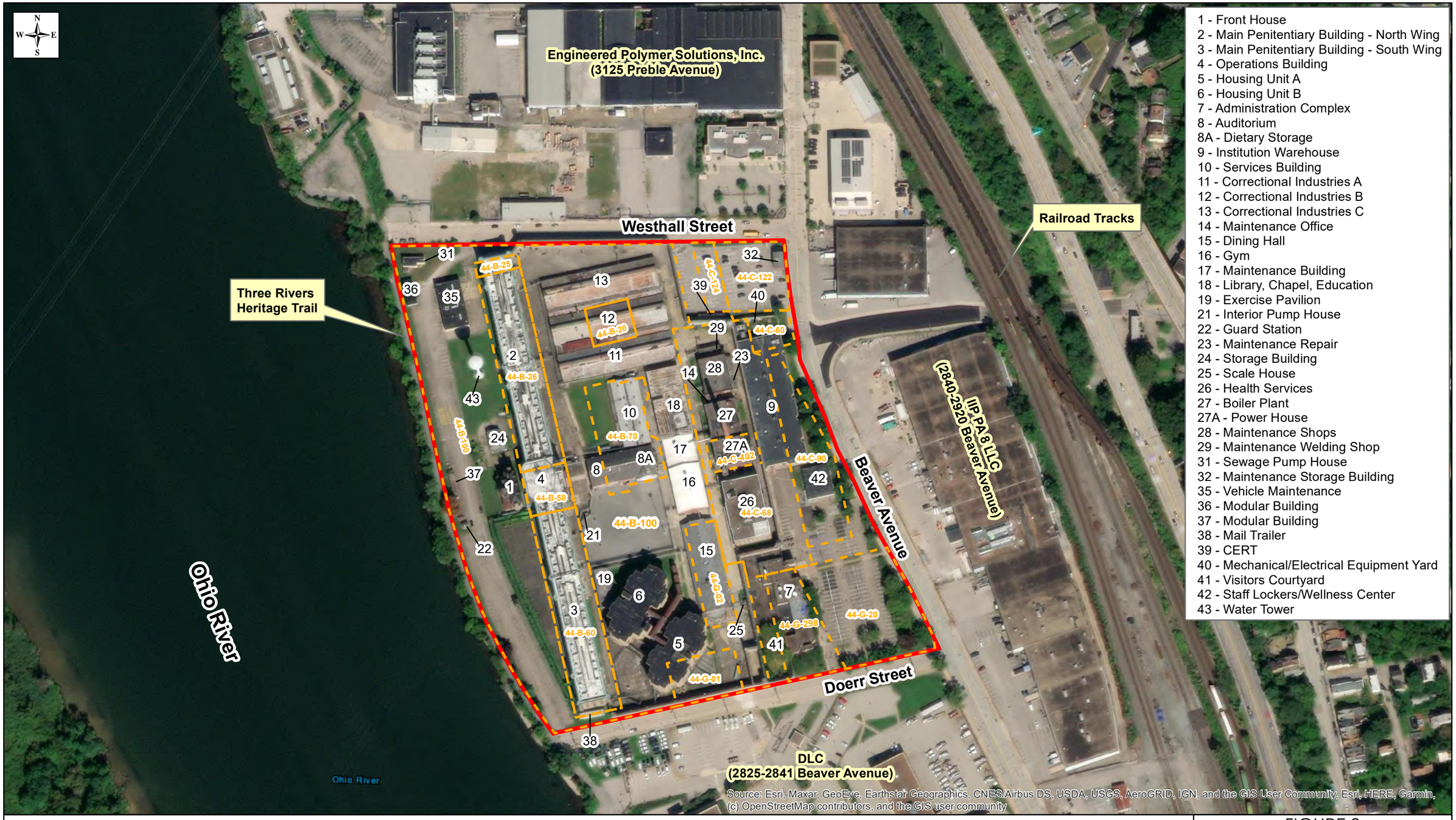
0 1,000 2,000 Feet

T:/Clients/Baker/2390/R7

FIGURE 1

USGS Topographic Site Vicinity Map
SCI Pittsburgh Phase II ESA Supplemental Investigation
Pittsburgh, Pennsylvania

Drawn By	Checked By	Date	Project	Sheet No.
MRS	ZDW	3/31/23	2390	1



1 - Front House
2 - Main Penitentiary Building - North Wing
3 - Main Penitentiary Building - South Wing
4 - Operations Building
5 - Housing Unit A
6 - Housing Unit B
7 - Administration Complex
8 - Auditorium
8A - Dietary Storage
9 - Institution Warehouse
10 - Services Building
11 - Correctional Industries A
12 - Correctional Industries B
13 - Correctional Industries C
14 - Maintenance Office
15 - Dining Hall
16 - Gym
17 - Maintenance Building
18 - Library, Chapel, Education
19 - Exercise Pavilion
21 - Interior Pump House
22 - Guard Station
23 - Maintenance Repair
24 - Storage Building
25 - Scale House
26 - Health Services
27 - Boiler Plant
27A - Power House
28 - Maintenance Shops
29 - Maintenance Welding Shop
31 - Sewage Pump House
32 - Maintenance Storage Building
35 - Vehicle Maintenance
36 - Modular Building
37 - Modular Building
38 - Mail Trailer
39 - CERT
40 - Mechanical/Electrical Equipment Yard
41 - Visitors Courtyard
42 - Staff Lockers/Wellness Center
43 - Water Tower

Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community

Legend

Parcel Boundary

Subject Property Boundary

T:/Clients/Baker/2390/R7

0 200 400 Feet

RHEA Engineers & Consultants, Inc.

FIGURE 2

Site Layout Map
SCI Pittsburgh Phase II ESA
Supplemental Investigation
Pittsburgh, Pennsylvania

Drawn By	Checked By	Date	Project	Sheet No.
MRS	ZDW	3/31/23	2390	2

Legend

- April 2023 Soil Borings/Temporary Monitoring Well Locations
- January 2023 Soil Borings/Temporary Monitoring Well Locations
- Subject Property Boundary

NOTES:
SB = Soil Boring
MW = Monitoring Well

0 75 150 300 Feet

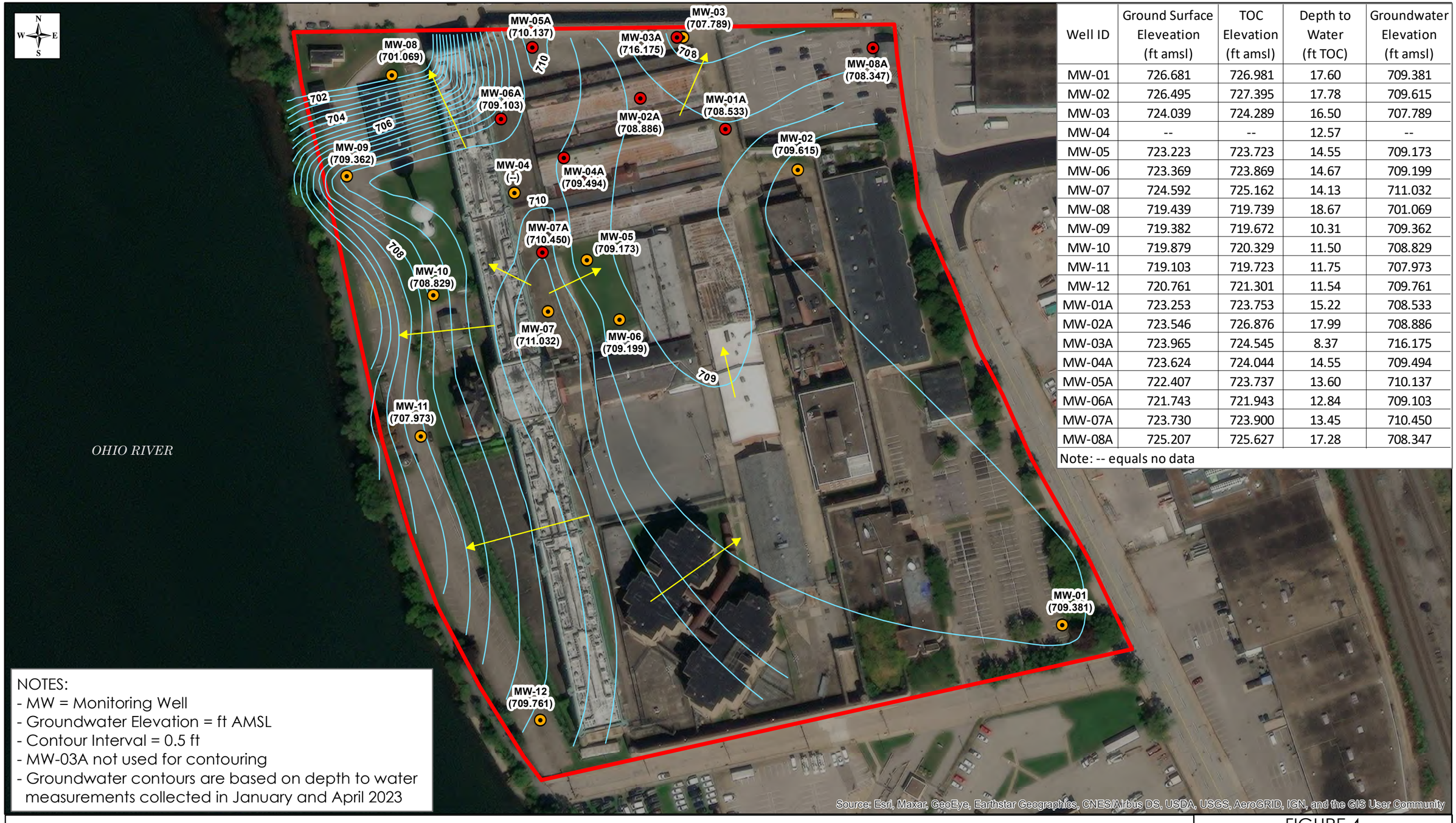
RHEA ENGINEERS & CONSULTANTS, INC.

T/Clients/Baker/2390/R7

FIGURE 3

Soil Boring & Monitoring Well Location Map
SCI Pittsburgh Phase II ESA
Supplemental Investigation
Pittsburgh, Pennsylvania

Drawn By	Checked By	Date	Project	Sheet No.
ETH	MRS	4/6/2023	2390	3



Well ID	Ground Surface Eleveation (ft amsl)	TOC Elevation (ft amsl)	Depth to Water (ft TOC)	Groundwater Elevation (ft amsl)
MW-01	726.681	726.981	17.60	709.381
MW-02	726.495	727.395	17.78	709.615
MW-03	724.039	724.289	16.50	707.789
MW-04	--	--	12.57	--
MW-05	723.223	723.723	14.55	709.173
MW-06	723.369	723.869	14.67	709.199
MW-07	724.592	725.162	14.13	711.032
MW-08	719.439	719.739	18.67	701.069
MW-09	719.382	719.672	10.31	709.362
MW-10	719.879	720.329	11.50	708.829
MW-11	719.103	719.723	11.75	707.973
MW-12	720.761	721.301	11.54	709.761
MW-01A	723.253	723.753	15.22	708.533
MW-02A	723.546	726.876	17.99	708.886
MW-03A	723.965	724.545	8.37	716.175
MW-04A	723.624	724.044	14.55	709.494
MW-05A	722.407	723.737	13.60	710.137
MW-06A	721.743	721.943	12.84	709.103
MW-07A	723.730	723.900	13.45	710.450
MW-08A	725.207	725.627	17.28	708.347

Note: -- equals no data

NOTES:
- MW = Monitoring Well
- Groundwater Elevation = ft AMSL
- Contour Interval = 0.5 ft
- MW-03A not used for contouring
- Groundwater contours are based on depth to water measurements collected in January and April 2023

Legend

- April 2023 Temporary Monitoring Well Locations
- January 2023 Temporary Monitoring Well Locations
- Groundwater Flow Direction
- Groundwater Elevation Contour
- Subject Property Boundary

T/Clients/Baker/2390/R7

0 75 150 300 Feet

RHEA ENGINEERS & CONSULTANTS, INC.

FIGURE 4

Groundwater Potentiometric Surface Map
SCI Pittsburgh Phase II ESA
Supplemental Investigation
Pittsburgh, Pennsylvania

Drawn By	Checked By	Date	Project	Sheet No.
ETH	MRS	4/12/2023	2390	4

Legend

- April 2023 Soil Boring Location
- January 2023 Soil Boring Location
- Subject Property Boundary

T/Clients/Baker/2390/R7

NOTES:
SB = Soil Boring
mg/kg = milligram per kilogram

0 75 150 300 Feet

RHEA ENGINEERS & CONSULTANTS, INC.

FIGURE 5

Exceedances in Soil
SCI Pittsburgh Phase II ESA
Supplemental Investigation
Pittsburgh, Pennsylvania

Drawn By	Checked By	Date	Project	Sheet No.
ETH	MRS	4/24/2023	2390	5

MW-05A	
Sampled 4/4/2023	
Constituent	Concentration
TAL Metals (ug/L)	
Aluminum	220
Arsenic	26
Iron	27,000
Manganese	2,700

MW-02A	
Sampled 4/5/2023	
Constituent	Concentration
Volatile Organic Compound (ug/L)	
Tetrachloroethene (PCE)	6.3

MW-06A	
Sampled 4/5/2023	
Constituent	Concentration
Volatile Organic Compound (ug/L)	
Tetrachloroethene (PCE)	46.5

MW-01A	
Sampled 4/4/2023	
Constituent	Concentration
Volatile Organic Compound (ug/L)	
Tetrachloroethene (PCE)	634

MW-07A	
Sampled 4/5/2023	
Constituent	Concentration
Volatile Organic Compound (ug/L)	
Tetrachloroethene (PCE)	10.5
TAL Metals (ug/L)	
Manganese	380

MW-08
MW-03A
MW-03
MW-08A
MW-09
MW-04A
MW-02
MW-04
MW-05
MW-10
MW-06
MW-07
MW-11
MW-01
MW-12

OHIO RIVER

N
W
E
S

Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Legend

- April 2023 Temporary Monitoring Well Location
- January 2023 Temporary Monitoring Well Location
- Subject Property Boundary

T/Clients/Baker/2390/R7

NOTES:
MW = Monitoring Well
ug/L = microgram per liter

0 75 150 300 Feet

RHEA ENGINEERS & CONSULTANTS, INC.

FIGURE 6

Exceedances in Groundwater
SCI Pittsburgh Phase II ESA
Supplemental Investigation
Pittsburgh, Pennsylvania

Drawn By	Checked By	Date	Project	Sheet No.
ETH	MRS	4/24/2023	2390	6

ATTACHMENT A

Environmental Professional Resumes

ZACHARY D. WICKS, PWS

PROJECT MANAGER/SCIENTIST III

FIRM

Rhea Engineers & Consultants, Inc.
Moon Township, PA

EDUCATION

Shippensburg University
BS, Geo-environmental Studies,

REGISTRATIONS / CERTIFICATIONS

GIS Professional Certificate #91244
Professional Wetland Scientist (PWS)

TRAINING

Wetland Delineation 40-Hour Training
OSHA HAZWOPER 40-Hour Training

YEARS OF EXPERIENCE

With Current Firm: 13
With Other Firms: 1

PROFILE

Since joining Rhea in 2008, Mr. Wicks' project experience has included Environmental Site Assessments (ESAs), wetland and stream delineations and investigations, landfill inspections, gas monitoring, asbestos and lead inspections, soil delineations and low-flow groundwater sampling, technical report writing, and preparing maps for clients using geographic information systems (ArcGIS) technology.

EXPERIENCE

Blue Comet Diner Environmental Investigation, Hazleton, Pennsylvania

The former Blue Comet Diner, located in Hazleton, PA was to be demolished in preparation for the construction of a new parking lot for the Hazleton Public Transit (HPT). Prior to demolition, a Phase I ESA was required, as well as an asbestos-containing material (ACM) and lead-based paint (LBP) survey of the interior and exterior of the former diner, as well as a Historic Code Compliance evaluation. Mr. Wicks, Project Manager, worked closely with the client to develop the initial cost estimate and scope of work for the project. Mr. Wicks ensured that all project work was carried out in accordance with the approved scope of work and budget, as well as the applicable state and federal standards and regulations. Following field work, Mr. Wicks oversaw and reviewed the findings reports, which documented all Recognized Environmental Conditions (RECs) and areas of concern identified at the property. Rhea's findings, conclusions, and recommendations were used by HPT to determine the appropriate course of action for demolition and construction activities and worker safety.

Homestead-Duquesne Road Improvement Project Environmental Site Assessment, West Mifflin, Pennsylvania

Mr. Wicks, Project Manager and PWS, managed and participated in an environmental investigation on a 0.80-mile length of Homestead-Duquesne Road in West Mifflin, PA. The purpose of this investigation was to identify and evaluate environmental and cultural concerns at the subject property prior to the proposed road improvement activities. Resources evaluated included wetlands and streams, threatened and endangered species, hazardous waste impacts, as well as cultural resources and archaeological concerns. Results from the investigation were then entered into PennDOT's online Categorical Exclusion Expert System (CEES) for review and approval during the preliminary planning phase of the project. Mr. Wicks also attended several on-site scoping meetings and monthly virtual meetings with PennDOT, PADEP, the Allegheny County Conservation District to provide routine updates on the status of the project.

Wetland Investigations in Support of Dam Rehabilitation Projects, Various Sites, Western Pennsylvania

Mr. Wicks, PWS, performed wetland investigations at five dams throughout Western Pennsylvania with the intent of identifying and evaluating potential wetland resources adjacent to, or within, the proposed construction footprint of each site prior to site activities. The dams visited included Kahle Lake Dam, Hemlock Lake Dam, High Point Lake Dam, Virgin Run Lake Dam, and Cloe Lake Dam. While most of these dams were in good overall condition with no physical deficiencies, the majority fell short of the required spillway capacity and were beyond their 50-year design life. Typical rehabilitation activities at each dam included partial spillway reconstruction, flattening of the embankment, installing seepage collection drainage systems, increasing drawdown capacity, and improving the outlet works. Mr. Wicks' investigation results were evaluated and considered during the preliminary planning phase to help minimize and/or avoid impacts to delineated wetland resources at each site.

Pittsburgh International Airport Terminal Modernization Program Phase I Environmental Site Assessment, Moon Township, Pennsylvania

Mr. Wicks, PWS and Project Manager, managed a large-scale Phase I ESA of the Area of Potential Effects for the Pittsburgh International Airport Terminal Modernization Program. The Phase I ESA was conducted in accordance with USEPA All Appropriate Inquires and ASTM E1527-13 and included an environmental records review (including record review at the appropriate PADEP regional office), site reconnaissance, and interviews. Mr. Wicks oversaw and managed all aspects of the project including the initial development of the project scope and budget, coordination with the client and regulatory agencies, site reconnaissance, background research, and development of the Phase I ESA report. The report included documentation of records reviewed, observations made during the site reconnaissance, results of the interviews conducted, documentation and/or description of RECs identified, identification of potential data gaps; and conclusions and recommendations.

Phase II Environmental Site Assessment, State Correctional Institution, Pittsburgh, Pennsylvania

Mr. Wicks was involved in the completion of a Phase II ESA at the former SCI Pittsburgh facility in support of proposed redevelopment activities. The Phase II ESA was completed in accordance with current ASTM regulations and standards and included geophysical and subsurface investigations. Throughout the course of the project, Mr. Wicks acted as field team leader, overseeing the installation and sampling of temporary groundwater monitoring wells and the collection and environmental characterization of soil from borings throughout the project site. Groundwater and soil samples collected were submitted to a laboratory and analyzed for constituents of concern. The results and conclusions summarized in Rhea's report were used in the determination of the future potential uses of the property.

Asbestos-Containing Materials Assessment, E Gates Terminal, Pittsburgh International Airport, Pittsburgh, Pennsylvania

Mr. Wicks, Project Manager, and registered asbestos building inspector in PA, both managed and participated in an ACM Assessment of the E Gates Terminal Building at the Pittsburgh International Airport (PIT) in support of the Terminal Modernization Program (TMP). Work on this project was conducted in accordance with the United States Environmental Protection Agency (USEPA) National Emissions Standard for Hazardous Air Pollutants (NESHAP) standards. Mr. Wicks collected roughly 50 bulk samples from various homogeneous areas throughout the terminal building and submitted them to an accredited laboratory for analysis. Following receipt of results, Mr. Wicks oversaw the completion of a Findings Report, which documented the precise locations, homogeneous areas, and materials that were sampled along with their associated asbestos content. Areas of concern and recommendations for further action were then discussed in detail with the client.

MICHAEL R STOEHR, PG

Assistant Project Manager/ Geologist II

FIRM

Rhea Engineers & Consultants, Inc.
Moon Township, PA

EDUCATION

Indiana University of Pennsylvania
B.S., Geology

Shippensburg University
M.S., Geo-Environmental Studies

REGISTRATIONS / CERTIFICATIONS

Professional Geologist
PA License Number: PG005518

Asbestos Building Inspector – PA – 056261; VA – 3303004425; WV – AI010797

Radon Measurement Provider – 108998RT

PADEP Certified Radon Testing Individual – 3332

TRAINING

OSHA 40-Hour HAZWOPER
OSHA 40-Hour HAZWOPER Refresher
OSHA 30-Hour Construction Safety
OSHA 8-Hour HAZWOPER Supervisor
First Aid, CPR, and AED
Bloodborne Pathogens

YEARS OF EXPERIENCE

With Current Firm: 6
With Other Firms: 0

PROFILE

Mr. Stoehr has 6 years of experience. He is involved in many types of environmental projects, which include Phase I and Phase II Environmental Site Assessments, groundwater monitoring, asbestos surveys, geophysical surveys, infiltration testing, and hazardous materials reporting, among others. Mr. Stoehr's responsibilities include project management; field work preparation, coordination, and execution; data preparation and analysis; mapping; and technical report writing.

EXPERIENCE

Pittsburgh International Airport Terminal Modernization Program Phase I Environmental Site Assessment, Moon Township, Pennsylvania. Mr. Stoehr was involved with the Phase I ESA of the Area of Potential Effects for the Pittsburgh International Airport Terminal Modernization Program. The Phase I ESA was conducted in accordance with USEPA All Appropriate Inquires and ASTM E1527-13, and included an environmental records review (including record review at the appropriate PADEP regional office), site reconnaissance, and interviews. Mr. Stoehr's primary role in the project was to perform the site reconnaissance and collaborate on the Phase I ESA report, which included: documentation of records reviewed; observations made during the site reconnaissance; results of the interviews conducted; documentation and/or description of any Recognized Environmental Conditions (RECs); identification of potential data gaps; and conclusions and recommendations.

State Correctional Institution – Pittsburgh, Phase II Environmental Site Assessment, Pittsburgh, Pennsylvania. Mr. Stoehr was involved in the completion of the Phase II ESA at the SCI – Pittsburgh facility in support of proposed redevelopment activities. The Phase II ESA was completed in accordance with ASTM E1903-11 and included geophysical and subsurface investigations. Throughout the course of the project, Mr. Stoehr has collaborated on the proposal, led the geophysical and subsurface investigations, and served as the primary report writer.

Drilling Inspector, Pittsburgh Water and Sewer Authority Subsurface Utility Excavation, Maytide Street, Pittsburgh, Pennsylvania. Mr. Stoehr served as the drilling inspector during the excavation of sanitary, water, and gas utility lines from approximately 13 test holes in support of drainage improvements for the Pittsburgh Water and Sewer Authority. Mr. Stoehr's responsibilities included the oversight

of excavation activities, the completion of subsurface utility excavation logs, and acting as the liaison between the driller and the client. Mr. Stoehr ensured that the test holes were excavated and backfilled appropriately, all necessary information was obtained, and that any issues regarding the field work were relayed to the client.

Annual Groundwater Monitoring and Reporting, Naval Support Activity Mechanicsburg, Mechanicsburg, Pennsylvania. Mr. Stoehr's responsibilities included the coordination and management of the groundwater sampling field work, which included the collection, handling, and organization of groundwater samples from approximately 50 monitoring wells. In addition to managing the field work, Mr. Stoehr was also responsible for the data processing, data analysis and writing the Annual Monitoring Report.

Allegheny County Airport Authority Phase I Environmental Site Assessment, Moon Township, Pennsylvania. Mr. Stoehr was involved with the Phase I ESA at ACAA Site 1, located north of the Pittsburgh International Airport. The Phase I ESA was conducted in accordance with USEPA All Appropriate Inquires and ASTM E1527-13, and included an environmental records review (including record review at the appropriate PADEP regional office), site reconnaissance, and interviews. Mr. Stoehr's primary role in these projects was to perform the site reconnaissance and collaborate on the Phase I ESA reports, which included: documentation of records reviewed; observations made during the site reconnaissance; results of the interviews conducted; documentation and/or description of any Recognized Environmental Conditions (RECs); identification of potential data gaps; and conclusions and recommendations.

Reporting Year 2019 Emergency Planning and Community Right-to-Know Act Section 312/313 at Joint Base Anacostia-Bolling, Washington DC. Mr. Stoehr's responsibilities included EPCRA Section 312 field work coordination and management, which included a hazardous materials inventory of approximately 60 buildings. Mr. Stoehr also served as the technical lead and managed other staff members during the preparation of the Tier II Report, which included the submission of a Tier II form to state regulators. For the Section 313 portion of the project, Mr. Stoehr was responsible for managing other staff members during the preparation of the TRI Report, which included the submission of a Form R to federal and state regulators.

Compressed Natural Gas (CNG) P3 Phase II Environmental Site Assessments, Various Pennsylvania Sites, Bureau of Public Transportation. Mr. Stoehr was involved in the completion of multiple Phase II ESAs, located at various transit agencies in western and central PA, in support of the PennDOT BPT's compressed natural gas fueling station initiative. The Phase II ESAs were conducted in accordance with ASTM E1903-11 and included a geophysical and subsurface investigation. Throughout the course of the projects, Mr. Stoehr has collaborated on the proposal, served as a member of the field team for the geophysical and subsurface investigations, and acted as the primary report writer.

Radon Technical Services at Naval Support Activity Bethesda, Bethesda, Maryland, Naval Surface Warfare Center Carderock, West Bethesda, Maryland, Naval Air Station Patuxent River, Lexington Park, Maryland. Mr. Stoehr was part of the field team that was tasked with deploying long-term Radon test kits throughout NSA Bethesda, NSWC Carderock, and NAS Patuxent River. As a Certified Radon Measurement Provider, Mr. Stoehr was able to place the test kits in appropriate locations so that they would not be disturbed by base personnel or environmental factors that could affect the device. Mr. Stoehr was also involved in the record keeping and quality control measures during the week long field event.

EXPERIENCE (CONTINUED)

On-Call Environmental Services – Evaluation of Allegheny County Airport Authority Fuel Farm Monitoring Wells, Pittsburgh, Pennsylvania. Mr. Stoehr was involved in all phases of the redevelopment of the monitoring wells surrounding the Pittsburgh International Airport Fuel Farm. Over the course of this evaluation, the wells were measured, cleaned, developed, and repaired on an as needed basis. Over the course of the project, Mr. Stoehr gained experience using sampling equipment including pumps and water level meters.

Geophysical Investigations, Various Pennsylvania Sites. Mr. Stoehr has completed multiple geophysical investigations in support of various projects across Pennsylvania. As part of these investigations, Mr. Stoehr has led the field work and operated a Geonics EM61 high sensitivity, high resolution metal detector, as well as a MALA Geoscience X3M radar system. He was also responsible for the subsequent processing and presentation of the data and preparing the final report.

Asbestos-Containing Material Assessment, Pittsburgh International Airport E Gates Terminal, Moon Township, Pennsylvania. The E Gates Terminal at the Pittsburgh International Airport is preparing to undergo demolition activities in as part of the Terminal Modernization Program. In support of these activities, Mr. Stoehr assisted in an asbestos-containing material (ACM) assessment of the interior and exterior of the E Gates Terminal. The ACM assessment included a surface-by-surface investigation, which resulted in the collection of thermal system insulation, surfacing material, and miscellaneous materials samples. Mr. Stoehr was responsible for writing the proposal, conducting the field work, and preparing the report.

ERIK T HARTLE
GEOLOGIC SPECIALIST I

FIRM
Rhea Engineers & Consultants, Inc.
Moon Township, PA

EDUCATION
Clarion University of Pennsylvania
B.S., Geology

REGISTRATIONS / CERTIFICATIONS
Registered Pennsylvania Asbestos Inspector – 063208

TRAINING
StormwaterOne Pennsylvania NPDES General Permit for Discharge of Stormwater Associated with Construction Activities, 2020

OSHA 40-Hour HAZWOPER Training (29CFR 1910.120), 2021

StormwaterOne Qualified Preparer of Storm Water Pollution Prevention Plans, 2022

StormwaterOne Qualified Compliance Inspector of Stormwater 2022

PEC Safety Safe Land, 2016
Adult First Aid/CPR/AED, 2022

YEARS OF EXPERIENCE
With Current Firm: 1
With Other Firms: 7

PROFILE

Mr. Hartle is a Geologic Specialist I at Rhea Engineers and Consultants, Inc. (Rhea). His project experience includes Underground Storage Tank (UST) Inspections, Erosion and Sediment Control Inspections, long-term monitoring (LTM) investigations in groundwater, wetland investigations/ delineations, creation and modification of maps using ArcGIS, and technical report writing/review. Mr. Hartle has been with Rhea since September 2021.

EXPERIENCE

Long-Term Monitoring of Russel Road Landfill, MCB-2 Landfill, and Site 4 Landfill, Marine Corps Base Quantico, VA. The long-term monitoring (LTM) project involves routine groundwater monitoring at three closed landfill sites at Marine Corps Base (MCB) Quantico, VA. In addition to LTM, operations and maintenance (O&M) activities conducted at these sites include methane monitoring at over 30 gas monitoring/compliance wells to monitor off-site gas migration; regular landfill inspections of the cap, vegetative cover, drainage systems, surface water management controls, leachate collection features and outlet structures; leachate sump inspections; annual benchmark surveys; and general grounds maintenance Mr. Hartle has been tasked to assist with each aspect of the LTM and O&M activities for these sites. Mr. Hartle conducts groundwater sampling, regular landfill inspections, methane monitoring, well inspections, and technical report writing for each of the routine events that are conducted at each landfill.

Pennsylvania Riverine and Wetland Condition Level 2 Rapid Assessment Protocol, Various Sites, Western PA. Rhea has been tasked to complete Riverine and Wetland Condition Level 2 Rapid Assessment Protocols (L2RAP) for various dam rehabilitation projects in Western PA. The Dam Safety and Encroachments Act requires that the obtaining of a permit from the Department of Environmental Protection (DEP) to construct, operate, maintain, enlarge, or abandon a dam, water obstruction or encroachment. The primary objective of the L2RAP is to assess existing riverine and wetland resource conditions to be potentially impacted during construction activities using information gathered in the field and compiled in wetland investigation reports. By categorizing each riverine and wetland area as the Assessment Area (AA), Mr. Hartle was able to distinguish the proper Zone of Influence (ZOI) for each region surrounding the AA. Once completed, Mr. Hartle imports the information to ArcMap to illustrate the ZOI for each AA by assessing the surrounding areas by creating a buffer zone around the AA. Once completed, the map and L2RAP assessment were combined for incorporation into the site permitting application.

EXPERIENCE (CONTINUED)

Wetland Investigation, Cloe Lake Dam Rehabilitation Project, Jefferson County, PA. Mr. Hartle assisted Mr. Zachary Wicks, Professional Wetland Scientist (PWS), with the wetland investigation at Cloe Lake Dam in Jefferson County, PA. This investigation was done with the intent of identifying and evaluating potential wetland resources adjacent to, or within the proposed footprints of Cloe Lake Dam prior to site activities. While Cloe Lake Dam is in good overall condition with no major physical deficiencies, the rehabilitation activities that are expected to take place at Cloe Lake Dam are downstream slope modifications on the embankment and the installation of a new toe drain. Mr. Wicks' investigation results, with the aid of Mr. Hartle, were evaluated and considered during the preliminary planning phase to help mitigate and/or avoid any impacts to delineated wetland resources at the Cloe Lake Dam.

Hydraulic Lift/Storage Tank Removal, Interim Remedial Action, and Site Characterization Activities PTC Former 980 Full-Service Mart Site, McDonald, PA. Rhea was consulted to document the descriptions of various activities, including Site Characterization and sampling on parcel 222 SR 980. Previously, the site operated as a Full-Service Mart that operated as a retail fuel dispensary and had four registered Underground Storage Tanks (USTs). Rhea was tasked to provide support for the various environmental activities that were to occur at the site. One task related to the environmental support of the site is groundwater monitoring events. These events are to be completed on a quarterly basis and include groundwater elevation data collection and sampling. Groundwater samples are to be submitted for the analysis of Used Oil parameters on the PADEP Short List along with samples submitted for lead analysis. Mr. Hartle acquired the depth to water in the monitoring wells using a water level meter. Mr. Hartle obtained the groundwater samples to be analyzed using a Peristaltic Pump that pumped water through a YSI Flow Through Cell. Readings were documented for consistency at five-minute intervals for an approximate time of one-half hour before collecting samples for laboratory analysis.

FY21 WNY Boiler CEMS/COMS, Washington Navy Yard, D.C. Mr. Hartle has performed draft reports and reviewal of technical reports for the NAVFAC WNY Boiler CEMS/COMS for FY21 and FY22. Mr. Hartle was tasked with inputting and/or updating existing information that had been provided in the updated Scope of Work (SOW).

Facility Compliance Inspections, Miscellaneous Inspections and Technical Support Tasks Various Sites in District 1, PA. Rhea has been contracted to provide On-site Support and Documentation Services at Pennsylvania Turnpike Commission (PTC) Facilities in District 1 for various inspections and compliance with the Pennsylvania Department of Environmental Protection (PADEP) requirements and the PA Storage Tank Regulations. These inspections are primarily conducted for completing documentation that supports the PADEP Form 2630-FM-BECB0575, 'UNDERGROUND STORAGE TANK MODIFICATION REPORT'. Mr. Hartle has performed the Walk-Through Compliance Inspection process along with testing the Veeder-Root monitor, alarm systems, sump integrity, sump liquid sensor, and leak detector functionality. Mr. Hartle has also assisted in the appropriate documentation of stated inspections and discussed proper documentation to assist with the completion of the PADEP Form for UST Systems with appropriate Facility Personnel including photographs and or emails of any areas of concern.

Semi-Annual Groundwater Monitoring and Stormwater Outfall Sampling Ervin Amasteel, Butler, PA.. Mr. Hartle, Geologic Specialist 1, has been tasked to assist in the semi-annual groundwater monitoring of four monitoring wells and semi-annual outfall sampling at two locations at Ervin Amasteel (Ervin), located in Butler, PA. These activities are completed each year as part of the NPDES General Permit requirements for the facility. Groundwater monitoring is completed by purging and sampling each well using dedicated hand bailers provided by Ervin. Outfall sampling is completed by collecting grab samples of stormwater exiting each outfall following a significant rainfall event. Following receipt of

laboratory results, Rhea is also tasked with the tabulation and trend analysis of historic analytical results for constituents of concern at each monitoring well.

Semi-Annual Stormwater Outfall Sampling and Inspections, Heniff Transportation Systems, Karns City, PA. Mr. Hartle, Geologic Specialist 1, was tasked to assist in the semi-annual stormwater outfall sampling and inspections at two locations at the Heniff Transportation Systems (formerly Superior Carriers) facility, located in Karns City, PA. These activities are completed each year as part of the NPDES General Permit requirements for the facility. Outfall sampling is completed by collecting grab samples of stormwater exiting each outfall following a significant rainfall event. Mr. Hartle is responsible for obtaining field samples an getting them delivered to the laboratory, take photographs of areas or concern, and fill out forms for each inspection and sampling event. Following each inspection, Mr. Hartle assists with the recommendations for the facility regarding each outfall location and how to prevent sedimentation and/or pollution from entering adjacent surface water bodies. Based on sampling and inspection results, Rhea recommended that the client install BMPs (inlet protection filters) and to install riprap to maintain and improve water quality leaving the site.

Erosion and Sediment Control and Health and Environmental Safety Inspections, OH, PA, and WV. As an Environmental Supervisor, Mr. Hartle conducted Erosion and Sediment Control Inspections along with Health and Environmental Safety Inspections on oil and gas drilling sites across OH, PA, and WV. Inspections were conducted to ensure that compliance was met through regional DEP and DCNR regulations along with Client Specific guidelines. Inspections were intended to document any irregularity with Best Management Practices (BMPs) and to distinguish the construction phase of the site, whether it be E&S, PCSM, or Site Restoration/Remediation phases. Along with performing inspections, Mr. Hartle aided in the management of the Inspection Team and performed QA/QC Audits to ensure all Standard Operating Procedures (SOP) were followed. Mr. Hartle reviewed inspection work for accuracy, grammar, spelling, and correct area identification for inspections before reports were submitted to the Client.

Above Ground Storage Tank Inspections, Various Sites, US. As a technician, Mr. Hartle assisted in the Above Ground Storage Tank process per API 650 and API 653. The purpose of these inspections was to indicate the amount of corrosion occurring on the metal through external and internal inspections. Along with corrosion, inspections also consisted of performing leveling measurements (external or internal) of the tank, tank layout and drawings, piping layout and drawings, nozzle layout and drawings, and internal floating roof inspections. Mr. Hartle was previously certified and Ultrasonic Thickness Testing Level I and Level II and Magnetic Particle Testing Level I and Level II.

Tyler Newell,
Geologic Specialist I

FIRM
Rhea Engineers & Consultants, Inc.
Moon Township, PA

EDUCATION
University of Pittsburgh
Geology / B.S.

REGISTRATIONS / CERTIFICATIONS
PennDOT Certified Drilling Inspector
First Aid/ CPR
Asbestos Inspector
OSHA 40 Hour Hazwoper

YEARS OF EXPERIENCE
With Current Firm: 1
With Other Firms: 2

PROFILE

Mr. Newell is a Geologic Specialist I for Rhea Engineers & Consultants, Inc. (Rhea) with two years of geotechnical experience. His experience includes drilling inspection, infiltration testing (double ring, and modified Maryland), field reconnaissance, and sample collection.

EXPERIENCE

State Correctional Institution – Pittsburgh, Phase II Environmental Site Assessment, Pittsburgh, Pennsylvania. Mr. Newell was involved in the completion of the Phase II ESA at the SCI – Pittsburgh facility in support of proposed redevelopment activities. The Phase II ESA was completed in accordance with ASTM E1903-11 and included geophysical and subsurface investigations.

Annual Groundwater Monitoring and Reporting, Naval Support Activity Mechanicsburg, Mechanicsburg, Pennsylvania. Mr. Newell's responsibilities included the coordination and management of the groundwater sampling field work, which included the collection, handling, and organization of groundwater samples from approximately 50 monitoring wells.

Bellefonte Interchange
Bellefonte, Pennsylvania
Mr. Newell was the Certified PennDOT Drilling Inspector for the SR 80 Sec B18 and B38 widening, Pennsylvania. The proposed project was for the widening of SR 80 throughout the Bellefonte Interchange. He was responsible for coordinating, planning, and oversight for the subsurface geotechnical investigation including and 18 infiltration test pits.

SR 2014 Sec B05
Mercer, Pennsylvania
Mr. Newell was the Certified PennDOT Drilling Inspector for the SR 2014 bridge replacement project located in Mercer, Pennsylvania. The proposed project was for the replacement of the bridge carrying SR 2014 over Coolspring Creek. He was responsible for coordinating, planning, and oversight for the subsurface geotechnical investigation including 3 structure borings in deep glacial till.

SR 3039 Sec B00
Mercer, Pennsylvania
Mr. Newell was the Certified PennDOT Drilling Inspector for the SR 2014 bridge replacement project located in Mercer, Pennsylvania. The proposed project was for the replacement of the bridge carrying SR 2014 over Coolspring Creek. He was responsible for coordinating, planning, and oversight for the

Long-Term Monitoring of Russel Road Landfill, MCB-2 Landfill, and Site 4 Landfill, Marine Corps Base Quantico, VA

The long-term monitoring (LTM) project involves routine groundwater monitoring at three closed landfill sites at Marine Corps Base (MCB) Quantico, VA. In addition to LTM, operations and maintenance (O&M) activities conducted at these sites include methane monitoring at over 30 gas monitoring/compliance wells to monitor off-site gas migration; regular landfill inspections of the cap, vegetative cover, drainage systems, surface water management controls, leachate collection features and outlet structures; leachate sump inspections; annual benchmark surveys; and general grounds maintenance. Mr. Newell has been tasked to assist with each aspect of the LTM and O&M activities for these sites. Mr. Newell conducts groundwater sampling, regular landfill inspections, methane monitoring, well inspections, and technical report writing for each of the routine events that are conducted at each landfill.

Pittsburgh International Airport
Pittsburgh, Pennsylvania

Mr. Newell was the Certified PennDOT Drilling Inspector for the Pittsburgh International Airport located in Pittsburgh. The proposed project included the construction of a new terminal and access bridge. He was responsible for coordinating, planning, and oversight for the subsurface geotechnical investigation and was later subcontracted out to review 52 borings that were inspected by another firm and correct them.

Amtrak Line 11
Lancaster, Pennsylvania

Mr. Newell was the Certified PennDOT Drilling Inspector for the Amtrak Line 11 project located in Lancaster. The proposed project was for the replacement of the powerline poles along a 40 mile stretch along the Susquehanna River. He was responsible for coordinating, planning, and oversight for the subsurface geotechnical investigation.

I-80 North Fork Bridges
Brookville, Pennsylvania

Mr. Newell was the Certified PennDOT Drilling Inspector for the Interstate 80 bridge replacement project located in Brookville, Pennsylvania. The proposed project was for the east-bound lane of travel to be relocated closer to the west-bound lane of travel. He was responsible for coordinating, planning, and oversight for the subsurface geotechnical investigation including 15 borings.

I-80 over SR93
Hazleton, Pennsylvania

Mr. Newell was the Certified PennDOT Drilling Inspector for the Interstate 80 bridge replacement project located in Hazleton, Pennsylvania. The proposed project was for the replacement of the two bridges carrying I-80 over SR93. He was responsible for coordinating, planning, and oversight for the subsurface geotechnical investigation including 32 borings and 9 infiltration test pits.

ATTACHMENT B

Soil Sample Collection Reports

Soil Sample
Field Collection Report

Project Name: SCI Pittsburgh Phase II ESA Project #: 2390
Date Collected: 4/3/2023 Collected By: Tyler Newell
Boring ID: SB-01A

Depth of Sample	Soil Description/Time Collected (Color, Composition, Staining, Odor)	Field Reading[1]
0-2	Concrete and gravel subbase	0.1
2-4	Brown dense sandy clay, little gravel	1.0
4-6	Brown dense dry sand	1.8
6-8	Brown dense sand and gravel, damp	3.2
8-10	Brown dense sand and gravel, cont. brick frags, damp	7.0
10-12	Brown gravel and sand fill material, damp	5.6
12-14	Brown dense sand and gravel, cont. brick frags, damp	29.9
14-16	Brown sand and gravel fill material, damp	56.1

Sampling Method: Grab
Composite Sample: _____ Composite Sample ID #: SB-01A-0-2/SB-01A-14-16
Describe Compositing: _____

Sample Types Collected

Type[2]	Per Sample?		Per Composite?	
VOCs/SVOCs/Metals/PCBs/PAHs/Dioxins	Y☒	N☐	Y☐	N☒

Volume: _____ Container Type: Terracore kit, one 8 oz glass jar, one 4 oz glass jar

Date Received by Lab: 4/4/2023 Laboratory: ALS
Weather Conditions: Sun, low 50's

Remarks: 0-5ft = 2.5ft recovery, 5-10ft = 2.5ft recovery, 10-15ft = 3ft recovery
MW-01A set at 20 Feet

[1] Organic vapor analysis, pocket penetrometer, etc.

[2] Metals, VOA, organics, etc.

Soil Sample
Field Collection Report

Project Name: SCI Pittsburgh Phase II ESA Project #: 2390
Date Collected: 4/4/2023 Collected By: Tyler Newell
Boring ID: SB-02A

Depth of Sample	Soil Description/Time Collected (Color, Composition, Staining, Odor)	Field Reading[1]
0-2	Concrete and gravel subbase, dry	12.1
2-4	Concrete and gravel subbase, dry	12.1
4-6	Brown gravel and clay, cont. brick frags.	12.1
6-8	Brown gravel and clay, cont. brick frags.	21.8
8-10	Brown gravel and clay, cont. brick frags.	21.8
10-12	No recovery	
12-14	No recovery	
14-16	No recovery	
16-18	Brown clayey fine sand, moist	28.0
18-20	Brown clayey fine sand, wet	22.1
20-22	Brown homogenous clay, wet	40.3
22-24	Brown homogenous sandy clay, wet	61.9
24-26	Brown sandy clay with alluvium	95.1

Sampling Method: Grab
Composite Sample: Composite Sample ID #: SB-02A-0-2/SB-02A-24-26
Describe Compositing:

Sample Types Collected

Type[2]	Per Sample?		Per Composite?	
VOCs/SVOCs/Metals/PCBs/PAHs/Dioxins	Y☒	N☐	Y☐	N☒

Volume: Container Type: Terracore kit, one 8 oz glass jar, one 4 oz glass jar

Date Received by Lab: 4/4/2023 Laboratory: ALS
Weather Conditions: Cloudy, mid 50's

Remarks: 0-5ft = 1ft recovery, 5-10ft = 1 ft recovery, 10-15ft = 0 ft recovery
MW-02A set at 25 Feet

[1] Organic vapor analysis, pocket penetrometer, etc.

[2] Metals, VOA, organics, etc.

Soil Sample
Field Collection Report

Project Name: SCI Pittsburgh Phase II ESA Project #: 2390
Date Collected: 4/3/2023 Collected By: Tyler Newell
Boring ID: SB-03A

Depth of Sample	Soil Description/Time Collected (Color, Composition, Staining, Odor)	Field Reading[1]
0-2	Asphalt and gravel subbase	1842
2-4	Brown dense sand and gravel, dry	15,000+
4-6	Brown dense sandy clay, damp	15,000+
6-8	Brown fine sandy clay, moist	15,000+
8-10	Brown fine sandy clay, little gravel, moist	2893
10-12	Brown fine sand to gravel layer, moist	687
12-14	Brown homogenous fine sand, wet	708
14-16	Brown fine sand and alluvium, wet	191

Sampling Method: Grab
Composite Sample: _____ Composite Sample ID #: SB-03A-0-2/SB-03A-6-8
Describe Compositing: _____

Sample Types Collected

Type[2]	Per Sample?		Per Composite?	
VOCs/SVOCs/Metals/PCBs/PAHs/Dioxins	Y☒	N☐	Y☐	N☒

Volume: _____ Container Type: Terracore kit, one 8 oz glass jar, one 4 oz glass jar

Date Received by Lab: 4/4/2023 Laboratory: ALS
Weather Conditions: Sun, mid 50's

Remarks: 0-5ft = 4.5ft recovery, 5-10ft = 3.5ft recovery, 10-15ft = 4ft recovery
MW-03A set at 15 Feet

[1] Organic vapor analysis, pocket penetrometer, etc.

[2] Metals, VOA, organics, etc.

Soil Sample
Field Collection Report

Project Name: SCI Pittsburgh Phase II ESA Project #: 2390
Date Collected: 4/4/2023 Collected By: Tyler Newell
Boring ID: SB-04A

Depth of Sample	Soil Description/Time Collected (Color, Composition, Staining, Odor)	Field Reading[1]
0-2	Concrete and gravel subbase	50.6
2-4	Brown homogenous clay, damp	56.6
4-6	Brown homogenous clay, damp	51.7
6-8	Brown clay and gravel, little sand, damp	52.3
8-10	Brown homogenous fine sand, damp	47.5
10-12	Brown fine sand, little clay, trace gravel, damp	60.4
12-14	Brown homogenous fine sand, moist	54.0
14-16	Brown sand and gravel, wet	94.1

Sampling Method: Grab
Composite Sample: _____ Composite Sample ID #: SB-04A-0-2/SB-04A-14-16
Describe Compositing: _____

Sample Types Collected

Type[2]	Per Sample?		Per Composite?	
VOCs/SVOCs/Metals/PCBs/PAHs/Dioxins	Y☒	N☐	Y☐	N☒

Volume: _____ Container Type: Terracore kit, one 8 oz glass jar, one 4 oz glass jar

Date Received by Lab: 4/4/2023 Laboratory: ALS
Weather Conditions: Cloudy, mid 50's

Remarks: 0-5ft = 4ft recovery, 5-10ft = 5ft recovery, 10-15ft = 4.5ft recovery
MW-04A set at 20 Feet

[1] Organic vapor analysis, pocket penetrometer, etc.

[2] Metals, VOA, organics, etc.

Soil Sample
Field Collection Report

Project Name: SCI Pittsburgh Phase II ESA Project #: 2390
Date Collected: 4/3/2023 Collected By: Tyler Newell
Boring ID: SB-05A

Depth of Sample	Soil Description/Time Collected (Color, Composition, Staining, Odor)	Field Reading[1]
0-2	Asphalt and subbase	28.6
2-4	Brown dense clay and gravel, damp	7.7
4-6	Brown clay and gravel cont. brick frags.	3.7
6-8	Brown homogenous clay, damp	2.4
8-10	Brown homogenous clay, damp	1.4
10-12	Brown clayey sand, damp	1.9
12-14	Gray homogenous clayey fine sand, moist	2.1
14-16	Gray homogenous clayey fine sand, moist	2.8

Sampling Method: Grab
Composite Sample: Composite Sample ID #: SB-05A-0-2/SB-05A-2-4
Describe Compositing:

Sample Types Collected

Type[2]	Per Sample?		Per Composite?	
VOCs/SVOCs/Metals/PCBs/PAHs/Dioxins	Y☒	N☐	Y☐	N☒

Volume: Container Type: Terracore kit, one 8 oz glass jar, one 4 oz glass jar

Date Received by Lab: 4/4/2023 Laboratory: ALS
Weather Conditions: Cloudy, mid 50's

Remarks: 0-5ft = 4.5ft recovery, 5-10ft = 4ft recovery, 10-15ft = 4.5ft recovery
MW-05A set at 20 Feet

[1] Organic vapor analysis, pocket penetrometer, etc.

[2] Metals, VOA, organics, etc.

Soil Sample
Field Collection Report

Project Name: SCI Pittsburgh Phase II ESA Project #: 2390
Date Collected: 4/3/2023 Collected By: Tyler Newell
Boring ID: SB-06A

Depth of Sample	Soil Description/Time Collected (Color, Composition, Staining, Odor)	Field Reading[1]
0-2	Asphalt and subbase	10.4
2-4	Gray gravel and fine sand	14.4
4-6	Brown dense clay, trace gravel	2.7
6-8	Gray sandy gravel, damp	6.9
8-10	Gray fine sand and clay, wet	8.3
10-12	Brown homogenous clay, moist	6.3
12-14	Brown homogenous clay, wet	6.2
14-16	Brown homogenous clay, wet	4.9

Sampling Method: Grab
Composite Sample: _____ Composite Sample ID #: SB-06A-0-2/SB-06A-2-4
Describe Compositing: _____

Sample Types Collected

Type[2]	Per Sample?		Per Composite?	
VOCs/SVOCs/Metals/PCBs/PAHs/Dioxins	Y☒	N☐	Y☐	N☒

Volume: _____ Container Type: Terracore kit, one 8 oz glass jar, one 4 oz glass jar

Date Received by Lab: 4/4/2023 Laboratory: ALS
Weather Conditions: Sunny, mid 50's

Remarks: 0-5ft = 3ft recovery, 5-10ft = 4.5ft recovery, 10-15ft = 4ft recovery
MW-06A set at 15 Feet

[1] Organic vapor analysis, pocket penetrometer, etc.

[2] Metals, VOA, organics, etc.

Soil Sample
Field Collection Report

Project Name: SCI Pittsburgh Phase II ESA Project #: 2390
Date Collected: 4/3/2023 Collected By: Tyler Newell
Boring ID: SB-07A

Depth of Sample	Soil Description/Time Collected (Color, Composition, Staining, Odor)	Field Reading[1]
0-2	Asphalt and subbase	4.8
2-4	Brown clay fill cont. brick frags.	5.7
4-6	Brown homogenous clayey sand	4.0
6-8	Brown homogenous clay, damp	1.7
8-10	Brown homogenous clay, damp	3.2
10-12	Brown homogenous sandy clay, damp	3.7
12-14	Brown homogenous sand, wet	1.4
14-16	Brown homogenous sandy clay, wet	3.8

Sampling Method: Grab
Composite Sample: _____ Composite Sample ID #: SB-07A-0-2/SB-07A-2-4
Describe Compositing: _____

Sample Types Collected

Type[2]	Per Sample?		Per Composite?	
VOCs/SVOCs/Metals/PCBs/PAHs/Dioxins	Y☒	N☐	Y☐	N☒

Volume: _____ Container Type: Terracore kit, one 8 oz glass jar, one 4 oz glass jar

Date Received by Lab: 4/4/2023 Laboratory: ALS
Weather Conditions: Sunny, mid 60's

Remarks: 0-5ft = 4.5ft recovery, 5-10ft = 4ft recovery, 10-15ft = 5ft recovery
MW-07A set at 20 Feet

[1] Organic vapor analysis, pocket penetrometer, etc.

[2] Metals, VOA, organics, etc.

Soil Sample
Field Collection Report

Project Name: SCI Pittsburgh Phase II ESA Project #: 2390
Date Collected: 4/3/2023 Collected By: Tyler Newell
Boring ID: SB-08A

Depth of Sample	Soil Description/Time Collected (Color, Composition, Staining, Odor)	Field Reading[1]
0-2	Asphalt and subbase, dry	2.2
2-4	Brown clay and gravel fill, damp	0.2
4-6	Brown clay and gravel, cont. coal and brick frags.	0.3
6-8	Gray gravel fill material, cont. brick frags.	0.2
8-10	Brown clayey sand and gravel, damp	0.1
10-12	Brown sand and gravel, cont. brick frags.	0.5
12-14	Brown dense sand and gravel, damp	0.1
14-16	Brown dense clayey gravel and sand, moist	0.4

Sampling Method: Grab
Composite Sample: _____ Composite Sample ID #: SB-08A-0-2/SB-08A-10-12
Describe Compositing: _____

Sample Types Collected

Type[2]	Per Sample?		Per Composite?	
VOCs/SVOCs/Metals/PCBs/PAHs/Dioxins	Y☒	N☐	Y☐	N☒

Volume: _____ Container Type: Terracore kit, one 8 oz glass jar, one 4 oz glass jar

Date Received by Lab: 4/4/2023 Laboratory: ALS
Weather Conditions: Sunny, mid 40's

Remarks: 0-5ft = 3ft recovery, 5-10ft = 3ft recovery, 10-15ft = 4.5ft recovery
MW-08A set at 25 Feet

[1] Organic vapor analysis, pocket penetrometer, etc.

[2] Metals, VOA, organics, etc.

ATTACHMENT C

Water Sample Collection Reports

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WATER SAMPLE COLLECTION REPORT

PROJECT NAME SCI Pittsburgh Phase II ESA	SAMPLE I.D. MW-01
PROJECT NO. 2390	WELL NO. MW-01
SAMPLE DATE 1/16/2023	SAMPLED BY ETH
SAMPLE TIME 1545	SAMPLE SEQUENCE NUMBER
COLLECTION EQUIPMENT Geopump	
DEPTH TO WATER PRIOR TO SAMPLING (FT) 17.62	

FIELD MEASUREMENTS		
pH	Standard Units	5.95
Specific Conductance	mS/cm	3.40
Water Temperature	ºC	14.53
Dissolved Oxygen	ppm	0.55
Redox Potential	mV	109
Turbidity	NTU	0.00

WATER APPEARANCE OR ODORS Clear

SAMPLING FLOW RATE 150 ml/min

SAMPLE TYPE INFORMATION

PARAMETER	VOLUME	NO. CONTAINERS	FIELD FILTERED		PRESERVED	
8260 TCL VOCs	50 ml	3	Y	(N)	(Y)	N
TAL Metals - FF	152 ml	2	(Y)	N	(Y)	N
7196 CR6	500 ml	1	Y	(N)	Y	(N)
			Y	N	Y	N
			Y	N	Y	N
			Y	N	Y	N
			Y	N	Y	N

TOTAL NO. OF CONTAINERS 6		
LABORATORY ALS	DELIVERED VIA Hand Delivered	DATE 1/16/2023
WEATHER 46 degrees, clear		
COMMENTS		

RHEA
ENGINEERS & CONSULTANTS, INC.

WATER SAMPLE COLLECTION REPORT

PROJECT NAME SCI Pittsburgh Phase II ESA	SAMPLE I.D. MW-02
PROJECT NO. 2390	WELL NO. MW-02
SAMPLE DATE 1/12/2023	SAMPLED BY ETH
SAMPLE TIME 12:25	SAMPLE SEQUENCE NUMBER
COLLECTION EQUIPMENT Geopump	
DEPTH TO WATER PRIOR TO SAMPLING (FT) 17.80	

FIELD MEASUREMENTS

pH	Standard Units	5.73
Specific Conductance	mS/cm	3.34
Water Temperature	ºC	12.93
Dissolved Oxygen	ppm	0.03
Redox Potential	mV	-146
Turbidity	NTU	42.3

WATER APPEARANCE OR ODORS Clear

SAMPLING FLOW RATE 150 ml/min

SAMPLE TYPE INFORMATION

PARAMETER	VOLUME	NO. CONTAINERS	FIELD FILTERED		PRESERVED	
8260 TCL VOCs	50 ml	3	Y	(N)	(Y)	N
TAL Metals - FF	152 ml	2	(Y)	N	(Y)	N
7196 CR6	500 ml	1	Y	(N)	Y	(N)
			Y	N	Y	N
			Y	N	Y	N
			Y	N	Y	N
			Y	N	Y	N

TOTAL NO. OF CONTAINERS 6		
LABORATORY ALS	DELIVERED VIA Hand Delivered	DATE 1/12/2023
WEATHER 48 degrees, rain		
COMMENTS		

RHEA
ENGINEERS & CONSULTANTS, INC.

WATER SAMPLE COLLECTION REPORT

PROJECT NAME SCI Pittsburgh Phase II ESA	SAMPLE I.D. MW-03
PROJECT NO. 2390	WELL NO. MW-03
SAMPLE DATE 1/12/2023	SAMPLED BY ETH
SAMPLE TIME 14:00	SAMPLE SEQUENCE NUMBER
COLLECTION EQUIPMENT Geopump	
DEPTH TO WATER PRIOR TO SAMPLING (FT) 16.46	

FIELD MEASUREMENTS

pH	Standard Units	6.25
Specific Conductance	mS/cm	0.671
Water Temperature	ºC	12.95
Dissolved Oxygen	ppm	0.00
Redox Potential	mV	-232
Turbidity	NTU	36.6

WATER APPEARANCE OR ODORS Clear

SAMPLING FLOW RATE 150 ml/min

SAMPLE TYPE INFORMATION

PARAMETER	VOLUME	NO. CONTAINERS	FIELD FILTERED		PRESERVED	
8260 TCL VOCs	50 ml	3	Y	(N)	(Y)	N
TAL Metals - FF	152 ml	2	(Y)	N	(Y)	N
7196 CR6	500 ml	1	Y	(N)	Y	(N)
			Y	N	Y	N
			Y	N	Y	N
			Y	N	Y	N
			Y	N	Y	N

TOTAL NO. OF CONTAINERS 6		
LABORATORY ALS	DELIVERED VIA Hand Delivered	DATE 1/12/2023
WEATHER 45 degrees, rain		
COMMENTS		

RHEA
ENGINEERS & CONSULTANTS, INC.

WATER SAMPLE COLLECTION REPORT

PROJECT NAME SCI Pittsburgh Phase II ESA	SAMPLE I.D. MW-04
PROJECT NO. 2390	WELL NO. MW-04
SAMPLE DATE 1/12/2023	SAMPLED BY ETH
SAMPLE TIME 15:40	SAMPLE SEQUENCE NUMBER
COLLECTION EQUIPMENT Geopump	
DEPTH TO WATER PRIOR TO SAMPLING (FT) 15.88	

FIELD MEASUREMENTS

pH	Standard Units	6.15
Specific Conductance	mS/cm	0.400
Water Temperature	ºC	13.82
Dissolved Oxygen	ppm	5.36
Redox Potential	mV	214
Turbidity	NTU	20.58

WATER APPEARANCE OR ODORS Clear

SAMPLING FLOW RATE 150 ml/min

SAMPLE TYPE INFORMATION

PARAMETER	VOLUME	NO. CONTAINERS	FIELD FILTERED		PRESERVED	
8260 TCL VOCs	50 ml	3	Y	(N)	(Y)	N
TAL Metals - FF	152 ml	2	(Y)	N	(Y)	N
7196 CR6	500 ml	1	Y	(N)	Y	(N)
			Y	N	Y	N
			Y	N	Y	N
			Y	N	Y	N
			Y	N	Y	N

TOTAL NO. OF CONTAINERS 6		
LABORATORY ALS	DELIVERED VIA Hand Delivered	DATE 1/12/2023
WEATHER 48 degrees, rain		
COMMENTS		

RHEA
ENGINEERS & CONSULTANTS, INC.

WATER SAMPLE COLLECTION REPORT

PROJECT NAME SCI Pittsburgh Phase II ESA	SAMPLE I.D. MW-05/MW-05D
PROJECT NO. 2390	WELL NO. MW-05
SAMPLE DATE 1/13/2023	SAMPLED BY ETH
SAMPLE TIME 12:35/14:40	SAMPLE SEQUENCE NUMBER
COLLECTION EQUIPMENT Geopump	
DEPTH TO WATER PRIOR TO SAMPLING (FT) 14.94	

FIELD MEASUREMENTS		
pH	Standard Units	6.25
Specific Conductance	mS/cm	0.833
Water Temperature	ºC	13.07
Dissolved Oxygen	ppm	2.09
Redox Potential	mV	102
Turbidity	NTU	1.04

WATER APPEARANCE OR ODORS Clear

SAMPLING FLOW RATE 150 ml/min

SAMPLE TYPE INFORMATION

PARAMETER	VOLUME	NO. CONTAINERS	FIELD FILTERED		PRESERVED	
8260 TCL VOCs	50 ml	3	Y	(N)	(Y)	N
TAL Metals - FF	152 ml	2	(Y)	N	(Y)	N
7196 CR6	500 ml	1	Y	(N)	Y	(N)
			Y	N	Y	N
			Y	N	Y	N
			Y	N	Y	N
			Y	N	Y	N

TOTAL NO. OF CONTAINERS 12		
LABORATORY ALS	DELIVERED VIA Hand Delivered	DATE 1/13/2023
WEATHER 26 degrees, light snow		
COMMENTS Duplicate sample collected at MW-05 (MW-05D)		

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WATER SAMPLE COLLECTION REPORT

PROJECT NAME SCI Pittsburgh Phase II ESA	SAMPLE I.D. MW-06
PROJECT NO. 2390	WELL NO. MW-06
SAMPLE DATE 1/13/2023	SAMPLED BY ETH
SAMPLE TIME 13:55	SAMPLE SEQUENCE NUMBER
COLLECTION EQUIPMENT Geopump	
DEPTH TO WATER PRIOR TO SAMPLING (FT) 15.04	

FIELD MEASUREMENTS

pH	Standard Units	6.18
Specific Conductance	mS/cm	0.367
Water Temperature	ºC	11.73
Dissolved Oxygen	ppm	4.33
Redox Potential	mV	134
Turbidity	NTU	2.33

WATER APPEARANCE OR ODORS Clear

SAMPLING FLOW RATE 150 ml/min

SAMPLE TYPE INFORMATION

PARAMETER	VOLUME	NO. CONTAINERS	FIELD FILTERED		PRESERVED	
8260 TCL VOCs	50 ml	3	Y	(N)	(Y)	N
TAL Metals - FF	152 ml	2	(Y)	N	(Y)	N
7196 CR6	500 ml	1	Y	(N)	Y	(N)
			Y	N	Y	N
			Y	N	Y	N
			Y	N	Y	N
			Y	N	Y	N

TOTAL NO. OF CONTAINERS 6		
LABORATORY ALS	DELIVERED VIA Hand Delivered	DATE 1/13/2023
WEATHER 25 degrees, light snow		
COMMENTS		

RHEA
ENGINEERS & CONSULTANTS, INC.

WATER SAMPLE COLLECTION REPORT

PROJECT NAME SCI Pittsburgh Phase II ESA	SAMPLE I.D. MW-07
PROJECT NO. 2390	WELL NO. MW-07
SAMPLE DATE 1/16/2023	SAMPLED BY ETH
SAMPLE TIME 10:55	SAMPLE SEQUENCE NUMBER
COLLECTION EQUIPMENT Geopump	
DEPTH TO WATER PRIOR TO SAMPLING (FT) 18.18	

FIELD MEASUREMENTS		
pH	Standard Units	5.72
Specific Conductance	mS/cm	0.619
Water Temperature	ºC	9.35
Dissolved Oxygen	ppm	9.34
Redox Potential	mV	263
Turbidity	NTU	96

WATER APPEARANCE OR ODORS Clear

SAMPLING FLOW RATE 150 ml/min

SAMPLE TYPE INFORMATION

PARAMETER	VOLUME	NO. CONTAINERS	FIELD FILTERED		PRESERVED	
8260 TCL VOCs	50 ml	3	Y	(N)	(Y)	N
TAL Metals - FF	152 ml	2	(Y)	N	(Y)	N
7196 CR6	500 ml	1	Y	(N)	Y	(N)
			Y	N	Y	N
			Y	N	Y	N
			Y	N	Y	N
			Y	N	Y	N

TOTAL NO. OF CONTAINERS 6		
LABORATORY ALS	DELIVERED VIA Hand Delivered	DATE 1/16/2023
WEATHER 28 degrees, clear		
COMMENTS		

RHEA
ENGINEERS & CONSULTANTS, INC.

WATER SAMPLE COLLECTION REPORT

PROJECT NAME SCI Pittsburgh Phase II ESA	SAMPLE I.D. MW-08
PROJECT NO. 2390	WELL NO. MW-08
SAMPLE DATE 1/17/2023	SAMPLED BY ETH
SAMPLE TIME 16:15	SAMPLE SEQUENCE NUMBER
COLLECTION EQUIPMENT Geopump	
DEPTH TO WATER PRIOR TO SAMPLING (FT) 18.67	

FIELD MEASUREMENTS

pH	Standard Units	NA
Specific Conductance	mS/cm	NA
Water Temperature	ºC	NA
Dissolved Oxygen	ppm	NA
Redox Potential	mV	NA
Turbidity	NTU	NA

WATER APPEARANCE OR ODORS Cloudy

SAMPLING FLOW RATE NA

SAMPLE TYPE INFORMATION

PARAMETER	VOLUME	NO. CONTAINERS	FIELD FILTERED		PRESERVED	
8260 TCL VOCs	50 ml	3	Y	(N)	(Y)	N
TAL Metals - FF	152 ml	2	(Y)	N	(Y)	N
7196 CR6	500 ml	1	Y	(N)	Y	(N)
			Y	N	Y	N
			Y	N	Y	N
			Y	N	Y	N
			Y	N	Y	N

TOTAL NO. OF CONTAINERS 6		
LABORATORY ALS	DELIVERED VIA Hand Delivered	DATE 1/17/2023
WEATHER 41 degrees, overcast		
COMMENTS		

ATTACHMENT D

Laboratory Test Results

301 Fulling Mill Road | Middletown, PA 17057 | Phone: 717-944-5541 | Fax: 717-944-1430 | www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

Analytical Results Report For

Rhea Engineers & Consultants, Inc.

Project 2022FMA SCI Pittsburgh Phase I
Workorder 3296060
Report ID 238254 on 4/20/2023

Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on Apr 05, 2023.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Elizabeth Parker (Project Coordinator) at (717) 944-5541.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads.

ALS Middletown: 301 Fulling Mill Road, Middletown, PA 17057 : 717-944-5541.

Recipient(s):
Zach Wicks - Rhea Engineers & Consultants, Inc.

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Elizabeth Parker

Elizabeth Parker *(ALS Digital Signature)*
Project Coordinator

Sample Summary

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collector	Collection Company
3296060001	MW-08A	Ground Water	04/04/2023 12:30	04/05/2023 08:53	CBC	Collected By Client
3296060002	MW-01A	Ground Water	04/04/2023 13:55	04/05/2023 08:53	CBC	Collected By Client
3296060003	MW-05A	Ground Water	04/04/2023 14:55	04/05/2023 08:53	CBC	Collected By Client
3296060004	TB-01	Ground Water	04/04/2023 14:55	04/05/2023 08:53	CBC	Collected By Client
3296060005	MW-03A	Ground Water	04/05/2023 11:00	04/06/2023 08:35	CBC	Collected By Client
3296060006	MW-03A-DUP	Ground Water	04/05/2023 11:05	04/06/2023 08:35	CBC	Collected By Client
3296060007	MW-06A	Ground Water	04/05/2023 12:40	04/06/2023 08:35	CBC	Collected By Client
3296060008	MW-07A	Ground Water	04/05/2023 14:05	04/06/2023 08:35	CBC	Collected By Client
3296060009	MW-04A	Ground Water	04/05/2023 15:20	04/06/2023 08:35	CBC	Collected By Client
3296060010	MW-02A	Ground Water	04/05/2023 15:30	04/06/2023 08:35	CBC	Collected By Client
3296060011	TB-02	Ground Water	04/05/2023 00:00	04/06/2023 08:35	CBC	Collected By Client

Reference

Notes

- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
- Except as qualified, Clean Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 136.
- Except as qualified, Safe Drinking Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 141.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are preformed in the laboratory and are therefore analyzed out of hold time.
- Method references listed on this report beginning with the prefix “S” followed by a method number (such as S2310B-97) refer to methods from “Standard Methods for the Examination of Water and Wastewater”.
- For microbiological analyses, the "Prepared" value is the date/time into the incubator and the "Analyzed" value is the date/time out the incubator.
- An Analysis-Prep Method Cross Reference Table is included after Analytical Results & Qualifiers section in this report.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.

Standard Acronyms/Flags

J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND) above the MDL
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Practical Quantitation Limit for this Project
ND	Not Detected - indicates that the analyte was Not Detected
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit
I	Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL)
(S)	Surrogate Compound
NC	Not Calculated
*	Result outside of QC limits
#	Please reference the result in the Results Section for analyte-level flags.

Project Notations

Sample Notations

Lab ID	Sample ID

Result Notations

Notation Ref.	
1	The QC sample type calibration verification was outside control limits for the compound 1,2,3-trichlorobenzene. Recovery was 77% and control limits are 80 to 120%.
2	The QC sample type calibration verification was outside control limits for the compound 1,2,4-trichlorobenzene. Recovery was 77% and control limits are 80 to 120%.
3	The QC type LLCCV for method SW846 6020A was outside the control limits for the analyte Sodium, Dissolved. The % Recovery was reported as 134.7 and the control limits were 70 to 130. Sample concentration was above the concentration of the CCV.
4	The QC sample type MS for method SW846 8260C was outside the control limits for the analyte 1,2,3-Trichlorobenzene. The % Recovery was reported as 55.2 and the control limits were 61 to 126.
5	The QC sample type MSD for method SW846 8260C was outside the control limits for the analyte 1,2,3-Trichlorobenzene. The % Recovery was reported as 57.1 and the control limits were 61 to 126.
6	The QC sample type MS for method SW846 8260C was outside the control limits for the analyte 1,2,4-Trichlorobenzene. The % Recovery was reported as 65.9 and the control limits were 67 to 123.
7	Due to sample matrix interferences, this analyte was analyzed at a dilution and the detection levels adjusted accordingly.
8	The QC sample type MS for method SW846 8260C was outside the control limits for the analyte Bromomethane. The % Recovery was reported as 23.6 and the control limits were 45 to 148.
9	The QC sample type MSD for method SW846 8260C was outside the control limits for the analyte Bromomethane. The % Recovery was reported as 25.2 and the control limits were 45 to 148.

Detected Results Summary

Client Sample ID	MW-08A	Collected	04/04/2023 12:30
Lab Sample ID	3296060001	Lab Receipt	04/05/2023 08:53

Compound	Result	Units	RDL	Method	Flag
METALS					
Aluminum, Dissolved	0.12	mg/L	0.089	SW846 6020A	#
Barium, Dissolved	0.19	mg/L	0.0056	SW846 6020A	#
Calcium, Dissolved	118	mg/L	0.11	SW846 6020A	#
Copper, Dissolved	0.0072	mg/L	0.0056	SW846 6020A	#
Iron, Dissolved	0.16	mg/L	0.056	SW846 6020A	#
Lead, Dissolved	0.0025	mg/L	0.0022	SW846 6020A	#
Magnesium, Dissolved	23.2	mg/L	0.11	SW846 6020A	#
Manganese, Dissolved	0.071	mg/L	0.0056	SW846 6020A	#
Potassium, Dissolved	9.8	mg/L	0.11	SW846 6020A	#
Sodium, Dissolved	207	mg/L	0.11	SW846 6020A	#
Zinc, Dissolved	0.021	mg/L	0.0056	SW846 6020A	#
VOLATILE ORGANICS					
1,1,1-Trichloroethane	2.4	ug/L	1.0	SW846 8260C	#
1,1-Dichloroethane	1.8	ug/L	1.0	SW846 8260C	#

Detected Results Summary

Client Sample ID	MW-01A	Collected	04/04/2023 13:55
Lab Sample ID	3296060002	Lab Receipt	04/05/2023 08:53

Compound	Result	Units	RDL	Method	Flag
METALS					
Barium, Dissolved	0.14	mg/L	0.0056	SW846 6020A	#
Calcium, Dissolved	99.8	mg/L	0.11	SW846 6020A	#
Magnesium, Dissolved	16.3	mg/L	0.11	SW846 6020A	#
Manganese, Dissolved	0.021	mg/L	0.0056	SW846 6020A	#
Potassium, Dissolved	9.0	mg/L	0.11	SW846 6020A	#
Sodium, Dissolved	152	mg/L	0.11	SW846 6020A	#
VOLATILE ORGANICS					
Tetrachloroethene	634	ug/L	10.0	SW846 8260C	#
Trichloroethene	1.3	ug/L	1.0	SW846 8260C	#

Detected Results Summary

Client Sample ID	MW-05A	Collected	04/04/2023 14:55
Lab Sample ID	3296060003	Lab Receipt	04/05/2023 08:53

Compound	Result	Units	RDL	Method	Flag
METALS					
Aluminum, Dissolved	0.22	mg/L	0.089	SW846 6020A	#
Arsenic, Dissolved	0.026	mg/L	0.0030	SW846 6020A	#
Barium, Dissolved	0.071	mg/L	0.0056	SW846 6020A	#
Calcium, Dissolved	65.2	mg/L	0.11	SW846 6020A	#
Iron, Dissolved	27.0	mg/L	0.056	SW846 6020A	#
Lead, Dissolved	0.0049	mg/L	0.0022	SW846 6020A	#
Magnesium, Dissolved	9.2	mg/L	0.11	SW846 6020A	#
Manganese, Dissolved	2.7	mg/L	0.0056	SW846 6020A	#
Potassium, Dissolved	2.9	mg/L	0.11	SW846 6020A	#
Sodium, Dissolved	31.5	mg/L	0.11	SW846 6020A	#
Zinc, Dissolved	0.018	mg/L	0.0056	SW846 6020A	#
VOLATILE ORGANICS					
cis-1,2-Dichloroethene	58.4	ug/L	1.0	SW846 8260C	#

Detected Results Summary

Client Sample ID	MW-03A	Collected	04/05/2023 11:00
Lab Sample ID	3296060005	Lab Receipt	04/06/2023 08:35

Compound	Result	Units	RDL	Method	Flag
METALS					
Barium, Dissolved	0.0089	mg/L	0.0056	SW846 6020A	#
Calcium, Dissolved	11.8	mg/L	0.11	SW846 6020A	#
Magnesium, Dissolved	1.9	mg/L	0.11	SW846 6020A	#
Potassium, Dissolved	4.3	mg/L	0.11	SW846 6020A	#
Sodium, Dissolved	31.7	mg/L	0.11	SW846 6020A	#
VOLATILE ORGANICS					
Chloroform	18.0	ug/L	1.0	SW846 8260C	#

Detected Results Summary

Client Sample ID	MW-03A-DUP	Collected	04/05/2023 11:05
Lab Sample ID	3296060006	Lab Receipt	04/06/2023 08:35

Compound	Result	Units	RDL	Method	Flag
METALS					
Barium, Dissolved	0.0093	mg/L	0.0056	SW846 6020A	#
Calcium, Dissolved	12.5	mg/L	0.11	SW846 6020A	#
Magnesium, Dissolved	2.2	mg/L	0.11	SW846 6020A	#
Potassium, Dissolved	4.6	mg/L	0.11	SW846 6020A	#
Sodium, Dissolved	33.8	mg/L	0.11	SW846 6020A	#
VOLATILE ORGANICS					
Chloroform	18.3	ug/L	1.0	SW846 8260C	#

Detected Results Summary

Client Sample ID	MW-06A	Collected	04/05/2023 12:40
Lab Sample ID	3296060007	Lab Receipt	04/06/2023 08:35

Compound	Result	Units	RDL	Method	Flag
METALS					
Barium, Dissolved	0.030	mg/L	0.0056	SW846 6020A	#
Calcium, Dissolved	27.8	mg/L	0.11	SW846 6020A	#
Magnesium, Dissolved	4.5	mg/L	0.11	SW846 6020A	#
Manganese, Dissolved	0.20	mg/L	0.0056	SW846 6020A	#
Potassium, Dissolved	3.5	mg/L	0.11	SW846 6020A	#
Sodium, Dissolved	29.4	mg/L	0.11	SW846 6020A	#
VOLATILE ORGANICS					
Tetrachloroethene	46.5	ug/L	1.0	SW846 8260C	#
Trichloroethene	2.2	ug/L	1.0	SW846 8260C	#

Detected Results Summary

Client Sample ID	MW-07A	Collected	04/05/2023 14:05
Lab Sample ID	3296060008	Lab Receipt	04/06/2023 08:35

Compound	Result	Units	RDL	Method	Flag
METALS					
Barium, Dissolved	0.053	mg/L	0.0056	SW846 6020A	#
Calcium, Dissolved	60.0	mg/L	0.11	SW846 6020A	#
Magnesium, Dissolved	9.2	mg/L	0.11	SW846 6020A	#
Manganese, Dissolved	0.38	mg/L	0.0056	SW846 6020A	#
Potassium, Dissolved	2.4	mg/L	0.11	SW846 6020A	#
Sodium, Dissolved	24.7	mg/L	0.11	SW846 6020A	#
VOLATILE ORGANICS					
Tetrachloroethene	10.5	ug/L	1.0	SW846 8260C	#

Detected Results Summary

Client Sample ID	MW-04A	Collected	04/05/2023 15:20
Lab Sample ID	3296060009	Lab Receipt	04/06/2023 08:35

Compound	Result	Units	RDL	Method	Flag
METALS					
Barium, Dissolved	0.084	mg/L	0.0056	SW846 6020A	#
Calcium, Dissolved	28.1	mg/L	0.11	SW846 6020A	#
Magnesium, Dissolved	5.8	mg/L	0.11	SW846 6020A	#
Manganese, Dissolved	0.031	mg/L	0.0056	SW846 6020A	#
Potassium, Dissolved	4.0	mg/L	0.11	SW846 6020A	#
Sodium, Dissolved	3.2	mg/L	0.11	SW846 6020A	#
VOLATILE ORGANICS					
Tetrachloroethene	3.2	ug/L	1.0	SW846 8260C	#

Detected Results Summary

Client Sample ID	MW-02A	Collected	04/05/2023 15:30
Lab Sample ID	3296060010	Lab Receipt	04/06/2023 08:35

Compound	Result	Units	RDL	Method	Flag
METALS					
Barium, Dissolved	0.043	mg/L	0.0056	SW846 6020A	#
Calcium, Dissolved	39.8	mg/L	0.11	SW846 6020A	#
Magnesium, Dissolved	7.6	mg/L	0.11	SW846 6020A	#
Manganese, Dissolved	0.15	mg/L	0.0056	SW846 6020A	#
Potassium, Dissolved	4.1	mg/L	0.11	SW846 6020A	#
Sodium, Dissolved	16.6	mg/L	0.11	SW846 6020A	#
VOLATILE ORGANICS					
cis-1,2-Dichloroethene	1.2	ug/L	1.0	SW846 8260C	#
Tetrachloroethene	6.3	ug/L	1.0	SW846 8260C	#

Results

Client Sample ID	MW-08A	Collected	04/04/2023 12:30
Lab Sample ID	3296060001	Lab Receipt	04/05/2023 08:53

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Aluminum, Dissolved	0.12		mg/L	0.089	SW846 6020A	1	04/17/2023 14:11	MO	D1
Antimony, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	04/17/2023 14:11	MO	D1
Arsenic, Dissolved	ND	ND	mg/L	0.0030	SW846 6020A	1	04/17/2023 14:11	MO	D1
Barium, Dissolved	0.19		mg/L	0.0056	SW846 6020A	1	04/17/2023 14:11	MO	D1
Beryllium, Dissolved	ND	ND	mg/L	0.0010	SW846 6020A	1	04/17/2023 14:11	MO	D1
Cadmium, Dissolved	ND	ND	mg/L	0.0011	SW846 6020A	1	04/17/2023 14:11	MO	D1
Calcium, Dissolved	118		mg/L	0.11	SW846 6020A	1	04/17/2023 14:11	MO	D1
Chromium, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	04/17/2023 14:11	MO	D1
Cobalt, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	04/17/2023 14:11	MO	D1
Copper, Dissolved	0.0072		mg/L	0.0056	SW846 6020A	1	04/17/2023 14:11	MO	D1
Iron, Dissolved	0.16		mg/L	0.056	SW846 6020A	1	04/17/2023 14:11	MO	D1
Lead, Dissolved	0.0025		mg/L	0.0022	SW846 6020A	1	04/17/2023 14:11	MO	D1
Magnesium, Dissolved	23.2		mg/L	0.11	SW846 6020A	1	04/17/2023 14:11	MO	D1
Manganese, Dissolved	0.071		mg/L	0.0056	SW846 6020A	1	04/17/2023 14:11	MO	D1
Mercury, Dissolved	ND	ND	mg/L	0.00050	SW846 7470A	1	04/06/2023 11:17	WDA	D
Nickel, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	04/17/2023 14:11	MO	D1
Potassium, Dissolved	9.8		mg/L	0.11	SW846 6020A	1	04/17/2023 14:11	MO	D1
Selenium, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	04/17/2023 14:11	MO	D1
Silver, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	04/17/2023 14:11	MO	D1
Sodium, Dissolved	207	3	mg/L	0.11	SW846 6020A	1	04/17/2023 14:11	MO	D1
Thallium, Dissolved	ND	ND	mg/L	0.0010	SW846 6020A	1	04/17/2023 14:11	MO	D1
Trivalent Chromium	ND	ND	mg/L	0.010	Calculation	1	04/17/2023 16:07	CW	F
Vanadium, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	04/17/2023 14:11	MO	D1
Zinc, Dissolved	0.021		mg/L	0.0056	SW846 6020A	1	04/17/2023 14:11	MO	D1

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1-Trichloroethane	2.4		ug/L	1.0	SW846 8260C	1	04/13/2023 15:33	TMP	A
1,1,2,2-Tetrachloroethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 15:33	TMP	A
1,1,2-Trichloroethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 15:33	TMP	A
1,1-Dichloroethane	1.8		ug/L	1.0	SW846 8260C	1	04/13/2023 15:33	TMP	A
1,1-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 15:33	TMP	A
1,2,3-Trichlorobenzene	ND	ND,1	ug/L	2.0	SW846 8260C	1	04/13/2023 15:33	TMP	A
1,2,4-Trichlorobenzene	ND	ND,2	ug/L	2.0	SW846 8260C	1	04/13/2023 15:33	TMP	A
1,2-Dibromo-3-chloropropane	ND	ND	ug/L	7.0	SW846 8260C	1	04/13/2023 15:33	TMP	A
1,2-Dibromoethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 15:33	TMP	A
1,2-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 15:33	TMP	A
1,2-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 15:33	TMP	A
1,2-Dichloropropane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 15:33	TMP	A
1,3-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 15:33	TMP	A
1,4-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 15:33	TMP	A
2-Butanone	ND	ND	ug/L	10.0	SW846 8260C	1	04/13/2023 15:33	TMP	A
2-Hexanone	ND	ND	ug/L	5.0	SW846 8260C	1	04/13/2023 15:33	TMP	A
4-Methyl-2-Pentanone(MIBK)	ND	ND	ug/L	5.0	SW846 8260C	1	04/13/2023 15:33	TMP	A
Acetone	ND	ND	ug/L	10.0	SW846 8260C	1	04/13/2023 15:33	TMP	A
Benzene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 15:33	TMP	A

Results

Client Sample ID	MW-08A	Collected	04/04/2023 12:30
Lab Sample ID	3296060001	Lab Receipt	04/05/2023 08:53

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Bromochloromethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 15:33	TMP	A
Bromodichloromethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 15:33	TMP	A
Bromoform	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 15:33	TMP	A
Bromomethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 15:33	TMP	A
Carbon Disulfide	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 15:33	TMP	A
Carbon Tetrachloride	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 15:33	TMP	A
Chlorobenzene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 15:33	TMP	A
Chlorodibromomethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 15:33	TMP	A
Chloroethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 15:33	TMP	A
Chloroform	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 15:33	TMP	A
Chloromethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 15:33	TMP	A
cis-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 15:33	TMP	A
cis-1,3-Dichloropropene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 15:33	TMP	A
Cyclohexane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 15:33	TMP	A
Dichlorodifluoromethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 15:33	TMP	A
Ethylbenzene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 15:33	TMP	A
Freon 113	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 15:33	TMP	A
Isopropylbenzene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 15:33	TMP	A
Methyl acetate	ND	ND	ug/L	2.0	SW846 8260C	1	04/13/2023 15:33	TMP	A
Methyl cyclohexane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 15:33	TMP	A
Methyl t-Butyl Ether	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 15:33	TMP	A
Methylene Chloride	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 15:33	TMP	A
mp-Xylene	ND	ND	ug/L	2.0	SW846 8260C	1	04/13/2023 15:33	TMP	A
o-Xylene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 15:33	TMP	A
Styrene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 15:33	TMP	A
Tetrachloroethene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 15:33	TMP	A
Toluene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 15:33	TMP	A
Total Xylenes	ND	ND	ug/L	3.0	SW846 8260C	1	04/13/2023 15:33	TMP	A
trans-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 15:33	TMP	A
trans-1,3-Dichloropropene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 15:33	TMP	A
Trichloroethene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 15:33	TMP	A
Trichlorofluoromethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 15:33	TMP	A
Vinyl Chloride	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 15:33	TMP	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	106%	62 – 133	04/13/2023 15:33	
4-Bromofluorobenzene	460-00-4	100%	79 – 114	04/13/2023 15:33	
Dibromofluoromethane	1868-53-7	103%	78 – 116	04/13/2023 15:33	
Toluene-d8	2037-26-5	101%	76 – 127	04/13/2023 15:33	

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Hexavalent Chromium	ND	ND	mg/L	0.010	SW846 7196A	1	04/05/2023 09:46	AXW	F

Results

Client Sample ID	MW-08A	Collected	04/04/2023 12:30
Lab Sample ID	3296060001	Lab Receipt	04/05/2023 08:53

WET CHEMISTRY (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr

Results

Client Sample ID	MW-01A	Collected	04/04/2023 13:55
Lab Sample ID	3296060002	Lab Receipt	04/05/2023 08:53

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Aluminum, Dissolved	ND	ND	mg/L	0.089	SW846 6020A	1	04/17/2023 14:22	MO	D1
Antimony, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	04/17/2023 14:22	MO	D1
Arsenic, Dissolved	ND	ND	mg/L	0.0030	SW846 6020A	1	04/17/2023 14:22	MO	D1
Barium, Dissolved	0.14		mg/L	0.0056	SW846 6020A	1	04/17/2023 14:22	MO	D1
Beryllium, Dissolved	ND	ND	mg/L	0.0010	SW846 6020A	1	04/17/2023 14:22	MO	D1
Cadmium, Dissolved	ND	ND	mg/L	0.0011	SW846 6020A	1	04/17/2023 14:22	MO	D1
Calcium, Dissolved	99.8		mg/L	0.11	SW846 6020A	1	04/17/2023 14:22	MO	D1
Chromium, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	04/17/2023 14:22	MO	D1
Cobalt, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	04/17/2023 14:22	MO	D1
Copper, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	04/17/2023 14:22	MO	D1
Iron, Dissolved	ND	ND	mg/L	0.056	SW846 6020A	1	04/17/2023 14:22	MO	D1
Lead, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	04/17/2023 14:22	MO	D1
Magnesium, Dissolved	16.3		mg/L	0.11	SW846 6020A	1	04/17/2023 14:22	MO	D1
Manganese, Dissolved	0.021		mg/L	0.0056	SW846 6020A	1	04/17/2023 14:22	MO	D1
Mercury, Dissolved	ND	ND	mg/L	0.00050	SW846 7470A	1	04/06/2023 11:18	WDA	D
Nickel, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	04/17/2023 14:22	MO	D1
Potassium, Dissolved	9.0		mg/L	0.11	SW846 6020A	1	04/17/2023 14:22	MO	D1
Selenium, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	04/17/2023 14:22	MO	D1
Silver, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	04/17/2023 14:22	MO	D1
Sodium, Dissolved	152	3	mg/L	0.11	SW846 6020A	1	04/17/2023 14:22	MO	D1
Thallium, Dissolved	ND	ND	mg/L	0.0010	SW846 6020A	1	04/17/2023 14:22	MO	D1
Trivalent Chromium	ND	ND	mg/L	0.010	Calculation	1	04/17/2023 16:08	CW	F
Vanadium, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	04/17/2023 14:22	MO	D1
Zinc, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	04/17/2023 14:22	MO	D1

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1-Trichloroethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 15:56	TMP	A
1,1,2,2-Tetrachloroethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 15:56	TMP	A
1,1,2-Trichloroethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 15:56	TMP	A
1,1-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 15:56	TMP	A
1,1-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 15:56	TMP	A
1,2,3-Trichlorobenzene	ND	ND,1,4,5	ug/L	2.0	SW846 8260C	1	04/13/2023 15:56	TMP	A
1,2,4-Trichlorobenzene	ND	ND,2,6	ug/L	2.0	SW846 8260C	1	04/13/2023 15:56	TMP	A
1,2-Dibromo-3-chloropropane	ND	ND	ug/L	7.0	SW846 8260C	1	04/13/2023 15:56	TMP	A
1,2-Dibromoethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 15:56	TMP	A
1,2-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 15:56	TMP	A
1,2-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 15:56	TMP	A
1,2-Dichloropropane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 15:56	TMP	A
1,3-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 15:56	TMP	A
1,4-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 15:56	TMP	A
2-Butanone	ND	ND	ug/L	10.0	SW846 8260C	1	04/13/2023 15:56	TMP	A
2-Hexanone	ND	ND	ug/L	5.0	SW846 8260C	1	04/13/2023 15:56	TMP	A
4-Methyl-2-Pentanone(MIBK)	ND	ND	ug/L	5.0	SW846 8260C	1	04/13/2023 15:56	TMP	A
Acetone	ND	ND	ug/L	10.0	SW846 8260C	1	04/13/2023 15:56	TMP	A
Benzene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 15:56	TMP	A

Results

Client Sample ID	MW-01A	Collected	04/04/2023 13:55
Lab Sample ID	3296060002	Lab Receipt	04/05/2023 08:53

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Bromochloromethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 15:56	TMP	A
Bromodichloromethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 15:56	TMP	A
Bromoform	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 15:56	TMP	A
Bromomethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 15:56	TMP	A
Carbon Disulfide	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 15:56	TMP	A
Carbon Tetrachloride	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 15:56	TMP	A
Chlorobenzene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 15:56	TMP	A
Chlorodibromomethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 15:56	TMP	A
Chloroethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 15:56	TMP	A
Chloroform	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 15:56	TMP	A
Chloromethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 15:56	TMP	A
cis-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 15:56	TMP	A
cis-1,3-Dichloropropene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 15:56	TMP	A
Cyclohexane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 15:56	TMP	A
Dichlorodifluoromethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 15:56	TMP	A
Ethylbenzene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 15:56	TMP	A
Freon 113	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 15:56	TMP	A
Isopropylbenzene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 15:56	TMP	A
Methyl acetate	ND	ND	ug/L	2.0	SW846 8260C	1	04/13/2023 15:56	TMP	A
Methyl cyclohexane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 15:56	TMP	A
Methyl t-Butyl Ether	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 15:56	TMP	A
Methylene Chloride	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 15:56	TMP	A
mp-Xylene	ND	ND	ug/L	2.0	SW846 8260C	1	04/13/2023 15:56	TMP	A
o-Xylene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 15:56	TMP	A
Styrene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 15:56	TMP	A
Tetrachloroethene	634		ug/L	10.0	SW846 8260C	10	04/17/2023 18:06	TMP	A
Toluene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 15:56	TMP	A
Total Xylenes	ND	ND	ug/L	3.0	SW846 8260C	1	04/13/2023 15:56	TMP	A
trans-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 15:56	TMP	A
trans-1,3-Dichloropropene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 15:56	TMP	A
Trichloroethene	1.3		ug/L	1.0	SW846 8260C	1	04/13/2023 15:56	TMP	A
Trichlorofluoromethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 15:56	TMP	A
Vinyl Chloride	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 15:56	TMP	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	96.9%	62 – 133	04/17/2023 18:06	
1,2-Dichloroethane-d4	17060-07-0	104%	62 – 133	04/13/2023 15:56	
4-Bromofluorobenzene	460-00-4	105%	79 – 114	04/17/2023 18:06	
4-Bromofluorobenzene	460-00-4	102%	79 – 114	04/13/2023 15:56	
Dibromofluoromethane	1868-53-7	102%	78 – 116	04/17/2023 18:06	
Dibromofluoromethane	1868-53-7	105%	78 – 116	04/13/2023 15:56	
Toluene-d8	2037-26-5	102%	76 – 127	04/17/2023 18:06	
Toluene-d8	2037-26-5	101%	76 – 127	04/13/2023 15:56	

WET CHEMISTRY

Results

Client Sample ID	MW-01A	Collected	04/04/2023 13:55
Lab Sample ID	3296060002	Lab Receipt	04/05/2023 08:53

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Hexavalent Chromium	ND	ND	mg/L	0.010	SW846 7196A	1	04/05/2023 09:46	AXW	F

Results

Client Sample ID	MW-05A	Collected	04/04/2023 14:55
Lab Sample ID	3296060003	Lab Receipt	04/05/2023 08:53

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Aluminum, Dissolved	0.22		mg/L	0.089	SW846 6020A	1	04/17/2023 14:24	MO	D1
Antimony, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	04/17/2023 14:24	MO	D1
Arsenic, Dissolved	0.026		mg/L	0.0030	SW846 6020A	1	04/17/2023 14:24	MO	D1
Barium, Dissolved	0.071		mg/L	0.0056	SW846 6020A	1	04/17/2023 14:24	MO	D1
Beryllium, Dissolved	ND	ND	mg/L	0.0010	SW846 6020A	1	04/17/2023 14:24	MO	D1
Cadmium, Dissolved	ND	ND	mg/L	0.0011	SW846 6020A	1	04/17/2023 14:24	MO	D1
Calcium, Dissolved	65.2		mg/L	0.11	SW846 6020A	1	04/17/2023 14:24	MO	D1
Chromium, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	04/17/2023 14:24	MO	D1
Cobalt, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	04/17/2023 14:24	MO	D1
Copper, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	04/17/2023 14:24	MO	D1
Iron, Dissolved	27.0		mg/L	0.056	SW846 6020A	1	04/17/2023 14:24	MO	D1
Lead, Dissolved	0.0049		mg/L	0.0022	SW846 6020A	1	04/17/2023 14:24	MO	D1
Magnesium, Dissolved	9.2		mg/L	0.11	SW846 6020A	1	04/17/2023 14:24	MO	D1
Manganese, Dissolved	2.7		mg/L	0.0056	SW846 6020A	1	04/17/2023 14:24	MO	D1
Mercury, Dissolved	ND	ND	mg/L	0.00050	SW846 7470A	1	04/06/2023 11:21	WDA	D
Nickel, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	04/17/2023 14:24	MO	D1
Potassium, Dissolved	2.9		mg/L	0.11	SW846 6020A	1	04/17/2023 14:24	MO	D1
Selenium, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	04/17/2023 14:24	MO	D1
Silver, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	04/17/2023 14:24	MO	D1
Sodium, Dissolved	31.5	3	mg/L	0.11	SW846 6020A	1	04/17/2023 14:24	MO	D1
Thallium, Dissolved	ND	ND	mg/L	0.0010	SW846 6020A	1	04/17/2023 14:24	MO	D1
Trivalent Chromium	ND	ND	mg/L	0.010	Calculation	1	04/17/2023 16:09	CW	F
Vanadium, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	04/17/2023 14:24	MO	D1
Zinc, Dissolved	0.018		mg/L	0.0056	SW846 6020A	1	04/17/2023 14:24	MO	D1

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1-Trichloroethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 16:19	TMP	A
1,1,2,2-Tetrachloroethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 16:19	TMP	A
1,1,2-Trichloroethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 16:19	TMP	A
1,1-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 16:19	TMP	A
1,1-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 16:19	TMP	A
1,2,3-Trichlorobenzene	ND	ND,1	ug/L	2.0	SW846 8260C	1	04/13/2023 16:19	TMP	A
1,2,4-Trichlorobenzene	ND	ND,2	ug/L	2.0	SW846 8260C	1	04/13/2023 16:19	TMP	A
1,2-Dibromo-3-chloropropane	ND	ND	ug/L	7.0	SW846 8260C	1	04/13/2023 16:19	TMP	A
1,2-Dibromoethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 16:19	TMP	A
1,2-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 16:19	TMP	A
1,2-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 16:19	TMP	A
1,2-Dichloropropane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 16:19	TMP	A
1,3-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 16:19	TMP	A
1,4-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 16:19	TMP	A
2-Butanone	ND	ND	ug/L	10.0	SW846 8260C	1	04/13/2023 16:19	TMP	A
2-Hexanone	ND	ND	ug/L	5.0	SW846 8260C	1	04/13/2023 16:19	TMP	A
4-Methyl-2-Pentanone(MIBK)	ND	ND	ug/L	5.0	SW846 8260C	1	04/13/2023 16:19	TMP	A
Acetone	ND	ND	ug/L	10.0	SW846 8260C	1	04/13/2023 16:19	TMP	A
Benzene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 16:19	TMP	A

Results

Client Sample ID	MW-05A	Collected	04/04/2023 14:55
Lab Sample ID	3296060003	Lab Receipt	04/05/2023 08:53

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Bromochloromethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 16:19	TMP	A
Bromodichloromethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 16:19	TMP	A
Bromoform	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 16:19	TMP	A
Bromomethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 16:19	TMP	A
Carbon Disulfide	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 16:19	TMP	A
Carbon Tetrachloride	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 16:19	TMP	A
Chlorobenzene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 16:19	TMP	A
Chlorodibromomethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 16:19	TMP	A
Chloroethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 16:19	TMP	A
Chloroform	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 16:19	TMP	A
Chloromethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 16:19	TMP	A
cis-1,2-Dichloroethene	58.4		ug/L	1.0	SW846 8260C	1	04/13/2023 16:19	TMP	A
cis-1,3-Dichloropropene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 16:19	TMP	A
Cyclohexane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 16:19	TMP	A
Dichlorodifluoromethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 16:19	TMP	A
Ethylbenzene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 16:19	TMP	A
Freon 113	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 16:19	TMP	A
Isopropylbenzene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 16:19	TMP	A
Methyl acetate	ND	ND	ug/L	2.0	SW846 8260C	1	04/13/2023 16:19	TMP	A
Methyl cyclohexane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 16:19	TMP	A
Methyl t-Butyl Ether	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 16:19	TMP	A
Methylene Chloride	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 16:19	TMP	A
mp-Xylene	ND	ND	ug/L	2.0	SW846 8260C	1	04/13/2023 16:19	TMP	A
o-Xylene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 16:19	TMP	A
Styrene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 16:19	TMP	A
Tetrachloroethene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 16:19	TMP	A
Toluene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 16:19	TMP	A
Total Xylenes	ND	ND	ug/L	3.0	SW846 8260C	1	04/13/2023 16:19	TMP	A
trans-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 16:19	TMP	A
trans-1,3-Dichloropropene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 16:19	TMP	A
Trichloroethene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 16:19	TMP	A
Trichlorofluoromethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 16:19	TMP	A
Vinyl Chloride	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 16:19	TMP	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	107%	62 – 133	04/13/2023 16:19	
4-Bromofluorobenzene	460-00-4	103%	79 – 114	04/13/2023 16:19	
Dibromofluoromethane	1868-53-7	106%	78 – 116	04/13/2023 16:19	
Toluene-d8	2037-26-5	103%	76 – 127	04/13/2023 16:19	

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Hexavalent Chromium	ND	ND	mg/L	0.010	SW846 7196A	1	04/05/2023 09:46	AXW	F

Results

Client Sample ID	MW-05A	Collected	04/04/2023 14:55
Lab Sample ID	3296060003	Lab Receipt	04/05/2023 08:53

WET CHEMISTRY (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr

Results

Client Sample ID	TB-01	Collected	04/04/2023 14:55
Lab Sample ID	3296060004	Lab Receipt	04/05/2023 08:53

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1-Trichloroethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 16:42	TMP	A
1,1,2,2-Tetrachloroethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 16:42	TMP	A
1,1,2-Trichloroethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 16:42	TMP	A
1,1-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 16:42	TMP	A
1,1-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 16:42	TMP	A
1,2,3-Trichlorobenzene	ND	ND,1	ug/L	2.0	SW846 8260C	1	04/13/2023 16:42	TMP	A
1,2,4-Trichlorobenzene	ND	ND,2	ug/L	2.0	SW846 8260C	1	04/13/2023 16:42	TMP	A
1,2-Dibromo-3-chloropropane	ND	ND	ug/L	7.0	SW846 8260C	1	04/13/2023 16:42	TMP	A
1,2-Dibromoethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 16:42	TMP	A
1,2-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 16:42	TMP	A
1,2-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 16:42	TMP	A
1,2-Dichloropropane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 16:42	TMP	A
1,3-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 16:42	TMP	A
1,4-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 16:42	TMP	A
2-Butanone	ND	ND	ug/L	10.0	SW846 8260C	1	04/13/2023 16:42	TMP	A
2-Hexanone	ND	ND	ug/L	5.0	SW846 8260C	1	04/13/2023 16:42	TMP	A
4-Methyl-2-Pentanone(MIBK)	ND	ND	ug/L	5.0	SW846 8260C	1	04/13/2023 16:42	TMP	A
Acetone	ND	ND	ug/L	10.0	SW846 8260C	1	04/13/2023 16:42	TMP	A
Benzene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 16:42	TMP	A
Bromochloromethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 16:42	TMP	A
Bromodichloromethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 16:42	TMP	A
Bromoform	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 16:42	TMP	A
Bromomethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 16:42	TMP	A
Carbon Disulfide	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 16:42	TMP	A
Carbon Tetrachloride	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 16:42	TMP	A
Chlorobenzene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 16:42	TMP	A
Chlorodibromomethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 16:42	TMP	A
Chloroethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 16:42	TMP	A
Chloroform	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 16:42	TMP	A
Chloromethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 16:42	TMP	A
cis-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 16:42	TMP	A
cis-1,3-Dichloropropene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 16:42	TMP	A
Cyclohexane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 16:42	TMP	A
Dichlorodifluoromethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 16:42	TMP	A
Ethylbenzene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 16:42	TMP	A
Freon 113	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 16:42	TMP	A
Isopropylbenzene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 16:42	TMP	A
Methyl acetate	ND	ND	ug/L	2.0	SW846 8260C	1	04/13/2023 16:42	TMP	A
Methyl cyclohexane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 16:42	TMP	A
Methyl t-Butyl Ether	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 16:42	TMP	A
Methylene Chloride	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 16:42	TMP	A
mp-Xylene	ND	ND	ug/L	2.0	SW846 8260C	1	04/13/2023 16:42	TMP	A
o-Xylene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 16:42	TMP	A
Styrene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 16:42	TMP	A
Tetrachloroethene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 16:42	TMP	A
Toluene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 16:42	TMP	A
Total Xylenes	ND	ND	ug/L	3.0	SW846 8260C	1	04/13/2023 16:42	TMP	A

Results

Client Sample ID	TB-01	Collected	04/04/2023 14:55
Lab Sample ID	3296060004	Lab Receipt	04/05/2023 08:53

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
trans-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 16:42	TMP	A
trans-1,3-Dichloropropene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 16:42	TMP	A
Trichloroethene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 16:42	TMP	A
Trichlorofluoromethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 16:42	TMP	A
Vinyl Chloride	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 16:42	TMP	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	105%	62 – 133	04/13/2023 16:42	
4-Bromofluorobenzene	460-00-4	101%	79 – 114	04/13/2023 16:42	
Dibromofluoromethane	1868-53-7	105%	78 – 116	04/13/2023 16:42	
Toluene-d8	2037-26-5	102%	76 – 127	04/13/2023 16:42	

Results

Client Sample ID	MW-03A	Collected	04/05/2023 11:00
Lab Sample ID	3296060005	Lab Receipt	04/06/2023 08:35

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Aluminum, Dissolved	ND	ND	mg/L	0.089	SW846 6020A	1	04/18/2023 10:12	MO	D1
Antimony, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	04/18/2023 10:12	MO	D1
Arsenic, Dissolved	ND	ND	mg/L	0.0030	SW846 6020A	1	04/18/2023 10:12	MO	D1
Barium, Dissolved	0.0089		mg/L	0.0056	SW846 6020A	1	04/18/2023 10:12	MO	D1
Beryllium, Dissolved	ND	ND	mg/L	0.0010	SW846 6020A	1	04/18/2023 10:12	MO	D1
Cadmium, Dissolved	ND	ND	mg/L	0.0011	SW846 6020A	1	04/18/2023 10:12	MO	D1
Calcium, Dissolved	11.8		mg/L	0.11	SW846 6020A	1	04/18/2023 10:12	MO	D1
Chromium, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	04/18/2023 10:12	MO	D1
Cobalt, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	04/18/2023 10:12	MO	D1
Copper, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	04/18/2023 10:12	MO	D1
Iron, Dissolved	ND	ND	mg/L	0.056	SW846 6020A	1	04/18/2023 10:12	MO	D1
Lead, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	04/18/2023 10:12	MO	D1
Magnesium, Dissolved	1.9		mg/L	0.11	SW846 6020A	1	04/18/2023 10:12	MO	D1
Manganese, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	04/18/2023 10:12	MO	D1
Mercury, Dissolved	ND	ND	mg/L	0.00050	SW846 7470A	1	04/12/2023 11:23	WDA	D
Nickel, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	04/18/2023 10:12	MO	D1
Potassium, Dissolved	4.3		mg/L	0.11	SW846 6020A	1	04/18/2023 10:12	MO	D1
Selenium, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	04/18/2023 10:12	MO	D1
Silver, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	04/18/2023 10:12	MO	D1
Sodium, Dissolved	31.7		mg/L	0.11	SW846 6020A	1	04/18/2023 10:12	MO	D1
Thallium, Dissolved	ND	ND	mg/L	0.0010	SW846 6020A	1	04/18/2023 10:12	MO	D1
Trivalent Chromium	ND	ND	mg/L	0.20	Calculation	1	04/18/2023 13:08	CW	F
Vanadium, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	04/18/2023 10:12	MO	D1
Zinc, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	04/18/2023 10:12	MO	D1

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1-Trichloroethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:05	TMP	A
1,1,2,2-Tetrachloroethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:05	TMP	A
1,1,2-Trichloroethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:05	TMP	A
1,1-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:05	TMP	A
1,1-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:05	TMP	A
1,2,3-Trichlorobenzene	ND	ND,1	ug/L	2.0	SW846 8260C	1	04/13/2023 17:05	TMP	A
1,2,4-Trichlorobenzene	ND	ND,2	ug/L	2.0	SW846 8260C	1	04/13/2023 17:05	TMP	A
1,2-Dibromo-3-chloropropane	ND	ND	ug/L	7.0	SW846 8260C	1	04/13/2023 17:05	TMP	A
1,2-Dibromoethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:05	TMP	A
1,2-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:05	TMP	A
1,2-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:05	TMP	A
1,2-Dichloropropane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:05	TMP	A
1,3-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:05	TMP	A
1,4-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:05	TMP	A
2-Butanone	ND	ND	ug/L	10.0	SW846 8260C	1	04/13/2023 17:05	TMP	A
2-Hexanone	ND	ND	ug/L	5.0	SW846 8260C	1	04/13/2023 17:05	TMP	A
4-Methyl-2-Pentanone(MIBK)	ND	ND	ug/L	5.0	SW846 8260C	1	04/13/2023 17:05	TMP	A
Acetone	ND	ND	ug/L	10.0	SW846 8260C	1	04/13/2023 17:05	TMP	A
Benzene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:05	TMP	A

Results

Client Sample ID	MW-03A	Collected	04/05/2023 11:00
Lab Sample ID	3296060005	Lab Receipt	04/06/2023 08:35

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Bromochloromethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:05	TMP	A
Bromodichloromethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:05	TMP	A
Bromoform	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:05	TMP	A
Bromomethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:05	TMP	A
Carbon Disulfide	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:05	TMP	A
Carbon Tetrachloride	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:05	TMP	A
Chlorobenzene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:05	TMP	A
Chlorodibromomethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:05	TMP	A
Chloroethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:05	TMP	A
Chloroform	18.0		ug/L	1.0	SW846 8260C	1	04/13/2023 17:05	TMP	A
Chloromethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:05	TMP	A
cis-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:05	TMP	A
cis-1,3-Dichloropropene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:05	TMP	A
Cyclohexane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:05	TMP	A
Dichlorodifluoromethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:05	TMP	A
Ethylbenzene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:05	TMP	A
Freon 113	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:05	TMP	A
Isopropylbenzene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:05	TMP	A
Methyl acetate	ND	ND	ug/L	2.0	SW846 8260C	1	04/13/2023 17:05	TMP	A
Methyl cyclohexane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:05	TMP	A
Methyl t-Butyl Ether	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:05	TMP	A
Methylene Chloride	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:05	TMP	A
mp-Xylene	ND	ND	ug/L	2.0	SW846 8260C	1	04/13/2023 17:05	TMP	A
o-Xylene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:05	TMP	A
Styrene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:05	TMP	A
Tetrachloroethene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:05	TMP	A
Toluene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:05	TMP	A
Total Xylenes	ND	ND	ug/L	3.0	SW846 8260C	1	04/13/2023 17:05	TMP	A
trans-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:05	TMP	A
trans-1,3-Dichloropropene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:05	TMP	A
Trichloroethene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:05	TMP	A
Trichlorofluoromethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:05	TMP	A
Vinyl Chloride	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:05	TMP	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	107%	62 – 133	04/13/2023 17:05	
4-Bromofluorobenzene	460-00-4	103%	79 – 114	04/13/2023 17:05	
Dibromofluoromethane	1868-53-7	107%	78 – 116	04/13/2023 17:05	
Toluene-d8	2037-26-5	105%	76 – 127	04/13/2023 17:05	

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Hexavalent Chromium	ND	ND,7	mg/L	0.20	SW846 7196A	20	04/06/2023 09:45	GMM	F

Results

Client Sample ID	MW-03A	Collected	04/05/2023 11:00
Lab Sample ID	3296060005	Lab Receipt	04/06/2023 08:35

WET CHEMISTRY (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr

Results

Client Sample ID	MW-03A-DUP	Collected	04/05/2023 11:05
Lab Sample ID	3296060006	Lab Receipt	04/06/2023 08:35

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Aluminum, Dissolved	ND	ND	mg/L	0.089	SW846 6020A	1	04/18/2023 10:14	MO	D1
Antimony, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	04/18/2023 10:14	MO	D1
Arsenic, Dissolved	ND	ND	mg/L	0.0030	SW846 6020A	1	04/18/2023 10:14	MO	D1
Barium, Dissolved	0.0093		mg/L	0.0056	SW846 6020A	1	04/18/2023 10:14	MO	D1
Beryllium, Dissolved	ND	ND	mg/L	0.0010	SW846 6020A	1	04/18/2023 10:14	MO	D1
Cadmium, Dissolved	ND	ND	mg/L	0.0011	SW846 6020A	1	04/18/2023 10:14	MO	D1
Calcium, Dissolved	12.5		mg/L	0.11	SW846 6020A	1	04/18/2023 10:14	MO	D1
Chromium, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	04/18/2023 10:14	MO	D1
Cobalt, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	04/18/2023 10:14	MO	D1
Copper, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	04/18/2023 10:14	MO	D1
Iron, Dissolved	ND	ND	mg/L	0.056	SW846 6020A	1	04/18/2023 10:14	MO	D1
Lead, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	04/18/2023 10:14	MO	D1
Magnesium, Dissolved	2.2		mg/L	0.11	SW846 6020A	1	04/18/2023 10:14	MO	D1
Manganese, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	04/18/2023 10:14	MO	D1
Mercury, Dissolved	ND	ND	mg/L	0.00050	SW846 7470A	1	04/12/2023 11:26	WDA	D
Nickel, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	04/18/2023 10:14	MO	D1
Potassium, Dissolved	4.6		mg/L	0.11	SW846 6020A	1	04/18/2023 10:14	MO	D1
Selenium, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	04/18/2023 10:14	MO	D1
Silver, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	04/18/2023 10:14	MO	D1
Sodium, Dissolved	33.8		mg/L	0.11	SW846 6020A	1	04/18/2023 10:14	MO	D1
Thallium, Dissolved	ND	ND	mg/L	0.0010	SW846 6020A	1	04/18/2023 10:14	MO	D1
Trivalent Chromium	ND	ND	mg/L	0.010	Calculation	1	04/18/2023 13:09	CW	F
Vanadium, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	04/18/2023 10:14	MO	D1
Zinc, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	04/18/2023 10:14	MO	D1

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1-Trichloroethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:28	TMP	A
1,1,2,2-Tetrachloroethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:28	TMP	A
1,1,2-Trichloroethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:28	TMP	A
1,1-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:28	TMP	A
1,1-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:28	TMP	A
1,2,3-Trichlorobenzene	ND	ND,1	ug/L	2.0	SW846 8260C	1	04/13/2023 17:28	TMP	A
1,2,4-Trichlorobenzene	ND	ND,2	ug/L	2.0	SW846 8260C	1	04/13/2023 17:28	TMP	A
1,2-Dibromo-3-chloropropane	ND	ND	ug/L	7.0	SW846 8260C	1	04/13/2023 17:28	TMP	A
1,2-Dibromoethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:28	TMP	A
1,2-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:28	TMP	A
1,2-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:28	TMP	A
1,2-Dichloropropane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:28	TMP	A
1,3-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:28	TMP	A
1,4-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:28	TMP	A
2-Butanone	ND	ND	ug/L	10.0	SW846 8260C	1	04/13/2023 17:28	TMP	A
2-Hexanone	ND	ND	ug/L	5.0	SW846 8260C	1	04/13/2023 17:28	TMP	A
4-Methyl-2-Pentanone(MIBK)	ND	ND	ug/L	5.0	SW846 8260C	1	04/13/2023 17:28	TMP	A
Acetone	ND	ND	ug/L	10.0	SW846 8260C	1	04/13/2023 17:28	TMP	A
Benzene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:28	TMP	A

Results

Client Sample ID	MW-03A-DUP	Collected	04/05/2023 11:05
Lab Sample ID	3296060006	Lab Receipt	04/06/2023 08:35

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Bromochloromethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:28	TMP	A
Bromodichloromethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:28	TMP	A
Bromoform	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:28	TMP	A
Bromomethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:28	TMP	A
Carbon Disulfide	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:28	TMP	A
Carbon Tetrachloride	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:28	TMP	A
Chlorobenzene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:28	TMP	A
Chlorodibromomethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:28	TMP	A
Chloroethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:28	TMP	A
Chloroform	18.3		ug/L	1.0	SW846 8260C	1	04/13/2023 17:28	TMP	A
Chloromethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:28	TMP	A
cis-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:28	TMP	A
cis-1,3-Dichloropropene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:28	TMP	A
Cyclohexane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:28	TMP	A
Dichlorodifluoromethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:28	TMP	A
Ethylbenzene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:28	TMP	A
Freon 113	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:28	TMP	A
Isopropylbenzene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:28	TMP	A
Methyl acetate	ND	ND	ug/L	2.0	SW846 8260C	1	04/13/2023 17:28	TMP	A
Methyl cyclohexane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:28	TMP	A
Methyl t-Butyl Ether	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:28	TMP	A
Methylene Chloride	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:28	TMP	A
mp-Xylene	ND	ND	ug/L	2.0	SW846 8260C	1	04/13/2023 17:28	TMP	A
o-Xylene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:28	TMP	A
Styrene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:28	TMP	A
Tetrachloroethene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:28	TMP	A
Toluene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:28	TMP	A
Total Xylenes	ND	ND	ug/L	3.0	SW846 8260C	1	04/13/2023 17:28	TMP	A
trans-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:28	TMP	A
trans-1,3-Dichloropropene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:28	TMP	A
Trichloroethene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:28	TMP	A
Trichlorofluoromethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:28	TMP	A
Vinyl Chloride	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:28	TMP	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	106%	62 – 133	04/13/2023 17:28	
4-Bromofluorobenzene	460-00-4	98.9%	79 – 114	04/13/2023 17:28	
Dibromofluoromethane	1868-53-7	106%	78 – 116	04/13/2023 17:28	
Toluene-d8	2037-26-5	103%	76 – 127	04/13/2023 17:28	

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Hexavalent Chromium	ND	ND	mg/L	0.010	SW846 7196A	1	04/06/2023 09:45	GMM	F

Results

Client Sample ID	MW-03A-DUP	Collected	04/05/2023 11:05
Lab Sample ID	3296060006	Lab Receipt	04/06/2023 08:35

WET CHEMISTRY (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr

Results

Client Sample ID	MW-06A	Collected	04/05/2023 12:40
Lab Sample ID	3296060007	Lab Receipt	04/06/2023 08:35

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Aluminum, Dissolved	ND	ND	mg/L	0.089	SW846 6020A	1	04/18/2023 10:16	MO	D1
Antimony, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	04/18/2023 10:16	MO	D1
Arsenic, Dissolved	ND	ND	mg/L	0.0030	SW846 6020A	1	04/18/2023 10:16	MO	D1
Barium, Dissolved	0.030		mg/L	0.0056	SW846 6020A	1	04/18/2023 10:16	MO	D1
Beryllium, Dissolved	ND	ND	mg/L	0.0010	SW846 6020A	1	04/18/2023 10:16	MO	D1
Cadmium, Dissolved	ND	ND	mg/L	0.0011	SW846 6020A	1	04/18/2023 10:16	MO	D1
Calcium, Dissolved	27.8		mg/L	0.11	SW846 6020A	1	04/18/2023 10:16	MO	D1
Chromium, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	04/18/2023 10:16	MO	D1
Cobalt, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	04/18/2023 10:16	MO	D1
Copper, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	04/18/2023 10:16	MO	D1
Iron, Dissolved	ND	ND	mg/L	0.056	SW846 6020A	1	04/18/2023 10:16	MO	D1
Lead, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	04/18/2023 10:16	MO	D1
Magnesium, Dissolved	4.5		mg/L	0.11	SW846 6020A	1	04/18/2023 10:16	MO	D1
Manganese, Dissolved	0.20		mg/L	0.0056	SW846 6020A	1	04/18/2023 10:16	MO	D1
Mercury, Dissolved	ND	ND	mg/L	0.00050	SW846 7470A	1	04/12/2023 11:27	WDA	D
Nickel, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	04/18/2023 10:16	MO	D1
Potassium, Dissolved	3.5		mg/L	0.11	SW846 6020A	1	04/18/2023 10:16	MO	D1
Selenium, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	04/18/2023 10:16	MO	D1
Silver, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	04/18/2023 10:16	MO	D1
Sodium, Dissolved	29.4		mg/L	0.11	SW846 6020A	1	04/18/2023 10:16	MO	D1
Thallium, Dissolved	ND	ND	mg/L	0.0010	SW846 6020A	1	04/18/2023 10:16	MO	D1
Trivalent Chromium	ND	ND	mg/L	0.20	Calculation	1	04/18/2023 13:10	CW	F
Vanadium, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	04/18/2023 10:16	MO	D1
Zinc, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	04/18/2023 10:16	MO	D1

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1-Trichloroethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:51	TMP	A
1,1,2,2-Tetrachloroethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:51	TMP	A
1,1,2-Trichloroethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:51	TMP	A
1,1-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:51	TMP	A
1,1-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:51	TMP	A
1,2,3-Trichlorobenzene	ND	ND,1	ug/L	2.0	SW846 8260C	1	04/13/2023 17:51	TMP	A
1,2,4-Trichlorobenzene	ND	ND,2	ug/L	2.0	SW846 8260C	1	04/13/2023 17:51	TMP	A
1,2-Dibromo-3-chloropropane	ND	ND	ug/L	7.0	SW846 8260C	1	04/13/2023 17:51	TMP	A
1,2-Dibromoethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:51	TMP	A
1,2-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:51	TMP	A
1,2-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:51	TMP	A
1,2-Dichloropropane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:51	TMP	A
1,3-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:51	TMP	A
1,4-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:51	TMP	A
2-Butanone	ND	ND	ug/L	10.0	SW846 8260C	1	04/13/2023 17:51	TMP	A
2-Hexanone	ND	ND	ug/L	5.0	SW846 8260C	1	04/13/2023 17:51	TMP	A
4-Methyl-2-Pentanone(MIBK)	ND	ND	ug/L	5.0	SW846 8260C	1	04/13/2023 17:51	TMP	A
Acetone	ND	ND	ug/L	10.0	SW846 8260C	1	04/13/2023 17:51	TMP	A
Benzene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:51	TMP	A

Results

Client Sample ID	MW-06A	Collected	04/05/2023 12:40
Lab Sample ID	3296060007	Lab Receipt	04/06/2023 08:35

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Bromochloromethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:51	TMP	A
Bromodichloromethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:51	TMP	A
Bromoform	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:51	TMP	A
Bromomethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:51	TMP	A
Carbon Disulfide	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:51	TMP	A
Carbon Tetrachloride	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:51	TMP	A
Chlorobenzene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:51	TMP	A
Chlorodibromomethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:51	TMP	A
Chloroethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:51	TMP	A
Chloroform	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:51	TMP	A
Chloromethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:51	TMP	A
cis-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:51	TMP	A
cis-1,3-Dichloropropene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:51	TMP	A
Cyclohexane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:51	TMP	A
Dichlorodifluoromethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:51	TMP	A
Ethylbenzene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:51	TMP	A
Freon 113	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:51	TMP	A
Isopropylbenzene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:51	TMP	A
Methyl acetate	ND	ND	ug/L	2.0	SW846 8260C	1	04/13/2023 17:51	TMP	A
Methyl cyclohexane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:51	TMP	A
Methyl t-Butyl Ether	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:51	TMP	A
Methylene Chloride	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:51	TMP	A
mp-Xylene	ND	ND	ug/L	2.0	SW846 8260C	1	04/13/2023 17:51	TMP	A
o-Xylene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:51	TMP	A
Styrene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:51	TMP	A
Tetrachloroethene	46.5		ug/L	1.0	SW846 8260C	1	04/13/2023 17:51	TMP	A
Toluene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:51	TMP	A
Total Xylenes	ND	ND	ug/L	3.0	SW846 8260C	1	04/13/2023 17:51	TMP	A
trans-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:51	TMP	A
trans-1,3-Dichloropropene	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:51	TMP	A
Trichloroethene	2.2		ug/L	1.0	SW846 8260C	1	04/13/2023 17:51	TMP	A
Trichlorofluoromethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:51	TMP	A
Vinyl Chloride	ND	ND	ug/L	1.0	SW846 8260C	1	04/13/2023 17:51	TMP	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	107%	62 – 133	04/13/2023 17:51	
4-Bromofluorobenzene	460-00-4	101%	79 – 114	04/13/2023 17:51	
Dibromofluoromethane	1868-53-7	105%	78 – 116	04/13/2023 17:51	
Toluene-d8	2037-26-5	104%	76 – 127	04/13/2023 17:51	

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Hexavalent Chromium	ND	ND,7	mg/L	0.20	SW846 7196A	20	04/06/2023 09:45	GMM	F

Results

Client Sample ID	MW-06A	Collected	04/05/2023 12:40
Lab Sample ID	3296060007	Lab Receipt	04/06/2023 08:35

WET CHEMISTRY (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr

Results

Client Sample ID	MW-07A	Collected	04/05/2023 14:05
Lab Sample ID	3296060008	Lab Receipt	04/06/2023 08:35

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Aluminum, Dissolved	ND	ND	mg/L	0.089	SW846 6020A	1	04/18/2023 10:18	MO	D1
Antimony, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	04/18/2023 10:18	MO	D1
Arsenic, Dissolved	ND	ND	mg/L	0.0030	SW846 6020A	1	04/18/2023 10:18	MO	D1
Barium, Dissolved	0.053		mg/L	0.0056	SW846 6020A	1	04/18/2023 10:18	MO	D1
Beryllium, Dissolved	ND	ND	mg/L	0.0010	SW846 6020A	1	04/18/2023 10:18	MO	D1
Cadmium, Dissolved	ND	ND	mg/L	0.0011	SW846 6020A	1	04/18/2023 10:18	MO	D1
Calcium, Dissolved	60.0		mg/L	0.11	SW846 6020A	1	04/18/2023 10:18	MO	D1
Chromium, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	04/18/2023 10:18	MO	D1
Cobalt, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	04/18/2023 10:18	MO	D1
Copper, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	04/18/2023 10:18	MO	D1
Iron, Dissolved	ND	ND	mg/L	0.056	SW846 6020A	1	04/18/2023 10:18	MO	D1
Lead, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	04/18/2023 10:18	MO	D1
Magnesium, Dissolved	9.2		mg/L	0.11	SW846 6020A	1	04/18/2023 10:18	MO	D1
Manganese, Dissolved	0.38		mg/L	0.0056	SW846 6020A	1	04/18/2023 10:18	MO	D1
Mercury, Dissolved	ND	ND	mg/L	0.00050	SW846 7470A	1	04/12/2023 11:28	WDA	D
Nickel, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	04/18/2023 10:18	MO	D1
Potassium, Dissolved	2.4		mg/L	0.11	SW846 6020A	1	04/18/2023 10:18	MO	D1
Selenium, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	04/18/2023 10:18	MO	D1
Silver, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	04/18/2023 10:18	MO	D1
Sodium, Dissolved	24.7		mg/L	0.11	SW846 6020A	1	04/18/2023 10:18	MO	D1
Thallium, Dissolved	ND	ND	mg/L	0.0010	SW846 6020A	1	04/18/2023 10:18	MO	D1
Trivalent Chromium	ND	ND	mg/L	0.010	Calculation	1	04/18/2023 13:11	CW	F
Vanadium, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	04/18/2023 10:18	MO	D1
Zinc, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	04/18/2023 10:18	MO	D1

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1-Trichloroethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 14:33	TMP	A
1,1,2,2-Tetrachloroethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 14:33	TMP	A
1,1,2-Trichloroethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 14:33	TMP	A
1,1-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 14:33	TMP	A
1,1-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 14:33	TMP	A
1,2,3-Trichlorobenzene	ND	ND	ug/L	2.0	SW846 8260C	1	04/15/2023 14:33	TMP	A
1,2,4-Trichlorobenzene	ND	ND	ug/L	2.0	SW846 8260C	1	04/15/2023 14:33	TMP	A
1,2-Dibromo-3-chloropropane	ND	ND	ug/L	7.0	SW846 8260C	1	04/15/2023 14:33	TMP	A
1,2-Dibromoethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 14:33	TMP	A
1,2-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 14:33	TMP	A
1,2-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 14:33	TMP	A
1,2-Dichloropropane	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 14:33	TMP	A
1,3-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 14:33	TMP	A
1,4-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 14:33	TMP	A
2-Butanone	ND	ND	ug/L	10.0	SW846 8260C	1	04/15/2023 14:33	TMP	A
2-Hexanone	ND	ND	ug/L	5.0	SW846 8260C	1	04/15/2023 14:33	TMP	A
4-Methyl-2-Pentanone(MIBK)	ND	ND	ug/L	5.0	SW846 8260C	1	04/15/2023 14:33	TMP	A
Acetone	ND	ND	ug/L	10.0	SW846 8260C	1	04/15/2023 14:33	TMP	A
Benzene	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 14:33	TMP	A

Results

Client Sample ID	MW-07A	Collected	04/05/2023 14:05
Lab Sample ID	3296060008	Lab Receipt	04/06/2023 08:35

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Bromochloromethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 14:33	TMP	A
Bromodichloromethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 14:33	TMP	A
Bromoform	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 14:33	TMP	A
Bromomethane	ND	ND,8,9	ug/L	1.0	SW846 8260C	1	04/15/2023 14:33	TMP	A
Carbon Disulfide	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 14:33	TMP	A
Carbon Tetrachloride	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 14:33	TMP	A
Chlorobenzene	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 14:33	TMP	A
Chlorodibromomethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 14:33	TMP	A
Chloroethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 14:33	TMP	A
Chloroform	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 14:33	TMP	A
Chloromethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 14:33	TMP	A
cis-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 14:33	TMP	A
cis-1,3-Dichloropropene	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 14:33	TMP	A
Cyclohexane	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 14:33	TMP	A
Dichlorodifluoromethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 14:33	TMP	A
Ethylbenzene	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 14:33	TMP	A
Freon 113	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 14:33	TMP	A
Isopropylbenzene	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 14:33	TMP	A
Methyl acetate	ND	ND	ug/L	2.0	SW846 8260C	1	04/15/2023 14:33	TMP	A
Methyl cyclohexane	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 14:33	TMP	A
Methyl t-Butyl Ether	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 14:33	TMP	A
Methylene Chloride	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 14:33	TMP	A
mp-Xylene	ND	ND	ug/L	2.0	SW846 8260C	1	04/15/2023 14:33	TMP	A
o-Xylene	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 14:33	TMP	A
Styrene	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 14:33	TMP	A
Tetrachloroethene	10.5		ug/L	1.0	SW846 8260C	1	04/15/2023 14:33	TMP	A
Toluene	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 14:33	TMP	A
Total Xylenes	ND	ND	ug/L	3.0	SW846 8260C	1	04/15/2023 14:33	TMP	A
trans-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 14:33	TMP	A
trans-1,3-Dichloropropene	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 14:33	TMP	A
Trichloroethene	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 14:33	TMP	A
Trichlorofluoromethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 14:33	TMP	A
Vinyl Chloride	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 14:33	TMP	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	98.4%	62 – 133	04/15/2023 14:33	
4-Bromofluorobenzene	460-00-4	103%	79 – 114	04/15/2023 14:33	
Dibromofluoromethane	1868-53-7	101%	78 – 116	04/15/2023 14:33	
Toluene-d8	2037-26-5	104%	76 – 127	04/15/2023 14:33	

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Hexavalent Chromium	ND	ND	mg/L	0.010	SW846 7196A	1	04/06/2023 09:45	GMM	F

Results

Client Sample ID	MW-07A	Collected	04/05/2023 14:05
Lab Sample ID	3296060008	Lab Receipt	04/06/2023 08:35

WET CHEMISTRY (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr

Results

Client Sample ID	MW-04A	Collected	04/05/2023 15:20
Lab Sample ID	3296060009	Lab Receipt	04/06/2023 08:35

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Aluminum, Dissolved	ND	ND	mg/L	0.089	SW846 6020A	1	04/18/2023 10:20	MO	D1
Antimony, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	04/18/2023 10:20	MO	D1
Arsenic, Dissolved	ND	ND	mg/L	0.0030	SW846 6020A	1	04/18/2023 10:20	MO	D1
Barium, Dissolved	0.084		mg/L	0.0056	SW846 6020A	1	04/18/2023 10:20	MO	D1
Beryllium, Dissolved	ND	ND	mg/L	0.0010	SW846 6020A	1	04/18/2023 10:20	MO	D1
Cadmium, Dissolved	ND	ND	mg/L	0.0011	SW846 6020A	1	04/18/2023 10:20	MO	D1
Calcium, Dissolved	28.1		mg/L	0.11	SW846 6020A	1	04/18/2023 10:20	MO	D1
Chromium, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	04/18/2023 10:20	MO	D1
Cobalt, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	04/18/2023 10:20	MO	D1
Copper, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	04/18/2023 10:20	MO	D1
Iron, Dissolved	ND	ND	mg/L	0.056	SW846 6020A	1	04/18/2023 10:20	MO	D1
Lead, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	04/18/2023 10:20	MO	D1
Magnesium, Dissolved	5.8		mg/L	0.11	SW846 6020A	1	04/18/2023 10:20	MO	D1
Manganese, Dissolved	0.031		mg/L	0.0056	SW846 6020A	1	04/18/2023 10:20	MO	D1
Mercury, Dissolved	ND	ND	mg/L	0.00050	SW846 7470A	1	04/12/2023 11:29	WDA	D
Nickel, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	04/18/2023 10:20	MO	D1
Potassium, Dissolved	4.0		mg/L	0.11	SW846 6020A	1	04/18/2023 10:20	MO	D1
Selenium, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	04/18/2023 10:20	MO	D1
Silver, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	04/18/2023 10:20	MO	D1
Sodium, Dissolved	3.2		mg/L	0.11	SW846 6020A	1	04/18/2023 10:20	MO	D1
Thallium, Dissolved	ND	ND	mg/L	0.0010	SW846 6020A	1	04/18/2023 10:20	MO	D1
Trivalent Chromium	ND	ND	mg/L	0.010	Calculation	1	04/18/2023 13:12	CW	F
Vanadium, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	04/18/2023 10:20	MO	D1
Zinc, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	04/18/2023 10:20	MO	D1

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1-Trichloroethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 14:55	TMP	A
1,1,2,2-Tetrachloroethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 14:55	TMP	A
1,1,2-Trichloroethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 14:55	TMP	A
1,1-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 14:55	TMP	A
1,1-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 14:55	TMP	A
1,2,3-Trichlorobenzene	ND	ND	ug/L	2.0	SW846 8260C	1	04/15/2023 14:55	TMP	A
1,2,4-Trichlorobenzene	ND	ND	ug/L	2.0	SW846 8260C	1	04/15/2023 14:55	TMP	A
1,2-Dibromo-3-chloropropane	ND	ND	ug/L	7.0	SW846 8260C	1	04/15/2023 14:55	TMP	A
1,2-Dibromoethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 14:55	TMP	A
1,2-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 14:55	TMP	A
1,2-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 14:55	TMP	A
1,2-Dichloropropane	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 14:55	TMP	A
1,3-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 14:55	TMP	A
1,4-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 14:55	TMP	A
2-Butanone	ND	ND	ug/L	10.0	SW846 8260C	1	04/15/2023 14:55	TMP	A
2-Hexanone	ND	ND	ug/L	5.0	SW846 8260C	1	04/15/2023 14:55	TMP	A
4-Methyl-2-Pentanone(MIBK)	ND	ND	ug/L	5.0	SW846 8260C	1	04/15/2023 14:55	TMP	A
Acetone	ND	ND	ug/L	10.0	SW846 8260C	1	04/15/2023 14:55	TMP	A
Benzene	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 14:55	TMP	A

Results

Client Sample ID	MW-04A	Collected	04/05/2023 15:20
Lab Sample ID	3296060009	Lab Receipt	04/06/2023 08:35

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Bromochloromethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 14:55	TMP	A
Bromodichloromethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 14:55	TMP	A
Bromoform	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 14:55	TMP	A
Bromomethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 14:55	TMP	A
Carbon Disulfide	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 14:55	TMP	A
Carbon Tetrachloride	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 14:55	TMP	A
Chlorobenzene	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 14:55	TMP	A
Chlorodibromomethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 14:55	TMP	A
Chloroethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 14:55	TMP	A
Chloroform	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 14:55	TMP	A
Chloromethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 14:55	TMP	A
cis-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 14:55	TMP	A
cis-1,3-Dichloropropene	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 14:55	TMP	A
Cyclohexane	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 14:55	TMP	A
Dichlorodifluoromethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 14:55	TMP	A
Ethylbenzene	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 14:55	TMP	A
Freon 113	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 14:55	TMP	A
Isopropylbenzene	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 14:55	TMP	A
Methyl acetate	ND	ND	ug/L	2.0	SW846 8260C	1	04/15/2023 14:55	TMP	A
Methyl cyclohexane	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 14:55	TMP	A
Methyl t-Butyl Ether	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 14:55	TMP	A
Methylene Chloride	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 14:55	TMP	A
mp-Xylene	ND	ND	ug/L	2.0	SW846 8260C	1	04/15/2023 14:55	TMP	A
o-Xylene	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 14:55	TMP	A
Styrene	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 14:55	TMP	A
Tetrachloroethene	3.2		ug/L	1.0	SW846 8260C	1	04/15/2023 14:55	TMP	A
Toluene	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 14:55	TMP	A
Total Xylenes	ND	ND	ug/L	3.0	SW846 8260C	1	04/15/2023 14:55	TMP	A
trans-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 14:55	TMP	A
trans-1,3-Dichloropropene	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 14:55	TMP	A
Trichloroethene	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 14:55	TMP	A
Trichlorofluoromethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 14:55	TMP	A
Vinyl Chloride	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 14:55	TMP	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	97.2%	62 – 133	04/15/2023 14:55	
4-Bromofluorobenzene	460-00-4	106%	79 – 114	04/15/2023 14:55	
Dibromofluoromethane	1868-53-7	99.8%	78 – 116	04/15/2023 14:55	
Toluene-d8	2037-26-5	104%	76 – 127	04/15/2023 14:55	

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Hexavalent Chromium	ND	ND	mg/L	0.010	SW846 7196A	1	04/06/2023 09:45	GMM	F

Results

Client Sample ID	MW-04A	Collected	04/05/2023 15:20
Lab Sample ID	3296060009	Lab Receipt	04/06/2023 08:35

WET CHEMISTRY (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr

Results

Client Sample ID	MW-02A	Collected	04/05/2023 15:30
Lab Sample ID	3296060010	Lab Receipt	04/06/2023 08:35

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Aluminum, Dissolved	ND	ND	mg/L	0.089	SW846 6020A	1	04/18/2023 10:22	MO	D1
Antimony, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	04/18/2023 10:22	MO	D1
Arsenic, Dissolved	ND	ND	mg/L	0.0030	SW846 6020A	1	04/18/2023 10:22	MO	D1
Barium, Dissolved	0.043		mg/L	0.0056	SW846 6020A	1	04/18/2023 10:22	MO	D1
Beryllium, Dissolved	ND	ND	mg/L	0.0010	SW846 6020A	1	04/18/2023 10:22	MO	D1
Cadmium, Dissolved	ND	ND	mg/L	0.0011	SW846 6020A	1	04/18/2023 10:22	MO	D1
Calcium, Dissolved	39.8		mg/L	0.11	SW846 6020A	1	04/18/2023 10:22	MO	D1
Chromium, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	04/18/2023 10:22	MO	D1
Cobalt, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	04/18/2023 10:22	MO	D1
Copper, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	04/18/2023 10:22	MO	D1
Iron, Dissolved	ND	ND	mg/L	0.056	SW846 6020A	1	04/18/2023 10:22	MO	D1
Lead, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	04/18/2023 10:22	MO	D1
Magnesium, Dissolved	7.6		mg/L	0.11	SW846 6020A	1	04/18/2023 10:22	MO	D1
Manganese, Dissolved	0.15		mg/L	0.0056	SW846 6020A	1	04/18/2023 10:22	MO	D1
Mercury, Dissolved	ND	ND	mg/L	0.00050	SW846 7470A	1	04/12/2023 11:30	WDA	D
Nickel, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	04/18/2023 10:22	MO	D1
Potassium, Dissolved	4.1		mg/L	0.11	SW846 6020A	1	04/18/2023 10:22	MO	D1
Selenium, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	04/18/2023 10:22	MO	D1
Silver, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	04/18/2023 10:22	MO	D1
Sodium, Dissolved	16.6		mg/L	0.11	SW846 6020A	1	04/18/2023 10:22	MO	D1
Thallium, Dissolved	ND	ND	mg/L	0.0010	SW846 6020A	1	04/18/2023 10:22	MO	D1
Trivalent Chromium	ND	ND	mg/L	0.010	Calculation	1	04/18/2023 13:13	CW	F
Vanadium, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	04/18/2023 10:22	MO	D1
Zinc, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	04/18/2023 10:22	MO	D1

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1-Trichloroethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 15:18	TMP	A
1,1,2,2-Tetrachloroethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 15:18	TMP	A
1,1,2-Trichloroethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 15:18	TMP	A
1,1-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 15:18	TMP	A
1,1-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 15:18	TMP	A
1,2,3-Trichlorobenzene	ND	ND	ug/L	2.0	SW846 8260C	1	04/15/2023 15:18	TMP	A
1,2,4-Trichlorobenzene	ND	ND	ug/L	2.0	SW846 8260C	1	04/15/2023 15:18	TMP	A
1,2-Dibromo-3-chloropropane	ND	ND	ug/L	7.0	SW846 8260C	1	04/15/2023 15:18	TMP	A
1,2-Dibromoethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 15:18	TMP	A
1,2-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 15:18	TMP	A
1,2-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 15:18	TMP	A
1,2-Dichloropropane	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 15:18	TMP	A
1,3-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 15:18	TMP	A
1,4-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 15:18	TMP	A
2-Butanone	ND	ND	ug/L	10.0	SW846 8260C	1	04/15/2023 15:18	TMP	A
2-Hexanone	ND	ND	ug/L	5.0	SW846 8260C	1	04/15/2023 15:18	TMP	A
4-Methyl-2-Pentanone(MIBK)	ND	ND	ug/L	5.0	SW846 8260C	1	04/15/2023 15:18	TMP	A
Acetone	ND	ND	ug/L	10.0	SW846 8260C	1	04/15/2023 15:18	TMP	A
Benzene	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 15:18	TMP	A

Results

Client Sample ID	MW-02A	Collected	04/05/2023 15:30
Lab Sample ID	3296060010	Lab Receipt	04/06/2023 08:35

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Bromochloromethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 15:18	TMP	A
Bromodichloromethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 15:18	TMP	A
Bromoform	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 15:18	TMP	A
Bromomethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 15:18	TMP	A
Carbon Disulfide	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 15:18	TMP	A
Carbon Tetrachloride	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 15:18	TMP	A
Chlorobenzene	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 15:18	TMP	A
Chlorodibromomethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 15:18	TMP	A
Chloroethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 15:18	TMP	A
Chloroform	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 15:18	TMP	A
Chloromethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 15:18	TMP	A
cis-1,2-Dichloroethene	1.2		ug/L	1.0	SW846 8260C	1	04/15/2023 15:18	TMP	A
cis-1,3-Dichloropropene	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 15:18	TMP	A
Cyclohexane	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 15:18	TMP	A
Dichlorodifluoromethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 15:18	TMP	A
Ethylbenzene	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 15:18	TMP	A
Freon 113	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 15:18	TMP	A
Isopropylbenzene	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 15:18	TMP	A
Methyl acetate	ND	ND	ug/L	2.0	SW846 8260C	1	04/15/2023 15:18	TMP	A
Methyl cyclohexane	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 15:18	TMP	A
Methyl t-Butyl Ether	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 15:18	TMP	A
Methylene Chloride	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 15:18	TMP	A
mp-Xylene	ND	ND	ug/L	2.0	SW846 8260C	1	04/15/2023 15:18	TMP	A
o-Xylene	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 15:18	TMP	A
Styrene	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 15:18	TMP	A
Tetrachloroethene	6.3		ug/L	1.0	SW846 8260C	1	04/15/2023 15:18	TMP	A
Toluene	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 15:18	TMP	A
Total Xylenes	ND	ND	ug/L	3.0	SW846 8260C	1	04/15/2023 15:18	TMP	A
trans-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 15:18	TMP	A
trans-1,3-Dichloropropene	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 15:18	TMP	A
Trichloroethene	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 15:18	TMP	A
Trichlorofluoromethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 15:18	TMP	A
Vinyl Chloride	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 15:18	TMP	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	98.1%	62 – 133	04/15/2023 15:18	
4-Bromofluorobenzene	460-00-4	104%	79 – 114	04/15/2023 15:18	
Dibromofluoromethane	1868-53-7	102%	78 – 116	04/15/2023 15:18	
Toluene-d8	2037-26-5	104%	76 – 127	04/15/2023 15:18	

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Hexavalent Chromium	ND	ND	mg/L	0.010	SW846 7196A	1	04/06/2023 09:45	GMM	F

Results

Client Sample ID	MW-02A	Collected	04/05/2023 15:30
Lab Sample ID	3296060010	Lab Receipt	04/06/2023 08:35

WET CHEMISTRY (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr

Results

Client Sample ID	TB-02	Collected	04/05/2023 00:00
Lab Sample ID	3296060011	Lab Receipt	04/06/2023 08:35

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1-Trichloroethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 12:39	TMP	A
1,1,2,2-Tetrachloroethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 12:39	TMP	A
1,1,2-Trichloroethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 12:39	TMP	A
1,1-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 12:39	TMP	A
1,1-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 12:39	TMP	A
1,2,3-Trichlorobenzene	ND	ND	ug/L	2.0	SW846 8260C	1	04/15/2023 12:39	TMP	A
1,2,4-Trichlorobenzene	ND	ND	ug/L	2.0	SW846 8260C	1	04/15/2023 12:39	TMP	A
1,2-Dibromo-3-chloropropane	ND	ND	ug/L	7.0	SW846 8260C	1	04/15/2023 12:39	TMP	A
1,2-Dibromoethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 12:39	TMP	A
1,2-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 12:39	TMP	A
1,2-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 12:39	TMP	A
1,2-Dichloropropane	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 12:39	TMP	A
1,3-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 12:39	TMP	A
1,4-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 12:39	TMP	A
2-Butanone	ND	ND	ug/L	10.0	SW846 8260C	1	04/15/2023 12:39	TMP	A
2-Hexanone	ND	ND	ug/L	5.0	SW846 8260C	1	04/15/2023 12:39	TMP	A
4-Methyl-2-Pentanone(MIBK)	ND	ND	ug/L	5.0	SW846 8260C	1	04/15/2023 12:39	TMP	A
Acetone	ND	ND	ug/L	10.0	SW846 8260C	1	04/15/2023 12:39	TMP	A
Benzene	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 12:39	TMP	A
Bromochloromethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 12:39	TMP	A
Bromodichloromethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 12:39	TMP	A
Bromoform	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 12:39	TMP	A
Bromomethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 12:39	TMP	A
Carbon Disulfide	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 12:39	TMP	A
Carbon Tetrachloride	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 12:39	TMP	A
Chlorobenzene	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 12:39	TMP	A
Chlorodibromomethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 12:39	TMP	A
Chloroethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 12:39	TMP	A
Chloroform	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 12:39	TMP	A
Chloromethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 12:39	TMP	A
cis-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 12:39	TMP	A
cis-1,3-Dichloropropene	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 12:39	TMP	A
Cyclohexane	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 12:39	TMP	A
Dichlorodifluoromethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 12:39	TMP	A
Ethylbenzene	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 12:39	TMP	A
Freon 113	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 12:39	TMP	A
Isopropylbenzene	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 12:39	TMP	A
Methyl acetate	ND	ND	ug/L	2.0	SW846 8260C	1	04/15/2023 12:39	TMP	A
Methyl cyclohexane	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 12:39	TMP	A
Methyl t-Butyl Ether	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 12:39	TMP	A
Methylene Chloride	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 12:39	TMP	A
mp-Xylene	ND	ND	ug/L	2.0	SW846 8260C	1	04/15/2023 12:39	TMP	A
o-Xylene	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 12:39	TMP	A
Styrene	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 12:39	TMP	A
Tetrachloroethene	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 12:39	TMP	A
Toluene	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 12:39	TMP	A
Total Xylenes	ND	ND	ug/L	3.0	SW846 8260C	1	04/15/2023 12:39	TMP	A

Results

Client Sample ID	TB-02	Collected	04/05/2023 00:00
Lab Sample ID	3296060011	Lab Receipt	04/06/2023 08:35

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
trans-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 12:39	TMP	A
trans-1,3-Dichloropropene	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 12:39	TMP	A
Trichloroethene	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 12:39	TMP	A
Trichlorofluoromethane	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 12:39	TMP	A
Vinyl Chloride	ND	ND	ug/L	1.0	SW846 8260C	1	04/15/2023 12:39	TMP	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	96.4%	62 – 133	04/15/2023 12:39	
4-Bromofluorobenzene	460-00-4	107%	79 – 114	04/15/2023 12:39	
Dibromofluoromethane	1868-53-7	101%	78 – 116	04/15/2023 12:39	
Toluene-d8	2037-26-5	105%	76 – 127	04/15/2023 12:39	

Sample - Method Cross Reference Table

Lab ID	Sample ID	Analysis Method	Preparation Method	Leachate Method
3296060001	MW-08A	SW846 6020A	SW846 3015A	
		SW846 7470A	SW846 7470A	
		SW846 8260C	N/A	
		Calculation	N/A	
		SW846 7196A	N/A	
3296060002	MW-01A	SW846 6020A	SW846 3015A	
		SW846 7470A	SW846 7470A	
		SW846 8260C	N/A	
		SW846 8260C	N/A	
		Calculation	N/A	
		SW846 7196A	N/A	
3296060003	MW-05A	SW846 6020A	SW846 3015A	
		SW846 7470A	SW846 7470A	
		SW846 8260C	N/A	
		Calculation	N/A	
		SW846 7196A	N/A	
3296060004	TB-01	SW846 8260C	N/A	
3296060005	MW-03A	SW846 6020A	SW846 3015A	
		SW846 7470A	SW846 7470A	
		SW846 8260C	N/A	
		Calculation	N/A	
		SW846 7196A	N/A	
3296060006	MW-03A-DUP	SW846 6020A	SW846 3015A	
		SW846 7470A	SW846 7470A	
		SW846 8260C	N/A	
		Calculation	N/A	
		SW846 7196A	N/A	
3296060007	MW-06A	SW846 6020A	SW846 3015A	
		SW846 7470A	SW846 7470A	
		SW846 8260C	N/A	
		Calculation	N/A	
		SW846 7196A	N/A	
3296060008	MW-07A	SW846 6020A	SW846 3015A	
		SW846 7470A	SW846 7470A	
		SW846 8260C	N/A	
		Calculation	N/A	
		SW846 7196A	N/A	
3296060009	MW-04A	SW846 6020A	SW846 3015A	
		SW846 7470A	SW846 7470A	
		SW846 8260C	N/A	
		Calculation	N/A	
		SW846 7196A	N/A	
3296060010	MW-02A	SW846 6020A	SW846 3015A	
		SW846 7470A	SW846 7470A	
		SW846 8260C	N/A	
		Calculation	N/A	
		SW846 7196A	N/A	
3296060011	TB-02	SW846 8260C	N/A	

QUALITY CONTROL SAMPLES

METALS

QC Batch

QC Batch	970699	Prep Method	SW846 7470A
Date	04/06/2023 07:40	Analysis Method	SW846 7470A
Tech.	WDA		

Associated Samples

3296060003 3296060001 3296060002

Matrix Spike 3649861 (MS) 3296121002 (non-Project Sample) For QC Batch 970699

****NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

Matrix Spike Duplicate 3649862 (MSD) 3296121002 (non-Project Sample) For QC Batch 970699

RESULTS

Compound	CAS No		Result (mg/L)	Orig. Result (mg/L)	Spk Added (mg/L)	Rec. (%)	Limits (%)	RPD Limit (%)	Qualifiers
Mercury, Dissolved	7439-97-6_D	MS	0.0060	0	0.0050	121	70 - 130		
Mercury, Dissolved	7439-97-6_D	MSD	0.0060	0	0.0050	120	70 - 130	RPD 1 (Max-20)	

Matrix Spike 3649863 (MS) 3296058004 (non-Project Sample) For QC Batch 970699

****NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

Matrix Spike Duplicate 3649864 (MSD) 3296058004 (non-Project Sample) For QC Batch 970699

RESULTS

Compound	CAS No		Result (mg/L)	Orig. Result (mg/L)	Spk Added (mg/L)	Rec. (%)	Limits (%)	RPD Limit (%)	Qualifiers
Mercury, Dissolved	7439-97-6_D	MS	0.0059	0	0.0050	117	70 - 130		
Mercury, Dissolved	7439-97-6_D	MSD	0.0058	0	0.0050	117	70 - 130	RPD 0.34 (Max-20)	

Method Blank 3649859 (MB) Created on 04/06/2023 06:17 For QC Batch 970699

RESULTS

Compound	CAS No		Result	Units	RDL	Qualifiers
Mercury, Dissolved	7439-97-6_D	BLK	ND	mg/L	0.00050	ND

Lab Control Standard 3649860 (LCS) Created on 04/06/2023 06:17 For QC Batch 970699

RESULTS

Compound	CAS No		Result (mg/L)	Orig. Result (mg/L)	Spk Added (mg/L)	Rec. (%)	Limits (%)	RPD Limit (%)	Qualifiers
Mercury, Dissolved	7439-97-6_D	LCS	0.0020		0.0020	99.5	85 - 115		

QUALITY CONTROL SAMPLES

METALS (cont.)

QC Batch

QC Batch	972774	Prep Method	SW846 7470A
Date	04/12/2023 07:45	Analysis Method	SW846 7470A
Tech.	WDA		

Associated Samples

3296060005	3296060006	3296060007	3296060008
3296060009	3296060010		

Matrix Spike 3652617 (MS) 3297038003 (non-Project Sample) For QC Batch 972774

****NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

Matrix Spike Duplicate 3652618 (MSD) 3297038003 (non-Project Sample) For QC Batch 972774

RESULTS

Compound	CAS No		Result (mg/L)	Orig. Result (mg/L)	Spk Added (mg/L)	Rec. (%)	Limits (%)	RPD Limit (%)	Qualifiers
Mercury, Dissolved	7439-97-6_D	MS	0.0056	0.000011	0.0050	112	70 - 130		
Mercury, Dissolved	7439-97-6_D	MSD	0.0053	0.000011	0.0050	105	70 - 130	RPD 6.06 (Max-20)	

Method Blank 3652613 (MB) Created on 04/12/2023 06:05 For QC Batch 972774

RESULTS

Compound	CAS No		Result	Units	RDL	Qualifiers
Mercury, Dissolved	7439-97-6_D	BLK	ND	mg/L	0.00050	ND

Lab Control Standard 3652614 (LCS) Created on 04/12/2023 06:05 For QC Batch 972774

RESULTS

Compound	CAS No		Result (mg/L)	Orig. Result (mg/L)	Spk Added (mg/L)	Rec. (%)	Limits (%)	RPD Limit (%)	Qualifiers
Mercury, Dissolved	7439-97-6_D	LCS	0.0019		0.0020	92.5	85 - 115		

Matrix Spike 3652615 (MS) 3296060005 For QC Batch 972774

****NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

Matrix Spike Duplicate 3652616 (MSD) 3296060005 For QC Batch 972774

RESULTS

Compound	CAS No		Result (mg/L)	Orig. Result (mg/L)	Spk Added (mg/L)	Rec. (%)	Limits (%)	RPD Limit (%)	Qualifiers
Mercury, Dissolved	7439-97-6_D	MS	0.0053	0	0.0050	105	70 - 130		
Mercury, Dissolved	7439-97-6_D	MSD	0.0054	0	0.0050	107	70 - 130	RPD 1.69 (Max-20)	

QUALITY CONTROL SAMPLES

METALS (cont.)

QUALITY CONTROL SAMPLES

VOLATILE ORGANICS

QC Batch

QC Batch	973149	Prep Method	N/A
Date	N/A	Analysis Method	SW846 8260C
Tech.			

Associated Samples

3296060003	3296060006	3296060004	3296060001
3296060005	3296060007	3296060002	

Method Blank 3653713 (MB) Created on 04/13/2023 12:46 For QC Batch 973149

RESULTS

Compound	CAS No		Result	Units	RDL	Qualifiers
1,1,1-Trichloroethane	71-55-6	BLK	ND	ug/L	1.0	ND
1,1,2,2-Tetrachloroethane	79-34-5	BLK	ND	ug/L	1.0	ND
1,1,2-Trichloroethane	79-00-5	BLK	ND	ug/L	1.0	ND
1,1-Dichloroethane	75-34-3	BLK	ND	ug/L	1.0	ND
1,1-Dichloroethene	75-35-4	BLK	ND	ug/L	1.0	ND
1,2,3-Trichlorobenzene	87-61-6	BLK	ND	ug/L	2.0	ND
1,2,4-Trichlorobenzene	120-82-1	BLK	ND	ug/L	2.0	ND
1,2-Dibromo-3-chloropropane	96-12-8	BLK	ND	ug/L	7.0	ND
1,2-Dibromoethane	106-93-4	BLK	ND	ug/L	1.0	ND
1,2-Dichlorobenzene	95-50-1	BLK	ND	ug/L	1.0	ND
1,2-Dichloroethane	107-06-2	BLK	ND	ug/L	1.0	ND
1,2-Dichloropropane	78-87-5	BLK	ND	ug/L	1.0	ND
1,3-Dichlorobenzene	541-73-1	BLK	ND	ug/L	1.0	ND
1,4-Dichlorobenzene	106-46-7	BLK	ND	ug/L	1.0	ND
2-Butanone	78-93-3	BLK	ND	ug/L	10.0	ND
2-Hexanone	591-78-6	BLK	ND	ug/L	5.0	ND
4-Methyl-2-Pentanone(MIBK)	108-10-1	BLK	ND	ug/L	5.0	ND
Acetone	67-64-1	BLK	ND	ug/L	10.0	ND
Benzene	71-43-2	BLK	ND	ug/L	1.0	ND
Bromochloromethane	74-97-5	BLK	ND	ug/L	1.0	ND
Bromodichloromethane	75-27-4	BLK	ND	ug/L	1.0	ND
Bromoform	75-25-2	BLK	ND	ug/L	1.0	ND
Bromomethane	74-83-9	BLK	ND	ug/L	1.0	ND
Carbon Disulfide	75-15-0	BLK	ND	ug/L	1.0	ND
Carbon Tetrachloride	56-23-5	BLK	ND	ug/L	1.0	ND
Chlorobenzene	108-90-7	BLK	ND	ug/L	1.0	ND
Chlorodibromomethane	124-48-1	BLK	ND	ug/L	1.0	ND
Chloroethane	75-00-3	BLK	ND	ug/L	1.0	ND
Chloroform	67-66-3	BLK	ND	ug/L	1.0	ND
Chloromethane	74-87-3	BLK	ND	ug/L	1.0	ND
cis-1,2-Dichloroethene	156-59-2	BLK	ND	ug/L	1.0	ND
cis-1,3-Dichloropropene	10061-01-5	BLK	ND	ug/L	1.0	ND
Cyclohexane	110-82-7	BLK	ND	ug/L	1.0	ND
Dichlorodifluoromethane	75-71-8	BLK	ND	ug/L	1.0	ND
Ethylbenzene	100-41-4	BLK	ND	ug/L	1.0	ND
Freon 113	76-13-1	BLK	ND	ug/L	1.0	ND
Isopropylbenzene	98-82-8	BLK	ND	ug/L	1.0	ND
Methyl acetate	79-20-9	BLK	ND	ug/L	2.0	ND
Methyl cyclohexane	108-87-2	BLK	ND	ug/L	1.0	ND

QUALITY CONTROL SAMPLES

VOLATILE ORGANICS (cont.)

RESULTS

Compound	CAS No		Result	Units	RDL	Qualifiers
Methyl t-Butyl Ether	1634-04-4	BLK	ND	ug/L	1.0	ND
Methylene Chloride	75-09-2	BLK	ND	ug/L	1.0	ND
mp-Xylene	108383/106423	BLK	ND	ug/L	2.0	ND
o-Xylene	95-47-6	BLK	ND	ug/L	1.0	ND
Styrene	100-42-5	BLK	ND	ug/L	1.0	ND
Tetrachloroethene	127-18-4	BLK	ND	ug/L	1.0	ND
Toluene	108-88-3	BLK	ND	ug/L	1.0	ND
Total Xylenes	1330-20-7	BLK	ND	ug/L	3.0	ND
trans-1,2-Dichloroethene	156-60-5	BLK	ND	ug/L	1.0	ND
trans-1,3-Dichloropropene	10061-02-6	BLK	ND	ug/L	1.0	ND
Trichloroethene	79-01-6	BLK	ND	ug/L	1.0	ND
Trichlorofluoromethane	75-69-4	BLK	ND	ug/L	1.0	ND
Vinyl Chloride	75-01-4	BLK	ND	ug/L	1.0	ND

SURROGATES

Compound	CAS No		Result (ug/L)	Expected (ug/L)	Rec. (%)	Limits (%)	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	BLK	31.80	30	106	62 - 133	
4-Bromofluorobenzene	460-00-4	BLK	28.80	30	95.9	79 - 114	
Dibromofluoromethane	1868-53-7	BLK	30.80	30	103	78 - 116	
Toluene-d8	2037-26-5	BLK	30.60	30	102	76 - 127	

Lab Control Standard 3653714 (LCS) Created on 04/13/2023 12:46 For QC Batch 973149

RESULTS

Compound	CAS No		Result (ug/L)	Orig. Result (ug/L)	Spk Added (ug/L)	Rec. (%)	Limits (%)	RPD Limit (%)	Qualifiers
1,1,1-Trichloroethane	71-55-6	LCS	21		20	105	66 - 130		
1,1,2,2-Tetrachloroethane	79-34-5	LCS	20.80		20	104	74 - 135		
1,1,2-Trichloroethane	79-00-5	LCS	19.70		20	98.6	82 - 126		
1,1-Dichloroethane	75-34-3	LCS	21.30		20	107	78 - 124		
1,1-Dichloroethene	75-35-4	LCS	21.80		20	109	63 - 128		
1,2,3-Trichlorobenzene	87-61-6	LCS	14.10		20	70.7	61 - 126		
1,2,4-Trichlorobenzene	120-82-1	LCS	15.50		20	77.4	67 - 123		
1,2-Dibromo-3-chloropropane	96-12-8	LCS	18.10		20	90.3	59 - 133		
1,2-Dibromoethane	106-93-4	LCS	19.90		20	99.5	80 - 124		
1,2-Dichlorobenzene	95-50-1	LCS	19.90		20	99.7	82 - 118		
1,2-Dichloroethane	107-06-2	LCS	20.80		20	104	70 - 133		
1,2-Dichloropropane	78-87-5	LCS	22.30		20	111	81 - 127		
1,3-Dichlorobenzene	541-73-1	LCS	21.10		20	105	81 - 118		
1,4-Dichlorobenzene	106-46-7	LCS	21.30		20	106	81 - 116		
2-Butanone	78-93-3	LCS	81.10		100	81.1	50 - 152		
2-Hexanone	591-78-6	LCS	80.30		100	80.3	65 - 154		
4-Methyl-2-Pentanone(MIBK)	108-10-1	LCS	102		100	102	71 - 146		
Acetone	67-64-1	LCS	107		100	107	40 - 151		
Benzene	71-43-2	LCS	21.70		20	108	80 - 124		

QUALITY CONTROL SAMPLES

VOLATILE ORGANICS (cont.)

RESULTS

Compound	CAS No		Result (ug/L)	Orig. Result (ug/L)	Spk Added (ug/L)	Rec. (%)	Limits (%)	RPD Limit (%)	Qualifiers
Bromochloromethane	74-97-5	LCS	21.20		20	106	73 - 117		
Bromodichloromethane	75-27-4	LCS	21.30		20	106	79 - 126		
Bromoform	75-25-2	LCS	19.80		20	99	70 - 123		
Bromomethane	74-83-9	LCS	21.10		20	105	45 - 148		
Carbon Disulfide	75-15-0	LCS	24.40		20	122	57 - 131		
Carbon Tetrachloride	56-23-5	LCS	21.70		20	109	62 - 132		
Chlorobenzene	108-90-7	LCS	20		20	100	85 - 117		
Chlorodibromomethane	124-48-1	LCS	17.50		20	87.4	77 - 122		
Chloroethane	75-00-3	LCS	20.80		20	104	51 - 142		
Chloroform	67-66-3	LCS	21.50		20	107	78 - 122		
Chloromethane	74-87-3	LCS	20.90		20	105	38 - 156		
cis-1,2-Dichloroethene	156-59-2	LCS	22.80		20	114	78 - 125		
cis-1,3-Dichloropropene	10061-01-5	LCS	18.70		20	93.3	81 - 121		
Cyclohexane	110-82-7	LCS	22.60		20	113	66 - 130		
Dichlorodifluoromethane	75-71-8	LCS	22.10		20	110	17 - 166		
Ethylbenzene	100-41-4	LCS	20.20		20	101	80 - 124		
Freon 113	76-13-1	LCS	22.20		20	111	50 - 130		
Isopropylbenzene	98-82-8	LCS	22.40		20	112	73 - 129		
Methyl acetate	79-20-9	LCS	18		20	89.8	70 - 130		
Methyl cyclohexane	108-87-2	LCS	21.10		20	106	70 - 130		
Methyl t-Butyl Ether	1634-04-4	LCS	21.80		20	109	69 - 115		
Methylene Chloride	75-09-2	LCS	21.60		20	108	76 - 121		
mp-Xylene	108383/106423	LCS	42.20		40	105	79 - 125		
o-Xylene	95-47-6	LCS	20.10		20	100	79 - 124		
Styrene	100-42-5	LCS	21.30		20	106	79 - 123		
Tetrachloroethene	127-18-4	LCS	18		20	90	72 - 124		
Toluene	108-88-3	LCS	20		20	100	80 - 125		
Total Xylenes	1330-20-7	LCS	62.20		60	104	79 - 125		
trans-1,2-Dichloroethene	156-60-5	LCS	22.10		20	111	71 - 122		
trans-1,3-Dichloropropene	10061-02-6	LCS	19.10		20	95.3	78 - 126		
Trichloroethene	79-01-6	LCS	20.10		20	100	77 - 124		
Trichlorofluoromethane	75-69-4	LCS	20.60		20	103	38 - 123		
Vinyl Chloride	75-01-4	LCS	20.30		20	102	27 - 138		

SURROGATES

Compound	CAS No		Result (ug/L)	Expected (ug/L)	Rec. (%)	Limits (%)	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	LCS	31.90	30	106	62 - 133	
4-Bromofluorobenzene	460-00-4	LCS	28.90	30	96.3	79 - 114	
Dibromofluoromethane	1868-53-7	LCS	32.60	30	109	78 - 116	
Toluene-d8	2037-26-5	LCS	29.90	30	99.5	76 - 127	

QUALITY CONTROL SAMPLES

VOLATILE ORGANICS (cont.)

Matrix Spike 3653824 (MS) 3296060002 For QC Batch 973149

****NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

Matrix Spike Duplicate 3653825 (MSD) 3296060002 For QC Batch 973149

RESULTS

Compound	CAS No		Result (ug/L)	Orig. Result (ug/L)	Spk Added (ug/L)	Rec. (%)	Limits (%)	RPD Limit (%)	Qualifiers
1,1,1-Trichloroethane	71-55-6	MS	22.30	0	20	111	66 - 130		
1,1,1-Trichloroethane	71-55-6	MSD	21.40	0	20	107	66 - 130	RPD 4.23 (Max-20)	
1,1,2,2-Tetrachloroethane	79-34-5	MS	22.10	0	20	110	74 - 135		
1,1,2,2-Tetrachloroethane	79-34-5	MSD	21.10	0	20	105	74 - 135	RPD 4.58 (Max-16)	
1,1,2-Trichloroethane	79-00-5	MS	20.60	0	20	103	82 - 126		
1,1,2-Trichloroethane	79-00-5	MSD	20.40	0	20	102	82 - 126	RPD 1.24 (Max-15)	
1,1-Dichloroethane	75-34-3	MS	23.20	0	20	116	78 - 124		
1,1-Dichloroethane	75-34-3	MSD	22.30	0	20	111	78 - 124	RPD 4.35 (Max-15)	
1,1-Dichloroethene	75-35-4	MS	23.40	0	20	117	63 - 128		
1,1-Dichloroethene	75-35-4	MSD	22	0	20	110	63 - 128	RPD 5.84 (Max-21)	
1,2,3-Trichlorobenzene	87-61-6	MS	11	0	20	55.2*	61 - 126		
1,2,3-Trichlorobenzene	87-61-6	MSD	11.40	0	20	57.1*	61 - 126	RPD 3.23 (Max-36)	
1,2,4-Trichlorobenzene	120-82-1	MS	13.20	0	20	65.9*	67 - 123		
1,2,4-Trichlorobenzene	120-82-1	MSD	13.50	0	20	67.3	67 - 123	RPD 2.01 (Max-22)	
1,2-Dibromo-3-chloropropane	96-12-8	MS	17.10	0	20	85.4	59 - 133		
1,2-Dibromo-3-chloropropane	96-12-8	MSD	16.60	0	20	83	59 - 133	RPD 2.82 (Max-26)	
1,2-Dibromoethane	106-93-4	MS	20.50	0	20	103	80 - 124		
1,2-Dibromoethane	106-93-4	MSD	20.10	0	20	100	80 - 124	RPD 2.19 (Max-19)	
1,2-Dichlorobenzene	95-50-1	MS	20.30	0	20	101	82 - 118		
1,2-Dichlorobenzene	95-50-1	MSD	20.20	0	20	101	82 - 118	RPD 0.24 (Max-15)	
1,2-Dichloroethane	107-06-2	MS	21.80	0	20	109	70 - 133		
1,2-Dichloroethane	107-06-2	MSD	21.30	0	20	106	70 - 133	RPD 2.55 (Max-19)	
1,2-Dichloropropane	78-87-5	MS	24.10	0	20	120	81 - 127		
1,2-Dichloropropane	78-87-5	MSD	22.90	0	20	114	81 - 127	RPD 5.12 (Max-15)	
1,3-Dichlorobenzene	541-73-1	MS	21.30	0	20	107	81 - 118		
1,3-Dichlorobenzene	541-73-1	MSD	21.10	0	20	105	81 - 118	RPD 1.20 (Max-16)	
1,4-Dichlorobenzene	106-46-7	MS	21.40	0	20	107	81 - 116		
1,4-Dichlorobenzene	106-46-7	MSD	21	0	20	105	81 - 116	RPD 1.84 (Max-15)	
2-Butanone	78-93-3	MS	63.60	0	100	63.6	50 - 152		
2-Butanone	78-93-3	MSD	59	0	100	59	50 - 152	RPD 7.40 (Max-16)	
2-Hexanone	591-78-6	MS	83.60	0	100	83.6	65 - 154		
2-Hexanone	591-78-6	MSD	86.90	0	100	86.9	65 - 154	RPD 3.93 (Max-17)	
4-Methyl-2-Pentanone(MIBK)	108-10-1	MS	105	0	100	105	71 - 146		
4-Methyl-2-Pentanone(MIBK)	108-10-1	MSD	102	0	100	102	71 - 146	RPD 3.59 (Max-16)	
Acetone	67-64-1	MS	99.20	0	100	99.2	40 - 151		
Acetone	67-64-1	MSD	90.30	0	100	90.3	40 - 151	RPD 9.38 (Max-40)	
Benzene	71-43-2	MS	23.80	0	20	119	80 - 124		
Benzene	71-43-2	MSD	22.80	0	20	114	80 - 124	RPD 4.05 (Max-26)	
Bromochloromethane	74-97-5	MS	22.60	0	20	113	73 - 117		
Bromochloromethane	74-97-5	MSD	22	0	20	110	73 - 117	RPD 2.49 (Max-19)	
Bromodichloromethane	75-27-4	MS	23	0	20	115	79 - 126		
Bromodichloromethane	75-27-4	MSD	22.50	0	20	112	79 - 126	RPD 2.50 (Max-16)	

QUALITY CONTROL SAMPLES

VOLATILE ORGANICS (cont.)

RESULTS

Compound	CAS No		Result (ug/L)	Orig. Result (ug/L)	Spk Added (ug/L)	Rec. (%)	Limits (%)	RPD Limit (%)	Qualifiers
Bromoform	75-25-2	MS	20.40	0	20	102	70 - 123		
Bromoform	75-25-2	MSD	20	0	20	100	70 - 123	RPD 1.76 (Max-16)	
Bromomethane	74-83-9	MS	18.60	0	20	93	45 - 148		
Bromomethane	74-83-9	MSD	17.50	0	20	87.3	45 - 148	RPD 6.25 (Max-26)	
Carbon Disulfide	75-15-0	MS	26	0	20	130	57 - 131		
Carbon Disulfide	75-15-0	MSD	23.90	0	20	119	57 - 131	RPD 8.47 (Max-28)	
Carbon Tetrachloride	56-23-5	MS	22.90	0	20	114	62 - 132		
Carbon Tetrachloride	56-23-5	MSD	21.90	0	20	110	62 - 132	RPD 4.16 (Max-17)	
Chlorobenzene	108-90-7	MS	20.80	0	20	104	85 - 117		
Chlorobenzene	108-90-7	MSD	20.30	0	20	102	85 - 117	RPD 2.33 (Max-15)	
Chlorodibromomethane	124-48-1	MS	16.20	0	20	80.8	77 - 122		
Chlorodibromomethane	124-48-1	MSD	17.60	0	20	88.1	77 - 122	RPD 8.65 (Max-15)	
Chloroethane	75-00-3	MS	20.80	0	20	104	51 - 142		
Chloroethane	75-00-3	MSD	19.40	0	20	96.9	51 - 142	RPD 7.02 (Max-24)	
Chloroform	67-66-3	MS	23	0.28	20	114	78 - 122		
Chloroform	67-66-3	MSD	22.20	0.28	20	110	78 - 122	RPD 3.76 (Max-16)	
Chloromethane	74-87-3	MS	19.50	0	20	97.4	38 - 156		
Chloromethane	74-87-3	MSD	18.80	0	20	94.1	38 - 156	RPD 3.45 (Max-27)	
cis-1,2-Dichloroethene	156-59-2	MS	24.20	0	20	121	78 - 125		
cis-1,2-Dichloroethene	156-59-2	MSD	23.70	0	20	118	78 - 125	RPD 2.12 (Max-21)	
cis-1,3-Dichloropropene	10061-01-5	MS	18.50	0	20	92.4	81 - 121		
cis-1,3-Dichloropropene	10061-01-5	MSD	18.20	0	20	91	81 - 121	RPD 1.60 (Max-16)	
Cyclohexane	110-82-7	MS	24.40	0	20	122	66 - 130		
Cyclohexane	110-82-7	MSD	23.40	0	20	117	66 - 130	RPD 4.42 (Max-20)	
Dichlorodifluoromethane	75-71-8	MS	19.50	0	20	97.7	17 - 166		
Dichlorodifluoromethane	75-71-8	MSD	18.70	0	20	93.3	17 - 166	RPD 4.61 (Max-24)	
Ethylbenzene	100-41-4	MS	21.50	0	20	108	80 - 124		
Ethylbenzene	100-41-4	MSD	20.90	0	20	104	80 - 124	RPD 2.94 (Max-19)	
Freon 113	76-13-1	MS	23.50	0	20	117	50 - 130		
Freon 113	76-13-1	MSD	22.30	0	20	112	50 - 130	RPD 4.96 (Max-26)	
Isopropylbenzene	98-82-8	MS	23.70	0	20	119	73 - 129		
Isopropylbenzene	98-82-8	MSD	23.30	0	20	116	73 - 129	RPD 1.92 (Max-18)	
Methyl acetate	79-20-9	MS	16.90	0	20	84.4	70 - 130		
Methyl acetate	79-20-9	MSD	16.80	0	20	84	70 - 130	RPD 0.55 (Max-18)	
Methyl cyclohexane	108-87-2	MS	22.10	0	20	110	70 - 130		
Methyl cyclohexane	108-87-2	MSD	22	0	20	110	70 - 130	RPD 0.39 (Max-18)	
Methyl t-Butyl Ether	1634-04-4	MS	22.40	0	20	112	69 - 115		
Methyl t-Butyl Ether	1634-04-4	MSD	21.60	0	20	108	69 - 115	RPD 3.50 (Max-20)	
Methylene Chloride	75-09-2	MS	22.50	0	20	112	76 - 121		
Methylene Chloride	75-09-2	MSD	22	0	20	110	76 - 121	RPD 2.03 (Max-17)	
mp-Xylene	108383/106423	MS	43.30	0	40	108	79 - 125		
mp-Xylene	108383/106423	MSD	42	0	40	105	79 - 125	RPD 3.08 (Max-21)	
o-Xylene	95-47-6	MS	20.70	0	20	104	79 - 124		
o-Xylene	95-47-6	MSD	20.20	0	20	101	79 - 124	RPD 2.75 (Max-19)	
Styrene	100-42-5	MS	21.50	0	20	108	79 - 123		
Styrene	100-42-5	MSD	21.70	0	20	108	79 - 123	RPD 0.66 (Max-16)	
Toluene	108-88-3	MS	20.80	0	20	104	80 - 125		
Toluene	108-88-3	MSD	20.30	0	20	101	80 - 125	RPD 2.45 (Max-20)	
Total Xylenes	1330-20-7	MS	64	0	60	107	79 - 125		

QUALITY CONTROL SAMPLES

VOLATILE ORGANICS (cont.)

RESULTS

Compound	CAS No		Result (ug/L)	Orig. Result (ug/L)	Spk Added (ug/L)	Rec. (%)	Limits (%)	RPD Limit (%)	Qualifiers
Total Xylenes	1330-20-7	MSD	62.20	0	60	104	79 - 125	RPD 2.97 (Max-35)	
trans-1,2-Dichloroethene	156-60-5	MS	23.50	0	20	117	71 - 122		
trans-1,2-Dichloroethene	156-60-5	MSD	22.50	0	20	113	71 - 122	RPD 3.95 (Max-22)	
trans-1,3-Dichloropropene	10061-02-6	MS	20.30	0	20	102	78 - 126		
trans-1,3-Dichloropropene	10061-02-6	MSD	19.80	0	20	98.8	78 - 126	RPD 2.73 (Max-18)	
Trichloroethene	79-01-6	MS	23.60	1.30	20	112	77 - 124		
Trichloroethene	79-01-6	MSD	21.90	1.30	20	103	77 - 124	RPD 7.46 (Max-18)	
Trichlorofluoromethane	75-69-4	MS	20.90	0	20	104	38 - 123		
Trichlorofluoromethane	75-69-4	MSD	19.60	0	20	98	38 - 123	RPD 6.37 (Max-23)	
Vinyl Chloride	75-01-4	MS	20.30	0	20	102	27 - 138		
Vinyl Chloride	75-01-4	MSD	19	0	20	95.2	27 - 138	RPD 6.63 (Max-40)	

SURROGATES

Compound	CAS No		Result (ug/L)	Expected (ug/L)	Rec. (%)	Limits (%)	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	MS	32.30	30	108	62 - 133	
1,2-Dichloroethane-d4	17060-07-0	MSD	32.60	30	109	62 - 133	
4-Bromofluorobenzene	460-00-4	MS	29	30	96.6	79 - 114	
4-Bromofluorobenzene	460-00-4	MSD	29.30	30	97.7	79 - 114	
Dibromofluoromethane	1868-53-7	MS	32.20	30	107	78 - 116	
Dibromofluoromethane	1868-53-7	MSD	32.20	30	107	78 - 116	
Toluene-d8	2037-26-5	MS	29	30	96.6	76 - 127	
Toluene-d8	2037-26-5	MSD	29.50	30	98.2	76 - 127	

QC Batch

QC Batch	973756	Prep Method	N/A
Date	N/A	Analysis Method	SW846 8260C
Tech.			

Associated Samples

3296060010 3296060008 3296060011 3296060009

Method Blank 3654549 (MB) Created on 04/15/2023 08:26 For QC Batch 973756

RESULTS

Compound	CAS No		Result	Units	RDL	Qualifiers
1,1,1-Trichloroethane	71-55-6	BLK	ND	ug/L	1.0	ND
1,1,2,2-Tetrachloroethane	79-34-5	BLK	ND	ug/L	1.0	ND
1,1,2-Trichloroethane	79-00-5	BLK	ND	ug/L	1.0	ND
1,1-Dichloroethane	75-34-3	BLK	ND	ug/L	1.0	ND
1,1-Dichloroethene	75-35-4	BLK	ND	ug/L	1.0	ND
1,2,3-Trichlorobenzene	87-61-6	BLK	ND	ug/L	2.0	ND
1,2,4-Trichlorobenzene	120-82-1	BLK	ND	ug/L	2.0	ND
1,2-Dibromo-3-chloropropane	96-12-8	BLK	ND	ug/L	7.0	ND
1,2-Dibromoethane	106-93-4	BLK	ND	ug/L	1.0	ND
1,2-Dichlorobenzene	95-50-1	BLK	ND	ug/L	1.0	ND

QUALITY CONTROL SAMPLES

VOLATILE ORGANICS (cont.)

RESULTS

Compound	CAS No		Result	Units	RDL	Qualifiers
1,2-Dichloroethane	107-06-2	BLK	ND	ug/L	1.0	ND
1,2-Dichloropropane	78-87-5	BLK	ND	ug/L	1.0	ND
1,3-Dichlorobenzene	541-73-1	BLK	ND	ug/L	1.0	ND
1,4-Dichlorobenzene	106-46-7	BLK	ND	ug/L	1.0	ND
2-Butanone	78-93-3	BLK	ND	ug/L	10.0	ND
2-Hexanone	591-78-6	BLK	ND	ug/L	5.0	ND
4-Methyl-2-Pentanone(MIBK)	108-10-1	BLK	ND	ug/L	5.0	ND
Acetone	67-64-1	BLK	ND	ug/L	10.0	ND
Benzene	71-43-2	BLK	ND	ug/L	1.0	ND
Bromochloromethane	74-97-5	BLK	ND	ug/L	1.0	ND
Bromodichloromethane	75-27-4	BLK	ND	ug/L	1.0	ND
Bromoform	75-25-2	BLK	ND	ug/L	1.0	ND
Bromomethane	74-83-9	BLK	ND	ug/L	1.0	ND
Carbon Disulfide	75-15-0	BLK	ND	ug/L	1.0	ND
Carbon Tetrachloride	56-23-5	BLK	ND	ug/L	1.0	ND
Chlorobenzene	108-90-7	BLK	ND	ug/L	1.0	ND
Chlorodibromomethane	124-48-1	BLK	ND	ug/L	1.0	ND
Chloroethane	75-00-3	BLK	ND	ug/L	1.0	ND
Chloroform	67-66-3	BLK	ND	ug/L	1.0	ND
Chloromethane	74-87-3	BLK	ND	ug/L	1.0	ND
cis-1,2-Dichloroethene	156-59-2	BLK	ND	ug/L	1.0	ND
cis-1,3-Dichloropropene	10061-01-5	BLK	ND	ug/L	1.0	ND
Cyclohexane	110-82-7	BLK	ND	ug/L	1.0	ND
Dichlorodifluoromethane	75-71-8	BLK	ND	ug/L	1.0	ND
Ethylbenzene	100-41-4	BLK	ND	ug/L	1.0	ND
Freon 113	76-13-1	BLK	ND	ug/L	1.0	ND
Isopropylbenzene	98-82-8	BLK	ND	ug/L	1.0	ND
Methyl acetate	79-20-9	BLK	ND	ug/L	2.0	ND
Methyl cyclohexane	108-87-2	BLK	ND	ug/L	1.0	ND
Methyl t-Butyl Ether	1634-04-4	BLK	ND	ug/L	1.0	ND
Methylene Chloride	75-09-2	BLK	ND	ug/L	1.0	ND
mp-Xylene	108383/106423	BLK	ND	ug/L	2.0	ND
o-Xylene	95-47-6	BLK	ND	ug/L	1.0	ND
Styrene	100-42-5	BLK	ND	ug/L	1.0	ND
Tetrachloroethene	127-18-4	BLK	ND	ug/L	1.0	ND
Toluene	108-88-3	BLK	ND	ug/L	1.0	ND
Total Xylenes	1330-20-7	BLK	ND	ug/L	3.0	ND
trans-1,2-Dichloroethene	156-60-5	BLK	ND	ug/L	1.0	ND
trans-1,3-Dichloropropene	10061-02-6	BLK	ND	ug/L	1.0	ND
Trichloroethene	79-01-6	BLK	ND	ug/L	1.0	ND
Trichlorofluoromethane	75-69-4	BLK	ND	ug/L	1.0	ND
Vinyl Chloride	75-01-4	BLK	ND	ug/L	1.0	ND

SURROGATES

Compound	CAS No		Result (ug/L)	Expected (ug/L)	Rec. (%)	Limits (%)	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	BLK	29	30	96.7	62 - 133	

QUALITY CONTROL SAMPLES

VOLATILE ORGANICS (cont.)

SURROGATES

Compound	CAS No		Result (ug/L)	Expected (ug/L)	Rec. (%)	Limits (%)	Qualifiers
4-Bromofluorobenzene	460-00-4	BLK	30.80	30	103	79 - 114	
Dibromofluoromethane	1868-53-7	BLK	30.60	30	102	78 - 116	
Toluene-d8	2037-26-5	BLK	30.90	30	103	76 - 127	

Lab Control Standard 3654550 (LCS) Created on 04/15/2023 08:26 For QC Batch 973756

RESULTS

Compound	CAS No		Result (ug/L)	Orig. Result (ug/L)	Spk Added (ug/L)	Rec. (%)	Limits (%)	RPD Limit (%)	Qualifiers
1,1,1-Trichloroethane	71-55-6	LCS	21.20		20	106	66 - 130		
1,1,2,2-Tetrachloroethane	79-34-5	LCS	19.50		20	97.6	74 - 135		
1,1,2-Trichloroethane	79-00-5	LCS	21.30		20	106	82 - 126		
1,1-Dichloroethane	75-34-3	LCS	20.30		20	101	78 - 124		
1,1-Dichloroethene	75-35-4	LCS	21		20	105	63 - 128		
1,2,3-Trichlorobenzene	87-61-6	LCS	23.10		20	115	61 - 126		
1,2,4-Trichlorobenzene	120-82-1	LCS	22.30		20	112	67 - 123		
1,2-Dibromo-3-chloropropane	96-12-8	LCS	17.70		20	88.7	59 - 133		
1,2-Dibromoethane	106-93-4	LCS	20.90		20	105	80 - 124		
1,2-Dichlorobenzene	95-50-1	LCS	20.30		20	102	82 - 118		
1,2-Dichloroethane	107-06-2	LCS	20.30		20	102	70 - 133		
1,2-Dichloropropane	78-87-5	LCS	20.20		20	101	81 - 127		
1,3-Dichlorobenzene	541-73-1	LCS	20.50		20	103	81 - 118		
1,4-Dichlorobenzene	106-46-7	LCS	20.50		20	103	81 - 116		
2-Butanone	78-93-3	LCS	131		100	131	50 - 152		
2-Hexanone	591-78-6	LCS	104		100	104	65 - 154		
4-Methyl-2-Pentanone(MIBK)	108-10-1	LCS	105		100	105	71 - 146		
Acetone	67-64-1	LCS	106		100	106	40 - 151		
Benzene	71-43-2	LCS	20.90		20	105	80 - 124		
Bromochloromethane	74-97-5	LCS	22		20	110	73 - 117		
Bromodichloromethane	75-27-4	LCS	20.70		20	104	79 - 126		
Bromoform	75-25-2	LCS	20.60		20	103	70 - 123		
Bromomethane	74-83-9	LCS	17.70		20	88.4	45 - 148		
Carbon Disulfide	75-15-0	LCS	22.50		20	112	57 - 131		
Carbon Tetrachloride	56-23-5	LCS	22.30		20	111	62 - 132		
Chlorobenzene	108-90-7	LCS	20.90		20	105	85 - 117		
Chlorodibromomethane	124-48-1	LCS	21.10		20	105	77 - 122		
Chloroethane	75-00-3	LCS	22		20	110	51 - 142		
Chloroform	67-66-3	LCS	21.40		20	107	78 - 122		
Chloromethane	74-87-3	LCS	19.50		20	97.5	38 - 156		
cis-1,2-Dichloroethene	156-59-2	LCS	20.90		20	105	78 - 125		
cis-1,3-Dichloropropene	10061-01-5	LCS	20		20	100	81 - 121		
Cyclohexane	110-82-7	LCS	21.80		20	109	66 - 130		
Dichlorodifluoromethane	75-71-8	LCS	25.40		20	127	17 - 166		
Ethylbenzene	100-41-4	LCS	20.90		20	104	80 - 124		
Freon 113	76-13-1	LCS	23.50		20	118	50 - 130		
Isopropylbenzene	98-82-8	LCS	20.20		20	101	73 - 129		

QUALITY CONTROL SAMPLES

VOLATILE ORGANICS (cont.)

RESULTS

Compound	CAS No		Result (ug/L)	Orig. Result (ug/L)	Spk Added (ug/L)	Rec. (%)	Limits (%)	RPD Limit (%)	Qualifiers
Methyl acetate	79-20-9	LCS	21.80		20	109	70 - 130		
Methyl cyclohexane	108-87-2	LCS	21.30		20	106	70 - 130		
Methyl t-Butyl Ether	1634-04-4	LCS	22		20	110	69 - 115		
Methylene Chloride	75-09-2	LCS	21.40		20	107	76 - 121		
mp-Xylene	108383/106423	LCS	42.70		40	107	79 - 125		
o-Xylene	95-47-6	LCS	20.20		20	101	79 - 124		
Styrene	100-42-5	LCS	20.10		20	100	79 - 123		
Tetrachloroethene	127-18-4	LCS	21		20	105	72 - 124		
Toluene	108-88-3	LCS	20.80		20	104	80 - 125		
Total Xylenes	1330-20-7	LCS	62.90		60	105	79 - 125		
trans-1,2-Dichloroethene	156-60-5	LCS	20.40		20	102	71 - 122		
trans-1,3-Dichloropropene	10061-02-6	LCS	20.70		20	103	78 - 126		
Trichloroethene	79-01-6	LCS	20.40		20	102	77 - 124		
Trichlorofluoromethane	75-69-4	LCS	22.60		20	113	38 - 123		
Vinyl Chloride	75-01-4	LCS	20.80		20	104	27 - 138		

SURROGATES

Compound	CAS No		Result (ug/L)	Expected (ug/L)	Rec. (%)	Limits (%)	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	LCS	29	30	96.5	62 - 133	
4-Bromofluorobenzene	460-00-4	LCS	30.20	30	101	79 - 114	
Dibromofluoromethane	1868-53-7	LCS	30	30	100	78 - 116	
Toluene-d8	2037-26-5	LCS	30.50	30	102	76 - 127	

Matrix Spike 3654577 (MS) 3296060008 For QC Batch 973756

****NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

Matrix Spike Duplicate 3654578 (MSD) 3296060008 For QC Batch 973756

RESULTS

Compound	CAS No		Result (ug/L)	Orig. Result (ug/L)	Spk Added (ug/L)	Rec. (%)	Limits (%)	RPD Limit (%)	Qualifiers
1,1,1-Trichloroethane	71-55-6	MS	23	0	20	115	66 - 130		
1,1,1-Trichloroethane	71-55-6	MSD	19.80	0	20	99	66 - 130	RPD 14.80 (Max-20)	
1,1,2,2-Tetrachloroethane	79-34-5	MS	19.70	0	20	98.5	74 - 135		
1,1,2,2-Tetrachloroethane	79-34-5	MSD	18.70	0	20	93.7	74 - 135	RPD 5.07 (Max-16)	
1,1,2-Trichloroethane	79-00-5	MS	21.40	0	20	107	82 - 126		
1,1,2-Trichloroethane	79-00-5	MSD	19.90	0	20	99.5	82 - 126	RPD 7.48 (Max-15)	
1,1-Dichloroethane	75-34-3	MS	21.30	0	20	107	78 - 124		
1,1-Dichloroethane	75-34-3	MSD	18.50	0	20	92.5	78 - 124	RPD 14.10 (Max-15)	
1,1-Dichloroethene	75-35-4	MS	22.40	0	20	112	63 - 128		
1,1-Dichloroethene	75-35-4	MSD	19.10	0	20	95.4	63 - 128	RPD 16 (Max-21)	
1,2,3-Trichlorobenzene	87-61-6	MS	16.70	0	20	83.6	61 - 126		
1,2,3-Trichlorobenzene	87-61-6	MSD	16.30	0	20	81.4	61 - 126	RPD 2.72 (Max-36)	

QUALITY CONTROL SAMPLES

VOLATILE ORGANICS (cont.)

RESULTS

Compound	CAS No		Result (ug/L)	Orig. Result (ug/L)	Spk Added (ug/L)	Rec. (%)	Limits (%)	RPD Limit (%)	Qualifiers
1,2,4-Trichlorobenzene	120-82-1	MS	18	0	20	90.1	67 - 123		
1,2,4-Trichlorobenzene	120-82-1	MSD	17.50	0	20	87.3	67 - 123	RPD 3.15 (Max-22)	
1,2-Dibromo-3-chloropropane	96-12-8	MS	16.40	0	20	82	59 - 133		
1,2-Dibromo-3-chloropropane	96-12-8	MSD	15.90	0	20	79.4	59 - 133	RPD 3.30 (Max-26)	
1,2-Dibromoethane	106-93-4	MS	21.10	0	20	105	80 - 124		
1,2-Dibromoethane	106-93-4	MSD	19.90	0	20	99.4	80 - 124	RPD 5.82 (Max-19)	
1,2-Dichlorobenzene	95-50-1	MS	20.40	0	20	102	82 - 118		
1,2-Dichlorobenzene	95-50-1	MSD	18.50	0	20	92.4	82 - 118	RPD 9.87 (Max-15)	
1,2-Dichloroethane	107-06-2	MS	20.50	0	20	102	70 - 133		
1,2-Dichloroethane	107-06-2	MSD	18.60	0	20	92.9	70 - 133	RPD 9.76 (Max-19)	
1,2-Dichloropropane	78-87-5	MS	20.60	0	20	103	81 - 127		
1,2-Dichloropropane	78-87-5	MSD	18.60	0	20	93	81 - 127	RPD 9.98 (Max-15)	
1,3-Dichlorobenzene	541-73-1	MS	20.40	0	20	102	81 - 118		
1,3-Dichlorobenzene	541-73-1	MSD	18.40	0	20	92.1	81 - 118	RPD 10.30 (Max-16)	
1,4-Dichlorobenzene	106-46-7	MS	20.30	0	20	102	81 - 116		
1,4-Dichlorobenzene	106-46-7	MSD	18.30	0	20	91.3	81 - 116	RPD 10.70 (Max-15)	
2-Butanone	78-93-3	MS	137	0	100	137	50 - 152		
2-Butanone	78-93-3	MSD	132	0	100	132	50 - 152	RPD 4.14 (Max-16)	
2-Hexanone	591-78-6	MS	106	0	100	106	65 - 154		
2-Hexanone	591-78-6	MSD	104	0	100	104	65 - 154	RPD 2.35 (Max-17)	
4-Methyl-2-Pentanone(MIBK)	108-10-1	MS	106	0	100	106	71 - 146		
4-Methyl-2-Pentanone(MIBK)	108-10-1	MSD	102	0	100	102	71 - 146	RPD 3.22 (Max-16)	
Acetone	67-64-1	MS	105	0	100	105	40 - 151		
Acetone	67-64-1	MSD	102	0	100	102	40 - 151	RPD 2.94 (Max-40)	
Benzene	71-43-2	MS	22.30	0	20	111	80 - 124		
Benzene	71-43-2	MSD	19.40	0	20	97.2	80 - 124	RPD 13.50 (Max-26)	
Bromochloromethane	74-97-5	MS	22.50	0	20	112	73 - 117		
Bromochloromethane	74-97-5	MSD	20.40	0	20	102	73 - 117	RPD 9.87 (Max-19)	
Bromodichloromethane	75-27-4	MS	21.20	0	20	106	79 - 126		
Bromodichloromethane	75-27-4	MSD	18.90	0	20	94.4	79 - 126	RPD 11.30 (Max-16)	
Bromoform	75-25-2	MS	20	0	20	99.8	70 - 123		
Bromoform	75-25-2	MSD	19.10	0	20	95.4	70 - 123	RPD 4.57 (Max-16)	
Bromomethane	74-83-9	MS	4.70	0	20	23.6*	45 - 148		
Bromomethane	74-83-9	MSD	5	0	20	25.2*	45 - 148	RPD 6.60 (Max-26)	
Carbon Disulfide	75-15-0	MS	24.70	0	20	124	57 - 131		
Carbon Disulfide	75-15-0	MSD	20.90	0	20	104	57 - 131	RPD 16.90 (Max-28)	
Carbon Tetrachloride	56-23-5	MS	24.80	0	20	124	62 - 132		
Carbon Tetrachloride	56-23-5	MSD	21.50	0	20	107	62 - 132	RPD 14.40 (Max-17)	
Chlorobenzene	108-90-7	MS	21.70	0	20	108	85 - 117		
Chlorobenzene	108-90-7	MSD	19.30	0	20	96.3	85 - 117	RPD 11.70 (Max-15)	
Chlorodibromomethane	124-48-1	MS	21.20	0	20	106	77 - 122		
Chlorodibromomethane	124-48-1	MSD	19.70	0	20	98.7	77 - 122	RPD 7.14 (Max-15)	
Chloroethane	75-00-3	MS	24.80	0	20	124	51 - 142		
Chloroethane	75-00-3	MSD	20.90	0	20	104	51 - 142	RPD 17.40 (Max-24)	
Chloroform	67-66-3	MS	21.50	0	20	108	78 - 122		
Chloroform	67-66-3	MSD	19.20	0	20	95.9	78 - 122	RPD 11.60 (Max-16)	
Chloromethane	74-87-3	MS	18.40	0	20	92	38 - 156		
Chloromethane	74-87-3	MSD	15.50	0	20	77.5	38 - 156	RPD 17 (Max-27)	
cis-1,2-Dichloroethene	156-59-2	MS	22.10	0	20	110	78 - 125		

QUALITY CONTROL SAMPLES

VOLATILE ORGANICS (cont.)

RESULTS

Compound	CAS No		Result (ug/L)	Orig. Result (ug/L)	Spk Added (ug/L)	Rec. (%)	Limits (%)	RPD Limit (%)	Qualifiers
cis-1,2-Dichloroethene	156-59-2	MSD	18.90	0	20	94.6	78 - 125	RPD 15.30 (Max-21)	
cis-1,3-Dichloropropene	10061-01-5	MS	19.30	0	20	96.6	81 - 121		
cis-1,3-Dichloropropene	10061-01-5	MSD	17.50	0	20	87.5	81 - 121	RPD 9.86 (Max-16)	
Cyclohexane	110-82-7	MS	23.50	0	20	117	66 - 130		
Cyclohexane	110-82-7	MSD	21	0	20	105	66 - 130	RPD 11.20 (Max-20)	
Dichlorodifluoromethane	75-71-8	MS	28.50	0	20	143	17 - 166		
Dichlorodifluoromethane	75-71-8	MSD	24.80	0	20	124	17 - 166	RPD 13.90 (Max-24)	
Ethylbenzene	100-41-4	MS	22.10	0	20	110	80 - 124		
Ethylbenzene	100-41-4	MSD	19.40	0	20	96.8	80 - 124	RPD 13 (Max-19)	
Freon 113	76-13-1	MS	24.80	0	20	124	50 - 130		
Freon 113	76-13-1	MSD	21.90	0	20	110	50 - 130	RPD 12.30 (Max-26)	
Isopropylbenzene	98-82-8	MS	21.20	0	20	106	73 - 129		
Isopropylbenzene	98-82-8	MSD	19.20	0	20	95.8	73 - 129	RPD 10.30 (Max-18)	
Methyl acetate	79-20-9	MS	19.30	0	20	96.6	70 - 130		
Methyl acetate	79-20-9	MSD	18.50	0	20	92.3	70 - 130	RPD 4.50 (Max-18)	
Methyl cyclohexane	108-87-2	MS	22.30	0	20	111	70 - 130		
Methyl cyclohexane	108-87-2	MSD	20.80	0	20	104	70 - 130	RPD 6.84 (Max-18)	
Methyl t-Butyl Ether	1634-04-4	MS	22.70	0	20	113	69 - 115		
Methyl t-Butyl Ether	1634-04-4	MSD	21.30	0	20	106	69 - 115	RPD 6.41 (Max-20)	
Methylene Chloride	75-09-2	MS	22.20	0	20	111	76 - 121		
Methylene Chloride	75-09-2	MSD	19.90	0	20	99.3	76 - 121	RPD 11 (Max-17)	
mp-Xylene	108383/106423	MS	44.40	0	40	111	79 - 125		
mp-Xylene	108383/106423	MSD	39.60	0	40	99.1	79 - 125	RPD 11.20 (Max-21)	
o-Xylene	95-47-6	MS	21.10	0	20	106	79 - 124		
o-Xylene	95-47-6	MSD	18.90	0	20	94.3	79 - 124	RPD 11.20 (Max-19)	
Styrene	100-42-5	MS	20.50	0	20	103	79 - 123		
Styrene	100-42-5	MSD	18.10	0	20	90.4	79 - 123	RPD 12.50 (Max-16)	
Tetrachloroethene	127-18-4	MS	32.60	10.50	20	110	72 - 124		
Tetrachloroethene	127-18-4	MSD	28.50	10.50	20	90.4	72 - 124	RPD 13.10 (Max-38)	
Toluene	108-88-3	MS	22.10	0	20	111	80 - 125		
Toluene	108-88-3	MSD	19.70	0	20	98.6	80 - 125	RPD 11.50 (Max-20)	
Total Xylenes	1330-20-7	MS	65.50	0	60	109	79 - 125		
Total Xylenes	1330-20-7	MSD	58.50	0	60	97.5	79 - 125	RPD 11.20 (Max-35)	
trans-1,2-Dichloroethene	156-60-5	MS	21.40	0	20	107	71 - 122		
trans-1,2-Dichloroethene	156-60-5	MSD	18.40	0	20	92.1	71 - 122	RPD 15.20 (Max-22)	
trans-1,3-Dichloropropene	10061-02-6	MS	20	0	20	100	78 - 126		
trans-1,3-Dichloropropene	10061-02-6	MSD	18.40	0	20	91.8	78 - 126	RPD 8.74 (Max-18)	
Trichloroethene	79-01-6	MS	21.80	0	20	109	77 - 124		
Trichloroethene	79-01-6	MSD	19	0	20	95.1	77 - 124	RPD 13.40 (Max-18)	
Trichlorofluoromethane	75-69-4	MS	22.80	0	20	114	38 - 123		
Trichlorofluoromethane	75-69-4	MSD	19.80	0	20	99.2	38 - 123	RPD 13.70 (Max-23)	
Vinyl Chloride	75-01-4	MS	23.30	0	20	116	27 - 138		
Vinyl Chloride	75-01-4	MSD	19.90	0	20	99.6	27 - 138	RPD 15.50 (Max-40)	

QUALITY CONTROL SAMPLES

VOLATILE ORGANICS (cont.)

SURROGATES

Compound	CAS No		Result (ug/L)	Expected (ug/L)	Rec. (%)	Limits (%)	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	MS	29.20	30	97.3	62 - 133	
1,2-Dichloroethane-d4	17060-07-0	MSD	29	30	96.5	62 - 133	
4-Bromofluorobenzene	460-00-4	MS	30.90	30	103	79 - 114	
4-Bromofluorobenzene	460-00-4	MSD	31.10	30	104	79 - 114	
Dibromofluoromethane	1868-53-7	MS	30.30	30	101	78 - 116	
Dibromofluoromethane	1868-53-7	MSD	30.10	30	100	78 - 116	
Toluene-d8	2037-26-5	MS	30.30	30	101	76 - 127	
Toluene-d8	2037-26-5	MSD	30.50	30	102	76 - 127	

QC Batch

QC Batch	975093	Prep Method	N/A
Date	N/A	Analysis Method	SW846 8260C
Tech.			

Associated Samples

3296060002

Method Blank 3655213 (MB) Created on 04/17/2023 14:19 For QC Batch 975093

RESULTS

Compound	CAS No		Result	Units	RDL	Qualifiers
1,1,1-Trichloroethane	71-55-6	BLK	ND	ug/L	1.0	ND
1,1,2,2-Tetrachloroethane	79-34-5	BLK	ND	ug/L	1.0	ND
1,1,2-Trichloroethane	79-00-5	BLK	ND	ug/L	1.0	ND
1,1-Dichloroethane	75-34-3	BLK	ND	ug/L	1.0	ND
1,1-Dichloroethene	75-35-4	BLK	ND	ug/L	1.0	ND
1,2,3-Trichlorobenzene	87-61-6	BLK	ND	ug/L	2.0	ND
1,2,4-Trichlorobenzene	120-82-1	BLK	ND	ug/L	2.0	ND
1,2-Dibromo-3-chloropropane	96-12-8	BLK	ND	ug/L	7.0	ND
1,2-Dibromoethane	106-93-4	BLK	ND	ug/L	1.0	ND
1,2-Dichlorobenzene	95-50-1	BLK	ND	ug/L	1.0	ND
1,2-Dichloroethane	107-06-2	BLK	ND	ug/L	1.0	ND
1,2-Dichloropropane	78-87-5	BLK	ND	ug/L	1.0	ND
1,3-Dichlorobenzene	541-73-1	BLK	ND	ug/L	1.0	ND
1,4-Dichlorobenzene	106-46-7	BLK	ND	ug/L	1.0	ND
2-Butanone	78-93-3	BLK	ND	ug/L	10.0	ND
2-Hexanone	591-78-6	BLK	ND	ug/L	5.0	ND
4-Methyl-2-Pentanone(MIBK)	108-10-1	BLK	ND	ug/L	5.0	ND
Acetone	67-64-1	BLK	ND	ug/L	10.0	ND
Benzene	71-43-2	BLK	ND	ug/L	1.0	ND
Bromochloromethane	74-97-5	BLK	ND	ug/L	1.0	ND
Bromodichloromethane	75-27-4	BLK	ND	ug/L	1.0	ND
Bromoform	75-25-2	BLK	ND	ug/L	1.0	ND
Bromomethane	74-83-9	BLK	ND	ug/L	1.0	ND
Carbon Disulfide	75-15-0	BLK	ND	ug/L	1.0	ND
Carbon Tetrachloride	56-23-5	BLK	ND	ug/L	1.0	ND

QUALITY CONTROL SAMPLES

VOLATILE ORGANICS (cont.)

RESULTS

Compound	CAS No		Result	Units	RDL	Qualifiers
Chlorobenzene	108-90-7	BLK	ND	ug/L	1.0	ND
Chlorodibromomethane	124-48-1	BLK	ND	ug/L	1.0	ND
Chloroethane	75-00-3	BLK	ND	ug/L	1.0	ND
Chloroform	67-66-3	BLK	ND	ug/L	1.0	ND
Chloromethane	74-87-3	BLK	ND	ug/L	1.0	ND
cis-1,2-Dichloroethene	156-59-2	BLK	ND	ug/L	1.0	ND
cis-1,3-Dichloropropene	10061-01-5	BLK	ND	ug/L	1.0	ND
Cyclohexane	110-82-7	BLK	ND	ug/L	1.0	ND
Dichlorodifluoromethane	75-71-8	BLK	ND	ug/L	1.0	ND
Ethylbenzene	100-41-4	BLK	ND	ug/L	1.0	ND
Freon 113	76-13-1	BLK	ND	ug/L	1.0	ND
Isopropylbenzene	98-82-8	BLK	ND	ug/L	1.0	ND
Methyl acetate	79-20-9	BLK	ND	ug/L	2.0	ND
Methyl cyclohexane	108-87-2	BLK	ND	ug/L	1.0	ND
Methyl t-Butyl Ether	1634-04-4	BLK	ND	ug/L	1.0	ND
Methylene Chloride	75-09-2	BLK	ND	ug/L	1.0	ND
mp-Xylene	108383/106423	BLK	ND	ug/L	2.0	ND
o-Xylene	95-47-6	BLK	ND	ug/L	1.0	ND
Styrene	100-42-5	BLK	ND	ug/L	1.0	ND
Tetrachloroethene	127-18-4	BLK	ND	ug/L	1.0	ND
Toluene	108-88-3	BLK	ND	ug/L	1.0	ND
Total Xylenes	1330-20-7	BLK	ND	ug/L	3.0	ND
trans-1,2-Dichloroethene	156-60-5	BLK	ND	ug/L	1.0	ND
trans-1,3-Dichloropropene	10061-02-6	BLK	ND	ug/L	1.0	ND
Trichloroethene	79-01-6	BLK	ND	ug/L	1.0	ND
Trichlorofluoromethane	75-69-4	BLK	ND	ug/L	1.0	ND
Vinyl Chloride	75-01-4	BLK	ND	ug/L	1.0	ND

SURROGATES

Compound	CAS No		Result (ug/L)	Expected (ug/L)	Rec. (%)	Limits (%)	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	BLK	28.50	30	95.1	62 - 133	
4-Bromofluorobenzene	460-00-4	BLK	30.60	30	102	79 - 114	
Dibromofluoromethane	1868-53-7	BLK	29.70	30	99	78 - 116	
Toluene-d8	2037-26-5	BLK	30.40	30	101	76 - 127	

Lab Control Standard 3655214 (LCS) Created on 04/17/2023 14:19 For QC Batch 975093

RESULTS

Compound	CAS No		Result (ug/L)	Orig. Result (ug/L)	Spk Added (ug/L)	Rec. (%)	Limits (%)	RPD Limit (%)	Qualifiers
1,1,1-Trichloroethane	71-55-6	LCS	17.50		20	87.7	66 - 130		
1,1,2,2-Tetrachloroethane	79-34-5	LCS	19.20		20	96.1	74 - 135		
1,1,2-Trichloroethane	79-00-5	LCS	19.90		20	99.6	82 - 126		
1,1-Dichloroethane	75-34-3	LCS	17.50		20	87.4	78 - 124		
1,1-Dichloroethene	75-35-4	LCS	16.30		20	81.4	63 - 128		

QUALITY CONTROL SAMPLES

VOLATILE ORGANICS (cont.)

RESULTS

Compound	CAS No		Result (ug/L)	Orig. Result (ug/L)	Spk Added (ug/L)	Rec. (%)	Limits (%)	RPD Limit (%)	Qualifiers
1,2,3-Trichlorobenzene	87-61-6	LCS	17.60		20	87.8	61 - 126		
1,2,4-Trichlorobenzene	120-82-1	LCS	18.70		20	93.6	67 - 123		
1,2-Dibromo-3-chloropropane	96-12-8	LCS	16.60		20	83.1	59 - 133		
1,2-Dibromoethane	106-93-4	LCS	19.80		20	99	80 - 124		
1,2-Dichlorobenzene	95-50-1	LCS	18.20		20	90.8	82 - 118		
1,2-Dichloroethane	107-06-2	LCS	18.50		20	92.5	70 - 133		
1,2-Dichloropropane	78-87-5	LCS	17.80		20	88.8	81 - 127		
1,3-Dichlorobenzene	541-73-1	LCS	18.10		20	90.6	81 - 118		
1,4-Dichlorobenzene	106-46-7	LCS	18		20	90.2	81 - 116		
2-Butanone	78-93-3	LCS	140		100	140	50 - 152		
2-Hexanone	591-78-6	LCS	111		100	111	65 - 154		
4-Methyl-2-Pentanone(MIBK)	108-10-1	LCS	109		100	109	71 - 146		
Acetone	67-64-1	LCS	115		100	115	40 - 151		
Benzene	71-43-2	LCS	18.30		20	91.6	80 - 124		
Bromochloromethane	74-97-5	LCS	19.90		20	99.6	73 - 117		
Bromodichloromethane	75-27-4	LCS	18		20	89.8	79 - 126		
Bromoform	75-25-2	LCS	18.80		20	93.9	70 - 123		
Bromomethane	74-83-9	LCS	10.60		20	52.8	45 - 148		
Carbon Disulfide	75-15-0	LCS	17.60		20	87.9	57 - 131		
Carbon Tetrachloride	56-23-5	LCS	17.20		20	85.8	62 - 132		
Chlorobenzene	108-90-7	LCS	18.40		20	91.9	85 - 117		
Chlorodibromomethane	124-48-1	LCS	19.30		20	96.5	77 - 122		
Chloroethane	75-00-3	LCS	14.10		20	70.6	51 - 142		
Chloroform	67-66-3	LCS	18.60		20	93.1	78 - 122		
Chloromethane	74-87-3	LCS	15.20		20	76	38 - 156		
cis-1,2-Dichloroethene	156-59-2	LCS	18.30		20	91.4	78 - 125		
cis-1,3-Dichloropropene	10061-01-5	LCS	17.70		20	88.7	81 - 121		
Cyclohexane	110-82-7	LCS	17.30		20	86.5	66 - 130		
Dichlorodifluoromethane	75-71-8	LCS	20.70		20	103	17 - 166		
Ethylbenzene	100-41-4	LCS	18		20	90	80 - 124		
Freon 113	76-13-1	LCS	18		20	90.1	50 - 130		
Isopropylbenzene	98-82-8	LCS	17.20		20	86.1	73 - 129		
Methyl acetate	79-20-9	LCS	22.40		20	112	70 - 130		
Methyl cyclohexane	108-87-2	LCS	17.30		20	86.7	70 - 130		
Methyl t-Butyl Ether	1634-04-4	LCS	21.20		20	106	69 - 115		
Methylene Chloride	75-09-2	LCS	18.90		20	94.4	76 - 121		
mp-Xylene	108383/106423	LCS	36.70		40	91.8	79 - 125		
o-Xylene	95-47-6	LCS	17.80		20	88.8	79 - 124		
Styrene	100-42-5	LCS	17.50		20	87.6	79 - 123		
Tetrachloroethene	127-18-4	LCS	17.70		20	88.3	72 - 124		
Toluene	108-88-3	LCS	18		20	89.9	80 - 125		
Total Xylenes	1330-20-7	LCS	54.50		60	90.8	79 - 125		
trans-1,2-Dichloroethene	156-60-5	LCS	17		20	85	71 - 122		
trans-1,3-Dichloropropene	10061-02-6	LCS	18.80		20	94	78 - 126		
Trichloroethene	79-01-6	LCS	17.40		20	87	77 - 124		
Trichlorofluoromethane	75-69-4	LCS	17.50		20	87.3	38 - 123		
Vinyl Chloride	75-01-4	LCS	17.90		20	89.5	27 - 138		

QUALITY CONTROL SAMPLES

VOLATILE ORGANICS (cont.)

SURROGATES

Compound	CAS No		Result (ug/L)	Expected (ug/L)	Rec. (%)	Limits (%)	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	LCS	28.90	30	96.3	62 - 133	
4-Bromofluorobenzene	460-00-4	LCS	30.60	30	102	79 - 114	
Dibromofluoromethane	1868-53-7	LCS	30.20	30	101	78 - 116	
Toluene-d8	2037-26-5	LCS	30.30	30	101	76 - 127	

QUALITY CONTROL SAMPLES

WET CHEMISTRY

QC Batch

QC Batch	970519	Prep Method	N/A
Date	N/A	Analysis Method	SW846 7196A
Tech.			

Associated Samples

3296060003 3296060001 3296060002

Method Blank 3649333 (MB) Created on 04/05/2023 09:43 For QC Batch 970519

RESULTS

Compound	CAS No		Result	Units	RDL	Qualifiers
Hexavalent Chromium	CR6	BLK	ND	mg/L	0.010	ND

Matrix Spike 3649335 (MS) 3296060002 For QC Batch 970519

****NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

Matrix Spike Duplicate 3649336 (MSD) 3296060002 For QC Batch 970519

RESULTS

Compound	CAS No		Result (mg/L)	Orig. Result (mg/L)	Spk Added (mg/L)	Rec. (%)	Limits (%)	RPD Limit (%)	Qualifiers
Hexavalent Chromium	CR6	MS	0.52	0.0014	0.50	104	85 - 115		
Hexavalent Chromium	CR6	MSD	0.51	0.0014	0.50	103	85 - 115	RPD 0.82 (Max-20)	

Method Blank 3649337 (MB) Created on 04/05/2023 09:43 For QC Batch 970519

RESULTS

Compound	CAS No		Result	Units	RDL	Qualifiers
Hexavalent Chromium	CR6	BLK	ND	mg/L	0.010	ND

QC Batch

QC Batch	970802	Prep Method	N/A
Date	N/A	Analysis Method	SW846 7196A
Tech.			

Associated Samples

3296060005 3296060006 3296060007 3296060008
3296060009 3296060010

Method Blank 3650112 (MB) Created on 04/06/2023 10:03 For QC Batch 970802

RESULTS

Compound	CAS No		Result	Units	RDL	Qualifiers
Hexavalent Chromium	CR6	BLK	ND	mg/L	0.010	ND

QUALITY CONTROL SAMPLES

WET CHEMISTRY (cont.)

Method Blank 3650116 (MB) Created on 04/06/2023 10:03 For QC Batch 970802

RESULTS

Compound	CAS No		Result	Units	RDL	Qualifiers
Hexavalent Chromium	CR6	BLK	ND	mg/L	0.010	ND

Matrix Spike 3650203 (MS) 3296060008 For QC Batch 970802

****NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

Matrix Spike Duplicate 3650204 (MSD) 3296060008 For QC Batch 970802

RESULTS

Compound	CAS No		Result (mg/L)	Orig. Result (mg/L)	Spk Added (mg/L)	Rec. (%)	Limits (%)	RPD Limit (%)	Qualifiers
Hexavalent Chromium	CR6	MS	0.54	0.0014	0.50	107	85 - 115		
Hexavalent Chromium	CR6	MSD	0.54	0.0014	0.50	108	85 - 115	RPD 1.05 (Max-20)	

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Lab ID	Sample ID	Preparation Method	Prep Batch	Prep Date/Time	By	Analysis Method	Anly Batch
3296060001	MW-08A	SW846 3015A	970679	04/06/2023 04:15	ANN	SW846 6020A	975083
		SW846 7470A	970699	04/06/2023 07:40	WDA	SW846 7470A	970955
		N/A	N/A	N/A		SW846 8260C	973149
		N/A	N/A	N/A		Calculation	
		N/A	N/A	N/A		SW846 7196A	970519
3296060002	MW-01A	SW846 3015A	970679	04/06/2023 04:15	ANN	SW846 6020A	975083
		SW846 7470A	970699	04/06/2023 07:40	WDA	SW846 7470A	970955
		N/A	N/A	N/A		SW846 8260C	975093
		N/A	N/A	N/A		SW846 8260C	973149
		N/A	N/A	N/A		Calculation	
		N/A	N/A	N/A		SW846 7196A	970519
3296060003	MW-05A	SW846 3015A	970679	04/06/2023 04:15	ANN	SW846 6020A	975083
		SW846 7470A	970699	04/06/2023 07:40	WDA	SW846 7470A	970955
		N/A	N/A	N/A		SW846 8260C	973149
		N/A	N/A	N/A		Calculation	
		N/A	N/A	N/A		SW846 7196A	970519
3296060004	TB-01	N/A	N/A	N/A		SW846 8260C	973149
3296060005	MW-03A	SW846 3015A	972224	04/11/2023 22:30	ANN	SW846 6020A	975327
		SW846 7470A	972774	04/12/2023 07:45	WDA	SW846 7470A	972899
		N/A	N/A	N/A		SW846 8260C	973149
		N/A	N/A	N/A		Calculation	
		N/A	N/A	N/A		SW846 7196A	970802
3296060006	MW-03A-DUP	SW846 3015A	972224	04/11/2023 22:30	ANN	SW846 6020A	975327
		SW846 7470A	972774	04/12/2023 07:45	WDA	SW846 7470A	972899
		N/A	N/A	N/A		SW846 8260C	973149
		N/A	N/A	N/A		Calculation	
		N/A	N/A	N/A		SW846 7196A	970802
3296060007	MW-06A	SW846 3015A	972224	04/11/2023 22:30	ANN	SW846 6020A	975327
		SW846 7470A	972774	04/12/2023 07:45	WDA	SW846 7470A	972899
		N/A	N/A	N/A		SW846 8260C	973149
		N/A	N/A	N/A		Calculation	
		N/A	N/A	N/A		SW846 7196A	970802
3296060008	MW-07A	SW846 3015A	972224	04/11/2023 22:30	ANN	SW846 6020A	975327
		SW846 7470A	972774	04/12/2023 07:45	WDA	SW846 7470A	972899
		N/A	N/A	N/A		SW846 8260C	973756
		N/A	N/A	N/A		Calculation	
		N/A	N/A	N/A		SW846 7196A	970802
3296060009	MW-04A	SW846 3015A	972224	04/11/2023 22:30	ANN	SW846 6020A	975327
		SW846 7470A	972774	04/12/2023 07:45	WDA	SW846 7470A	972899
		N/A	N/A	N/A		SW846 8260C	973756
		N/A	N/A	N/A		Calculation	
		N/A	N/A	N/A		SW846 7196A	970802
3296060010	MW-02A	SW846 3015A	972224	04/11/2023 22:30	ANN	SW846 6020A	975327
		SW846 7470A	972774	04/12/2023 07:45	WDA	SW846 7470A	972899
		N/A	N/A	N/A		SW846 8260C	973756
		N/A	N/A	N/A		Calculation	
		N/A	N/A	N/A		SW846 7196A	970802
3296060011	TB-02	N/A	N/A	N/A		SW846 8260C	973756

301 Fulling Mill Rd, Suite A
Middletown, PA 17057
P. 717-944-5541

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY SAMPLER. INSTRUCTIONS ON THE

3296060

Logged By: KSB
PM: EXP

6060

ote #:

of

Client Name: Rhea Engineers

Address: 333 Rouser Rd
Ste 301
Moon Twp, PA 15108

Contact: Zach Wicks
Phone#: 717-580-7511
Project Name/#: SCI Pitt Ph II / 2390.05
Bill To:
Purchase Order #: 2390-05

TAT: [X] Normal-Standard TAT is 10-12 business days. [ ] Rush-Subject to ALS approval and surcharges.
Date Required: Approved?
Email? [ ]

Container Type	G	P	P							
Container Size	50 ml	125 ml	500 ml							
Preservative	HCl	HNO3	✓							

Orthophosphate Filtered? Y N NA Hexavalent Chromium Filtered? Y N NA

ANALYSIS / METHOD REQUESTED

	Sample Description/Location (as it will appear on the lab report)	Date Collected mm/dd/yy	Time hh:mm	SDWA Sample Type (see key)	*G or C	**Matrix (See bottom of COC)	8260 TCL VOCs	TAL Metals-FF	7196 CR6/CR3							
							Enter Number of Containers Per Sample or Field Results Below.									
1	MW-08A	4/4/23	12:30		G	W	3	2	1							
2	MW-01A	4/4/23	13:55		G	W	3	2	1							
3	MW-05A	4/4/23	14:55		G	W	3	2	1							
4	TB-01	4/4/23	NA			W	2									
5																
6																
7																
8																
9	FH 4/4/23		FH 4/4/23					FH 4/4/23								
10	~~TB-01 4/4/23~~		~~NA~~					~~W~~ 2								

Circle Sample Collector: ALS Tech / Client
Name: ID:

Comments:

Date:	Time		Relinquished By / Company Name		Received By / Company Name
4/4/23	16:30	1	Tyler Newell RHEA	2	ALS
4/4/23	1700	3	ALS	4	Fedex
4.5.23	853	5	Fedex	6	
		7		8	
		9		10	

Receipt Information (completed by Receiving Lab)
Rec'n By: KSB Therm ID: 370 WO Temp (°C) 2

Receipt Info completed by: KSB

WV Containers 0-6°C	Y	N	NA	
Cooler Custody Seals Intact	Y	N	NA	Deviations? NO YES
Sample Custody Seal Intact	Y	N	NA	If YES, list below:
Received on Ice	Y	N	NA	
Coolers & Samples Intact	Y	N		
Correct Containers Provided	Y	N		
Sample Label/COC Agree	Y	N		
Adequate Sample Volumes	Y	N		
VOA only: Headspace Present	Y	N	NA	
VOA only: Trip Blank	Y	N	NA	Client contact:
NJ ≤ 4 days?	Y	N		Date/Tech:

Courier/Tracking #: 6323 9894 8351

Sample(s) for Radiation testing? Y N Rad Screen (uCi)_____
Reportable SDWA Sample(s)? Y N New Source? Y N
SDWA State of Origin?_____ New Source Contact:
PWSID #_____
PWS Contact:_____ PWS Phone #:_____

SDWA Sample Type Key: D=Distribution E=Entry Point
R=Raw P=Plant C=Check S=Special A=Annual Startup

CR6/CR3 = 24 hr TAT

Contains Short Hold Testing YES NO

Internal Use: If less than 48 hours - notify lab upon receipt

Data Deliverables: [ ] Standard Lvl 1 [ ] Standard Lvl 2 [ ] Standard Lvl 3 [ ] Standard Lvl 4 [ ] CLP-like [ ] DOD [ ] NJ RED [ ] NJ Full [ ] HSCA [ ] Landfill [ ] NJ GW [ ] _____

EDDs: [ ] Excel Summary [ ] Equis [ ] Custom

Sample Disposal: [ ] Lab [ ] Special

EDDS: Format Type

State Samples Collected In: [ ] NY [ ] NJ [ ] PA [ ] WV [ ] FL [ ] other

* G=Grab; C=Composite **Matrix - A=Air; D=Drinking Water; GW=Groundwater; O=Oil; LW=Liquid Waste; S=Solid/Soil/Sludge; SW=Surface Water; WP=Wipe; WW=Wastewater

ALS SHIPPING ADDRESS: 301 Fulling Mill Road, Suite A, Middletown, PA 17057

Rev 11.14.22

301 Fulling Mill Rd, Suite A
Middletown, PA 17057
P. 717-944-5541

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

COC #: 6060 of

ALS Quote #:

Client Name: RHEA ENGINEERS

Address: 333 ROUSER RD STE 301 MOON TWP, PA 15108

Contact: ZACH WICKS

Phone#: 717-580-7511

Project Name/#: SCI PITT 1H II / 2390.05

Bill To:

Purchase Order #: 2390-05

TAT: [X] Normal-Standard TAT is 10-12 business days. [ ] Rush-Subject to ALS approval and surcharges.

Date Required: Approved?

Email? [ ]

	Container Type	G	P	P								
	Container Size	50 ml	125 ml	500 ml								
	Preservative	HCl	HNO_3	✓								

Orthophosphate Filtered? Y N (NA) Hexavalent Chromium Filtered? (Y) N NA

ANALYSIS / METHOD REQUESTED

	Sample Description/Location (as it will appear on the lab report)	Date Collected mm/dd/yy	Time hh:mm	SDWA Sample Type (see key)	*G or C	**Matrix (See bottom of COC)	8260 TCL VOCs	TAL METALS - FF	7196 CR6/CR3							
							Enter Number of Containers Per Sample or Field Results Below.									
1	MW-03A	4/5/23	11:00		G	W	3	2	1							
2	MW-03A-DUP	4/5/23	11:05		G	W	3	2	1							
3	MW-06A	4/5/23	12:40		G	W	3	2	1							
4	MW-07A	4/5/23	14:05		G	W	3	2	1							
5	MW-04A	4/5/23	15:20		G	W	3	2	1							
6	MW-02A	4/5/23	15:30		G	W	3	2	1							
7	TB-02	4/5/23	NA			W	2									
8																
9																
10																

Circle Sample Collector: ALS Tech / (Client)

Name: ID:

Comments:

Date:	Time		Relinquished By / Company Name		Received By / Company Name
4/5/23	17:30	1	Tyler Newell / RHEA	2	ALS
4/5/23	1800	3	ALS	4	Fedex
4.6.23	835	5	Fedex	6	CW ALS
		7		8	
		9		10	

Receipt Information (completed by Receiving Lab)

Temp Taken By: Therm ID: WO Temp (°C)

Receipt Info completed by:_____ WV Containers 0-6°C Y N NA

Cooler Custody Seals Intact	Y	N	NA	Deviations? NO YES
Sample Custody Seal Intact	Y	N	NA	If YES, list below:
Received on Ice	Y	N	NA	
Coolers & Samples Intact	Y	N		
Correct Containers Provided	Y	N		
Sample Label/COC Agree	Y	N		
Adequate Sample Volumes	Y	N		
VOA only: Headspace Present	Y	N	NA	
VOA only: Trip Blank	Y	N	NA	Client contact:
NJ ≤ 4 days?	Y	N		Date/Tech:

Courier/Tracking #:_____

Sample(s) for Radiation testing? Y N Rad Screen (uCi)_____

Reportable SDWA Sample(s)? Y N New Source? Y N

SDWA State of Origin?_____ New Source Contact:

PWSID #_____

PWS Contact:_____ PWS Phone #:_____

SDWA Sample Type Key: D=Distribution E=Entry Point R=Raw P=Plant C=Check S=Special A=Annual Startup

CR6/CR3 = 24 HR TAT

Contains Short Hold Testing YES NO

Internal Use: If less than 48 hours - notify lab upon receipt

Data Deliverables: [ ] Standard Lvl 1 [ ] Standard Lvl 2 [ ] Standard Lvl 3 [ ] Standard Lvl 4 [ ] CLP-like [ ] DOD [ ] NJ RED [ ] NJ Full [ ] HSCA [ ] Landfill [ ] NJ GW [ ] _____

EDDs: [ ] Excel Summary [ ] Equis [ ] Custom

Sample Disposal: Lab [ ] Special [ ]

EDDS: Format Type

State Samples Collected In: [ ] NY [ ] NJ [ ] PA [ ] WV [ ] FL [ ] other

* G=Grab; C=Composite **Matrix - A=Air; D=Drinking Water; GW=Groundwater; O=Oil; LW=Liquid Waste; S=Solid/Soil/Sludge; SW=Surface Water; WP=Wipe; WW=Wastewater

ALS SHIPPING ADDRESS: 301 Fulling Mill Road, Suite A, Middletown, PA 17057

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301 Fulling Mill Road | Middletown, PA 17057 | Phone: 717-944-5541 | Fax: 717-944-1430 | www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

Analytical Results Report For

Rhea Engineers & Consultants, Inc.

Project 2022FMA SCI Pittsburgh Phase I
Workorder 3296086
Report ID 237813 on 4/18/2023

Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on Apr 05, 2023.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Elizabeth Parker (Project Coordinator) at (717) 944-5541.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads.

ALS Middletown: 301 Fulling Mill Road, Middletown, PA 17057 : 717-944-5541.

Recipient(s):
Zach Wicks - Rhea Engineers & Consultants, Inc.

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Elizabeth Parker

Elizabeth Parker *(ALS Digital Signature)*
Project Coordinator

Sample Summary

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collector	Collection Company
3296086001	SB-01A-0-2	Solid	04/03/2023 10:30	04/05/2023 08:53	CBC	Collected By Client
3296086002	SB-01A-14-16	Solid	04/03/2023 10:35	04/05/2023 08:53	CBC	Collected By Client
3296086003	SB-02A-0-2	Solid	04/04/2023 09:30	04/05/2023 08:53	CBC	Collected By Client
3296086004	SB-02A-24-26	Solid	04/04/2023 09:40	04/05/2023 08:53	CBC	Collected By Client
3296086005	SB-02A-24-26-DUP	Solid	04/04/2023 10:00	04/05/2023 08:53	CBC	Collected By Client
3296086006	SB-03A-0-2	Solid	04/03/2023 12:30	04/05/2023 08:53	CBC	Collected By Client
3296086007	SB-03A-6-8	Solid	04/03/2023 12:40	04/05/2023 08:53	CBC	Collected By Client
3296086008	SB-04A-0-2	Solid	04/04/2023 10:50	04/05/2023 08:53	CBC	Collected By Client
3296086009	SB-04A-14-16	Solid	04/04/2023 11:00	04/05/2023 08:53	CBC	Collected By Client
3296086010	SB-05A-0-2	Solid	04/03/2023 13:30	04/05/2023 08:53	CBC	Collected By Client
3296086011	SB-05A-2-4	Solid	04/03/2023 13:55	04/05/2023 08:53	CBC	Collected By Client
3296086012	SB-06A-0-2	Solid	04/03/2023 14:10	04/05/2023 08:53	CBC	Collected By Client
3296086013	SB-06A-2-4	Solid	04/03/2023 14:20	04/05/2023 08:53	CBC	Collected By Client
3296086014	SB-07A-0-2	Solid	04/03/2023 15:10	04/05/2023 08:53	CBC	Collected By Client
3296086015	SB-07A-2-4	Solid	04/03/2023 15:20	04/05/2023 08:53	CBC	Collected By Client
3296086016	SB-08A-0-2	Solid	04/03/2023 09:20	04/05/2023 08:53	CBC	Collected By Client
3296086017	SB-08A-10-12	Solid	04/03/2023 09:15	04/05/2023 08:53	CBC	Collected By Client

Reference

Notes

- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
- Except as qualified, Clean Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 136.
- Except as qualified, Safe Drinking Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 141.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are preformed in the laboratory and are therefore analyzed out of hold time.
- Method references listed on this report beginning with the prefix “S” followed by a method number (such as S2310B-97) refer to methods from “Standard Methods for the Examination of Water and Wastewater”.
- For microbiological analyses, the "Prepared" value is the date/time into the incubator and the "Analyzed" value is the date/time out the incubator.
- An Analysis-Prep Method Cross Reference Table is included after Analytical Results & Qualifiers section in this report.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.

Standard Acronyms/Flags

J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND) above the MDL
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Practical Quantitation Limit for this Project
ND	Not Detected - indicates that the analyte was Not Detected
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit
I	Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL)
(S)	Surrogate Compound
NC	Not Calculated
*	Result outside of QC limits
#	Please reference the result in the Results Section for analyte-level flags.

Project Notations

Sample Notations

Lab ID	Sample ID		
3296086001	SB-01A-0-2	**S1**	One or more of the method 8260 surrogate standards were recovered outside of the control limits. The sample was re-analyzed with similar results.
3296086008	SB-04A-0-2	**S2**	This sample was reanalyzed due to failling internal standards in the initial analysis. The sample container for reanalysis was prepared by Method 5035 after the 48-hour holding time.
3296086012	SB-06A-0-2	**S3**	One or more of the method 8260 internal standards were recovered outside of the control limits. The sample was re-analyzed with similar results.
3296086014	SB-07A-0-2	**S4**	One or more of the method 8260 internal standards were recovered outside of the control limits. The sample was re-analyzed with similar results.
		S5	One or more of the method 8260 surrogate standards were recovered outside of the control limits. The sample was re-analyzed with similar results.

Result Notations

Notation Ref.	
1	The surrogate Dibromofluoromethane for method SW846 8260B was outside of control limits. The % Recovery was reported as 49.1 and the control limits were 62 to 123. This result was reported at a dilution of 1.
2	The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte 2-Chloroethylvinyl ether. The % Recovery was reported as 261 and the control limits were 0 to 200.
3	The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Methyl t-Butyl Ether. The % Recovery was reported as 122 and the control limits were 70 to 118.
4	The QC sample type MS-PS for method SW846 7196A was outside the control limits for the analyte Hexavalent Chromium. The % Recovery was reported as 48.2 and the control limits were 75 to 125.
5	The QC type LLCCV for method SW846 6020A was outside the control limits for the analyte Iron, Total. The % Recovery was reported as 161.4 and the control limits were 70 to 130. Sample concentration was above the concentration of the CCV.
6	The QC type LLCCV for method SW846 6020A was outside the control limits for the analyte Iron, Total. The % Recovery was reported as 155.2 and the control limits were 70 to 130. Sample concentration was above the concentration of the CCV.
7	The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Freon 113. The % Recovery was reported as 110 and the control limits were 40 to 109.
8	The QC sample type LCSD for method SW846 8260B was outside the control limits for the analyte Freon 113. The % Recovery was reported as 116 and the control limits were 40 to 109.
9	The QC sample type LCSD for method SW846 8260B was outside the control limits for the analyte Methyl acetate. The % Recovery was reported as 134 and the control limits were 70 to 130.
10	The QC sample type LCSD for method SW846 8260B was outside the control limits for the analyte Methyl t-Butyl Ether. The % Recovery was reported as 124 and the control limits were 70 to 118.
11	The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Methyl t-Butyl Ether. The % Recovery was reported as 120 and the control limits were 70 to 118.
12	The concentration of this analyte was greater than 4 times the concentration of the spike added to the matrix spike. According to protocol, the calculation for percent recovery of the matrix spike is not valid.
13	The recovery of the Matrix Spike (MS) associated to this analyte was outside of the established control limits. The sample was post-digestion spiked, and this matrix spike was within acceptable recovery limits.
14	The QC sample type MSD2 for method SW846 6020A was outside the control limits for the analyte Antimony, Total. The % Recovery was reported as 62.7 and the control limits were 75 to 125.
15	The QC sample type MS2 for method SW846 6020A was outside the control limits for the analyte Antimony, Total. The % Recovery was reported as 60.5 and the control limits were 75 to 125.
16	The QC sample type MSD2 for method SW846 6020A was outside the control limits for the analyte Arsenic, Total. The % Recovery was reported as 54.3 and the control limits were 75 to 125.
17	The QC sample type MS2 for method SW846 6020A was outside the control limits for the analyte Arsenic, Total. The % Recovery was reported as 42.2 and the control limits were 75 to 125.
18	The QC sample type MSD2 for method SW846 6020A was outside the control limits for the analyte Barium, Total. The % Recovery was reported as 143 and the control limits were 75 to 125.
19	The QC sample type MS2 for method SW846 6020A was outside the control limits for the analyte Barium, Total. The % Recovery was reported as 133 and the control limits were 75 to 125.

20	The QC sample type MS2 for method SW846 6020A was outside the control limits for the analyte Cobalt, Total. The % Recovery was reported as 42.8 and the control limits were 75 to 125.
21	The QC sample type MSD2 for method SW846 6020A was outside the control limits for the analyte Cobalt, Total. The % Recovery was reported as 46.7 and the control limits were 75 to 125.
22	The QC type LLCCV for method SW846 6020A was outside the control limits for the analyte Iron, Total. The % Recovery was reported as 164.3 and the control limits were 70 to 130. Sample concentration was above the concentration of the CCV.
23	The QC sample type MSD2 for method SW846 6020A was outside the control limits for the analyte Lead, Total. The RPD was reported as 164 and the upper control limit is 20.
24	The QC sample type MSD2 for method SW846 6020A was outside the control limits for the analyte Lead, Total. The % Recovery was reported as 8130 and the control limits were 75 to 125.
25	The QC sample type MS2 for method SW846 6020A was outside the control limits for the analyte Lead, Total. The % Recovery was reported as 518 and the control limits were 75 to 125.
26	The QC sample type MSD2 for method SW846 6020A was outside the control limits for the analyte Potassium, Total. The % Recovery was reported as 331 and the control limits were 75 to 125.
27	The QC sample type MS2 for method SW846 6020A was outside the control limits for the analyte Potassium, Total. The % Recovery was reported as 241 and the control limits were 75 to 125.
28	The QC sample type MSD2 for method SW846 6020A was outside the control limits for the analyte Zinc, Total. The % Recovery was reported as 128 and the control limits were 75 to 125.
29	The surrogate Toluene-d8 for method SW846 8260B was outside of control limits. The % Recovery was reported as 149 and the control limits were 59 to 131. This result was reported at a dilution of 1.
30	The QC type LLCCV for method SW846 6020A was outside the control limits for the analyte Se. The % RSD was reported as 24.3 and the control limits were 0 to 20.

Detected Results Summary

Client Sample ID	SB-01A-0-2	Collected	04/03/2023 10:30
Lab Sample ID	3296086001	Lab Receipt	04/05/2023 08:53

Compound	Result	Units	RDL	Method	Flag
METALS					
Aluminum, Total	4830	mg/kg	34.7	SW846 6020A	#
Arsenic, Total	16.8	mg/kg	1.3	SW846 6020A	#
Barium, Total	94.2	mg/kg	2.2	SW846 6020A	#
Beryllium, Total	0.50	mg/kg	0.43	SW846 6020A	#
Calcium, Total	16900	mg/kg	43.4	SW846 6020A	#
Chromium, Total	9.5	mg/kg	0.87	SW846 6020A	#
Cobalt, Total	5.7	mg/kg	2.2	SW846 6020A	#
Copper, Total	13.9	mg/kg	2.2	SW846 6020A	#
Iron, Total	23300	mg/kg	21.7	SW846 6020A	#
Lead, Total	13.8	mg/kg	0.87	SW846 6020A	#
Magnesium, Total	2030	mg/kg	43.4	SW846 6020A	#
Manganese, Total	320	mg/kg	2.2	SW846 6020A	#
Nickel, Total	10.9	mg/kg	2.2	SW846 6020A	#
Potassium, Total	652	mg/kg	43.4	SW846 6020A	#
Sodium, Total	112	mg/kg	43.4	SW846 6020A	#
Trivalent Chromium	9.5	mg/kg	2.1	Calculation	#
Vanadium, Total	9.9	mg/kg	0.87	SW846 6020A	#
Zinc, Total	52.8	mg/kg	2.2	SW846 6020A	#
VOLATILE ORGANICS					
Acetone	11.7	ug/kg	6.4	SW846 8260B	#
WET CHEMISTRY					
Moisture	2.7	%	0.1	S2540G-11	#
Total Solids	97.3	%	0.1	S2540G-11	#

Detected Results Summary

Client Sample ID	SB-01A-14-16	Collected	04/03/2023 10:35
Lab Sample ID	3296086002	Lab Receipt	04/05/2023 08:53

Compound	Result	Units	RDL	Method	Flag
METALS					
Aluminum, Total	3690	mg/kg	38.6	SW846 6020A	#
Arsenic, Total	6.0	mg/kg	1.4	SW846 6020A	#
Barium, Total	56.3	mg/kg	2.4	SW846 6020A	#
Calcium, Total	681	mg/kg	48.3	SW846 6020A	#
Chromium, Total	9.3	mg/kg	0.97	SW846 6020A	#
Cobalt, Total	3.9	mg/kg	2.4	SW846 6020A	#
Copper, Total	10.1	mg/kg	2.4	SW846 6020A	#
Iron, Total	16300	mg/kg	24.1	SW846 6020A	#
Lead, Total	6.8	mg/kg	0.97	SW846 6020A	#
Magnesium, Total	887	mg/kg	48.3	SW846 6020A	#
Manganese, Total	525	mg/kg	2.4	SW846 6020A	#
Nickel, Total	9.0	mg/kg	2.4	SW846 6020A	#
Potassium, Total	447	mg/kg	48.3	SW846 6020A	#
Sodium, Total	68.9	mg/kg	48.3	SW846 6020A	#
Trivalent Chromium	9.3	mg/kg	2.4	Calculation	#
Vanadium, Total	8.3	mg/kg	0.97	SW846 6020A	#
Zinc, Total	30.9	mg/kg	2.4	SW846 6020A	#
VOLATILE ORGANICS					
Tetrachloroethene	3.1	ug/kg	0.91	SW846 8260B	#
WET CHEMISTRY					
Moisture	9.1	%	0.1	S2540G-11	#
Total Solids	90.9	%	0.1	S2540G-11	#

Detected Results Summary

Client Sample ID	SB-02A-0-2	Collected	04/04/2023 09:30
Lab Sample ID	3296086003	Lab Receipt	04/05/2023 08:53

Compound	Result	Units	RDL	Method	Flag
METALS					
Aluminum, Total	13700	mg/kg	37.7	SW846 6020A	#
Antimony, Total	4.0	mg/kg	0.94	SW846 6020A	#
Arsenic, Total	10.2	mg/kg	1.4	SW846 6020A	#
Barium, Total	1230	mg/kg	2.4	SW846 6020A	#
Beryllium, Total	0.86	mg/kg	0.47	SW846 6020A	#
Cadmium, Total	2.4	mg/kg	0.47	SW846 6020A	#
Calcium, Total	57800	mg/kg	47.1	SW846 6020A	#
Chromium, Total	9.0	mg/kg	0.94	SW846 6020A	#
Cobalt, Total	3.9	mg/kg	2.4	SW846 6020A	#
Copper, Total	145	mg/kg	2.4	SW846 6020A	#
Iron, Total	16500	mg/kg	23.5	SW846 6020A	#
Lead, Total	752	mg/kg	0.94	SW846 6020A	#
Magnesium, Total	8870	mg/kg	47.1	SW846 6020A	#
Manganese, Total	10600	mg/kg	23.5	SW846 6020A	#
Mercury, Total	0.054	mg/kg	0.054	SW846 7471B	#
Nickel, Total	10.7	mg/kg	2.4	SW846 6020A	#
Potassium, Total	1010	mg/kg	47.1	SW846 6020A	#
Sodium, Total	234	mg/kg	47.1	SW846 6020A	#
Trivalent Chromium	9.0	mg/kg	2.2	Calculation	#
Vanadium, Total	11.5	mg/kg	0.94	SW846 6020A	#
Zinc, Total	295	mg/kg	2.4	SW846 6020A	#
VOLATILE ORGANICS					
Acetone	14.0	ug/kg	11.7	SW846 8260B	#
WET CHEMISTRY					
Moisture	9.7	%	0.1	S2540G-11	#
Total Solids	90.3	%	0.1	S2540G-11	#

Detected Results Summary

Client Sample ID	SB-02A-24-26	Collected	04/04/2023 09:40
Lab Sample ID	3296086004	Lab Receipt	04/05/2023 08:53

Compound	Result	Units	RDL	Method	Flag
METALS					
Aluminum, Total	5790	mg/kg	40.4	SW846 6020A	#
Arsenic, Total	11.9	mg/kg	1.5	SW846 6020A	#
Barium, Total	124	mg/kg	2.5	SW846 6020A	#
Beryllium, Total	0.74	mg/kg	0.50	SW846 6020A	#
Calcium, Total	841	mg/kg	50.5	SW846 6020A	#
Chromium, Total	11.2	mg/kg	1.0	SW846 6020A	#
Cobalt, Total	8.9	mg/kg	2.5	SW846 6020A	#
Copper, Total	11.9	mg/kg	2.5	SW846 6020A	#
Iron, Total	45700	mg/kg	25.2	SW846 6020A	#
Lead, Total	12.9	mg/kg	1.0	SW846 6020A	#
Magnesium, Total	1060	mg/kg	50.5	SW846 6020A	#
Manganese, Total	1800	mg/kg	2.5	SW846 6020A	#
Nickel, Total	21.1	mg/kg	2.5	SW846 6020A	#
Potassium, Total	748	mg/kg	50.5	SW846 6020A	#
Trivalent Chromium	11.1	mg/kg	2.2	Calculation	#
Vanadium, Total	51.2	mg/kg	1.0	SW846 6020A	#
Zinc, Total	57.2	mg/kg	2.5	SW846 6020A	#
VOLATILE ORGANICS					
cis-1,2-Dichloroethene	1.1	ug/kg	0.84	SW846 8260B	#
Tetrachloroethene	17.3	ug/kg	0.84	SW846 8260B	#
Trichloroethene	1.6	ug/kg	0.84	SW846 8260B	#
WET CHEMISTRY					
Moisture	13.0	%	0.1	S2540G-11	#
Total Solids	87.0	%	0.1	S2540G-11	#

Detected Results Summary

Client Sample ID	SB-02A-24-26-DUP	Collected	04/04/2023 10:00
Lab Sample ID	3296086005	Lab Receipt	04/05/2023 08:53

Compound	Result	Units	RDL	Method	Flag
METALS					
Aluminum, Total	4690	mg/kg	38.6	SW846 6020A	#
Arsenic, Total	9.1	mg/kg	1.4	SW846 6020A	#
Barium, Total	75.5	mg/kg	2.4	SW846 6020A	#
Calcium, Total	801	mg/kg	48.2	SW846 6020A	#
Chromium, Total	9.0	mg/kg	0.96	SW846 6020A	#
Cobalt, Total	5.7	mg/kg	2.4	SW846 6020A	#
Copper, Total	14.0	mg/kg	2.4	SW846 6020A	#
Iron, Total	23300	mg/kg	24.1	SW846 6020A	#
Lead, Total	37.6	mg/kg	0.96	SW846 6020A	#
Magnesium, Total	937	mg/kg	48.2	SW846 6020A	#
Manganese, Total	572	mg/kg	2.4	SW846 6020A	#
Nickel, Total	13.8	mg/kg	2.4	SW846 6020A	#
Potassium, Total	572	mg/kg	48.2	SW846 6020A	#
Sodium, Total	49.4	mg/kg	48.2	SW846 6020A	#
Trivalent Chromium	9.0	mg/kg	2.2	Calculation	#
Vanadium, Total	12.0	mg/kg	0.96	SW846 6020A	#
Zinc, Total	47.6	mg/kg	2.4	SW846 6020A	#
VOLATILE ORGANICS					
Tetrachloroethene	23.5	ug/kg	1.5	SW846 8260B	#
Trichloroethene	1.8	ug/kg	1.5	SW846 8260B	#
WET CHEMISTRY					
Moisture	10.9	%	0.1	S2540G-11	#
Total Solids	89.1	%	0.1	S2540G-11	#

Detected Results Summary

Client Sample ID	SB-03A-0-2	Collected	04/03/2023 12:30
Lab Sample ID	3296086006	Lab Receipt	04/05/2023 08:53

Compound	Result	Units	RDL	Method	Flag
METALS					
Aluminum, Total	18200	mg/kg	40.9	SW846 6020A	#
Arsenic, Total	2.8	mg/kg	1.5	SW846 6020A	#
Barium, Total	247	mg/kg	2.6	SW846 6020A	#
Beryllium, Total	2.9	mg/kg	0.51	SW846 6020A	#
Calcium, Total	190000	mg/kg	512	SW846 6020A	#
Chromium, Total	7.2	mg/kg	1.0	SW846 6020A	#
Copper, Total	5.0	mg/kg	2.6	SW846 6020A	#
Iron, Total	7770	mg/kg	25.6	SW846 6020A	#
Lead, Total	14.1	mg/kg	1.0	SW846 6020A	#
Magnesium, Total	11800	mg/kg	51.2	SW846 6020A	#
Manganese, Total	1210	mg/kg	2.6	SW846 6020A	#
Nickel, Total	6.1	mg/kg	2.6	SW846 6020A	#
Potassium, Total	1470	mg/kg	51.2	SW846 6020A	#
Sodium, Total	501	mg/kg	51.2	SW846 6020A	#
Trivalent Chromium	7.2	mg/kg	2.2	Calculation	#
Vanadium, Total	10.0	mg/kg	1.0	SW846 6020A	#
Zinc, Total	23.4	mg/kg	2.6	SW846 6020A	#
VOLATILE ORGANICS					
Acetone	14.5	ug/kg	7.9	SW846 8260B	#
Carbon Disulfide	3.7	ug/kg	1.6	SW846 8260B	#
Methyl cyclohexane	1.6	ug/kg	1.6	SW846 8260B	#
Tetrachloroethene	3.7	ug/kg	1.6	SW846 8260B	#
WET CHEMISTRY					
Moisture	10.2	%	0.1	S2540G-11	#
Total Solids	89.8	%	0.1	S2540G-11	#

Detected Results Summary

Client Sample ID	SB-03A-6-8	Collected	04/03/2023 12:40
Lab Sample ID	3296086007	Lab Receipt	04/05/2023 08:53

Compound	Result	Units	RDL	Method	Flag
METALS					
Aluminum, Total	4000	mg/kg	38.0	SW846 6020A	#
Antimony, Total	3.5	mg/kg	0.95	SW846 6020A	#
Arsenic, Total	19.5	mg/kg	1.4	SW846 6020A	#
Barium, Total	105	mg/kg	2.4	SW846 6020A	#
Cadmium, Total	0.95	mg/kg	0.47	SW846 6020A	#
Calcium, Total	127000	mg/kg	475	SW846 6020A	#
Chromium, Total	192	mg/kg	0.95	SW846 6020A	#
Cobalt, Total	16.6	mg/kg	2.4	SW846 6020A	#
Copper, Total	380	mg/kg	2.4	SW846 6020A	#
Iron, Total	171000	mg/kg	237	SW846 6020A	#
Lead, Total	68.1	mg/kg	0.95	SW846 6020A	#
Magnesium, Total	2720	mg/kg	47.5	SW846 6020A	#
Manganese, Total	1070	mg/kg	2.4	SW846 6020A	#
Nickel, Total	134	mg/kg	2.4	SW846 6020A	#
Potassium, Total	634	mg/kg	47.5	SW846 6020A	#
Sodium, Total	84.0	mg/kg	47.5	SW846 6020A	#
Trivalent Chromium	192	mg/kg	2.2	Calculation	#
Vanadium, Total	16.0	mg/kg	0.95	SW846 6020A	#
Zinc, Total	58.3	mg/kg	2.4	SW846 6020A	#
WET CHEMISTRY					
Moisture	10.8	%	0.1	S2540G-11	#
Total Solids	89.2	%	0.1	S2540G-11	#

Detected Results Summary

Client Sample ID	SB-04A-0-2	Collected	04/04/2023 10:50
Lab Sample ID	3296086008	Lab Receipt	04/05/2023 08:53

Compound	Result	Units	RDL	Method	Flag
METALS					
Aluminum, Total	6600	mg/kg	42.8	SW846 6020A	#
Arsenic, Total	5.5	mg/kg	1.6	SW846 6020A	#
Barium, Total	105	mg/kg	2.7	SW846 6020A	#
Calcium, Total	51200	mg/kg	53.5	SW846 6020A	#
Chromium, Total	11.1	mg/kg	1.1	SW846 6020A	#
Cobalt, Total	4.7	mg/kg	2.7	SW846 6020A	#
Copper, Total	13.6	mg/kg	2.7	SW846 6020A	#
Iron, Total	16000	mg/kg	26.8	SW846 6020A	#
Lead, Total	45.9	mg/kg	1.1	SW846 6020A	#
Magnesium, Total	2100	mg/kg	53.5	SW846 6020A	#
Manganese, Total	428	mg/kg	2.7	SW846 6020A	#
Mercury, Total	0.13	mg/kg	0.046	SW846 7471B	#
Nickel, Total	11.2	mg/kg	2.7	SW846 6020A	#
Potassium, Total	711	mg/kg	53.5	SW846 6020A	#
Sodium, Total	166	mg/kg	53.5	SW846 6020A	#
Trivalent Chromium	11.1	mg/kg	2.2	Calculation	#
Vanadium, Total	13.3	mg/kg	1.1	SW846 6020A	#
Zinc, Total	30.2	mg/kg	2.7	SW846 6020A	#
VOLATILE ORGANICS					
Acetone	16.0	ug/kg	10.9	SW846 8260B	#
Methylene Chloride	3.4	ug/kg	2.2	SW846 8260B	#
Tetrachloroethene	10.9	ug/kg	2.2	SW846 8260B	#
WET CHEMISTRY					
Moisture	10.0	%	0.1	S2540G-11	#
Total Solids	90.0	%	0.1	S2540G-11	#

Detected Results Summary

Client Sample ID	SB-04A-14-16	Collected	04/04/2023 11:00
Lab Sample ID	3296086009	Lab Receipt	04/05/2023 08:53

Compound	Result	Units	RDL	Method	Flag
METALS					
Aluminum, Total	5330	mg/kg	46.2	SW846 6020A	#
Arsenic, Total	10.5	mg/kg	1.7	SW846 6020A	#
Barium, Total	56.8	mg/kg	2.9	SW846 6020A	#
Beryllium, Total	0.63	mg/kg	0.58	SW846 6020A	#
Calcium, Total	406	mg/kg	57.8	SW846 6020A	#
Chromium, Total	11.1	mg/kg	1.2	SW846 6020A	#
Cobalt, Total	7.9	mg/kg	2.9	SW846 6020A	#
Copper, Total	10.2	mg/kg	2.9	SW846 6020A	#
Iron, Total	26200	mg/kg	28.9	SW846 6020A	#
Lead, Total	9.6	mg/kg	1.2	SW846 6020A	#
Magnesium, Total	1030	mg/kg	57.8	SW846 6020A	#
Manganese, Total	485	mg/kg	2.9	SW846 6020A	#
Nickel, Total	15.0	mg/kg	2.9	SW846 6020A	#
Potassium, Total	856	mg/kg	57.8	SW846 6020A	#
Trivalent Chromium	11.0	mg/kg	2.5	Calculation	#
Vanadium, Total	15.3	mg/kg	1.2	SW846 6020A	#
Zinc, Total	53.2	mg/kg	2.9	SW846 6020A	#
WET CHEMISTRY					
Moisture	18.3	%	0.1	S2540G-11	#
Total Solids	81.7	%	0.1	S2540G-11	#

Detected Results Summary

Client Sample ID	SB-05A-0-2	Collected	04/03/2023 13:30
Lab Sample ID	3296086010	Lab Receipt	04/05/2023 08:53

Compound	Result	Units	RDL	Method	Flag
METALS					
Aluminum, Total	10000	mg/kg	42.7	SW846 6020A	#
Arsenic, Total	10.1	mg/kg	1.6	SW846 6020A	#
Barium, Total	146	mg/kg	2.7	SW846 6020A	#
Beryllium, Total	1.3	mg/kg	0.53	SW846 6020A	#
Calcium, Total	45600	mg/kg	53.4	SW846 6020A	#
Chromium, Total	13.1	mg/kg	1.1	SW846 6020A	#
Cobalt, Total	7.3	mg/kg	2.7	SW846 6020A	#
Copper, Total	30.0	mg/kg	2.7	SW846 6020A	#
Iron, Total	22300	mg/kg	26.7	SW846 6020A	#
Lead, Total	135	mg/kg	1.1	SW846 6020A	#
Magnesium, Total	5800	mg/kg	53.4	SW846 6020A	#
Manganese, Total	831	mg/kg	2.7	SW846 6020A	#
Nickel, Total	16.7	mg/kg	2.7	SW846 6020A	#
Potassium, Total	1090	mg/kg	53.4	SW846 6020A	#
Sodium, Total	167	mg/kg	53.4	SW846 6020A	#
Trivalent Chromium	13.1	mg/kg	2.2	Calculation	#
Vanadium, Total	16.2	mg/kg	1.1	SW846 6020A	#
Zinc, Total	112	mg/kg	2.7	SW846 6020A	#
VOLATILE ORGANICS					
Acetone	8.4	ug/kg	6.4	SW846 8260B	#
Toluene	4.4	ug/kg	1.3	SW846 8260B	#
WET CHEMISTRY					
Moisture	11.6	%	0.1	S2540G-11	#
Total Solids	88.4	%	0.1	S2540G-11	#

Detected Results Summary

Client Sample ID	SB-05A-2-4	Collected	04/03/2023 13:55
Lab Sample ID	3296086011	Lab Receipt	04/05/2023 08:53

Compound	Result	Units	RDL	Method	Flag
METALS					
Aluminum, Total	10600	mg/kg	44.7	SW846 6020A	#
Antimony, Total	4.4	mg/kg	1.1	SW846 6020A	#
Arsenic, Total	13.7	mg/kg	1.7	SW846 6020A	#
Barium, Total	238	mg/kg	2.8	SW846 6020A	#
Beryllium, Total	0.98	mg/kg	0.56	SW846 6020A	#
Cadmium, Total	1.3	mg/kg	0.56	SW846 6020A	#
Calcium, Total	6310	mg/kg	55.9	SW846 6020A	#
Chromium, Total	23.0	mg/kg	1.1	SW846 6020A	#
Cobalt, Total	9.7	mg/kg	2.8	SW846 6020A	#
Copper, Total	61.1	mg/kg	2.8	SW846 6020A	#
Iron, Total	24700	mg/kg	27.9	SW846 6020A	#
Lead, Total	343	mg/kg	1.1	SW846 6020A	#
Magnesium, Total	1670	mg/kg	55.9	SW846 6020A	#
Manganese, Total	566	mg/kg	2.8	SW846 6020A	#
Mercury, Total	0.075	mg/kg	0.054	SW846 7471B	#
Nickel, Total	22.8	mg/kg	2.8	SW846 6020A	#
Potassium, Total	1750	mg/kg	55.9	SW846 6020A	#
Sodium, Total	145	mg/kg	55.9	SW846 6020A	#
Trivalent Chromium	23.0	mg/kg	2.3	Calculation	#
Vanadium, Total	23.7	mg/kg	1.1	SW846 6020A	#
Zinc, Total	292	mg/kg	2.8	SW846 6020A	#
VOLATILE ORGANICS					
Acetone	14.2	ug/kg	5.2	SW846 8260B	#
WET CHEMISTRY					
Moisture	13.1	%	0.1	S2540G-11	#
Total Solids	86.9	%	0.1	S2540G-11	#

Detected Results Summary

Client Sample ID	SB-06A-0-2	Collected	04/03/2023 14:10
Lab Sample ID	3296086012	Lab Receipt	04/05/2023 08:53

Compound	Result	Units	RDL	Method	Flag
METALS					
Aluminum, Total	3380	mg/kg	41.4	SW846 6020A	#
Arsenic, Total	5.4	mg/kg	1.6	SW846 6020A	#
Barium, Total	68.6	mg/kg	2.6	SW846 6020A	#
Calcium, Total	4770	mg/kg	51.7	SW846 6020A	#
Chromium, Total	10.3	mg/kg	1.0	SW846 6020A	#
Cobalt, Total	3.7	mg/kg	2.6	SW846 6020A	#
Copper, Total	14.2	mg/kg	2.6	SW846 6020A	#
Iron, Total	14800	mg/kg	25.9	SW846 6020A	#
Lead, Total	104	mg/kg	1.0	SW846 6020A	#
Magnesium, Total	896	mg/kg	51.7	SW846 6020A	#
Manganese, Total	263	mg/kg	2.6	SW846 6020A	#
Nickel, Total	11.3	mg/kg	2.6	SW846 6020A	#
Potassium, Total	428	mg/kg	51.7	SW846 6020A	#
Trivalent Chromium	10.1	mg/kg	2.2	Calculation	#
Vanadium, Total	14.3	mg/kg	1.0	SW846 6020A	#
Zinc, Total	72.0	mg/kg	2.6	SW846 6020A	#
VOLATILE ORGANICS					
Tetrachloroethene	1.7	ug/kg	0.94	SW846 8260B	#
WET CHEMISTRY					
Moisture	11.1	%	0.1	S2540G-11	#
Total Solids	88.9	%	0.1	S2540G-11	#

Detected Results Summary

Client Sample ID	SB-06A-2-4	Collected	04/03/2023 14:20
Lab Sample ID	3296086013	Lab Receipt	04/05/2023 08:53

Compound	Result	Units	RDL	Method	Flag
METALS					
Aluminum, Total	14300	mg/kg	44.0	SW846 6020A	#
Arsenic, Total	7.9	mg/kg	1.7	SW846 6020A	#
Barium, Total	217	mg/kg	2.8	SW846 6020A	#
Beryllium, Total	1.1	mg/kg	0.55	SW846 6020A	#
Calcium, Total	4230	mg/kg	55.0	SW846 6020A	#
Chromium, Total	25.5	mg/kg	1.1	SW846 6020A	#
Cobalt, Total	16.0	mg/kg	2.8	SW846 6020A	#
Copper, Total	18.0	mg/kg	2.8	SW846 6020A	#
Iron, Total	31500	mg/kg	27.5	SW846 6020A	#
Lead, Total	26.8	mg/kg	1.1	SW846 6020A	#
Magnesium, Total	3970	mg/kg	55.0	SW846 6020A	#
Manganese, Total	874	mg/kg	2.8	SW846 6020A	#
Nickel, Total	27.4	mg/kg	2.8	SW846 6020A	#
Potassium, Total	1480	mg/kg	55.0	SW846 6020A	#
Sodium, Total	83.2	mg/kg	55.0	SW846 6020A	#
Trivalent Chromium	25.3	mg/kg	2.5	Calculation	#
Vanadium, Total	28.8	mg/kg	1.1	SW846 6020A	#
Zinc, Total	84.8	mg/kg	2.8	SW846 6020A	#
VOLATILE ORGANICS					
Tetrachloroethene	7.0	ug/kg	1.4	SW846 8260B	#
WET CHEMISTRY					
Moisture	17.5	%	0.1	S2540G-11	#
Total Solids	82.5	%	0.1	S2540G-11	#

Detected Results Summary

Client Sample ID	SB-07A-0-2	Collected	04/03/2023 15:10
Lab Sample ID	3296086014	Lab Receipt	04/05/2023 08:53

Compound	Result	Units	RDL	Method	Flag
METALS					
Aluminum, Total	24900	mg/kg	45.5	SW846 6020A	#
Arsenic, Total	6.8	mg/kg	1.7	SW846 6020A	#
Barium, Total	1320	mg/kg	2.8	SW846 6020A	#
Beryllium, Total	3.7	mg/kg	0.57	SW846 6020A	#
Cadmium, Total	0.66	mg/kg	0.57	SW846 6020A	#
Calcium, Total	114000	mg/kg	56.9	SW846 6020A	#
Chromium, Total	28.7	mg/kg	1.1	SW846 6020A	#
Cobalt, Total	3.3	mg/kg	2.8	SW846 6020A	#
Copper, Total	17.4	mg/kg	2.8	SW846 6020A	#
Iron, Total	13900	mg/kg	28.4	SW846 6020A	#
Lead, Total	110	mg/kg	1.1	SW846 6020A	#
Magnesium, Total	18600	mg/kg	56.9	SW846 6020A	#
Manganese, Total	7240	mg/kg	28.4	SW846 6020A	#
Nickel, Total	9.1	mg/kg	2.8	SW846 6020A	#
Potassium, Total	922	mg/kg	56.9	SW846 6020A	#
Selenium, Total	2.9	mg/kg	2.8	SW846 6020A	#
Sodium, Total	523	mg/kg	56.9	SW846 6020A	#
Trivalent Chromium	28.7	mg/kg	2.4	Calculation	#
Vanadium, Total	17.1	mg/kg	1.1	SW846 6020A	#
Zinc, Total	71.7	mg/kg	2.8	SW846 6020A	#
VOLATILE ORGANICS					
Cyclohexane	6.9	ug/kg	1.3	SW846 8260B	#
Methyl cyclohexane	12.0	ug/kg	1.3	SW846 8260B	#
Toluene	4.9	ug/kg	1.3	SW846 8260B	#
WET CHEMISTRY					
Moisture	15.8	%	0.1	S2540G-11	#
Total Solids	84.2	%	0.1	S2540G-11	#

Detected Results Summary

Client Sample ID	SB-07A-2-4	Collected	04/03/2023 15:20
Lab Sample ID	3296086015	Lab Receipt	04/05/2023 08:53

Compound	Result	Units	RDL	Method	Flag
METALS					
Aluminum, Total	8850	mg/kg	44.3	SW846 6020A	#
Antimony, Total	1.3	mg/kg	1.1	SW846 6020A	#
Arsenic, Total	12.9	mg/kg	1.7	SW846 6020A	#
Barium, Total	87.3	mg/kg	2.8	SW846 6020A	#
Beryllium, Total	0.64	mg/kg	0.55	SW846 6020A	#
Calcium, Total	1950	mg/kg	55.3	SW846 6020A	#
Chromium, Total	13.0	mg/kg	1.1	SW846 6020A	#
Cobalt, Total	13.0	mg/kg	2.8	SW846 6020A	#
Copper, Total	33.0	mg/kg	2.8	SW846 6020A	#
Iron, Total	40700	mg/kg	27.7	SW846 6020A	#
Lead, Total	50.1	mg/kg	1.1	SW846 6020A	#
Magnesium, Total	1710	mg/kg	55.3	SW846 6020A	#
Manganese, Total	638	mg/kg	2.8	SW846 6020A	#
Mercury, Total	0.15	mg/kg	0.051	SW846 7471B	#
Nickel, Total	23.0	mg/kg	2.8	SW846 6020A	#
Potassium, Total	1090	mg/kg	55.3	SW846 6020A	#
Sodium, Total	58.8	mg/kg	55.3	SW846 6020A	#
Trivalent Chromium	13.0	mg/kg	2.4	Calculation	#
Vanadium, Total	19.4	mg/kg	1.1	SW846 6020A	#
Zinc, Total	68.9	mg/kg	2.8	SW846 6020A	#
VOLATILE ORGANICS					
2-Butanone	13.2	ug/kg	5.9	SW846 8260B	#
Acetone	70.4	ug/kg	5.9	SW846 8260B	#
WET CHEMISTRY					
Moisture	16.3	%	0.1	S2540G-11	#
Total Solids	83.7	%	0.1	S2540G-11	#

Detected Results Summary

Client Sample ID	SB-08A-0-2	Collected	04/03/2023 09:20
Lab Sample ID	3296086016	Lab Receipt	04/05/2023 08:53

Compound	Result	Units	RDL	Method	Flag
METALS					
Aluminum, Total	20100	mg/kg	39.0	SW846 6020A	#
Arsenic, Total	4.9	mg/kg	1.5	SW846 6020A	#
Barium, Total	522	mg/kg	2.4	SW846 6020A	#
Beryllium, Total	3.4	mg/kg	0.49	SW846 6020A	#
Calcium, Total	148000	mg/kg	488	SW846 6020A	#
Chromium, Total	9.6	mg/kg	0.98	SW846 6020A	#
Copper, Total	8.6	mg/kg	2.4	SW846 6020A	#
Iron, Total	8570	mg/kg	24.4	SW846 6020A	#
Lead, Total	37.2	mg/kg	0.98	SW846 6020A	#
Magnesium, Total	16800	mg/kg	48.8	SW846 6020A	#
Manganese, Total	2490	mg/kg	2.4	SW846 6020A	#
Nickel, Total	8.3	mg/kg	2.4	SW846 6020A	#
Potassium, Total	1030	mg/kg	48.8	SW846 6020A	#
Selenium, Total	2.5	mg/kg	2.4	SW846 6020A	#
Sodium, Total	998	mg/kg	48.8	SW846 6020A	#
Trivalent Chromium	9.6	mg/kg	2.2	Calculation	#
Vanadium, Total	19.0	mg/kg	0.98	SW846 6020A	#
Zinc, Total	35.3	mg/kg	2.4	SW846 6020A	#
VOLATILE ORGANICS					
Acetone	7.7	ug/kg	7.0	SW846 8260B	#
WET CHEMISTRY					
Moisture	11.0	%	0.1	S2540G-11	#
Total Solids	89.0	%	0.1	S2540G-11	#

Detected Results Summary

Client Sample ID	SB-08A-10-12	Collected	04/03/2023 09:15
Lab Sample ID	3296086017	Lab Receipt	04/05/2023 08:53

Compound	Result	Units	RDL	Method	Flag
METALS					
Aluminum, Total	3670	mg/kg	41.0	SW846 6020A	#
Arsenic, Total	4.3	mg/kg	1.5	SW846 6020A	#
Barium, Total	57.5	mg/kg	2.6	SW846 6020A	#
Calcium, Total	16600	mg/kg	51.3	SW846 6020A	#
Chromium, Total	13.0	mg/kg	1.0	SW846 6020A	#
Cobalt, Total	3.3	mg/kg	2.6	SW846 6020A	#
Copper, Total	8.3	mg/kg	2.6	SW846 6020A	#
Iron, Total	10600	mg/kg	25.6	SW846 6020A	#
Lead, Total	29.2	mg/kg	1.0	SW846 6020A	#
Magnesium, Total	1270	mg/kg	51.3	SW846 6020A	#
Manganese, Total	261	mg/kg	2.6	SW846 6020A	#
Mercury, Total	0.061	mg/kg	0.054	SW846 7471B	#
Nickel, Total	7.4	mg/kg	2.6	SW846 6020A	#
Potassium, Total	527	mg/kg	51.3	SW846 6020A	#
Sodium, Total	345	mg/kg	51.3	SW846 6020A	#
Trivalent Chromium	13.0	mg/kg	2.4	Calculation	#
Vanadium, Total	10.3	mg/kg	1.0	SW846 6020A	#
Zinc, Total	33.5	mg/kg	2.6	SW846 6020A	#
WET CHEMISTRY					
Moisture	18.3	%	0.1	S2540G-11	#
Total Solids	81.7	%	0.1	S2540G-11	#

Results

Client Sample ID	SB-01A-0-2	Collected	04/03/2023 10:30
Lab Sample ID	3296086001	Lab Receipt	04/05/2023 08:53

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Aluminum, Total	4830	S1	mg/kg	34.7	SW846 6020A	5	04/18/2023 12:50	MO	E1
Antimony, Total	ND	ND,S1	mg/kg	0.87	SW846 6020A	5	04/18/2023 12:50	MO	E1
Arsenic, Total	16.8	S1	mg/kg	1.3	SW846 6020A	5	04/18/2023 12:50	MO	E1
Barium, Total	94.2	S1	mg/kg	2.2	SW846 6020A	5	04/18/2023 12:50	MO	E1
Beryllium, Total	0.50	S1	mg/kg	0.43	SW846 6020A	5	04/18/2023 12:50	MO	E1
Cadmium, Total	ND	ND,S1	mg/kg	0.43	SW846 6020A	5	04/18/2023 12:50	MO	E1
Calcium, Total	16900	S1	mg/kg	43.4	SW846 6020A	5	04/18/2023 12:50	MO	E1
Chromium, Total	9.5	S1	mg/kg	0.87	SW846 6020A	5	04/18/2023 12:50	MO	E1
Cobalt, Total	5.7	S1	mg/kg	2.2	SW846 6020A	5	04/18/2023 12:50	MO	E1
Copper, Total	13.9	S1	mg/kg	2.2	SW846 6020A	5	04/18/2023 12:50	MO	E1
Iron, Total	23300	5,S1	mg/kg	21.7	SW846 6020A	5	04/18/2023 12:50	MO	E1
Lead, Total	13.8	S1	mg/kg	0.87	SW846 6020A	5	04/18/2023 12:50	MO	E1
Magnesium, Total	2030	S1	mg/kg	43.4	SW846 6020A	5	04/18/2023 12:50	MO	E1
Manganese, Total	320	S1	mg/kg	2.2	SW846 6020A	5	04/18/2023 12:50	MO	E1
Mercury, Total	ND	ND,S1	mg/kg	0.044	SW846 7471B	1	04/07/2023 12:09	WDA	E
Nickel, Total	10.9	S1	mg/kg	2.2	SW846 6020A	5	04/18/2023 12:50	MO	E1
Potassium, Total	652	S1	mg/kg	43.4	SW846 6020A	5	04/18/2023 12:50	MO	E1
Selenium, Total	ND	ND,S1	mg/kg	2.2	SW846 6020A	5	04/18/2023 12:50	MO	E1
Silver, Total	ND	ND,S1	mg/kg	0.87	SW846 6020A	5	04/18/2023 12:50	MO	E1
Sodium, Total	112	S1	mg/kg	43.4	SW846 6020A	5	04/18/2023 12:50	MO	E1
Thallium, Total	ND	ND,S1	mg/kg	0.43	SW846 6020A	5	04/18/2023 12:50	MO	E1
Trivalent Chromium	9.5	S1	mg/kg	2.1	Calculation	1	04/18/2023 14:48	CW	E
Vanadium, Total	9.9	S1	mg/kg	0.87	SW846 6020A	5	04/18/2023 12:50	MO	E1
Zinc, Total	52.8	S1	mg/kg	2.2	SW846 6020A	5	04/18/2023 12:50	MO	E1

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1-Trichloroethane	ND	ND,S1	ug/kg	1.3	SW846 8260B	1	04/07/2023 00:56	PDK	B
1,1,2,2-Tetrachloroethane	ND	ND,S1	ug/kg	1.3	SW846 8260B	1	04/07/2023 00:56	PDK	B
1,1,2-Trichloroethane	ND	ND,S1	ug/kg	1.3	SW846 8260B	1	04/07/2023 00:56	PDK	B
1,1-Dichloroethane	ND	ND,S1	ug/kg	1.3	SW846 8260B	1	04/07/2023 00:56	PDK	B
1,1-Dichloroethene	ND	ND,S1	ug/kg	1.3	SW846 8260B	1	04/07/2023 00:56	PDK	B
1,2,3-Trichlorobenzene	ND	ND,S1	ug/kg	3.2	SW846 8260B	1	04/07/2023 00:56	PDK	B
1,2,4-Trichlorobenzene	ND	ND,S1	ug/kg	3.2	SW846 8260B	1	04/07/2023 00:56	PDK	B
1,2-Dibromo-3-chloropropane	ND	ND,S1	ug/kg	3.2	SW846 8260B	1	04/07/2023 00:56	PDK	B
1,2-Dibromoethane	ND	ND,S1	ug/kg	1.3	SW846 8260B	1	04/07/2023 00:56	PDK	B
1,2-Dichlorobenzene	ND	ND,S1	ug/kg	1.3	SW846 8260B	1	04/07/2023 00:56	PDK	B
1,2-Dichloroethane	ND	ND,S1	ug/kg	1.3	SW846 8260B	1	04/07/2023 00:56	PDK	B
1,2-Dichloropropane	ND	ND,S1	ug/kg	1.3	SW846 8260B	1	04/07/2023 00:56	PDK	B
1,3-Dichlorobenzene	ND	ND,S1	ug/kg	1.3	SW846 8260B	1	04/07/2023 00:56	PDK	B
1,4-Dichlorobenzene	ND	ND,S1	ug/kg	1.3	SW846 8260B	1	04/07/2023 00:56	PDK	B
2-Butanone	ND	ND,S1	ug/kg	6.4	SW846 8260B	1	04/07/2023 00:56	PDK	B
2-Chloroethylvinyl ether	ND	ND,2,S1	ug/kg	95.6	SW846 8260B	1	04/07/2023 00:56	PDK	B
2-Hexanone	ND	ND,S1	ug/kg	6.4	SW846 8260B	1	04/07/2023 00:56	PDK	B
4-Methyl-2-Pentanone(MIBK)	ND	ND,S1	ug/kg	6.4	SW846 8260B	1	04/07/2023 00:56	PDK	B
Acetone	11.7	S1	ug/kg	6.4	SW846 8260B	1	04/07/2023 00:56	PDK	B

Results

Client Sample ID	SB-01A-0-2	Collected	04/03/2023 10:30
Lab Sample ID	3296086001	Lab Receipt	04/05/2023 08:53

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Benzene	ND	ND,S1	ug/kg	1.3	SW846 8260B	1	04/07/2023 00:56	PDK	B
Bromochloromethane	ND	ND,S1	ug/kg	1.3	SW846 8260B	1	04/07/2023 00:56	PDK	B
Bromodichloromethane	ND	ND,S1	ug/kg	1.3	SW846 8260B	1	04/07/2023 00:56	PDK	B
Bromoform	ND	ND,S1	ug/kg	1.3	SW846 8260B	1	04/07/2023 00:56	PDK	B
Bromomethane	ND	ND,S1	ug/kg	1.3	SW846 8260B	1	04/07/2023 00:56	PDK	B
Carbon Disulfide	ND	ND,S1	ug/kg	1.3	SW846 8260B	1	04/07/2023 00:56	PDK	B
Carbon Tetrachloride	ND	ND,S1	ug/kg	1.3	SW846 8260B	1	04/07/2023 00:56	PDK	B
Chlorobenzene	ND	ND,S1	ug/kg	1.3	SW846 8260B	1	04/07/2023 00:56	PDK	B
Chlorodibromomethane	ND	ND,S1	ug/kg	1.3	SW846 8260B	1	04/07/2023 00:56	PDK	B
Chloroethane	ND	ND,S1	ug/kg	3.2	SW846 8260B	1	04/07/2023 00:56	PDK	B
Chloroform	ND	ND,S1	ug/kg	1.3	SW846 8260B	1	04/07/2023 00:56	PDK	B
Chloromethane	ND	ND,S1	ug/kg	1.3	SW846 8260B	1	04/07/2023 00:56	PDK	B
cis-1,2-Dichloroethene	ND	ND,S1	ug/kg	1.3	SW846 8260B	1	04/07/2023 00:56	PDK	B
cis-1,3-Dichloropropene	ND	ND,S1	ug/kg	1.3	SW846 8260B	1	04/07/2023 00:56	PDK	B
Cyclohexane	ND	ND,S1	ug/kg	1.3	SW846 8260B	1	04/07/2023 00:56	PDK	B
Dichlorodifluoromethane	ND	ND,S1	ug/kg	1.3	SW846 8260B	1	04/07/2023 00:56	PDK	B
Ethylbenzene	ND	ND,S1	ug/kg	1.3	SW846 8260B	1	04/07/2023 00:56	PDK	B
Freon 113	ND	ND,S1	ug/kg	1.3	SW846 8260B	1	04/07/2023 00:56	PDK	B
Isopropylbenzene	ND	ND,S1	ug/kg	1.3	SW846 8260B	1	04/07/2023 00:56	PDK	B
Methyl acetate	ND	ND,S1	ug/kg	1.3	SW846 8260B	1	04/07/2023 00:56	PDK	B
Methyl cyclohexane	ND	ND,S1	ug/kg	1.3	SW846 8260B	1	04/07/2023 00:56	PDK	B
Methyl t-Butyl Ether	ND	ND,3,S1	ug/kg	1.3	SW846 8260B	1	04/07/2023 00:56	PDK	B
Methylene Chloride	ND	ND,S1	ug/kg	1.3	SW846 8260B	1	04/07/2023 00:56	PDK	B
mp-Xylene	ND	ND,S1	ug/kg	2.6	SW846 8260B	1	04/07/2023 00:56	PDK	B
o-Xylene	ND	ND,S1	ug/kg	1.3	SW846 8260B	1	04/07/2023 00:56	PDK	B
Styrene	ND	ND,S1	ug/kg	1.3	SW846 8260B	1	04/07/2023 00:56	PDK	B
Tetrachloroethene	ND	ND,S1	ug/kg	1.3	SW846 8260B	1	04/07/2023 00:56	PDK	B
Toluene	ND	ND,S1	ug/kg	1.3	SW846 8260B	1	04/07/2023 00:56	PDK	B
Total Xylenes	ND	ND,S1	ug/kg	3.8	SW846 8260B	1	04/07/2023 00:56	PDK	B
trans-1,2-Dichloroethene	ND	ND,S1	ug/kg	1.3	SW846 8260B	1	04/07/2023 00:56	PDK	B
trans-1,3-Dichloropropene	ND	ND,S1	ug/kg	1.3	SW846 8260B	1	04/07/2023 00:56	PDK	B
Trichloroethene	ND	ND,S1	ug/kg	1.3	SW846 8260B	1	04/07/2023 00:56	PDK	B
Trichlorofluoromethane	ND	ND,S1	ug/kg	1.3	SW846 8260B	1	04/07/2023 00:56	PDK	B
Vinyl Chloride	ND	ND,S1	ug/kg	1.3	SW846 8260B	1	04/07/2023 00:56	PDK	B

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	109%	56 – 124	04/07/2023 00:56	
4-Bromofluorobenzene	460-00-4	116%	51 – 128	04/07/2023 00:56	
Dibromofluoromethane	1868-53-7	49.1*%	62 – 123	04/07/2023 00:56	1
Toluene-d8	2037-26-5	106%	59 – 131	04/07/2023 00:56	

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Hexavalent Chromium	ND	ND,4,S1	mg/kg	2.1	SW846 7196A	1	04/07/2023 12:56	AKH	E

Results

Client Sample ID	SB-01A-0-2	Collected	04/03/2023 10:30
Lab Sample ID	3296086001	Lab Receipt	04/05/2023 08:53

WET CHEMISTRY (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Moisture	2.7	S1	%	0.1	S2540G-11	1	04/07/2023 14:18	AKH	
Total Solids	97.3	S1	%	0.1	S2540G-11	1	04/07/2023 14:18	AKH	

Results

Client Sample ID	SB-01A-14-16	Collected	04/03/2023 10:35
Lab Sample ID	3296086002	Lab Receipt	04/05/2023 08:53

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Aluminum, Total	3690		mg/kg	38.6	SW846 6020A	5	04/18/2023 13:05	MO	E1
Antimony, Total	ND	ND	mg/kg	0.97	SW846 6020A	5	04/18/2023 13:05	MO	E1
Arsenic, Total	6.0		mg/kg	1.4	SW846 6020A	5	04/18/2023 13:05	MO	E1
Barium, Total	56.3		mg/kg	2.4	SW846 6020A	5	04/18/2023 13:05	MO	E1
Beryllium, Total	ND	ND	mg/kg	0.48	SW846 6020A	5	04/18/2023 13:05	MO	E1
Cadmium, Total	ND	ND	mg/kg	0.48	SW846 6020A	5	04/18/2023 13:05	MO	E1
Calcium, Total	681		mg/kg	48.3	SW846 6020A	5	04/18/2023 13:05	MO	E1
Chromium, Total	9.3		mg/kg	0.97	SW846 6020A	5	04/18/2023 13:05	MO	E1
Cobalt, Total	3.9		mg/kg	2.4	SW846 6020A	5	04/18/2023 13:05	MO	E1
Copper, Total	10.1		mg/kg	2.4	SW846 6020A	5	04/18/2023 13:05	MO	E1
Iron, Total	16300	6	mg/kg	24.1	SW846 6020A	5	04/18/2023 13:05	MO	E1
Lead, Total	6.8		mg/kg	0.97	SW846 6020A	5	04/18/2023 13:05	MO	E1
Magnesium, Total	887		mg/kg	48.3	SW846 6020A	5	04/18/2023 13:05	MO	E1
Manganese, Total	525		mg/kg	2.4	SW846 6020A	5	04/18/2023 13:05	MO	E1
Mercury, Total	ND	ND	mg/kg	0.055	SW846 7471B	1	04/07/2023 12:10	WDA	E
Nickel, Total	9.0		mg/kg	2.4	SW846 6020A	5	04/18/2023 13:05	MO	E1
Potassium, Total	447		mg/kg	48.3	SW846 6020A	5	04/18/2023 13:05	MO	E1
Selenium, Total	ND	ND	mg/kg	2.4	SW846 6020A	5	04/18/2023 13:05	MO	E1
Silver, Total	ND	ND	mg/kg	0.97	SW846 6020A	5	04/18/2023 13:05	MO	E1
Sodium, Total	68.9		mg/kg	48.3	SW846 6020A	5	04/18/2023 13:05	MO	E1
Thallium, Total	ND	ND	mg/kg	0.48	SW846 6020A	5	04/18/2023 13:05	MO	E1
Trivalent Chromium	9.3		mg/kg	2.4	Calculation	1	04/18/2023 14:49	CW	E
Vanadium, Total	8.3		mg/kg	0.97	SW846 6020A	5	04/18/2023 13:05	MO	E1
Zinc, Total	30.9		mg/kg	2.4	SW846 6020A	5	04/18/2023 13:05	MO	E1

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1-Trichloroethane	ND	ND	ug/kg	0.91	SW846 8260B	1	04/07/2023 01:21	PDK	B
1,1,2,2-Tetrachloroethane	ND	ND	ug/kg	0.91	SW846 8260B	1	04/07/2023 01:21	PDK	B
1,1,2-Trichloroethane	ND	ND	ug/kg	0.91	SW846 8260B	1	04/07/2023 01:21	PDK	B
1,1-Dichloroethane	ND	ND	ug/kg	0.91	SW846 8260B	1	04/07/2023 01:21	PDK	B
1,1-Dichloroethene	ND	ND	ug/kg	0.91	SW846 8260B	1	04/07/2023 01:21	PDK	B
1,2,3-Trichlorobenzene	ND	ND	ug/kg	2.3	SW846 8260B	1	04/07/2023 01:21	PDK	B
1,2,4-Trichlorobenzene	ND	ND	ug/kg	2.3	SW846 8260B	1	04/07/2023 01:21	PDK	B
1,2-Dibromo-3-chloropropane	ND	ND	ug/kg	2.3	SW846 8260B	1	04/07/2023 01:21	PDK	B
1,2-Dibromoethane	ND	ND	ug/kg	0.91	SW846 8260B	1	04/07/2023 01:21	PDK	B
1,2-Dichlorobenzene	ND	ND	ug/kg	0.91	SW846 8260B	1	04/07/2023 01:21	PDK	B
1,2-Dichloroethane	ND	ND	ug/kg	0.91	SW846 8260B	1	04/07/2023 01:21	PDK	B
1,2-Dichloropropane	ND	ND	ug/kg	0.91	SW846 8260B	1	04/07/2023 01:21	PDK	B
1,3-Dichlorobenzene	ND	ND	ug/kg	0.91	SW846 8260B	1	04/07/2023 01:21	PDK	B
1,4-Dichlorobenzene	ND	ND	ug/kg	0.91	SW846 8260B	1	04/07/2023 01:21	PDK	B
2-Butanone	ND	ND	ug/kg	4.6	SW846 8260B	1	04/07/2023 01:21	PDK	B
2-Chloroethylvinyl ether	ND	ND,2	ug/kg	68.3	SW846 8260B	1	04/07/2023 01:21	PDK	B
2-Hexanone	ND	ND	ug/kg	4.6	SW846 8260B	1	04/07/2023 01:21	PDK	B
4-Methyl-2-Pentanone(MIBK)	ND	ND	ug/kg	4.6	SW846 8260B	1	04/07/2023 01:21	PDK	B
Acetone	ND	ND	ug/kg	4.6	SW846 8260B	1	04/07/2023 01:21	PDK	B

Results

Client Sample ID	SB-01A-14-16	Collected	04/03/2023 10:35
Lab Sample ID	3296086002	Lab Receipt	04/05/2023 08:53

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Benzene	ND	ND	ug/kg	0.91	SW846 8260B	1	04/07/2023 01:21	PDK	B
Bromochloromethane	ND	ND	ug/kg	0.91	SW846 8260B	1	04/07/2023 01:21	PDK	B
Bromodichloromethane	ND	ND	ug/kg	0.91	SW846 8260B	1	04/07/2023 01:21	PDK	B
Bromoform	ND	ND	ug/kg	0.91	SW846 8260B	1	04/07/2023 01:21	PDK	B
Bromomethane	ND	ND	ug/kg	0.91	SW846 8260B	1	04/07/2023 01:21	PDK	B
Carbon Disulfide	ND	ND	ug/kg	0.91	SW846 8260B	1	04/07/2023 01:21	PDK	B
Carbon Tetrachloride	ND	ND	ug/kg	0.91	SW846 8260B	1	04/07/2023 01:21	PDK	B
Chlorobenzene	ND	ND	ug/kg	0.91	SW846 8260B	1	04/07/2023 01:21	PDK	B
Chlorodibromomethane	ND	ND	ug/kg	0.91	SW846 8260B	1	04/07/2023 01:21	PDK	B
Chloroethane	ND	ND	ug/kg	2.3	SW846 8260B	1	04/07/2023 01:21	PDK	B
Chloroform	ND	ND	ug/kg	0.91	SW846 8260B	1	04/07/2023 01:21	PDK	B
Chloromethane	ND	ND	ug/kg	0.91	SW846 8260B	1	04/07/2023 01:21	PDK	B
cis-1,2-Dichloroethene	ND	ND	ug/kg	0.91	SW846 8260B	1	04/07/2023 01:21	PDK	B
cis-1,3-Dichloropropene	ND	ND	ug/kg	0.91	SW846 8260B	1	04/07/2023 01:21	PDK	B
Cyclohexane	ND	ND	ug/kg	0.91	SW846 8260B	1	04/07/2023 01:21	PDK	B
Dichlorodifluoromethane	ND	ND	ug/kg	0.91	SW846 8260B	1	04/07/2023 01:21	PDK	B
Ethylbenzene	ND	ND	ug/kg	0.91	SW846 8260B	1	04/07/2023 01:21	PDK	B
Freon 113	ND	ND	ug/kg	0.91	SW846 8260B	1	04/07/2023 01:21	PDK	B
Isopropylbenzene	ND	ND	ug/kg	0.91	SW846 8260B	1	04/07/2023 01:21	PDK	B
Methyl acetate	ND	ND	ug/kg	0.91	SW846 8260B	1	04/07/2023 01:21	PDK	B
Methyl cyclohexane	ND	ND	ug/kg	0.91	SW846 8260B	1	04/07/2023 01:21	PDK	B
Methyl t-Butyl Ether	ND	ND,3	ug/kg	0.91	SW846 8260B	1	04/07/2023 01:21	PDK	B
Methylene Chloride	ND	ND	ug/kg	0.91	SW846 8260B	1	04/07/2023 01:21	PDK	B
mp-Xylene	ND	ND	ug/kg	1.8	SW846 8260B	1	04/07/2023 01:21	PDK	B
o-Xylene	ND	ND	ug/kg	0.91	SW846 8260B	1	04/07/2023 01:21	PDK	B
Styrene	ND	ND	ug/kg	0.91	SW846 8260B	1	04/07/2023 01:21	PDK	B
Tetrachloroethene	3.1		ug/kg	0.91	SW846 8260B	1	04/07/2023 01:21	PDK	B
Toluene	ND	ND	ug/kg	0.91	SW846 8260B	1	04/07/2023 01:21	PDK	B
Total Xylenes	ND	ND	ug/kg	2.7	SW846 8260B	1	04/07/2023 01:21	PDK	B
trans-1,2-Dichloroethene	ND	ND	ug/kg	0.91	SW846 8260B	1	04/07/2023 01:21	PDK	B
trans-1,3-Dichloropropene	ND	ND	ug/kg	0.91	SW846 8260B	1	04/07/2023 01:21	PDK	B
Trichloroethene	ND	ND	ug/kg	0.91	SW846 8260B	1	04/07/2023 01:21	PDK	B
Trichlorofluoromethane	ND	ND	ug/kg	0.91	SW846 8260B	1	04/07/2023 01:21	PDK	B
Vinyl Chloride	ND	ND	ug/kg	0.91	SW846 8260B	1	04/07/2023 01:21	PDK	B

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	101%	56 – 124	04/07/2023 01:21	
4-Bromofluorobenzene	460-00-4	107%	51 – 128	04/07/2023 01:21	
Dibromofluoromethane	1868-53-7	91.6%	62 – 123	04/07/2023 01:21	
Toluene-d8	2037-26-5	99.9%	59 – 131	04/07/2023 01:21	

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Hexavalent Chromium	ND	ND	mg/kg	2.4	SW846 7196A	1	04/07/2023 12:56	AKH	E

Results

Client Sample ID	SB-01A-14-16	Collected	04/03/2023 10:35
Lab Sample ID	3296086002	Lab Receipt	04/05/2023 08:53

WET CHEMISTRY (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Moisture	9.1		%	0.1	S2540G-11	1	04/07/2023 14:18	AKH	
Total Solids	90.9		%	0.1	S2540G-11	1	04/07/2023 14:18	AKH	

Results

Client Sample ID	SB-02A-0-2	Collected	04/04/2023 09:30
Lab Sample ID	3296086003	Lab Receipt	04/05/2023 08:53

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Aluminum, Total	13700		mg/kg	37.7	SW846 6020A	5	04/18/2023 13:07	MO	E1
Antimony, Total	4.0		mg/kg	0.94	SW846 6020A	5	04/18/2023 13:07	MO	E1
Arsenic, Total	10.2		mg/kg	1.4	SW846 6020A	5	04/18/2023 13:07	MO	E1
Barium, Total	1230		mg/kg	2.4	SW846 6020A	5	04/18/2023 13:07	MO	E1
Beryllium, Total	0.86		mg/kg	0.47	SW846 6020A	5	04/18/2023 13:07	MO	E1
Cadmium, Total	2.4		mg/kg	0.47	SW846 6020A	5	04/18/2023 13:07	MO	E1
Calcium, Total	57800		mg/kg	47.1	SW846 6020A	5	04/18/2023 13:07	MO	E1
Chromium, Total	9.0		mg/kg	0.94	SW846 6020A	5	04/18/2023 13:07	MO	E1
Cobalt, Total	3.9		mg/kg	2.4	SW846 6020A	5	04/18/2023 13:07	MO	E1
Copper, Total	145		mg/kg	2.4	SW846 6020A	5	04/18/2023 13:07	MO	E1
Iron, Total	16500	6	mg/kg	23.5	SW846 6020A	5	04/18/2023 13:07	MO	E1
Lead, Total	752		mg/kg	0.94	SW846 6020A	5	04/18/2023 13:07	MO	E1
Magnesium, Total	8870		mg/kg	47.1	SW846 6020A	5	04/18/2023 13:07	MO	E1
Manganese, Total	10600		mg/kg	23.5	SW846 6020A	50	04/18/2023 14:54	MO	E1
Mercury, Total	0.054		mg/kg	0.054	SW846 7471B	1	04/07/2023 12:11	WDA	E
Nickel, Total	10.7		mg/kg	2.4	SW846 6020A	5	04/18/2023 13:07	MO	E1
Potassium, Total	1010		mg/kg	47.1	SW846 6020A	5	04/18/2023 13:07	MO	E1
Selenium, Total	ND	ND	mg/kg	2.4	SW846 6020A	5	04/18/2023 13:07	MO	E1
Silver, Total	ND	ND	mg/kg	0.94	SW846 6020A	5	04/18/2023 13:07	MO	E1
Sodium, Total	234		mg/kg	47.1	SW846 6020A	5	04/18/2023 13:07	MO	E1
Thallium, Total	ND	ND	mg/kg	0.47	SW846 6020A	5	04/18/2023 13:07	MO	E1
Trivalent Chromium	9.0		mg/kg	2.2	Calculation	1	04/18/2023 14:28	CW	E
Vanadium, Total	11.5		mg/kg	0.94	SW846 6020A	5	04/18/2023 13:07	MO	E1
Zinc, Total	295		mg/kg	2.4	SW846 6020A	5	04/18/2023 13:07	MO	E1

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1-Trichloroethane	ND	ND	ug/kg	2.3	SW846 8260B	1	04/07/2023 01:45	PDK	B
1,1,2,2-Tetrachloroethane	ND	ND	ug/kg	2.3	SW846 8260B	1	04/07/2023 01:45	PDK	B
1,1,2-Trichloroethane	ND	ND	ug/kg	2.3	SW846 8260B	1	04/07/2023 01:45	PDK	B
1,1-Dichloroethane	ND	ND	ug/kg	2.3	SW846 8260B	1	04/07/2023 01:45	PDK	B
1,1-Dichloroethene	ND	ND	ug/kg	2.3	SW846 8260B	1	04/07/2023 01:45	PDK	B
1,2,3-Trichlorobenzene	ND	ND	ug/kg	5.8	SW846 8260B	1	04/07/2023 01:45	PDK	B
1,2,4-Trichlorobenzene	ND	ND	ug/kg	5.8	SW846 8260B	1	04/07/2023 01:45	PDK	B
1,2-Dibromo-3-chloropropane	ND	ND	ug/kg	5.8	SW846 8260B	1	04/07/2023 01:45	PDK	B
1,2-Dibromoethane	ND	ND	ug/kg	2.3	SW846 8260B	1	04/07/2023 01:45	PDK	B
1,2-Dichlorobenzene	ND	ND	ug/kg	2.3	SW846 8260B	1	04/07/2023 01:45	PDK	B
1,2-Dichloroethane	ND	ND	ug/kg	2.3	SW846 8260B	1	04/07/2023 01:45	PDK	B
1,2-Dichloropropane	ND	ND	ug/kg	2.3	SW846 8260B	1	04/07/2023 01:45	PDK	B
1,3-Dichlorobenzene	ND	ND	ug/kg	2.3	SW846 8260B	1	04/07/2023 01:45	PDK	B
1,4-Dichlorobenzene	ND	ND	ug/kg	2.3	SW846 8260B	1	04/07/2023 01:45	PDK	B
2-Butanone	ND	ND	ug/kg	11.7	SW846 8260B	1	04/07/2023 01:45	PDK	B
2-Chloroethylvinyl ether	ND	ND,2	ug/kg	175	SW846 8260B	1	04/07/2023 01:45	PDK	B
2-Hexanone	ND	ND	ug/kg	11.7	SW846 8260B	1	04/07/2023 01:45	PDK	B
4-Methyl-2-Pentanone(MIBK)	ND	ND	ug/kg	11.7	SW846 8260B	1	04/07/2023 01:45	PDK	B
Acetone	14.0		ug/kg	11.7	SW846 8260B	1	04/07/2023 01:45	PDK	B

Results

Client Sample ID	SB-02A-0-2	Collected	04/04/2023 09:30
Lab Sample ID	3296086003	Lab Receipt	04/05/2023 08:53

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Benzene	ND	ND	ug/kg	2.3	SW846 8260B	1	04/07/2023 01:45	PDK	B
Bromochloromethane	ND	ND	ug/kg	2.3	SW846 8260B	1	04/07/2023 01:45	PDK	B
Bromodichloromethane	ND	ND	ug/kg	2.3	SW846 8260B	1	04/07/2023 01:45	PDK	B
Bromoform	ND	ND	ug/kg	2.3	SW846 8260B	1	04/07/2023 01:45	PDK	B
Bromomethane	ND	ND	ug/kg	2.3	SW846 8260B	1	04/07/2023 01:45	PDK	B
Carbon Disulfide	ND	ND	ug/kg	2.3	SW846 8260B	1	04/07/2023 01:45	PDK	B
Carbon Tetrachloride	ND	ND	ug/kg	2.3	SW846 8260B	1	04/07/2023 01:45	PDK	B
Chlorobenzene	ND	ND	ug/kg	2.3	SW846 8260B	1	04/07/2023 01:45	PDK	B
Chlorodibromomethane	ND	ND	ug/kg	2.3	SW846 8260B	1	04/07/2023 01:45	PDK	B
Chloroethane	ND	ND	ug/kg	5.8	SW846 8260B	1	04/07/2023 01:45	PDK	B
Chloroform	ND	ND	ug/kg	2.3	SW846 8260B	1	04/07/2023 01:45	PDK	B
Chloromethane	ND	ND	ug/kg	2.3	SW846 8260B	1	04/07/2023 01:45	PDK	B
cis-1,2-Dichloroethene	ND	ND	ug/kg	2.3	SW846 8260B	1	04/07/2023 01:45	PDK	B
cis-1,3-Dichloropropene	ND	ND	ug/kg	2.3	SW846 8260B	1	04/07/2023 01:45	PDK	B
Cyclohexane	ND	ND	ug/kg	2.3	SW846 8260B	1	04/07/2023 01:45	PDK	B
Dichlorodifluoromethane	ND	ND	ug/kg	2.3	SW846 8260B	1	04/07/2023 01:45	PDK	B
Ethylbenzene	ND	ND	ug/kg	2.3	SW846 8260B	1	04/07/2023 01:45	PDK	B
Freon 113	ND	ND	ug/kg	2.3	SW846 8260B	1	04/07/2023 01:45	PDK	B
Isopropylbenzene	ND	ND	ug/kg	2.3	SW846 8260B	1	04/07/2023 01:45	PDK	B
Methyl acetate	ND	ND	ug/kg	2.3	SW846 8260B	1	04/07/2023 01:45	PDK	B
Methyl cyclohexane	ND	ND	ug/kg	2.3	SW846 8260B	1	04/07/2023 01:45	PDK	B
Methyl t-Butyl Ether	ND	ND,3	ug/kg	2.3	SW846 8260B	1	04/07/2023 01:45	PDK	B
Methylene Chloride	ND	ND	ug/kg	2.3	SW846 8260B	1	04/07/2023 01:45	PDK	B
mp-Xylene	ND	ND	ug/kg	4.7	SW846 8260B	1	04/07/2023 01:45	PDK	B
o-Xylene	ND	ND	ug/kg	2.3	SW846 8260B	1	04/07/2023 01:45	PDK	B
Styrene	ND	ND	ug/kg	2.3	SW846 8260B	1	04/07/2023 01:45	PDK	B
Tetrachloroethene	ND	ND	ug/kg	2.3	SW846 8260B	1	04/07/2023 01:45	PDK	B
Toluene	ND	ND	ug/kg	2.3	SW846 8260B	1	04/07/2023 01:45	PDK	B
Total Xylenes	ND	ND	ug/kg	7.0	SW846 8260B	1	04/07/2023 01:45	PDK	B
trans-1,2-Dichloroethene	ND	ND	ug/kg	2.3	SW846 8260B	1	04/07/2023 01:45	PDK	B
trans-1,3-Dichloropropene	ND	ND	ug/kg	2.3	SW846 8260B	1	04/07/2023 01:45	PDK	B
Trichloroethene	ND	ND	ug/kg	2.3	SW846 8260B	1	04/07/2023 01:45	PDK	B
Trichlorofluoromethane	ND	ND	ug/kg	2.3	SW846 8260B	1	04/07/2023 01:45	PDK	B
Vinyl Chloride	ND	ND	ug/kg	2.3	SW846 8260B	1	04/07/2023 01:45	PDK	B

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	102%	56 – 124	04/07/2023 01:45	
4-Bromofluorobenzene	460-00-4	116%	51 – 128	04/07/2023 01:45	
Dibromofluoromethane	1868-53-7	82.8%	62 – 123	04/07/2023 01:45	
Toluene-d8	2037-26-5	107%	59 – 131	04/07/2023 01:45	

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Hexavalent Chromium	ND	ND	mg/kg	2.2	SW846 7196A	1	04/07/2023 12:56	AKH	E

Results

Client Sample ID	SB-02A-0-2	Collected	04/04/2023 09:30
Lab Sample ID	3296086003	Lab Receipt	04/05/2023 08:53

WET CHEMISTRY (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Moisture	9.7		%	0.1	S2540G-11	1	04/07/2023 14:18	AKH	
Total Solids	90.3		%	0.1	S2540G-11	1	04/07/2023 14:18	AKH	

Results

Client Sample ID	SB-02A-24-26	Collected	04/04/2023 09:40
Lab Sample ID	3296086004	Lab Receipt	04/05/2023 08:53

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Aluminum, Total	5790		mg/kg	40.4	SW846 6020A	5	04/18/2023 13:10	MO	E1
Antimony, Total	ND	ND	mg/kg	1.0	SW846 6020A	5	04/18/2023 13:10	MO	E1
Arsenic, Total	11.9		mg/kg	1.5	SW846 6020A	5	04/18/2023 13:10	MO	E1
Barium, Total	124		mg/kg	2.5	SW846 6020A	5	04/18/2023 13:10	MO	E1
Beryllium, Total	0.74		mg/kg	0.50	SW846 6020A	5	04/18/2023 13:10	MO	E1
Cadmium, Total	ND	ND	mg/kg	0.50	SW846 6020A	5	04/18/2023 13:10	MO	E1
Calcium, Total	841		mg/kg	50.5	SW846 6020A	5	04/18/2023 13:10	MO	E1
Chromium, Total	11.2		mg/kg	1.0	SW846 6020A	5	04/18/2023 13:10	MO	E1
Cobalt, Total	8.9		mg/kg	2.5	SW846 6020A	5	04/18/2023 13:10	MO	E1
Copper, Total	11.9		mg/kg	2.5	SW846 6020A	5	04/18/2023 13:10	MO	E1
Iron, Total	45700	6	mg/kg	25.2	SW846 6020A	5	04/18/2023 13:10	MO	E1
Lead, Total	12.9		mg/kg	1.0	SW846 6020A	5	04/18/2023 13:10	MO	E1
Magnesium, Total	1060		mg/kg	50.5	SW846 6020A	5	04/18/2023 13:10	MO	E1
Manganese, Total	1800		mg/kg	2.5	SW846 6020A	5	04/18/2023 13:10	MO	E1
Mercury, Total	ND	ND	mg/kg	0.056	SW846 7471B	1	04/07/2023 12:12	WDA	E
Nickel, Total	21.1		mg/kg	2.5	SW846 6020A	5	04/18/2023 13:10	MO	E1
Potassium, Total	748		mg/kg	50.5	SW846 6020A	5	04/18/2023 13:10	MO	E1
Selenium, Total	ND	ND	mg/kg	2.5	SW846 6020A	5	04/18/2023 13:10	MO	E1
Silver, Total	ND	ND	mg/kg	1.0	SW846 6020A	5	04/18/2023 13:10	MO	E1
Sodium, Total	ND	ND	mg/kg	50.5	SW846 6020A	5	04/18/2023 13:10	MO	E1
Thallium, Total	ND	ND	mg/kg	0.50	SW846 6020A	5	04/18/2023 13:10	MO	E1
Trivalent Chromium	11.1		mg/kg	2.2	Calculation	1	04/18/2023 14:50	CW	E
Vanadium, Total	51.2		mg/kg	1.0	SW846 6020A	5	04/18/2023 13:10	MO	E1
Zinc, Total	57.2		mg/kg	2.5	SW846 6020A	5	04/18/2023 13:10	MO	E1

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1-Trichloroethane	ND	ND	ug/kg	0.84	SW846 8260B	1	04/11/2023 01:19	PDK	B
1,1,2,2-Tetrachloroethane	ND	ND	ug/kg	0.84	SW846 8260B	1	04/11/2023 01:19	PDK	B
1,1,2-Trichloroethane	ND	ND	ug/kg	0.84	SW846 8260B	1	04/11/2023 01:19	PDK	B
1,1-Dichloroethane	ND	ND	ug/kg	0.84	SW846 8260B	1	04/11/2023 01:19	PDK	B
1,1-Dichloroethene	ND	ND	ug/kg	0.84	SW846 8260B	1	04/11/2023 01:19	PDK	B
1,2,3-Trichlorobenzene	ND	ND	ug/kg	2.1	SW846 8260B	1	04/11/2023 01:19	PDK	B
1,2,4-Trichlorobenzene	ND	ND	ug/kg	2.1	SW846 8260B	1	04/11/2023 01:19	PDK	B
1,2-Dibromo-3-chloropropane	ND	ND	ug/kg	2.1	SW846 8260B	1	04/11/2023 01:19	PDK	B
1,2-Dibromoethane	ND	ND	ug/kg	0.84	SW846 8260B	1	04/11/2023 01:19	PDK	B
1,2-Dichlorobenzene	ND	ND	ug/kg	0.84	SW846 8260B	1	04/11/2023 01:19	PDK	B
1,2-Dichloroethane	ND	ND	ug/kg	0.84	SW846 8260B	1	04/11/2023 01:19	PDK	B
1,2-Dichloropropane	ND	ND	ug/kg	0.84	SW846 8260B	1	04/11/2023 01:19	PDK	B
1,3-Dichlorobenzene	ND	ND	ug/kg	0.84	SW846 8260B	1	04/11/2023 01:19	PDK	B
1,4-Dichlorobenzene	ND	ND	ug/kg	0.84	SW846 8260B	1	04/11/2023 01:19	PDK	B
2-Butanone	ND	ND	ug/kg	4.2	SW846 8260B	1	04/11/2023 01:19	PDK	B
2-Chloroethylvinyl ether	ND	ND	ug/kg	63.4	SW846 8260B	1	04/11/2023 01:19	PDK	B
2-Hexanone	ND	ND	ug/kg	4.2	SW846 8260B	1	04/11/2023 01:19	PDK	B
4-Methyl-2-Pentanone(MIBK)	ND	ND	ug/kg	4.2	SW846 8260B	1	04/11/2023 01:19	PDK	B
Acetone	ND	ND	ug/kg	4.2	SW846 8260B	1	04/11/2023 01:19	PDK	B

Results

Client Sample ID	SB-02A-24-26	Collected	04/04/2023 09:40
Lab Sample ID	3296086004	Lab Receipt	04/05/2023 08:53

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Benzene	ND	ND	ug/kg	0.84	SW846 8260B	1	04/11/2023 01:19	PDK	B
Bromochloromethane	ND	ND	ug/kg	0.84	SW846 8260B	1	04/11/2023 01:19	PDK	B
Bromodichloromethane	ND	ND	ug/kg	0.84	SW846 8260B	1	04/11/2023 01:19	PDK	B
Bromoform	ND	ND	ug/kg	0.84	SW846 8260B	1	04/11/2023 01:19	PDK	B
Bromomethane	ND	ND	ug/kg	0.84	SW846 8260B	1	04/11/2023 01:19	PDK	B
Carbon Disulfide	ND	ND	ug/kg	0.84	SW846 8260B	1	04/11/2023 01:19	PDK	B
Carbon Tetrachloride	ND	ND	ug/kg	0.84	SW846 8260B	1	04/11/2023 01:19	PDK	B
Chlorobenzene	ND	ND	ug/kg	0.84	SW846 8260B	1	04/11/2023 01:19	PDK	B
Chlorodibromomethane	ND	ND	ug/kg	0.84	SW846 8260B	1	04/11/2023 01:19	PDK	B
Chloroethane	ND	ND	ug/kg	2.1	SW846 8260B	1	04/11/2023 01:19	PDK	B
Chloroform	ND	ND	ug/kg	0.84	SW846 8260B	1	04/11/2023 01:19	PDK	B
Chloromethane	ND	ND	ug/kg	0.84	SW846 8260B	1	04/11/2023 01:19	PDK	B
cis-1,2-Dichloroethene	1.1		ug/kg	0.84	SW846 8260B	1	04/11/2023 01:19	PDK	B
cis-1,3-Dichloropropene	ND	ND	ug/kg	0.84	SW846 8260B	1	04/11/2023 01:19	PDK	B
Cyclohexane	ND	ND	ug/kg	0.84	SW846 8260B	1	04/11/2023 01:19	PDK	B
Dichlorodifluoromethane	ND	ND	ug/kg	0.84	SW846 8260B	1	04/11/2023 01:19	PDK	B
Ethylbenzene	ND	ND	ug/kg	0.84	SW846 8260B	1	04/11/2023 01:19	PDK	B
Freon 113	ND	ND,7,8	ug/kg	0.84	SW846 8260B	1	04/11/2023 01:19	PDK	B
Isopropylbenzene	ND	ND	ug/kg	0.84	SW846 8260B	1	04/11/2023 01:19	PDK	B
Methyl acetate	ND	ND,9	ug/kg	0.84	SW846 8260B	1	04/11/2023 01:19	PDK	B
Methyl cyclohexane	ND	ND	ug/kg	0.84	SW846 8260B	1	04/11/2023 01:19	PDK	B
Methyl t-Butyl Ether	ND	ND,10,11	ug/kg	0.84	SW846 8260B	1	04/11/2023 01:19	PDK	B
Methylene Chloride	ND	ND	ug/kg	0.84	SW846 8260B	1	04/11/2023 01:19	PDK	B
mp-Xylene	ND	ND	ug/kg	1.7	SW846 8260B	1	04/11/2023 01:19	PDK	B
o-Xylene	ND	ND	ug/kg	0.84	SW846 8260B	1	04/11/2023 01:19	PDK	B
Styrene	ND	ND	ug/kg	0.84	SW846 8260B	1	04/11/2023 01:19	PDK	B
Tetrachloroethene	17.3		ug/kg	0.84	SW846 8260B	1	04/11/2023 01:19	PDK	B
Toluene	ND	ND	ug/kg	0.84	SW846 8260B	1	04/11/2023 01:19	PDK	B
Total Xylenes	ND	ND	ug/kg	2.5	SW846 8260B	1	04/11/2023 01:19	PDK	B
trans-1,2-Dichloroethene	ND	ND	ug/kg	0.84	SW846 8260B	1	04/11/2023 01:19	PDK	B
trans-1,3-Dichloropropene	ND	ND	ug/kg	0.84	SW846 8260B	1	04/11/2023 01:19	PDK	B
Trichloroethene	1.6		ug/kg	0.84	SW846 8260B	1	04/11/2023 01:19	PDK	B
Trichlorofluoromethane	ND	ND	ug/kg	0.84	SW846 8260B	1	04/11/2023 01:19	PDK	B
Vinyl Chloride	ND	ND	ug/kg	0.84	SW846 8260B	1	04/11/2023 01:19	PDK	B

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	98.7%	56 – 124	04/11/2023 01:19	
4-Bromofluorobenzene	460-00-4	106%	51 – 128	04/11/2023 01:19	
Dibromofluoromethane	1868-53-7	92.7%	62 – 123	04/11/2023 01:19	
Toluene-d8	2037-26-5	97.5%	59 – 131	04/11/2023 01:19	

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr

Results

Client Sample ID	SB-02A-24-26	Collected	04/04/2023 09:40
Lab Sample ID	3296086004	Lab Receipt	04/05/2023 08:53

WET CHEMISTRY (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Hexavalent Chromium	ND	ND	mg/kg	2.2	SW846 7196A	1	04/07/2023 12:56	AKH	E
Moisture	13.0		%	0.1	S2540G-11	1	04/07/2023 14:18	AKH	
Total Solids	87.0		%	0.1	S2540G-11	1	04/07/2023 14:18	AKH	

Results

Client Sample ID	SB-02A-24-26-DUP	Collected	04/04/2023 10:00
Lab Sample ID	3296086005	Lab Receipt	04/05/2023 08:53

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Aluminum, Total	4690		mg/kg	38.6	SW846 6020A	5	04/18/2023 13:12	MO	E1
Antimony, Total	ND	ND	mg/kg	0.96	SW846 6020A	5	04/18/2023 13:12	MO	E1
Arsenic, Total	9.1		mg/kg	1.4	SW846 6020A	5	04/18/2023 13:12	MO	E1
Barium, Total	75.5		mg/kg	2.4	SW846 6020A	5	04/18/2023 13:12	MO	E1
Beryllium, Total	ND	ND	mg/kg	0.48	SW846 6020A	5	04/18/2023 13:12	MO	E1
Cadmium, Total	ND	ND	mg/kg	0.48	SW846 6020A	5	04/18/2023 13:12	MO	E1
Calcium, Total	801		mg/kg	48.2	SW846 6020A	5	04/18/2023 13:12	MO	E1
Chromium, Total	9.0		mg/kg	0.96	SW846 6020A	5	04/18/2023 13:12	MO	E1
Cobalt, Total	5.7		mg/kg	2.4	SW846 6020A	5	04/18/2023 13:12	MO	E1
Copper, Total	14.0		mg/kg	2.4	SW846 6020A	5	04/18/2023 13:12	MO	E1
Iron, Total	23300	6	mg/kg	24.1	SW846 6020A	5	04/18/2023 13:12	MO	E1
Lead, Total	37.6		mg/kg	0.96	SW846 6020A	5	04/18/2023 13:12	MO	E1
Magnesium, Total	937		mg/kg	48.2	SW846 6020A	5	04/18/2023 13:12	MO	E1
Manganese, Total	572		mg/kg	2.4	SW846 6020A	5	04/18/2023 13:12	MO	E1
Mercury, Total	ND	ND	mg/kg	0.051	SW846 7471B	1	04/07/2023 12:13	WDA	E
Nickel, Total	13.8		mg/kg	2.4	SW846 6020A	5	04/18/2023 13:12	MO	E1
Potassium, Total	572		mg/kg	48.2	SW846 6020A	5	04/18/2023 13:12	MO	E1
Selenium, Total	ND	ND	mg/kg	2.4	SW846 6020A	5	04/18/2023 13:12	MO	E1
Silver, Total	ND	ND	mg/kg	0.96	SW846 6020A	5	04/18/2023 13:12	MO	E1
Sodium, Total	49.4		mg/kg	48.2	SW846 6020A	5	04/18/2023 13:12	MO	E1
Thallium, Total	ND	ND	mg/kg	0.48	SW846 6020A	5	04/18/2023 13:12	MO	E1
Trivalent Chromium	9.0		mg/kg	2.2	Calculation	1	04/18/2023 14:51	CW	E
Vanadium, Total	12.0		mg/kg	0.96	SW846 6020A	5	04/18/2023 13:12	MO	E1
Zinc, Total	47.6		mg/kg	2.4	SW846 6020A	5	04/18/2023 13:12	MO	E1

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1-Trichloroethane	ND	ND	ug/kg	1.5	SW846 8260B	1	04/07/2023 02:35	PDK	B
1,1,2,2-Tetrachloroethane	ND	ND	ug/kg	1.5	SW846 8260B	1	04/07/2023 02:35	PDK	B
1,1,2-Trichloroethane	ND	ND	ug/kg	1.5	SW846 8260B	1	04/07/2023 02:35	PDK	B
1,1-Dichloroethane	ND	ND	ug/kg	1.5	SW846 8260B	1	04/07/2023 02:35	PDK	B
1,1-Dichloroethene	ND	ND	ug/kg	1.5	SW846 8260B	1	04/07/2023 02:35	PDK	B
1,2,3-Trichlorobenzene	ND	ND	ug/kg	3.7	SW846 8260B	1	04/07/2023 02:35	PDK	B
1,2,4-Trichlorobenzene	ND	ND	ug/kg	3.7	SW846 8260B	1	04/07/2023 02:35	PDK	B
1,2-Dibromo-3-chloropropane	ND	ND	ug/kg	3.7	SW846 8260B	1	04/07/2023 02:35	PDK	B
1,2-Dibromoethane	ND	ND	ug/kg	1.5	SW846 8260B	1	04/07/2023 02:35	PDK	B
1,2-Dichlorobenzene	ND	ND	ug/kg	1.5	SW846 8260B	1	04/07/2023 02:35	PDK	B
1,2-Dichloroethane	ND	ND	ug/kg	1.5	SW846 8260B	1	04/07/2023 02:35	PDK	B
1,2-Dichloropropane	ND	ND	ug/kg	1.5	SW846 8260B	1	04/07/2023 02:35	PDK	B
1,3-Dichlorobenzene	ND	ND	ug/kg	1.5	SW846 8260B	1	04/07/2023 02:35	PDK	B
1,4-Dichlorobenzene	ND	ND	ug/kg	1.5	SW846 8260B	1	04/07/2023 02:35	PDK	B
2-Butanone	ND	ND	ug/kg	7.4	SW846 8260B	1	04/07/2023 02:35	PDK	B
2-Chloroethylvinyl ether	ND	ND,2	ug/kg	111	SW846 8260B	1	04/07/2023 02:35	PDK	B
2-Hexanone	ND	ND	ug/kg	7.4	SW846 8260B	1	04/07/2023 02:35	PDK	B
4-Methyl-2-Pentanone(MIBK)	ND	ND	ug/kg	7.4	SW846 8260B	1	04/07/2023 02:35	PDK	B
Acetone	ND	ND	ug/kg	7.4	SW846 8260B	1	04/07/2023 02:35	PDK	B

Results

Client Sample ID	SB-02A-24-26-DUP	Collected	04/04/2023 10:00
Lab Sample ID	3296086005	Lab Receipt	04/05/2023 08:53

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Benzene	ND	ND	ug/kg	1.5	SW846 8260B	1	04/07/2023 02:35	PDK	B
Bromochloromethane	ND	ND	ug/kg	1.5	SW846 8260B	1	04/07/2023 02:35	PDK	B
Bromodichloromethane	ND	ND	ug/kg	1.5	SW846 8260B	1	04/07/2023 02:35	PDK	B
Bromoform	ND	ND	ug/kg	1.5	SW846 8260B	1	04/07/2023 02:35	PDK	B
Bromomethane	ND	ND	ug/kg	1.5	SW846 8260B	1	04/07/2023 02:35	PDK	B
Carbon Disulfide	ND	ND	ug/kg	1.5	SW846 8260B	1	04/07/2023 02:35	PDK	B
Carbon Tetrachloride	ND	ND	ug/kg	1.5	SW846 8260B	1	04/07/2023 02:35	PDK	B
Chlorobenzene	ND	ND	ug/kg	1.5	SW846 8260B	1	04/07/2023 02:35	PDK	B
Chlorodibromomethane	ND	ND	ug/kg	1.5	SW846 8260B	1	04/07/2023 02:35	PDK	B
Chloroethane	ND	ND	ug/kg	3.7	SW846 8260B	1	04/07/2023 02:35	PDK	B
Chloroform	ND	ND	ug/kg	1.5	SW846 8260B	1	04/07/2023 02:35	PDK	B
Chloromethane	ND	ND	ug/kg	1.5	SW846 8260B	1	04/07/2023 02:35	PDK	B
cis-1,2-Dichloroethene	ND	ND	ug/kg	1.5	SW846 8260B	1	04/07/2023 02:35	PDK	B
cis-1,3-Dichloropropene	ND	ND	ug/kg	1.5	SW846 8260B	1	04/07/2023 02:35	PDK	B
Cyclohexane	ND	ND	ug/kg	1.5	SW846 8260B	1	04/07/2023 02:35	PDK	B
Dichlorodifluoromethane	ND	ND	ug/kg	1.5	SW846 8260B	1	04/07/2023 02:35	PDK	B
Ethylbenzene	ND	ND	ug/kg	1.5	SW846 8260B	1	04/07/2023 02:35	PDK	B
Freon 113	ND	ND	ug/kg	1.5	SW846 8260B	1	04/07/2023 02:35	PDK	B
Isopropylbenzene	ND	ND	ug/kg	1.5	SW846 8260B	1	04/07/2023 02:35	PDK	B
Methyl acetate	ND	ND	ug/kg	1.5	SW846 8260B	1	04/07/2023 02:35	PDK	B
Methyl cyclohexane	ND	ND	ug/kg	1.5	SW846 8260B	1	04/07/2023 02:35	PDK	B
Methyl t-Butyl Ether	ND	ND,3	ug/kg	1.5	SW846 8260B	1	04/07/2023 02:35	PDK	B
Methylene Chloride	ND	ND	ug/kg	1.5	SW846 8260B	1	04/07/2023 02:35	PDK	B
mp-Xylene	ND	ND	ug/kg	3.0	SW846 8260B	1	04/07/2023 02:35	PDK	B
o-Xylene	ND	ND	ug/kg	1.5	SW846 8260B	1	04/07/2023 02:35	PDK	B
Styrene	ND	ND	ug/kg	1.5	SW846 8260B	1	04/07/2023 02:35	PDK	B
Tetrachloroethene	23.5		ug/kg	1.5	SW846 8260B	1	04/07/2023 02:35	PDK	B
Toluene	ND	ND	ug/kg	1.5	SW846 8260B	1	04/07/2023 02:35	PDK	B
Total Xylenes	ND	ND	ug/kg	4.4	SW846 8260B	1	04/07/2023 02:35	PDK	B
trans-1,2-Dichloroethene	ND	ND	ug/kg	1.5	SW846 8260B	1	04/07/2023 02:35	PDK	B
trans-1,3-Dichloropropene	ND	ND	ug/kg	1.5	SW846 8260B	1	04/07/2023 02:35	PDK	B
Trichloroethene	1.8		ug/kg	1.5	SW846 8260B	1	04/07/2023 02:35	PDK	B
Trichlorofluoromethane	ND	ND	ug/kg	1.5	SW846 8260B	1	04/07/2023 02:35	PDK	B
Vinyl Chloride	ND	ND	ug/kg	1.5	SW846 8260B	1	04/07/2023 02:35	PDK	B

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	111%	56 – 124	04/07/2023 02:35	
4-Bromofluorobenzene	460-00-4	106%	51 – 128	04/07/2023 02:35	
Dibromofluoromethane	1868-53-7	94.1%	62 – 123	04/07/2023 02:35	
Toluene-d8	2037-26-5	101%	59 – 131	04/07/2023 02:35	

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Hexavalent Chromium	ND	ND	mg/kg	2.2	SW846 7196A	1	04/07/2023 12:56	AKH	E

Results

Client Sample ID	SB-02A-24-26-DUP	Collected	04/04/2023 10:00
Lab Sample ID	3296086005	Lab Receipt	04/05/2023 08:53

WET CHEMISTRY (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Moisture	10.9		%	0.1	S2540G-11	1	04/07/2023 14:18	AKH	
Total Solids	89.1		%	0.1	S2540G-11	1	04/07/2023 14:18	AKH	

Results

Client Sample ID	SB-03A-0-2	Collected	04/03/2023 12:30
Lab Sample ID	3296086006	Lab Receipt	04/05/2023 08:53

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Aluminum, Total	18200		mg/kg	40.9	SW846 6020A	5	04/18/2023 13:14	MO	E
Antimony, Total	ND	ND	mg/kg	1.0	SW846 6020A	5	04/18/2023 13:14	MO	E
Arsenic, Total	2.8		mg/kg	1.5	SW846 6020A	5	04/18/2023 13:14	MO	E
Barium, Total	247		mg/kg	2.6	SW846 6020A	5	04/18/2023 13:14	MO	E
Beryllium, Total	2.9		mg/kg	0.51	SW846 6020A	5	04/18/2023 13:14	MO	E
Cadmium, Total	ND	ND	mg/kg	0.51	SW846 6020A	5	04/18/2023 13:14	MO	E
Calcium, Total	190000		mg/kg	512	SW846 6020A	50	04/18/2023 14:56	MO	E
Chromium, Total	7.2		mg/kg	1.0	SW846 6020A	5	04/18/2023 13:14	MO	E
Cobalt, Total	ND	ND	mg/kg	2.6	SW846 6020A	5	04/18/2023 13:14	MO	E
Copper, Total	5.0		mg/kg	2.6	SW846 6020A	5	04/18/2023 13:14	MO	E
Iron, Total	7770	6	mg/kg	25.6	SW846 6020A	5	04/18/2023 13:14	MO	E
Lead, Total	14.1		mg/kg	1.0	SW846 6020A	5	04/18/2023 13:14	MO	E
Magnesium, Total	11800		mg/kg	51.2	SW846 6020A	5	04/18/2023 13:14	MO	E
Manganese, Total	1210		mg/kg	2.6	SW846 6020A	5	04/18/2023 13:14	MO	E
Mercury, Total	ND	ND	mg/kg	0.055	SW846 7471B	1	04/07/2023 12:14	WDA	E
Nickel, Total	6.1		mg/kg	2.6	SW846 6020A	5	04/18/2023 13:14	MO	E
Potassium, Total	1470		mg/kg	51.2	SW846 6020A	5	04/18/2023 13:14	MO	E
Selenium, Total	ND	ND	mg/kg	2.6	SW846 6020A	5	04/18/2023 13:14	MO	E
Silver, Total	ND	ND	mg/kg	1.0	SW846 6020A	5	04/18/2023 13:14	MO	E
Sodium, Total	501		mg/kg	51.2	SW846 6020A	5	04/18/2023 13:14	MO	E
Thallium, Total	ND	ND	mg/kg	0.51	SW846 6020A	5	04/18/2023 13:14	MO	E
Trivalent Chromium	7.2		mg/kg	2.2	Calculation	1	04/18/2023 14:29	CW	E
Vanadium, Total	10.0		mg/kg	1.0	SW846 6020A	5	04/18/2023 13:14	MO	E
Zinc, Total	23.4		mg/kg	2.6	SW846 6020A	5	04/18/2023 13:14	MO	E

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1-Trichloroethane	ND	ND	ug/kg	1.6	SW846 8260B	1	04/07/2023 02:59	PDK	B
1,1,2,2-Tetrachloroethane	ND	ND	ug/kg	1.6	SW846 8260B	1	04/07/2023 02:59	PDK	B
1,1,2-Trichloroethane	ND	ND	ug/kg	1.6	SW846 8260B	1	04/07/2023 02:59	PDK	B
1,1-Dichloroethane	ND	ND	ug/kg	1.6	SW846 8260B	1	04/07/2023 02:59	PDK	B
1,1-Dichloroethene	ND	ND	ug/kg	1.6	SW846 8260B	1	04/07/2023 02:59	PDK	B
1,2,3-Trichlorobenzene	ND	ND	ug/kg	4.0	SW846 8260B	1	04/07/2023 02:59	PDK	B
1,2,4-Trichlorobenzene	ND	ND	ug/kg	4.0	SW846 8260B	1	04/07/2023 02:59	PDK	B
1,2-Dibromo-3-chloropropane	ND	ND	ug/kg	4.0	SW846 8260B	1	04/07/2023 02:59	PDK	B
1,2-Dibromoethane	ND	ND	ug/kg	1.6	SW846 8260B	1	04/07/2023 02:59	PDK	B
1,2-Dichlorobenzene	ND	ND	ug/kg	1.6	SW846 8260B	1	04/07/2023 02:59	PDK	B
1,2-Dichloroethane	ND	ND	ug/kg	1.6	SW846 8260B	1	04/07/2023 02:59	PDK	B
1,2-Dichloropropane	ND	ND	ug/kg	1.6	SW846 8260B	1	04/07/2023 02:59	PDK	B
1,3-Dichlorobenzene	ND	ND	ug/kg	1.6	SW846 8260B	1	04/07/2023 02:59	PDK	B
1,4-Dichlorobenzene	ND	ND	ug/kg	1.6	SW846 8260B	1	04/07/2023 02:59	PDK	B
2-Butanone	ND	ND	ug/kg	7.9	SW846 8260B	1	04/07/2023 02:59	PDK	B
2-Chloroethylvinyl ether	ND	ND,2	ug/kg	119	SW846 8260B	1	04/07/2023 02:59	PDK	B
2-Hexanone	ND	ND	ug/kg	7.9	SW846 8260B	1	04/07/2023 02:59	PDK	B
4-Methyl-2-Pentanone(MIBK)	ND	ND	ug/kg	7.9	SW846 8260B	1	04/07/2023 02:59	PDK	B
Acetone	14.5		ug/kg	7.9	SW846 8260B	1	04/07/2023 02:59	PDK	B

Results

Client Sample ID	SB-03A-0-2	Collected	04/03/2023 12:30
Lab Sample ID	3296086006	Lab Receipt	04/05/2023 08:53

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Benzene	ND	ND	ug/kg	1.6	SW846 8260B	1	04/07/2023 02:59	PDK	B
Bromochloromethane	ND	ND	ug/kg	1.6	SW846 8260B	1	04/07/2023 02:59	PDK	B
Bromodichloromethane	ND	ND	ug/kg	1.6	SW846 8260B	1	04/07/2023 02:59	PDK	B
Bromoform	ND	ND	ug/kg	1.6	SW846 8260B	1	04/07/2023 02:59	PDK	B
Bromomethane	ND	ND	ug/kg	1.6	SW846 8260B	1	04/07/2023 02:59	PDK	B
Carbon Disulfide	3.7		ug/kg	1.6	SW846 8260B	1	04/07/2023 02:59	PDK	B
Carbon Tetrachloride	ND	ND	ug/kg	1.6	SW846 8260B	1	04/07/2023 02:59	PDK	B
Chlorobenzene	ND	ND	ug/kg	1.6	SW846 8260B	1	04/07/2023 02:59	PDK	B
Chlorodibromomethane	ND	ND	ug/kg	1.6	SW846 8260B	1	04/07/2023 02:59	PDK	B
Chloroethane	ND	ND	ug/kg	4.0	SW846 8260B	1	04/07/2023 02:59	PDK	B
Chloroform	ND	ND	ug/kg	1.6	SW846 8260B	1	04/07/2023 02:59	PDK	B
Chloromethane	ND	ND	ug/kg	1.6	SW846 8260B	1	04/07/2023 02:59	PDK	B
cis-1,2-Dichloroethene	ND	ND	ug/kg	1.6	SW846 8260B	1	04/07/2023 02:59	PDK	B
cis-1,3-Dichloropropene	ND	ND	ug/kg	1.6	SW846 8260B	1	04/07/2023 02:59	PDK	B
Cyclohexane	ND	ND	ug/kg	1.6	SW846 8260B	1	04/07/2023 02:59	PDK	B
Dichlorodifluoromethane	ND	ND	ug/kg	1.6	SW846 8260B	1	04/07/2023 02:59	PDK	B
Ethylbenzene	ND	ND	ug/kg	1.6	SW846 8260B	1	04/07/2023 02:59	PDK	B
Freon 113	ND	ND	ug/kg	1.6	SW846 8260B	1	04/07/2023 02:59	PDK	B
Isopropylbenzene	ND	ND	ug/kg	1.6	SW846 8260B	1	04/07/2023 02:59	PDK	B
Methyl acetate	ND	ND	ug/kg	1.6	SW846 8260B	1	04/07/2023 02:59	PDK	B
Methyl cyclohexane	1.6		ug/kg	1.6	SW846 8260B	1	04/07/2023 02:59	PDK	B
Methyl t-Butyl Ether	ND	ND,3	ug/kg	1.6	SW846 8260B	1	04/07/2023 02:59	PDK	B
Methylene Chloride	ND	ND	ug/kg	1.6	SW846 8260B	1	04/07/2023 02:59	PDK	B
mp-Xylene	ND	ND	ug/kg	3.2	SW846 8260B	1	04/07/2023 02:59	PDK	B
o-Xylene	ND	ND	ug/kg	1.6	SW846 8260B	1	04/07/2023 02:59	PDK	B
Styrene	ND	ND	ug/kg	1.6	SW846 8260B	1	04/07/2023 02:59	PDK	B
Tetrachloroethene	3.7		ug/kg	1.6	SW846 8260B	1	04/07/2023 02:59	PDK	B
Toluene	ND	ND	ug/kg	1.6	SW846 8260B	1	04/07/2023 02:59	PDK	B
Total Xylenes	ND	ND	ug/kg	4.8	SW846 8260B	1	04/07/2023 02:59	PDK	B
trans-1,2-Dichloroethene	ND	ND	ug/kg	1.6	SW846 8260B	1	04/07/2023 02:59	PDK	B
trans-1,3-Dichloropropene	ND	ND	ug/kg	1.6	SW846 8260B	1	04/07/2023 02:59	PDK	B
Trichloroethene	ND	ND	ug/kg	1.6	SW846 8260B	1	04/07/2023 02:59	PDK	B
Trichlorofluoromethane	ND	ND	ug/kg	1.6	SW846 8260B	1	04/07/2023 02:59	PDK	B
Vinyl Chloride	ND	ND	ug/kg	1.6	SW846 8260B	1	04/07/2023 02:59	PDK	B

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	107%	56 – 124	04/07/2023 02:59	
4-Bromofluorobenzene	460-00-4	114%	51 – 128	04/07/2023 02:59	
Dibromofluoromethane	1868-53-7	91.5%	62 – 123	04/07/2023 02:59	
Toluene-d8	2037-26-5	102%	59 – 131	04/07/2023 02:59	

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Hexavalent Chromium	ND	ND	mg/kg	2.2	SW846 7196A	1	04/07/2023 12:56	AKH	E

Results

Client Sample ID	SB-03A-0-2	Collected	04/03/2023 12:30
Lab Sample ID	3296086006	Lab Receipt	04/05/2023 08:53

WET CHEMISTRY (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Moisture	10.2		%	0.1	S2540G-11	1	04/07/2023 14:18	AKH	
Total Solids	89.8		%	0.1	S2540G-11	1	04/07/2023 14:18	AKH	

Results

Client Sample ID	SB-03A-6-8	Collected	04/03/2023 12:40
Lab Sample ID	3296086007	Lab Receipt	04/05/2023 08:53

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Aluminum, Total	4000	12	mg/kg	38.0	SW846 6020A	5	04/18/2023 13:16	MO	E1
Antimony, Total	3.5	13,14,15	mg/kg	0.95	SW846 6020A	5	04/18/2023 13:16	MO	E1
Arsenic, Total	19.5	13,16,17	mg/kg	1.4	SW846 6020A	5	04/18/2023 13:16	MO	E1
Barium, Total	105	13,18,19	mg/kg	2.4	SW846 6020A	5	04/18/2023 13:16	MO	E1
Beryllium, Total	ND	ND	mg/kg	0.47	SW846 6020A	5	04/18/2023 13:16	MO	E1
Cadmium, Total	0.95		mg/kg	0.47	SW846 6020A	5	04/18/2023 13:16	MO	E1
Calcium, Total	127000		mg/kg	475	SW846 6020A	50	04/18/2023 14:59	MO	E1
Chromium, Total	192	12	mg/kg	0.95	SW846 6020A	5	04/18/2023 13:16	MO	E1
Cobalt, Total	16.6	20,21	mg/kg	2.4	SW846 6020A	5	04/18/2023 13:16	MO	E1
Copper, Total	380	12	mg/kg	2.4	SW846 6020A	5	04/18/2023 13:16	MO	E1
Iron, Total	171000	22	mg/kg	237	SW846 6020A	50	04/18/2023 14:59	MO	E1
Lead, Total	68.1	13,23,24,25	mg/kg	0.95	SW846 6020A	5	04/18/2023 13:16	MO	E1
Magnesium, Total	2720	12	mg/kg	47.5	SW846 6020A	5	04/18/2023 13:16	MO	E1
Manganese, Total	1070	12	mg/kg	2.4	SW846 6020A	5	04/18/2023 13:16	MO	E1
Mercury, Total	ND	ND	mg/kg	0.051	SW846 7471B	1	04/07/2023 12:15	WDA	E
Nickel, Total	134	12	mg/kg	2.4	SW846 6020A	5	04/18/2023 13:16	MO	E1
Potassium, Total	634	13,26,27	mg/kg	47.5	SW846 6020A	5	04/18/2023 13:16	MO	E1
Selenium, Total	ND	ND	mg/kg	2.4	SW846 6020A	5	04/18/2023 13:16	MO	E1
Silver, Total	ND	ND	mg/kg	0.95	SW846 6020A	5	04/18/2023 13:16	MO	E1
Sodium, Total	84.0		mg/kg	47.5	SW846 6020A	5	04/18/2023 13:16	MO	E1
Thallium, Total	ND	ND	mg/kg	0.47	SW846 6020A	5	04/18/2023 13:16	MO	E1
Trivalent Chromium	192		mg/kg	2.2	Calculation	1	04/18/2023 17:09	CW	E
Vanadium, Total	16.0		mg/kg	0.95	SW846 6020A	5	04/18/2023 13:16	MO	E1
Zinc, Total	58.3	28	mg/kg	2.4	SW846 6020A	5	04/18/2023 13:16	MO	E1

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1-Trichloroethane	ND	ND	ug/kg	0.96	SW846 8260B	1	04/11/2023 01:43	PDK	B
1,1,2,2-Tetrachloroethane	ND	ND	ug/kg	0.96	SW846 8260B	1	04/11/2023 01:43	PDK	B
1,1,2-Trichloroethane	ND	ND	ug/kg	0.96	SW846 8260B	1	04/11/2023 01:43	PDK	B
1,1-Dichloroethane	ND	ND	ug/kg	0.96	SW846 8260B	1	04/11/2023 01:43	PDK	B
1,1-Dichloroethene	ND	ND	ug/kg	0.96	SW846 8260B	1	04/11/2023 01:43	PDK	B
1,2,3-Trichlorobenzene	ND	ND	ug/kg	2.4	SW846 8260B	1	04/11/2023 01:43	PDK	B
1,2,4-Trichlorobenzene	ND	ND	ug/kg	2.4	SW846 8260B	1	04/11/2023 01:43	PDK	B
1,2-Dibromo-3-chloropropane	ND	ND	ug/kg	2.4	SW846 8260B	1	04/11/2023 01:43	PDK	B
1,2-Dibromoethane	ND	ND	ug/kg	0.96	SW846 8260B	1	04/11/2023 01:43	PDK	B
1,2-Dichlorobenzene	ND	ND	ug/kg	0.96	SW846 8260B	1	04/11/2023 01:43	PDK	B
1,2-Dichloroethane	ND	ND	ug/kg	0.96	SW846 8260B	1	04/11/2023 01:43	PDK	B
1,2-Dichloropropane	ND	ND	ug/kg	0.96	SW846 8260B	1	04/11/2023 01:43	PDK	B
1,3-Dichlorobenzene	ND	ND	ug/kg	0.96	SW846 8260B	1	04/11/2023 01:43	PDK	B
1,4-Dichlorobenzene	ND	ND	ug/kg	0.96	SW846 8260B	1	04/11/2023 01:43	PDK	B
2-Butanone	ND	ND	ug/kg	4.8	SW846 8260B	1	04/11/2023 01:43	PDK	B
2-Chloroethylvinyl ether	ND	ND	ug/kg	72.2	SW846 8260B	1	04/11/2023 01:43	PDK	B
2-Hexanone	ND	ND	ug/kg	4.8	SW846 8260B	1	04/11/2023 01:43	PDK	B
4-Methyl-2-Pentanone(MIBK)	ND	ND	ug/kg	4.8	SW846 8260B	1	04/11/2023 01:43	PDK	B

Results

Client Sample ID	SB-03A-6-8	Collected	04/03/2023 12:40
Lab Sample ID	3296086007	Lab Receipt	04/05/2023 08:53

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Acetone	ND	ND	ug/kg	4.8	SW846 8260B	1	04/11/2023 01:43	PDK	B
Benzene	ND	ND	ug/kg	0.96	SW846 8260B	1	04/11/2023 01:43	PDK	B
Bromochloromethane	ND	ND	ug/kg	0.96	SW846 8260B	1	04/11/2023 01:43	PDK	B
Bromodichloromethane	ND	ND	ug/kg	0.96	SW846 8260B	1	04/11/2023 01:43	PDK	B
Bromoform	ND	ND	ug/kg	0.96	SW846 8260B	1	04/11/2023 01:43	PDK	B
Bromomethane	ND	ND	ug/kg	0.96	SW846 8260B	1	04/11/2023 01:43	PDK	B
Carbon Disulfide	ND	ND	ug/kg	0.96	SW846 8260B	1	04/11/2023 01:43	PDK	B
Carbon Tetrachloride	ND	ND	ug/kg	0.96	SW846 8260B	1	04/11/2023 01:43	PDK	B
Chlorobenzene	ND	ND	ug/kg	0.96	SW846 8260B	1	04/11/2023 01:43	PDK	B
Chlorodibromomethane	ND	ND	ug/kg	0.96	SW846 8260B	1	04/11/2023 01:43	PDK	B
Chloroethane	ND	ND	ug/kg	2.4	SW846 8260B	1	04/11/2023 01:43	PDK	B
Chloroform	ND	ND	ug/kg	0.96	SW846 8260B	1	04/11/2023 01:43	PDK	B
Chloromethane	ND	ND	ug/kg	0.96	SW846 8260B	1	04/11/2023 01:43	PDK	B
cis-1,2-Dichloroethene	ND	ND	ug/kg	0.96	SW846 8260B	1	04/11/2023 01:43	PDK	B
cis-1,3-Dichloropropene	ND	ND	ug/kg	0.96	SW846 8260B	1	04/11/2023 01:43	PDK	B
Cyclohexane	ND	ND	ug/kg	0.96	SW846 8260B	1	04/11/2023 01:43	PDK	B
Dichlorodifluoromethane	ND	ND	ug/kg	0.96	SW846 8260B	1	04/11/2023 01:43	PDK	B
Ethylbenzene	ND	ND	ug/kg	0.96	SW846 8260B	1	04/11/2023 01:43	PDK	B
Freon 113	ND	ND,7,8	ug/kg	0.96	SW846 8260B	1	04/11/2023 01:43	PDK	B
Isopropylbenzene	ND	ND	ug/kg	0.96	SW846 8260B	1	04/11/2023 01:43	PDK	B
Methyl acetate	ND	ND,9	ug/kg	0.96	SW846 8260B	1	04/11/2023 01:43	PDK	B
Methyl cyclohexane	ND	ND	ug/kg	0.96	SW846 8260B	1	04/11/2023 01:43	PDK	B
Methyl t-Butyl Ether	ND	ND,10,11	ug/kg	0.96	SW846 8260B	1	04/11/2023 01:43	PDK	B
Methylene Chloride	ND	ND	ug/kg	0.96	SW846 8260B	1	04/11/2023 01:43	PDK	B
mp-Xylene	ND	ND	ug/kg	1.9	SW846 8260B	1	04/11/2023 01:43	PDK	B
o-Xylene	ND	ND	ug/kg	0.96	SW846 8260B	1	04/11/2023 01:43	PDK	B
Styrene	ND	ND	ug/kg	0.96	SW846 8260B	1	04/11/2023 01:43	PDK	B
Tetrachloroethene	ND	ND	ug/kg	0.96	SW846 8260B	1	04/11/2023 01:43	PDK	B
Toluene	ND	ND	ug/kg	0.96	SW846 8260B	1	04/11/2023 01:43	PDK	B
Total Xylenes	ND	ND	ug/kg	2.9	SW846 8260B	1	04/11/2023 01:43	PDK	B
trans-1,2-Dichloroethene	ND	ND	ug/kg	0.96	SW846 8260B	1	04/11/2023 01:43	PDK	B
trans-1,3-Dichloropropene	ND	ND	ug/kg	0.96	SW846 8260B	1	04/11/2023 01:43	PDK	B
Trichloroethene	ND	ND	ug/kg	0.96	SW846 8260B	1	04/11/2023 01:43	PDK	B
Trichlorofluoromethane	ND	ND	ug/kg	0.96	SW846 8260B	1	04/11/2023 01:43	PDK	B
Vinyl Chloride	ND	ND	ug/kg	0.96	SW846 8260B	1	04/11/2023 01:43	PDK	B

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	106%	56 – 124	04/11/2023 01:43	
4-Bromofluorobenzene	460-00-4	112%	51 – 128	04/11/2023 01:43	
Dibromofluoromethane	1868-53-7	96%	62 – 123	04/11/2023 01:43	
Toluene-d8	2037-26-5	101%	59 – 131	04/11/2023 01:43	

WET CHEMISTRY

Results

Client Sample ID	SB-03A-6-8	Collected	04/03/2023 12:40
Lab Sample ID	3296086007	Lab Receipt	04/05/2023 08:53

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Hexavalent Chromium	ND	ND	mg/kg	2.2	SW846 7196A	1	04/07/2023 12:56	AKH	E
Moisture	10.8		%	0.1	S2540G-11	1	04/07/2023 14:18	AKH	
Total Solids	89.2		%	0.1	S2540G-11	1	04/07/2023 14:18	AKH	

Results

Client Sample ID	SB-04A-0-2	Collected	04/04/2023 10:50
Lab Sample ID	3296086008	Lab Receipt	04/05/2023 08:53

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Aluminum, Total	6600	S2	mg/kg	42.8	SW846 6020A	5	04/18/2023 13:40	MO	E1
Antimony, Total	ND	ND,S2	mg/kg	1.1	SW846 6020A	5	04/18/2023 13:40	MO	E1
Arsenic, Total	5.5	S2	mg/kg	1.6	SW846 6020A	5	04/18/2023 13:40	MO	E1
Barium, Total	105	S2	mg/kg	2.7	SW846 6020A	5	04/18/2023 13:40	MO	E1
Beryllium, Total	ND	ND,S2	mg/kg	0.54	SW846 6020A	5	04/18/2023 13:40	MO	E1
Cadmium, Total	ND	ND,S2	mg/kg	0.54	SW846 6020A	5	04/18/2023 13:40	MO	E1
Calcium, Total	51200	S2	mg/kg	53.5	SW846 6020A	5	04/18/2023 13:40	MO	E1
Chromium, Total	11.1	S2	mg/kg	1.1	SW846 6020A	5	04/18/2023 13:40	MO	E1
Cobalt, Total	4.7	S2	mg/kg	2.7	SW846 6020A	5	04/18/2023 13:40	MO	E1
Copper, Total	13.6	S2	mg/kg	2.7	SW846 6020A	5	04/18/2023 13:40	MO	E1
Iron, Total	16000	6,S2	mg/kg	26.8	SW846 6020A	5	04/18/2023 13:40	MO	E1
Lead, Total	45.9	S2	mg/kg	1.1	SW846 6020A	5	04/18/2023 13:40	MO	E1
Magnesium, Total	2100	S2	mg/kg	53.5	SW846 6020A	5	04/18/2023 13:40	MO	E1
Manganese, Total	428	S2	mg/kg	2.7	SW846 6020A	5	04/18/2023 13:40	MO	E1
Mercury, Total	0.13	S2	mg/kg	0.046	SW846 7471B	1	04/07/2023 12:21	WDA	E
Nickel, Total	11.2	S2	mg/kg	2.7	SW846 6020A	5	04/18/2023 13:40	MO	E1
Potassium, Total	711	S2	mg/kg	53.5	SW846 6020A	5	04/18/2023 13:40	MO	E1
Selenium, Total	ND	ND,S2	mg/kg	2.7	SW846 6020A	5	04/18/2023 13:40	MO	E1
Silver, Total	ND	ND,S2	mg/kg	1.1	SW846 6020A	5	04/18/2023 13:40	MO	E1
Sodium, Total	166	S2	mg/kg	53.5	SW846 6020A	5	04/18/2023 13:40	MO	E1
Thallium, Total	ND	ND,S2	mg/kg	0.54	SW846 6020A	5	04/18/2023 13:40	MO	E1
Trivalent Chromium	11.1	S2	mg/kg	2.2	Calculation	1	04/18/2023 17:01	CW	E
Vanadium, Total	13.3	S2	mg/kg	1.1	SW846 6020A	5	04/18/2023 13:40	MO	E1
Zinc, Total	30.2	S2	mg/kg	2.7	SW846 6020A	5	04/18/2023 13:40	MO	E1

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1-Trichloroethane	ND	ND,S2	ug/kg	2.2	SW846 8260B	1	04/11/2023 03:46	VLM	D1
1,1,2,2-Tetrachloroethane	ND	ND,S2	ug/kg	2.2	SW846 8260B	1	04/11/2023 03:46	VLM	D1
1,1,2-Trichloroethane	ND	ND,S2	ug/kg	2.2	SW846 8260B	1	04/11/2023 03:46	VLM	D1
1,1-Dichloroethane	ND	ND,S2	ug/kg	2.2	SW846 8260B	1	04/11/2023 03:46	VLM	D1
1,1-Dichloroethene	ND	ND,S2	ug/kg	2.2	SW846 8260B	1	04/11/2023 03:46	VLM	D1
1,2,3-Trichlorobenzene	ND	ND,S2	ug/kg	5.4	SW846 8260B	1	04/11/2023 03:46	VLM	D1
1,2,4-Trichlorobenzene	ND	ND,S2	ug/kg	5.4	SW846 8260B	1	04/11/2023 03:46	VLM	D1
1,2-Dibromo-3-chloropropane	ND	ND,S2	ug/kg	5.4	SW846 8260B	1	04/11/2023 03:46	VLM	D1
1,2-Dibromoethane	ND	ND,S2	ug/kg	2.2	SW846 8260B	1	04/11/2023 03:46	VLM	D1
1,2-Dichlorobenzene	ND	ND,S2	ug/kg	2.2	SW846 8260B	1	04/11/2023 03:46	VLM	D1
1,2-Dichloroethane	ND	ND,S2	ug/kg	2.2	SW846 8260B	1	04/11/2023 03:46	VLM	D1
1,2-Dichloropropane	ND	ND,S2	ug/kg	2.2	SW846 8260B	1	04/11/2023 03:46	VLM	D1
1,3-Dichlorobenzene	ND	ND,S2	ug/kg	2.2	SW846 8260B	1	04/11/2023 03:46	VLM	D1
1,4-Dichlorobenzene	ND	ND,S2	ug/kg	2.2	SW846 8260B	1	04/11/2023 03:46	VLM	D1
2-Butanone	ND	ND,S2	ug/kg	10.9	SW846 8260B	1	04/11/2023 03:46	VLM	D1
2-Chloroethylvinyl ether	ND	ND,S2	ug/kg	163	SW846 8260B	1	04/11/2023 03:46	VLM	D1
2-Hexanone	ND	ND,S2	ug/kg	10.9	SW846 8260B	1	04/11/2023 03:46	VLM	D1
4-Methyl-2-Pentanone(MIBK)	ND	ND,S2	ug/kg	10.9	SW846 8260B	1	04/11/2023 03:46	VLM	D1
Acetone	16.0	S2	ug/kg	10.9	SW846 8260B	1	04/11/2023 03:46	VLM	D1

Results

Client Sample ID	SB-04A-0-2	Collected	04/04/2023 10:50
Lab Sample ID	3296086008	Lab Receipt	04/05/2023 08:53

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Benzene	ND	ND,S2	ug/kg	2.2	SW846 8260B	1	04/11/2023 03:46	VLM	D1
Bromochloromethane	ND	ND,S2	ug/kg	2.2	SW846 8260B	1	04/11/2023 03:46	VLM	D1
Bromodichloromethane	ND	ND,S2	ug/kg	2.2	SW846 8260B	1	04/11/2023 03:46	VLM	D1
Bromoform	ND	ND,S2	ug/kg	2.2	SW846 8260B	1	04/11/2023 03:46	VLM	D1
Bromomethane	ND	ND,S2	ug/kg	2.2	SW846 8260B	1	04/11/2023 03:46	VLM	D1
Carbon Disulfide	ND	ND,S2	ug/kg	2.2	SW846 8260B	1	04/11/2023 03:46	VLM	D1
Carbon Tetrachloride	ND	ND,S2	ug/kg	2.2	SW846 8260B	1	04/11/2023 03:46	VLM	D1
Chlorobenzene	ND	ND,S2	ug/kg	2.2	SW846 8260B	1	04/11/2023 03:46	VLM	D1
Chlorodibromomethane	ND	ND,S2	ug/kg	2.2	SW846 8260B	1	04/11/2023 03:46	VLM	D1
Chloroethane	ND	ND,S2	ug/kg	5.4	SW846 8260B	1	04/11/2023 03:46	VLM	D1
Chloroform	ND	ND,S2	ug/kg	2.2	SW846 8260B	1	04/11/2023 03:46	VLM	D1
Chloromethane	ND	ND,S2	ug/kg	2.2	SW846 8260B	1	04/11/2023 03:46	VLM	D1
cis-1,2-Dichloroethene	ND	ND,S2	ug/kg	2.2	SW846 8260B	1	04/11/2023 03:46	VLM	D1
cis-1,3-Dichloropropene	ND	ND,S2	ug/kg	2.2	SW846 8260B	1	04/11/2023 03:46	VLM	D1
Cyclohexane	ND	ND,S2	ug/kg	2.2	SW846 8260B	1	04/11/2023 03:46	VLM	D1
Dichlorodifluoromethane	ND	ND,S2	ug/kg	2.2	SW846 8260B	1	04/11/2023 03:46	VLM	D1
Ethylbenzene	ND	ND,S2	ug/kg	2.2	SW846 8260B	1	04/11/2023 03:46	VLM	D1
Freon 113	ND	ND,7,8,S2	ug/kg	2.2	SW846 8260B	1	04/11/2023 03:46	VLM	D1
Isopropylbenzene	ND	ND,S2	ug/kg	2.2	SW846 8260B	1	04/11/2023 03:46	VLM	D1
Methyl acetate	ND	ND,9,S2	ug/kg	2.2	SW846 8260B	1	04/11/2023 03:46	VLM	D1
Methyl cyclohexane	ND	ND,S2	ug/kg	2.2	SW846 8260B	1	04/11/2023 03:46	VLM	D1
Methyl t-Butyl Ether	ND	ND,10,11,S2	ug/kg	2.2	SW846 8260B	1	04/11/2023 03:46	VLM	D1
Methylene Chloride	3.4	S2	ug/kg	2.2	SW846 8260B	1	04/11/2023 03:46	VLM	D1
mp-Xylene	ND	ND,S2	ug/kg	4.3	SW846 8260B	1	04/11/2023 03:46	VLM	D1
o-Xylene	ND	ND,S2	ug/kg	2.2	SW846 8260B	1	04/11/2023 03:46	VLM	D1
Styrene	ND	ND,S2	ug/kg	2.2	SW846 8260B	1	04/11/2023 03:46	VLM	D1
Tetrachloroethene	10.9	S2	ug/kg	2.2	SW846 8260B	1	04/11/2023 03:46	VLM	D1
Toluene	ND	ND,S2	ug/kg	2.2	SW846 8260B	1	04/11/2023 03:46	VLM	D1
Total Xylenes	ND	ND,S2	ug/kg	6.5	SW846 8260B	1	04/11/2023 03:46	VLM	D1
trans-1,2-Dichloroethene	ND	ND,S2	ug/kg	2.2	SW846 8260B	1	04/11/2023 03:46	VLM	D1
trans-1,3-Dichloropropene	ND	ND,S2	ug/kg	2.2	SW846 8260B	1	04/11/2023 03:46	VLM	D1
Trichloroethene	ND	ND,S2	ug/kg	2.2	SW846 8260B	1	04/11/2023 03:46	VLM	D1
Trichlorofluoromethane	ND	ND,S2	ug/kg	2.2	SW846 8260B	1	04/11/2023 03:46	VLM	D1
Vinyl Chloride	ND	ND,S2	ug/kg	2.2	SW846 8260B	1	04/11/2023 03:46	VLM	D1

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	102%	56 – 124	04/11/2023 03:46	
4-Bromofluorobenzene	460-00-4	101%	51 – 128	04/11/2023 03:46	
Dibromofluoromethane	1868-53-7	84.1%	62 – 123	04/11/2023 03:46	
Toluene-d8	2037-26-5	95.3%	59 – 131	04/11/2023 03:46	

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr

Results

Client Sample ID	SB-04A-0-2	Collected	04/04/2023 10:50
Lab Sample ID	3296086008	Lab Receipt	04/05/2023 08:53

WET CHEMISTRY (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Hexavalent Chromium	ND	ND,S2	mg/kg	2.2	SW846 7196A	1	04/07/2023 12:56	AKH	E
Moisture	10.0	S2	%	0.1	S2540G-11	1	04/07/2023 14:18	AKH	
Total Solids	90.0	S2	%	0.1	S2540G-11	1	04/07/2023 14:18	AKH	

Results

Client Sample ID	SB-04A-14-16	Collected	04/04/2023 11:00
Lab Sample ID	3296086009	Lab Receipt	04/05/2023 08:53

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Aluminum, Total	5330		mg/kg	46.2	SW846 6020A	5	04/18/2023 13:42	MO	E1
Antimony, Total	ND	ND	mg/kg	1.2	SW846 6020A	5	04/18/2023 13:42	MO	E1
Arsenic, Total	10.5		mg/kg	1.7	SW846 6020A	5	04/18/2023 13:42	MO	E1
Barium, Total	56.8		mg/kg	2.9	SW846 6020A	5	04/18/2023 13:42	MO	E1
Beryllium, Total	0.63		mg/kg	0.58	SW846 6020A	5	04/18/2023 13:42	MO	E1
Cadmium, Total	ND	ND	mg/kg	0.58	SW846 6020A	5	04/18/2023 13:42	MO	E1
Calcium, Total	406		mg/kg	57.8	SW846 6020A	5	04/18/2023 13:42	MO	E1
Chromium, Total	11.1		mg/kg	1.2	SW846 6020A	5	04/18/2023 13:42	MO	E1
Cobalt, Total	7.9		mg/kg	2.9	SW846 6020A	5	04/18/2023 13:42	MO	E1
Copper, Total	10.2		mg/kg	2.9	SW846 6020A	5	04/18/2023 13:42	MO	E1
Iron, Total	26200	6	mg/kg	28.9	SW846 6020A	5	04/18/2023 13:42	MO	E1
Lead, Total	9.6		mg/kg	1.2	SW846 6020A	5	04/18/2023 13:42	MO	E1
Magnesium, Total	1030		mg/kg	57.8	SW846 6020A	5	04/18/2023 13:42	MO	E1
Manganese, Total	485		mg/kg	2.9	SW846 6020A	5	04/18/2023 13:42	MO	E1
Mercury, Total	ND	ND	mg/kg	0.058	SW846 7471B	1	04/07/2023 12:22	WDA	E
Nickel, Total	15.0		mg/kg	2.9	SW846 6020A	5	04/18/2023 13:42	MO	E1
Potassium, Total	856		mg/kg	57.8	SW846 6020A	5	04/18/2023 13:42	MO	E1
Selenium, Total	ND	ND	mg/kg	2.9	SW846 6020A	5	04/18/2023 13:42	MO	E1
Silver, Total	ND	ND	mg/kg	1.2	SW846 6020A	5	04/18/2023 13:42	MO	E1
Sodium, Total	ND	ND	mg/kg	57.8	SW846 6020A	5	04/18/2023 13:42	MO	E1
Thallium, Total	ND	ND	mg/kg	0.58	SW846 6020A	5	04/18/2023 13:42	MO	E1
Trivalent Chromium	11.0		mg/kg	2.5	Calculation	1	04/18/2023 17:02	CW	E
Vanadium, Total	15.3		mg/kg	1.2	SW846 6020A	5	04/18/2023 13:42	MO	E1
Zinc, Total	53.2		mg/kg	2.9	SW846 6020A	5	04/18/2023 13:42	MO	E1

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1-Trichloroethane	ND	ND	ug/kg	1.4	SW846 8260B	1	04/07/2023 04:13	PDK	B
1,1,2,2-Tetrachloroethane	ND	ND	ug/kg	1.4	SW846 8260B	1	04/07/2023 04:13	PDK	B
1,1,2-Trichloroethane	ND	ND	ug/kg	1.4	SW846 8260B	1	04/07/2023 04:13	PDK	B
1,1-Dichloroethane	ND	ND	ug/kg	1.4	SW846 8260B	1	04/07/2023 04:13	PDK	B
1,1-Dichloroethene	ND	ND	ug/kg	1.4	SW846 8260B	1	04/07/2023 04:13	PDK	B
1,2,3-Trichlorobenzene	ND	ND	ug/kg	3.4	SW846 8260B	1	04/07/2023 04:13	PDK	B
1,2,4-Trichlorobenzene	ND	ND	ug/kg	3.4	SW846 8260B	1	04/07/2023 04:13	PDK	B
1,2-Dibromo-3-chloropropane	ND	ND	ug/kg	3.4	SW846 8260B	1	04/07/2023 04:13	PDK	B
1,2-Dibromoethane	ND	ND	ug/kg	1.4	SW846 8260B	1	04/07/2023 04:13	PDK	B
1,2-Dichlorobenzene	ND	ND	ug/kg	1.4	SW846 8260B	1	04/07/2023 04:13	PDK	B
1,2-Dichloroethane	ND	ND	ug/kg	1.4	SW846 8260B	1	04/07/2023 04:13	PDK	B
1,2-Dichloropropane	ND	ND	ug/kg	1.4	SW846 8260B	1	04/07/2023 04:13	PDK	B
1,3-Dichlorobenzene	ND	ND	ug/kg	1.4	SW846 8260B	1	04/07/2023 04:13	PDK	B
1,4-Dichlorobenzene	ND	ND	ug/kg	1.4	SW846 8260B	1	04/07/2023 04:13	PDK	B
2-Butanone	ND	ND	ug/kg	6.8	SW846 8260B	1	04/07/2023 04:13	PDK	B
2-Chloroethylvinyl ether	ND	ND,2	ug/kg	102	SW846 8260B	1	04/07/2023 04:13	PDK	B
2-Hexanone	ND	ND	ug/kg	6.8	SW846 8260B	1	04/07/2023 04:13	PDK	B
4-Methyl-2-Pentanone(MIBK)	ND	ND	ug/kg	6.8	SW846 8260B	1	04/07/2023 04:13	PDK	B
Acetone	ND	ND	ug/kg	6.8	SW846 8260B	1	04/07/2023 04:13	PDK	B

Results

Client Sample ID	SB-04A-14-16	Collected	04/04/2023 11:00
Lab Sample ID	3296086009	Lab Receipt	04/05/2023 08:53

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Benzene	ND	ND	ug/kg	1.4	SW846 8260B	1	04/07/2023 04:13	PDK	B
Bromochloromethane	ND	ND	ug/kg	1.4	SW846 8260B	1	04/07/2023 04:13	PDK	B
Bromodichloromethane	ND	ND	ug/kg	1.4	SW846 8260B	1	04/07/2023 04:13	PDK	B
Bromoform	ND	ND	ug/kg	1.4	SW846 8260B	1	04/07/2023 04:13	PDK	B
Bromomethane	ND	ND	ug/kg	1.4	SW846 8260B	1	04/07/2023 04:13	PDK	B
Carbon Disulfide	ND	ND	ug/kg	1.4	SW846 8260B	1	04/07/2023 04:13	PDK	B
Carbon Tetrachloride	ND	ND	ug/kg	1.4	SW846 8260B	1	04/07/2023 04:13	PDK	B
Chlorobenzene	ND	ND	ug/kg	1.4	SW846 8260B	1	04/07/2023 04:13	PDK	B
Chlorodibromomethane	ND	ND	ug/kg	1.4	SW846 8260B	1	04/07/2023 04:13	PDK	B
Chloroethane	ND	ND	ug/kg	3.4	SW846 8260B	1	04/07/2023 04:13	PDK	B
Chloroform	ND	ND	ug/kg	1.4	SW846 8260B	1	04/07/2023 04:13	PDK	B
Chloromethane	ND	ND	ug/kg	1.4	SW846 8260B	1	04/07/2023 04:13	PDK	B
cis-1,2-Dichloroethene	ND	ND	ug/kg	1.4	SW846 8260B	1	04/07/2023 04:13	PDK	B
cis-1,3-Dichloropropene	ND	ND	ug/kg	1.4	SW846 8260B	1	04/07/2023 04:13	PDK	B
Cyclohexane	ND	ND	ug/kg	1.4	SW846 8260B	1	04/07/2023 04:13	PDK	B
Dichlorodifluoromethane	ND	ND	ug/kg	1.4	SW846 8260B	1	04/07/2023 04:13	PDK	B
Ethylbenzene	ND	ND	ug/kg	1.4	SW846 8260B	1	04/07/2023 04:13	PDK	B
Freon 113	ND	ND	ug/kg	1.4	SW846 8260B	1	04/07/2023 04:13	PDK	B
Isopropylbenzene	ND	ND	ug/kg	1.4	SW846 8260B	1	04/07/2023 04:13	PDK	B
Methyl acetate	ND	ND	ug/kg	1.4	SW846 8260B	1	04/07/2023 04:13	PDK	B
Methyl cyclohexane	ND	ND	ug/kg	1.4	SW846 8260B	1	04/07/2023 04:13	PDK	B
Methyl t-Butyl Ether	ND	ND,3	ug/kg	1.4	SW846 8260B	1	04/07/2023 04:13	PDK	B
Methylene Chloride	ND	ND	ug/kg	1.4	SW846 8260B	1	04/07/2023 04:13	PDK	B
mp-Xylene	ND	ND	ug/kg	2.7	SW846 8260B	1	04/07/2023 04:13	PDK	B
o-Xylene	ND	ND	ug/kg	1.4	SW846 8260B	1	04/07/2023 04:13	PDK	B
Styrene	ND	ND	ug/kg	1.4	SW846 8260B	1	04/07/2023 04:13	PDK	B
Tetrachloroethene	ND	ND	ug/kg	1.4	SW846 8260B	1	04/07/2023 04:13	PDK	B
Toluene	ND	ND	ug/kg	1.4	SW846 8260B	1	04/07/2023 04:13	PDK	B
Total Xylenes	ND	ND	ug/kg	4.1	SW846 8260B	1	04/07/2023 04:13	PDK	B
trans-1,2-Dichloroethene	ND	ND	ug/kg	1.4	SW846 8260B	1	04/07/2023 04:13	PDK	B
trans-1,3-Dichloropropene	ND	ND	ug/kg	1.4	SW846 8260B	1	04/07/2023 04:13	PDK	B
Trichloroethene	ND	ND	ug/kg	1.4	SW846 8260B	1	04/07/2023 04:13	PDK	B
Trichlorofluoromethane	ND	ND	ug/kg	1.4	SW846 8260B	1	04/07/2023 04:13	PDK	B
Vinyl Chloride	ND	ND	ug/kg	1.4	SW846 8260B	1	04/07/2023 04:13	PDK	B

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	113%	56 – 124	04/07/2023 04:13	
4-Bromofluorobenzene	460-00-4	108%	51 – 128	04/07/2023 04:13	
Dibromofluoromethane	1868-53-7	95.1%	62 – 123	04/07/2023 04:13	
Toluene-d8	2037-26-5	103%	59 – 131	04/07/2023 04:13	

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Hexavalent Chromium	ND	ND	mg/kg	2.5	SW846 7196A	1	04/07/2023 12:56	AKH	E

Results

Client Sample ID	SB-04A-14-16	Collected	04/04/2023 11:00
Lab Sample ID	3296086009	Lab Receipt	04/05/2023 08:53

WET CHEMISTRY (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Moisture	18.3		%	0.1	S2540G-11	1	04/07/2023 14:18	AKH	
Total Solids	81.7		%	0.1	S2540G-11	1	04/07/2023 14:18	AKH	

Results

Client Sample ID	SB-05A-0-2	Collected	04/03/2023 13:30
Lab Sample ID	3296086010	Lab Receipt	04/05/2023 08:53

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Aluminum, Total	10000		mg/kg	42.7	SW846 6020A	5	04/18/2023 13:44	MO	E1
Antimony, Total	ND	ND	mg/kg	1.1	SW846 6020A	5	04/18/2023 13:44	MO	E1
Arsenic, Total	10.1		mg/kg	1.6	SW846 6020A	5	04/18/2023 13:44	MO	E1
Barium, Total	146		mg/kg	2.7	SW846 6020A	5	04/18/2023 13:44	MO	E1
Beryllium, Total	1.3		mg/kg	0.53	SW846 6020A	5	04/18/2023 13:44	MO	E1
Cadmium, Total	ND	ND	mg/kg	0.53	SW846 6020A	5	04/18/2023 13:44	MO	E1
Calcium, Total	45600		mg/kg	53.4	SW846 6020A	5	04/18/2023 13:44	MO	E1
Chromium, Total	13.1		mg/kg	1.1	SW846 6020A	5	04/18/2023 13:44	MO	E1
Cobalt, Total	7.3		mg/kg	2.7	SW846 6020A	5	04/18/2023 13:44	MO	E1
Copper, Total	30.0		mg/kg	2.7	SW846 6020A	5	04/18/2023 13:44	MO	E1
Iron, Total	22300	6	mg/kg	26.7	SW846 6020A	5	04/18/2023 13:44	MO	E1
Lead, Total	135		mg/kg	1.1	SW846 6020A	5	04/18/2023 13:44	MO	E1
Magnesium, Total	5800		mg/kg	53.4	SW846 6020A	5	04/18/2023 13:44	MO	E1
Manganese, Total	831		mg/kg	2.7	SW846 6020A	5	04/18/2023 13:44	MO	E1
Mercury, Total	ND	ND	mg/kg	0.048	SW846 7471B	1	04/07/2023 12:23	WDA	E
Nickel, Total	16.7		mg/kg	2.7	SW846 6020A	5	04/18/2023 13:44	MO	E1
Potassium, Total	1090		mg/kg	53.4	SW846 6020A	5	04/18/2023 13:44	MO	E1
Selenium, Total	ND	ND	mg/kg	2.7	SW846 6020A	5	04/18/2023 13:44	MO	E1
Silver, Total	ND	ND	mg/kg	1.1	SW846 6020A	5	04/18/2023 13:44	MO	E1
Sodium, Total	167		mg/kg	53.4	SW846 6020A	5	04/18/2023 13:44	MO	E1
Thallium, Total	ND	ND	mg/kg	0.53	SW846 6020A	5	04/18/2023 13:44	MO	E1
Trivalent Chromium	13.1		mg/kg	2.2	Calculation	1	04/18/2023 17:03	CW	E
Vanadium, Total	16.2		mg/kg	1.1	SW846 6020A	5	04/18/2023 13:44	MO	E1
Zinc, Total	112		mg/kg	2.7	SW846 6020A	5	04/18/2023 13:44	MO	E1

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1-Trichloroethane	ND	ND	ug/kg	1.3	SW846 8260B	1	04/11/2023 02:08	PDK	B
1,1,2,2-Tetrachloroethane	ND	ND	ug/kg	1.3	SW846 8260B	1	04/11/2023 02:08	PDK	B
1,1,2-Trichloroethane	ND	ND	ug/kg	1.3	SW846 8260B	1	04/11/2023 02:08	PDK	B
1,1-Dichloroethane	ND	ND	ug/kg	1.3	SW846 8260B	1	04/11/2023 02:08	PDK	B
1,1-Dichloroethene	ND	ND	ug/kg	1.3	SW846 8260B	1	04/11/2023 02:08	PDK	B
1,2,3-Trichlorobenzene	ND	ND	ug/kg	3.2	SW846 8260B	1	04/11/2023 02:08	PDK	B
1,2,4-Trichlorobenzene	ND	ND	ug/kg	3.2	SW846 8260B	1	04/11/2023 02:08	PDK	B
1,2-Dibromo-3-chloropropane	ND	ND	ug/kg	3.2	SW846 8260B	1	04/11/2023 02:08	PDK	B
1,2-Dibromoethane	ND	ND	ug/kg	1.3	SW846 8260B	1	04/11/2023 02:08	PDK	B
1,2-Dichlorobenzene	ND	ND	ug/kg	1.3	SW846 8260B	1	04/11/2023 02:08	PDK	B
1,2-Dichloroethane	ND	ND	ug/kg	1.3	SW846 8260B	1	04/11/2023 02:08	PDK	B
1,2-Dichloropropane	ND	ND	ug/kg	1.3	SW846 8260B	1	04/11/2023 02:08	PDK	B
1,3-Dichlorobenzene	ND	ND	ug/kg	1.3	SW846 8260B	1	04/11/2023 02:08	PDK	B
1,4-Dichlorobenzene	ND	ND	ug/kg	1.3	SW846 8260B	1	04/11/2023 02:08	PDK	B
2-Butanone	ND	ND	ug/kg	6.4	SW846 8260B	1	04/11/2023 02:08	PDK	B
2-Chloroethylvinyl ether	ND	ND	ug/kg	96.4	SW846 8260B	1	04/11/2023 02:08	PDK	B
2-Hexanone	ND	ND	ug/kg	6.4	SW846 8260B	1	04/11/2023 02:08	PDK	B
4-Methyl-2-Pentanone(MIBK)	ND	ND	ug/kg	6.4	SW846 8260B	1	04/11/2023 02:08	PDK	B
Acetone	8.4		ug/kg	6.4	SW846 8260B	1	04/11/2023 02:08	PDK	B

Results

Client Sample ID	SB-05A-0-2	Collected	04/03/2023 13:30
Lab Sample ID	3296086010	Lab Receipt	04/05/2023 08:53

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Benzene	ND	ND	ug/kg	1.3	SW846 8260B	1	04/11/2023 02:08	PDK	B
Bromochloromethane	ND	ND	ug/kg	1.3	SW846 8260B	1	04/11/2023 02:08	PDK	B
Bromodichloromethane	ND	ND	ug/kg	1.3	SW846 8260B	1	04/11/2023 02:08	PDK	B
Bromoform	ND	ND	ug/kg	1.3	SW846 8260B	1	04/11/2023 02:08	PDK	B
Bromomethane	ND	ND	ug/kg	1.3	SW846 8260B	1	04/11/2023 02:08	PDK	B
Carbon Disulfide	ND	ND	ug/kg	1.3	SW846 8260B	1	04/11/2023 02:08	PDK	B
Carbon Tetrachloride	ND	ND	ug/kg	1.3	SW846 8260B	1	04/11/2023 02:08	PDK	B
Chlorobenzene	ND	ND	ug/kg	1.3	SW846 8260B	1	04/11/2023 02:08	PDK	B
Chlorodibromomethane	ND	ND	ug/kg	1.3	SW846 8260B	1	04/11/2023 02:08	PDK	B
Chloroethane	ND	ND	ug/kg	3.2	SW846 8260B	1	04/11/2023 02:08	PDK	B
Chloroform	ND	ND	ug/kg	1.3	SW846 8260B	1	04/11/2023 02:08	PDK	B
Chloromethane	ND	ND	ug/kg	1.3	SW846 8260B	1	04/11/2023 02:08	PDK	B
cis-1,2-Dichloroethene	ND	ND	ug/kg	1.3	SW846 8260B	1	04/11/2023 02:08	PDK	B
cis-1,3-Dichloropropene	ND	ND	ug/kg	1.3	SW846 8260B	1	04/11/2023 02:08	PDK	B
Cyclohexane	ND	ND	ug/kg	1.3	SW846 8260B	1	04/11/2023 02:08	PDK	B
Dichlorodifluoromethane	ND	ND	ug/kg	1.3	SW846 8260B	1	04/11/2023 02:08	PDK	B
Ethylbenzene	ND	ND	ug/kg	1.3	SW846 8260B	1	04/11/2023 02:08	PDK	B
Freon 113	ND	ND,7,8	ug/kg	1.3	SW846 8260B	1	04/11/2023 02:08	PDK	B
Isopropylbenzene	ND	ND	ug/kg	1.3	SW846 8260B	1	04/11/2023 02:08	PDK	B
Methyl acetate	ND	ND,9	ug/kg	1.3	SW846 8260B	1	04/11/2023 02:08	PDK	B
Methyl cyclohexane	ND	ND	ug/kg	1.3	SW846 8260B	1	04/11/2023 02:08	PDK	B
Methyl t-Butyl Ether	ND	ND,10,11	ug/kg	1.3	SW846 8260B	1	04/11/2023 02:08	PDK	B
Methylene Chloride	ND	ND	ug/kg	1.3	SW846 8260B	1	04/11/2023 02:08	PDK	B
mp-Xylene	ND	ND	ug/kg	2.6	SW846 8260B	1	04/11/2023 02:08	PDK	B
o-Xylene	ND	ND	ug/kg	1.3	SW846 8260B	1	04/11/2023 02:08	PDK	B
Styrene	ND	ND	ug/kg	1.3	SW846 8260B	1	04/11/2023 02:08	PDK	B
Tetrachloroethene	ND	ND	ug/kg	1.3	SW846 8260B	1	04/11/2023 02:08	PDK	B
Toluene	4.4		ug/kg	1.3	SW846 8260B	1	04/11/2023 02:08	PDK	B
Total Xylenes	ND	ND	ug/kg	3.9	SW846 8260B	1	04/11/2023 02:08	PDK	B
trans-1,2-Dichloroethene	ND	ND	ug/kg	1.3	SW846 8260B	1	04/11/2023 02:08	PDK	B
trans-1,3-Dichloropropene	ND	ND	ug/kg	1.3	SW846 8260B	1	04/11/2023 02:08	PDK	B
Trichloroethene	ND	ND	ug/kg	1.3	SW846 8260B	1	04/11/2023 02:08	PDK	B
Trichlorofluoromethane	ND	ND	ug/kg	1.3	SW846 8260B	1	04/11/2023 02:08	PDK	B
Vinyl Chloride	ND	ND	ug/kg	1.3	SW846 8260B	1	04/11/2023 02:08	PDK	B

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	108%	56 – 124	04/11/2023 02:08	
4-Bromofluorobenzene	460-00-4	107%	51 – 128	04/11/2023 02:08	
Dibromofluoromethane	1868-53-7	94.2%	62 – 123	04/11/2023 02:08	
Toluene-d8	2037-26-5	98.8%	59 – 131	04/11/2023 02:08	

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr

Results

Client Sample ID	SB-05A-0-2	Collected	04/03/2023 13:30
Lab Sample ID	3296086010	Lab Receipt	04/05/2023 08:53

WET CHEMISTRY (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Hexavalent Chromium	ND	ND	mg/kg	2.2	SW846 7196A	1	04/07/2023 12:56	AKH	E
Moisture	11.6		%	0.1	S2540G-11	1	04/07/2023 14:18	AKH	
Total Solids	88.4		%	0.1	S2540G-11	1	04/07/2023 14:18	AKH	

Results

Client Sample ID	SB-05A-2-4	Collected	04/03/2023 13:55
Lab Sample ID	3296086011	Lab Receipt	04/05/2023 08:53

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Aluminum, Total	10600		mg/kg	44.7	SW846 6020A	5	04/18/2023 13:46	MO	E1
Antimony, Total	4.4		mg/kg	1.1	SW846 6020A	5	04/18/2023 13:46	MO	E1
Arsenic, Total	13.7		mg/kg	1.7	SW846 6020A	5	04/18/2023 13:46	MO	E1
Barium, Total	238		mg/kg	2.8	SW846 6020A	5	04/18/2023 13:46	MO	E1
Beryllium, Total	0.98		mg/kg	0.56	SW846 6020A	5	04/18/2023 13:46	MO	E1
Cadmium, Total	1.3		mg/kg	0.56	SW846 6020A	5	04/18/2023 13:46	MO	E1
Calcium, Total	6310		mg/kg	55.9	SW846 6020A	5	04/18/2023 13:46	MO	E1
Chromium, Total	23.0		mg/kg	1.1	SW846 6020A	5	04/18/2023 13:46	MO	E1
Cobalt, Total	9.7		mg/kg	2.8	SW846 6020A	5	04/18/2023 13:46	MO	E1
Copper, Total	61.1		mg/kg	2.8	SW846 6020A	5	04/18/2023 13:46	MO	E1
Iron, Total	24700	6	mg/kg	27.9	SW846 6020A	5	04/18/2023 13:46	MO	E1
Lead, Total	343		mg/kg	1.1	SW846 6020A	5	04/18/2023 13:46	MO	E1
Magnesium, Total	1670		mg/kg	55.9	SW846 6020A	5	04/18/2023 13:46	MO	E1
Manganese, Total	566		mg/kg	2.8	SW846 6020A	5	04/18/2023 13:46	MO	E1
Mercury, Total	0.075		mg/kg	0.054	SW846 7471B	1	04/07/2023 12:24	WDA	E
Nickel, Total	22.8		mg/kg	2.8	SW846 6020A	5	04/18/2023 13:46	MO	E1
Potassium, Total	1750		mg/kg	55.9	SW846 6020A	5	04/18/2023 13:46	MO	E1
Selenium, Total	ND	ND	mg/kg	2.8	SW846 6020A	5	04/18/2023 13:46	MO	E1
Silver, Total	ND	ND	mg/kg	1.1	SW846 6020A	5	04/18/2023 13:46	MO	E1
Sodium, Total	145		mg/kg	55.9	SW846 6020A	5	04/18/2023 13:46	MO	E1
Thallium, Total	ND	ND	mg/kg	0.56	SW846 6020A	5	04/18/2023 13:46	MO	E1
Trivalent Chromium	23.0		mg/kg	2.3	Calculation	1	04/18/2023 17:04	CW	E
Vanadium, Total	23.7		mg/kg	1.1	SW846 6020A	5	04/18/2023 13:46	MO	E1
Zinc, Total	292		mg/kg	2.8	SW846 6020A	5	04/18/2023 13:46	MO	E1

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1-Trichloroethane	ND	ND	ug/kg	1.0	SW846 8260B	1	04/07/2023 05:02	PDK	B
1,1,2,2-Tetrachloroethane	ND	ND	ug/kg	1.0	SW846 8260B	1	04/07/2023 05:02	PDK	B
1,1,2-Trichloroethane	ND	ND	ug/kg	1.0	SW846 8260B	1	04/07/2023 05:02	PDK	B
1,1-Dichloroethane	ND	ND	ug/kg	1.0	SW846 8260B	1	04/07/2023 05:02	PDK	B
1,1-Dichloroethene	ND	ND	ug/kg	1.0	SW846 8260B	1	04/07/2023 05:02	PDK	B
1,2,3-Trichlorobenzene	ND	ND	ug/kg	2.6	SW846 8260B	1	04/07/2023 05:02	PDK	B
1,2,4-Trichlorobenzene	ND	ND	ug/kg	2.6	SW846 8260B	1	04/07/2023 05:02	PDK	B
1,2-Dibromo-3-chloropropane	ND	ND	ug/kg	2.6	SW846 8260B	1	04/07/2023 05:02	PDK	B
1,2-Dibromoethane	ND	ND	ug/kg	1.0	SW846 8260B	1	04/07/2023 05:02	PDK	B
1,2-Dichlorobenzene	ND	ND	ug/kg	1.0	SW846 8260B	1	04/07/2023 05:02	PDK	B
1,2-Dichloroethane	ND	ND	ug/kg	1.0	SW846 8260B	1	04/07/2023 05:02	PDK	B
1,2-Dichloropropane	ND	ND	ug/kg	1.0	SW846 8260B	1	04/07/2023 05:02	PDK	B
1,3-Dichlorobenzene	ND	ND	ug/kg	1.0	SW846 8260B	1	04/07/2023 05:02	PDK	B
1,4-Dichlorobenzene	ND	ND	ug/kg	1.0	SW846 8260B	1	04/07/2023 05:02	PDK	B
2-Butanone	ND	ND	ug/kg	5.2	SW846 8260B	1	04/07/2023 05:02	PDK	B
2-Chloroethylvinyl ether	ND	ND,2	ug/kg	78.4	SW846 8260B	1	04/07/2023 05:02	PDK	B
2-Hexanone	ND	ND	ug/kg	5.2	SW846 8260B	1	04/07/2023 05:02	PDK	B
4-Methyl-2-Pentanone(MIBK)	ND	ND	ug/kg	5.2	SW846 8260B	1	04/07/2023 05:02	PDK	B
Acetone	14.2		ug/kg	5.2	SW846 8260B	1	04/07/2023 05:02	PDK	B

Results

Client Sample ID	SB-05A-2-4	Collected	04/03/2023 13:55
Lab Sample ID	3296086011	Lab Receipt	04/05/2023 08:53

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Benzene	ND	ND	ug/kg	1.0	SW846 8260B	1	04/07/2023 05:02	PDK	B
Bromochloromethane	ND	ND	ug/kg	1.0	SW846 8260B	1	04/07/2023 05:02	PDK	B
Bromodichloromethane	ND	ND	ug/kg	1.0	SW846 8260B	1	04/07/2023 05:02	PDK	B
Bromoform	ND	ND	ug/kg	1.0	SW846 8260B	1	04/07/2023 05:02	PDK	B
Bromomethane	ND	ND	ug/kg	1.0	SW846 8260B	1	04/07/2023 05:02	PDK	B
Carbon Disulfide	ND	ND	ug/kg	1.0	SW846 8260B	1	04/07/2023 05:02	PDK	B
Carbon Tetrachloride	ND	ND	ug/kg	1.0	SW846 8260B	1	04/07/2023 05:02	PDK	B
Chlorobenzene	ND	ND	ug/kg	1.0	SW846 8260B	1	04/07/2023 05:02	PDK	B
Chlorodibromomethane	ND	ND	ug/kg	1.0	SW846 8260B	1	04/07/2023 05:02	PDK	B
Chloroethane	ND	ND	ug/kg	2.6	SW846 8260B	1	04/07/2023 05:02	PDK	B
Chloroform	ND	ND	ug/kg	1.0	SW846 8260B	1	04/07/2023 05:02	PDK	B
Chloromethane	ND	ND	ug/kg	1.0	SW846 8260B	1	04/07/2023 05:02	PDK	B
cis-1,2-Dichloroethene	ND	ND	ug/kg	1.0	SW846 8260B	1	04/07/2023 05:02	PDK	B
cis-1,3-Dichloropropene	ND	ND	ug/kg	1.0	SW846 8260B	1	04/07/2023 05:02	PDK	B
Cyclohexane	ND	ND	ug/kg	1.0	SW846 8260B	1	04/07/2023 05:02	PDK	B
Dichlorodifluoromethane	ND	ND	ug/kg	1.0	SW846 8260B	1	04/07/2023 05:02	PDK	B
Ethylbenzene	ND	ND	ug/kg	1.0	SW846 8260B	1	04/07/2023 05:02	PDK	B
Freon 113	ND	ND	ug/kg	1.0	SW846 8260B	1	04/07/2023 05:02	PDK	B
Isopropylbenzene	ND	ND	ug/kg	1.0	SW846 8260B	1	04/07/2023 05:02	PDK	B
Methyl acetate	ND	ND	ug/kg	1.0	SW846 8260B	1	04/07/2023 05:02	PDK	B
Methyl cyclohexane	ND	ND	ug/kg	1.0	SW846 8260B	1	04/07/2023 05:02	PDK	B
Methyl t-Butyl Ether	ND	ND,3	ug/kg	1.0	SW846 8260B	1	04/07/2023 05:02	PDK	B
Methylene Chloride	ND	ND	ug/kg	1.0	SW846 8260B	1	04/07/2023 05:02	PDK	B
mp-Xylene	ND	ND	ug/kg	2.1	SW846 8260B	1	04/07/2023 05:02	PDK	B
o-Xylene	ND	ND	ug/kg	1.0	SW846 8260B	1	04/07/2023 05:02	PDK	B
Styrene	ND	ND	ug/kg	1.0	SW846 8260B	1	04/07/2023 05:02	PDK	B
Tetrachloroethene	ND	ND	ug/kg	1.0	SW846 8260B	1	04/07/2023 05:02	PDK	B
Toluene	ND	ND	ug/kg	1.0	SW846 8260B	1	04/07/2023 05:02	PDK	B
Total Xylenes	ND	ND	ug/kg	3.1	SW846 8260B	1	04/07/2023 05:02	PDK	B
trans-1,2-Dichloroethene	ND	ND	ug/kg	1.0	SW846 8260B	1	04/07/2023 05:02	PDK	B
trans-1,3-Dichloropropene	ND	ND	ug/kg	1.0	SW846 8260B	1	04/07/2023 05:02	PDK	B
Trichloroethene	ND	ND	ug/kg	1.0	SW846 8260B	1	04/07/2023 05:02	PDK	B
Trichlorofluoromethane	ND	ND	ug/kg	1.0	SW846 8260B	1	04/07/2023 05:02	PDK	B
Vinyl Chloride	ND	ND	ug/kg	1.0	SW846 8260B	1	04/07/2023 05:02	PDK	B

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	109%	56 – 124	04/07/2023 05:02	
4-Bromofluorobenzene	460-00-4	107%	51 – 128	04/07/2023 05:02	
Dibromofluoromethane	1868-53-7	95.4%	62 – 123	04/07/2023 05:02	
Toluene-d8	2037-26-5	103%	59 – 131	04/07/2023 05:02	

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Hexavalent Chromium	ND	ND	mg/kg	2.3	SW846 7196A	1	04/07/2023 12:56	AKH	E

Results

Client Sample ID	SB-05A-2-4	Collected	04/03/2023 13:55
Lab Sample ID	3296086011	Lab Receipt	04/05/2023 08:53

WET CHEMISTRY (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Moisture	13.1		%	0.1	S2540G-11	1	04/07/2023 14:18	AKH	
Total Solids	86.9		%	0.1	S2540G-11	1	04/07/2023 14:18	AKH	

Results

Client Sample ID	SB-06A-0-2	Collected	04/03/2023 14:10
Lab Sample ID	3296086012	Lab Receipt	04/05/2023 08:53

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Aluminum, Total	3380	S3	mg/kg	41.4	SW846 6020A	5	04/18/2023 13:48	MO	E1
Antimony, Total	ND	ND,S3	mg/kg	1.0	SW846 6020A	5	04/18/2023 13:48	MO	E1
Arsenic, Total	5.4	S3	mg/kg	1.6	SW846 6020A	5	04/18/2023 13:48	MO	E1
Barium, Total	68.6	S3	mg/kg	2.6	SW846 6020A	5	04/18/2023 13:48	MO	E1
Beryllium, Total	ND	ND,S3	mg/kg	0.52	SW846 6020A	5	04/18/2023 13:48	MO	E1
Cadmium, Total	ND	ND,S3	mg/kg	0.52	SW846 6020A	5	04/18/2023 13:48	MO	E1
Calcium, Total	4770	S3	mg/kg	51.7	SW846 6020A	5	04/18/2023 13:48	MO	E1
Chromium, Total	10.3	S3	mg/kg	1.0	SW846 6020A	5	04/18/2023 13:48	MO	E1
Cobalt, Total	3.7	S3	mg/kg	2.6	SW846 6020A	5	04/18/2023 13:48	MO	E1
Copper, Total	14.2	S3	mg/kg	2.6	SW846 6020A	5	04/18/2023 13:48	MO	E1
Iron, Total	14800	6,S3	mg/kg	25.9	SW846 6020A	5	04/18/2023 13:48	MO	E1
Lead, Total	104	S3	mg/kg	1.0	SW846 6020A	5	04/18/2023 13:48	MO	E1
Magnesium, Total	896	S3	mg/kg	51.7	SW846 6020A	5	04/18/2023 13:48	MO	E1
Manganese, Total	263	S3	mg/kg	2.6	SW846 6020A	5	04/18/2023 13:48	MO	E1
Mercury, Total	ND	ND,S3	mg/kg	0.051	SW846 7471B	1	04/07/2023 12:30	WDA	E
Nickel, Total	11.3	S3	mg/kg	2.6	SW846 6020A	5	04/18/2023 13:48	MO	E1
Potassium, Total	428	S3	mg/kg	51.7	SW846 6020A	5	04/18/2023 13:48	MO	E1
Selenium, Total	ND	ND,S3	mg/kg	2.6	SW846 6020A	5	04/18/2023 13:48	MO	E1
Silver, Total	ND	ND,S3	mg/kg	1.0	SW846 6020A	5	04/18/2023 13:48	MO	E1
Sodium, Total	ND	ND,S3	mg/kg	51.7	SW846 6020A	5	04/18/2023 13:48	MO	E1
Thallium, Total	ND	ND,S3	mg/kg	0.52	SW846 6020A	5	04/18/2023 13:48	MO	E1
Trivalent Chromium	10.1	S3	mg/kg	2.2	Calculation	1	04/18/2023 17:05	CW	E
Vanadium, Total	14.3	S3	mg/kg	1.0	SW846 6020A	5	04/18/2023 13:48	MO	E1
Zinc, Total	72.0	S3	mg/kg	2.6	SW846 6020A	5	04/18/2023 13:48	MO	E1

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1-Trichloroethane	ND	ND,S3	ug/kg	0.94	SW846 8260B	1	04/07/2023 05:27	PDK	B
1,1,2,2-Tetrachloroethane	ND	ND,S3	ug/kg	0.94	SW846 8260B	1	04/07/2023 05:27	PDK	B
1,1,2-Trichloroethane	ND	ND,S3	ug/kg	0.94	SW846 8260B	1	04/07/2023 05:27	PDK	B
1,1-Dichloroethane	ND	ND,S3	ug/kg	0.94	SW846 8260B	1	04/07/2023 05:27	PDK	B
1,1-Dichloroethene	ND	ND,S3	ug/kg	0.94	SW846 8260B	1	04/07/2023 05:27	PDK	B
1,2,3-Trichlorobenzene	ND	ND,S3	ug/kg	2.3	SW846 8260B	1	04/07/2023 05:27	PDK	B
1,2,4-Trichlorobenzene	ND	ND,S3	ug/kg	2.3	SW846 8260B	1	04/07/2023 05:27	PDK	B
1,2-Dibromo-3-chloropropane	ND	ND,S3	ug/kg	2.3	SW846 8260B	1	04/07/2023 05:27	PDK	B
1,2-Dibromoethane	ND	ND,S3	ug/kg	0.94	SW846 8260B	1	04/07/2023 05:27	PDK	B
1,2-Dichlorobenzene	ND	ND,S3	ug/kg	0.94	SW846 8260B	1	04/07/2023 05:27	PDK	B
1,2-Dichloroethane	ND	ND,S3	ug/kg	0.94	SW846 8260B	1	04/07/2023 05:27	PDK	B
1,2-Dichloropropane	ND	ND,S3	ug/kg	0.94	SW846 8260B	1	04/07/2023 05:27	PDK	B
1,3-Dichlorobenzene	ND	ND,S3	ug/kg	0.94	SW846 8260B	1	04/07/2023 05:27	PDK	B
1,4-Dichlorobenzene	ND	ND,S3	ug/kg	0.94	SW846 8260B	1	04/07/2023 05:27	PDK	B
2-Butanone	ND	ND,S3	ug/kg	4.7	SW846 8260B	1	04/07/2023 05:27	PDK	B
2-Chloroethylvinyl ether	ND	ND,2,S3	ug/kg	70.2	SW846 8260B	1	04/07/2023 05:27	PDK	B
2-Hexanone	ND	ND,S3	ug/kg	4.7	SW846 8260B	1	04/07/2023 05:27	PDK	B
4-Methyl-2-Pentanone(MIBK)	ND	ND,S3	ug/kg	4.7	SW846 8260B	1	04/07/2023 05:27	PDK	B
Acetone	ND	ND,S3	ug/kg	4.7	SW846 8260B	1	04/07/2023 05:27	PDK	B

Results

Client Sample ID	SB-06A-0-2	Collected	04/03/2023 14:10
Lab Sample ID	3296086012	Lab Receipt	04/05/2023 08:53

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Benzene	ND	ND,S3	ug/kg	0.94	SW846 8260B	1	04/07/2023 05:27	PDK	B
Bromochloromethane	ND	ND,S3	ug/kg	0.94	SW846 8260B	1	04/07/2023 05:27	PDK	B
Bromodichloromethane	ND	ND,S3	ug/kg	0.94	SW846 8260B	1	04/07/2023 05:27	PDK	B
Bromoform	ND	ND,S3	ug/kg	0.94	SW846 8260B	1	04/07/2023 05:27	PDK	B
Bromomethane	ND	ND,S3	ug/kg	0.94	SW846 8260B	1	04/07/2023 05:27	PDK	B
Carbon Disulfide	ND	ND,S3	ug/kg	0.94	SW846 8260B	1	04/07/2023 05:27	PDK	B
Carbon Tetrachloride	ND	ND,S3	ug/kg	0.94	SW846 8260B	1	04/07/2023 05:27	PDK	B
Chlorobenzene	ND	ND,S3	ug/kg	0.94	SW846 8260B	1	04/07/2023 05:27	PDK	B
Chlorodibromomethane	ND	ND,S3	ug/kg	0.94	SW846 8260B	1	04/07/2023 05:27	PDK	B
Chloroethane	ND	ND,S3	ug/kg	2.3	SW846 8260B	1	04/07/2023 05:27	PDK	B
Chloroform	ND	ND,S3	ug/kg	0.94	SW846 8260B	1	04/07/2023 05:27	PDK	B
Chloromethane	ND	ND,S3	ug/kg	0.94	SW846 8260B	1	04/07/2023 05:27	PDK	B
cis-1,2-Dichloroethene	ND	ND,S3	ug/kg	0.94	SW846 8260B	1	04/07/2023 05:27	PDK	B
cis-1,3-Dichloropropene	ND	ND,S3	ug/kg	0.94	SW846 8260B	1	04/07/2023 05:27	PDK	B
Cyclohexane	ND	ND,S3	ug/kg	0.94	SW846 8260B	1	04/07/2023 05:27	PDK	B
Dichlorodifluoromethane	ND	ND,S3	ug/kg	0.94	SW846 8260B	1	04/07/2023 05:27	PDK	B
Ethylbenzene	ND	ND,S3	ug/kg	0.94	SW846 8260B	1	04/07/2023 05:27	PDK	B
Freon 113	ND	ND,S3	ug/kg	0.94	SW846 8260B	1	04/07/2023 05:27	PDK	B
Isopropylbenzene	ND	ND,S3	ug/kg	0.94	SW846 8260B	1	04/07/2023 05:27	PDK	B
Methyl acetate	ND	ND,S3	ug/kg	0.94	SW846 8260B	1	04/07/2023 05:27	PDK	B
Methyl cyclohexane	ND	ND,S3	ug/kg	0.94	SW846 8260B	1	04/07/2023 05:27	PDK	B
Methyl t-Butyl Ether	ND	ND,3,S3	ug/kg	0.94	SW846 8260B	1	04/07/2023 05:27	PDK	B
Methylene Chloride	ND	ND,S3	ug/kg	0.94	SW846 8260B	1	04/07/2023 05:27	PDK	B
mp-Xylene	ND	ND,S3	ug/kg	1.9	SW846 8260B	1	04/07/2023 05:27	PDK	B
o-Xylene	ND	ND,S3	ug/kg	0.94	SW846 8260B	1	04/07/2023 05:27	PDK	B
Styrene	ND	ND,S3	ug/kg	0.94	SW846 8260B	1	04/07/2023 05:27	PDK	B
Tetrachloroethene	1.7	S3	ug/kg	0.94	SW846 8260B	1	04/07/2023 05:27	PDK	B
Toluene	ND	ND,S3	ug/kg	0.94	SW846 8260B	1	04/07/2023 05:27	PDK	B
Total Xylenes	ND	ND,S3	ug/kg	2.8	SW846 8260B	1	04/07/2023 05:27	PDK	B
trans-1,2-Dichloroethene	ND	ND,S3	ug/kg	0.94	SW846 8260B	1	04/07/2023 05:27	PDK	B
trans-1,3-Dichloropropene	ND	ND,S3	ug/kg	0.94	SW846 8260B	1	04/07/2023 05:27	PDK	B
Trichloroethene	ND	ND,S3	ug/kg	0.94	SW846 8260B	1	04/07/2023 05:27	PDK	B
Trichlorofluoromethane	ND	ND,S3	ug/kg	0.94	SW846 8260B	1	04/07/2023 05:27	PDK	B
Vinyl Chloride	ND	ND,S3	ug/kg	0.94	SW846 8260B	1	04/07/2023 05:27	PDK	B

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	110%	56 – 124	04/07/2023 05:27	
4-Bromofluorobenzene	460-00-4	127%	51 – 128	04/07/2023 05:27	
Dibromofluoromethane	1868-53-7	97%	62 – 123	04/07/2023 05:27	
Toluene-d8	2037-26-5	111%	59 – 131	04/07/2023 05:27	

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Hexavalent Chromium	ND	ND,S3	mg/kg	2.2	SW846 7196A	1	04/07/2023 12:56	AKH	E

Results

Client Sample ID	SB-06A-0-2	Collected	04/03/2023 14:10
Lab Sample ID	3296086012	Lab Receipt	04/05/2023 08:53

WET CHEMISTRY (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Moisture	11.1	S3	%	0.1	S2540G-11	1	04/07/2023 14:18	AKH	
Total Solids	88.9	S3	%	0.1	S2540G-11	1	04/07/2023 14:18	AKH	

Results

Client Sample ID	SB-06A-2-4	Collected	04/03/2023 14:20
Lab Sample ID	3296086013	Lab Receipt	04/05/2023 08:53

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Aluminum, Total	14300		mg/kg	44.0	SW846 6020A	5	04/18/2023 13:50	MO	E1
Antimony, Total	ND	ND	mg/kg	1.1	SW846 6020A	5	04/18/2023 13:50	MO	E1
Arsenic, Total	7.9		mg/kg	1.7	SW846 6020A	5	04/18/2023 13:50	MO	E1
Barium, Total	217		mg/kg	2.8	SW846 6020A	5	04/18/2023 13:50	MO	E1
Beryllium, Total	1.1		mg/kg	0.55	SW846 6020A	5	04/18/2023 13:50	MO	E1
Cadmium, Total	ND	ND	mg/kg	0.55	SW846 6020A	5	04/18/2023 13:50	MO	E1
Calcium, Total	4230		mg/kg	55.0	SW846 6020A	5	04/18/2023 13:50	MO	E1
Chromium, Total	25.5		mg/kg	1.1	SW846 6020A	5	04/18/2023 13:50	MO	E1
Cobalt, Total	16.0		mg/kg	2.8	SW846 6020A	5	04/18/2023 13:50	MO	E1
Copper, Total	18.0		mg/kg	2.8	SW846 6020A	5	04/18/2023 13:50	MO	E1
Iron, Total	31500	6	mg/kg	27.5	SW846 6020A	5	04/18/2023 13:50	MO	E1
Lead, Total	26.8		mg/kg	1.1	SW846 6020A	5	04/18/2023 13:50	MO	E1
Magnesium, Total	3970		mg/kg	55.0	SW846 6020A	5	04/18/2023 13:50	MO	E1
Manganese, Total	874		mg/kg	2.8	SW846 6020A	5	04/18/2023 13:50	MO	E1
Mercury, Total	ND	ND	mg/kg	0.050	SW846 7471B	1	04/07/2023 12:31	WDA	E
Nickel, Total	27.4		mg/kg	2.8	SW846 6020A	5	04/18/2023 13:50	MO	E1
Potassium, Total	1480		mg/kg	55.0	SW846 6020A	5	04/18/2023 13:50	MO	E1
Selenium, Total	ND	ND	mg/kg	2.8	SW846 6020A	5	04/18/2023 13:50	MO	E1
Silver, Total	ND	ND	mg/kg	1.1	SW846 6020A	5	04/18/2023 13:50	MO	E1
Sodium, Total	83.2		mg/kg	55.0	SW846 6020A	5	04/18/2023 13:50	MO	E1
Thallium, Total	ND	ND	mg/kg	0.55	SW846 6020A	5	04/18/2023 13:50	MO	E1
Trivalent Chromium	25.3		mg/kg	2.5	Calculation	1	04/18/2023 17:06	CW	E
Vanadium, Total	28.8		mg/kg	1.1	SW846 6020A	5	04/18/2023 13:50	MO	E1
Zinc, Total	84.8		mg/kg	2.8	SW846 6020A	5	04/18/2023 13:50	MO	E1

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1-Trichloroethane	ND	ND	ug/kg	1.4	SW846 8260B	1	04/11/2023 02:57	PDK	B
1,1,2,2-Tetrachloroethane	ND	ND	ug/kg	1.4	SW846 8260B	1	04/11/2023 02:57	PDK	B
1,1,2-Trichloroethane	ND	ND	ug/kg	1.4	SW846 8260B	1	04/11/2023 02:57	PDK	B
1,1-Dichloroethane	ND	ND	ug/kg	1.4	SW846 8260B	1	04/11/2023 02:57	PDK	B
1,1-Dichloroethene	ND	ND	ug/kg	1.4	SW846 8260B	1	04/11/2023 02:57	PDK	B
1,2,3-Trichlorobenzene	ND	ND	ug/kg	3.4	SW846 8260B	1	04/11/2023 02:57	PDK	B
1,2,4-Trichlorobenzene	ND	ND	ug/kg	3.4	SW846 8260B	1	04/11/2023 02:57	PDK	B
1,2-Dibromo-3-chloropropane	ND	ND	ug/kg	3.4	SW846 8260B	1	04/11/2023 02:57	PDK	B
1,2-Dibromoethane	ND	ND	ug/kg	1.4	SW846 8260B	1	04/11/2023 02:57	PDK	B
1,2-Dichlorobenzene	ND	ND	ug/kg	1.4	SW846 8260B	1	04/11/2023 02:57	PDK	B
1,2-Dichloroethane	ND	ND	ug/kg	1.4	SW846 8260B	1	04/11/2023 02:57	PDK	B
1,2-Dichloropropane	ND	ND	ug/kg	1.4	SW846 8260B	1	04/11/2023 02:57	PDK	B
1,3-Dichlorobenzene	ND	ND	ug/kg	1.4	SW846 8260B	1	04/11/2023 02:57	PDK	B
1,4-Dichlorobenzene	ND	ND	ug/kg	1.4	SW846 8260B	1	04/11/2023 02:57	PDK	B
2-Butanone	ND	ND	ug/kg	6.9	SW846 8260B	1	04/11/2023 02:57	PDK	B
2-Chloroethylvinyl ether	ND	ND	ug/kg	103	SW846 8260B	1	04/11/2023 02:57	PDK	B
2-Hexanone	ND	ND	ug/kg	6.9	SW846 8260B	1	04/11/2023 02:57	PDK	B
4-Methyl-2-Pentanone(MIBK)	ND	ND	ug/kg	6.9	SW846 8260B	1	04/11/2023 02:57	PDK	B
Acetone	ND	ND	ug/kg	6.9	SW846 8260B	1	04/11/2023 02:57	PDK	B

Results

Client Sample ID	SB-06A-2-4	Collected	04/03/2023 14:20
Lab Sample ID	3296086013	Lab Receipt	04/05/2023 08:53

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Benzene	ND	ND	ug/kg	1.4	SW846 8260B	1	04/11/2023 02:57	PDK	B
Bromochloromethane	ND	ND	ug/kg	1.4	SW846 8260B	1	04/11/2023 02:57	PDK	B
Bromodichloromethane	ND	ND	ug/kg	1.4	SW846 8260B	1	04/11/2023 02:57	PDK	B
Bromoform	ND	ND	ug/kg	1.4	SW846 8260B	1	04/11/2023 02:57	PDK	B
Bromomethane	ND	ND	ug/kg	1.4	SW846 8260B	1	04/11/2023 02:57	PDK	B
Carbon Disulfide	ND	ND	ug/kg	1.4	SW846 8260B	1	04/11/2023 02:57	PDK	B
Carbon Tetrachloride	ND	ND	ug/kg	1.4	SW846 8260B	1	04/11/2023 02:57	PDK	B
Chlorobenzene	ND	ND	ug/kg	1.4	SW846 8260B	1	04/11/2023 02:57	PDK	B
Chlorodibromomethane	ND	ND	ug/kg	1.4	SW846 8260B	1	04/11/2023 02:57	PDK	B
Chloroethane	ND	ND	ug/kg	3.4	SW846 8260B	1	04/11/2023 02:57	PDK	B
Chloroform	ND	ND	ug/kg	1.4	SW846 8260B	1	04/11/2023 02:57	PDK	B
Chloromethane	ND	ND	ug/kg	1.4	SW846 8260B	1	04/11/2023 02:57	PDK	B
cis-1,2-Dichloroethene	ND	ND	ug/kg	1.4	SW846 8260B	1	04/11/2023 02:57	PDK	B
cis-1,3-Dichloropropene	ND	ND	ug/kg	1.4	SW846 8260B	1	04/11/2023 02:57	PDK	B
Cyclohexane	ND	ND	ug/kg	1.4	SW846 8260B	1	04/11/2023 02:57	PDK	B
Dichlorodifluoromethane	ND	ND	ug/kg	1.4	SW846 8260B	1	04/11/2023 02:57	PDK	B
Ethylbenzene	ND	ND	ug/kg	1.4	SW846 8260B	1	04/11/2023 02:57	PDK	B
Freon 113	ND	ND,7,8	ug/kg	1.4	SW846 8260B	1	04/11/2023 02:57	PDK	B
Isopropylbenzene	ND	ND	ug/kg	1.4	SW846 8260B	1	04/11/2023 02:57	PDK	B
Methyl acetate	ND	ND,9	ug/kg	1.4	SW846 8260B	1	04/11/2023 02:57	PDK	B
Methyl cyclohexane	ND	ND	ug/kg	1.4	SW846 8260B	1	04/11/2023 02:57	PDK	B
Methyl t-Butyl Ether	ND	ND,10,11	ug/kg	1.4	SW846 8260B	1	04/11/2023 02:57	PDK	B
Methylene Chloride	ND	ND	ug/kg	1.4	SW846 8260B	1	04/11/2023 02:57	PDK	B
mp-Xylene	ND	ND	ug/kg	2.8	SW846 8260B	1	04/11/2023 02:57	PDK	B
o-Xylene	ND	ND	ug/kg	1.4	SW846 8260B	1	04/11/2023 02:57	PDK	B
Styrene	ND	ND	ug/kg	1.4	SW846 8260B	1	04/11/2023 02:57	PDK	B
Tetrachloroethene	7.0		ug/kg	1.4	SW846 8260B	1	04/11/2023 02:57	PDK	B
Toluene	ND	ND	ug/kg	1.4	SW846 8260B	1	04/11/2023 02:57	PDK	B
Total Xylenes	ND	ND	ug/kg	4.1	SW846 8260B	1	04/11/2023 02:57	PDK	B
trans-1,2-Dichloroethene	ND	ND	ug/kg	1.4	SW846 8260B	1	04/11/2023 02:57	PDK	B
trans-1,3-Dichloropropene	ND	ND	ug/kg	1.4	SW846 8260B	1	04/11/2023 02:57	PDK	B
Trichloroethene	ND	ND	ug/kg	1.4	SW846 8260B	1	04/11/2023 02:57	PDK	B
Trichlorofluoromethane	ND	ND	ug/kg	1.4	SW846 8260B	1	04/11/2023 02:57	PDK	B
Vinyl Chloride	ND	ND	ug/kg	1.4	SW846 8260B	1	04/11/2023 02:57	PDK	B

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	107%	56 – 124	04/11/2023 02:57	
4-Bromofluorobenzene	460-00-4	107%	51 – 128	04/11/2023 02:57	
Dibromofluoromethane	1868-53-7	95.9%	62 – 123	04/11/2023 02:57	
Toluene-d8	2037-26-5	98.5%	59 – 131	04/11/2023 02:57	

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr

Results

Client Sample ID	SB-06A-2-4	Collected	04/03/2023 14:20
Lab Sample ID	3296086013	Lab Receipt	04/05/2023 08:53

WET CHEMISTRY (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Hexavalent Chromium	ND	ND	mg/kg	2.5	SW846 7196A	1	04/07/2023 12:56	AKH	E
Moisture	17.5		%	0.1	S2540G-11	1	04/07/2023 14:18	AKH	
Total Solids	82.5		%	0.1	S2540G-11	1	04/07/2023 14:18	AKH	

Results

Client Sample ID	SB-07A-0-2	Collected	04/03/2023 15:10
Lab Sample ID	3296086014	Lab Receipt	04/05/2023 08:53

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Aluminum, Total	24900	S4,S5	mg/kg	45.5	SW846 6020A	5	04/18/2023 13:53	MO	E1
Antimony, Total	ND	ND,S4,S5	mg/kg	1.1	SW846 6020A	5	04/18/2023 13:53	MO	E1
Arsenic, Total	6.8	S4,S5	mg/kg	1.7	SW846 6020A	5	04/18/2023 13:53	MO	E1
Barium, Total	1320	S4,S5	mg/kg	2.8	SW846 6020A	5	04/18/2023 13:53	MO	E1
Beryllium, Total	3.7	S4,S5	mg/kg	0.57	SW846 6020A	5	04/18/2023 13:53	MO	E1
Cadmium, Total	0.66	S4,S5	mg/kg	0.57	SW846 6020A	5	04/18/2023 13:53	MO	E1
Calcium, Total	114000	S4,S5	mg/kg	56.9	SW846 6020A	5	04/18/2023 13:53	MO	E1
Chromium, Total	28.7	S4,S5	mg/kg	1.1	SW846 6020A	5	04/18/2023 13:53	MO	E1
Cobalt, Total	3.3	S4,S5	mg/kg	2.8	SW846 6020A	5	04/18/2023 13:53	MO	E1
Copper, Total	17.4	S4,S5	mg/kg	2.8	SW846 6020A	5	04/18/2023 13:53	MO	E1
Iron, Total	13900	6,S4,S5	mg/kg	28.4	SW846 6020A	5	04/18/2023 13:53	MO	E1
Lead, Total	110	S4,S5	mg/kg	1.1	SW846 6020A	5	04/18/2023 13:53	MO	E1
Magnesium, Total	18600	S4,S5	mg/kg	56.9	SW846 6020A	5	04/18/2023 13:53	MO	E1
Manganese, Total	7240	S4,S5	mg/kg	28.4	SW846 6020A	50	04/18/2023 15:01	MO	E1
Mercury, Total	ND	ND,S4,S5	mg/kg	0.057	SW846 7471B	1	04/07/2023 12:32	WDA	E
Nickel, Total	9.1	S4,S5	mg/kg	2.8	SW846 6020A	5	04/18/2023 13:53	MO	E1
Potassium, Total	922	S4,S5	mg/kg	56.9	SW846 6020A	5	04/18/2023 13:53	MO	E1
Selenium, Total	2.9	S4,S5	mg/kg	2.8	SW846 6020A	5	04/18/2023 14:52	MO	E1
Silver, Total	ND	ND,S4,S5	mg/kg	1.1	SW846 6020A	5	04/18/2023 13:53	MO	E1
Sodium, Total	523	S4,S5	mg/kg	56.9	SW846 6020A	5	04/18/2023 13:53	MO	E1
Thallium, Total	ND	ND,S4,S5	mg/kg	0.57	SW846 6020A	5	04/18/2023 13:53	MO	E1
Trivalent Chromium	28.7	S4,S5	mg/kg	2.4	Calculation	1	04/18/2023 17:10	CW	E
Vanadium, Total	17.1	S4,S5	mg/kg	1.1	SW846 6020A	5	04/18/2023 13:53	MO	E1
Zinc, Total	71.7	S4,S5	mg/kg	2.8	SW846 6020A	5	04/18/2023 13:53	MO	E1

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1-Trichloroethane	ND	ND,S4,S5	ug/kg	1.3	SW846 8260B	1	04/07/2023 06:16	PDK	B
1,1,2,2-Tetrachloroethane	ND	ND,S4,S5	ug/kg	1.3	SW846 8260B	1	04/07/2023 06:16	PDK	B
1,1,2-Trichloroethane	ND	ND,S4,S5	ug/kg	1.3	SW846 8260B	1	04/07/2023 06:16	PDK	B
1,1-Dichloroethane	ND	ND,S4,S5	ug/kg	1.3	SW846 8260B	1	04/07/2023 06:16	PDK	B
1,1-Dichloroethene	ND	ND,S4,S5	ug/kg	1.3	SW846 8260B	1	04/07/2023 06:16	PDK	B
1,2,3-Trichlorobenzene	ND	ND,S4,S5	ug/kg	3.2	SW846 8260B	1	04/07/2023 06:16	PDK	B
1,2,4-Trichlorobenzene	ND	ND,S4,S5	ug/kg	3.2	SW846 8260B	1	04/07/2023 06:16	PDK	B
1,2-Dibromo-3-chloropropane	ND	ND,S4,S5	ug/kg	3.2	SW846 8260B	1	04/07/2023 06:16	PDK	B
1,2-Dibromoethane	ND	ND,S4,S5	ug/kg	1.3	SW846 8260B	1	04/07/2023 06:16	PDK	B
1,2-Dichlorobenzene	ND	ND,S4,S5	ug/kg	1.3	SW846 8260B	1	04/07/2023 06:16	PDK	B
1,2-Dichloroethane	ND	ND,S4,S5	ug/kg	1.3	SW846 8260B	1	04/07/2023 06:16	PDK	B
1,2-Dichloropropane	ND	ND,S4,S5	ug/kg	1.3	SW846 8260B	1	04/07/2023 06:16	PDK	B
1,3-Dichlorobenzene	ND	ND,S4,S5	ug/kg	1.3	SW846 8260B	1	04/07/2023 06:16	PDK	B

Results

Client Sample ID	SB-07A-0-2	Collected	04/03/2023 15:10
Lab Sample ID	3296086014	Lab Receipt	04/05/2023 08:53

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dichlorobenzene	ND	ND,S4,S5	ug/kg	1.3	SW846 8260B	1	04/07/2023 06:16	PDK	B
2-Butanone	ND	ND,S4,S5	ug/kg	6.4	SW846 8260B	1	04/07/2023 06:16	PDK	B
2-Chloroethylvinyl ether	ND	ND,2,S4,S5	ug/kg	95.4	SW846 8260B	1	04/07/2023 06:16	PDK	B
2-Hexanone	ND	ND,S4,S5	ug/kg	6.4	SW846 8260B	1	04/07/2023 06:16	PDK	B
4-Methyl-2-Pentanone(MIBK)	ND	ND,S4,S5	ug/kg	6.4	SW846 8260B	1	04/07/2023 06:16	PDK	B
Acetone	ND	ND,S4,S5	ug/kg	6.4	SW846 8260B	1	04/07/2023 06:16	PDK	B
Benzene	ND	ND,S4,S5	ug/kg	1.3	SW846 8260B	1	04/07/2023 06:16	PDK	B
Bromochloromethane	ND	ND,S4,S5	ug/kg	1.3	SW846 8260B	1	04/07/2023 06:16	PDK	B
Bromodichloromethane	ND	ND,S4,S5	ug/kg	1.3	SW846 8260B	1	04/07/2023 06:16	PDK	B
Bromoform	ND	ND,S4,S5	ug/kg	1.3	SW846 8260B	1	04/07/2023 06:16	PDK	B
Bromomethane	ND	ND,S4,S5	ug/kg	1.3	SW846 8260B	1	04/07/2023 06:16	PDK	B
Carbon Disulfide	ND	ND,S4,S5	ug/kg	1.3	SW846 8260B	1	04/07/2023 06:16	PDK	B
Carbon Tetrachloride	ND	ND,S4,S5	ug/kg	1.3	SW846 8260B	1	04/07/2023 06:16	PDK	B
Chlorobenzene	ND	ND,S4,S5	ug/kg	1.3	SW846 8260B	1	04/07/2023 06:16	PDK	B
Chlorodibromomethane	ND	ND,S4,S5	ug/kg	1.3	SW846 8260B	1	04/07/2023 06:16	PDK	B
Chloroethane	ND	ND,S4,S5	ug/kg	3.2	SW846 8260B	1	04/07/2023 06:16	PDK	B
Chloroform	ND	ND,S4,S5	ug/kg	1.3	SW846 8260B	1	04/07/2023 06:16	PDK	B
Chloromethane	ND	ND,S4,S5	ug/kg	1.3	SW846 8260B	1	04/07/2023 06:16	PDK	B
cis-1,2-Dichloroethene	ND	ND,S4,S5	ug/kg	1.3	SW846 8260B	1	04/07/2023 06:16	PDK	B
cis-1,3-Dichloropropene	ND	ND,S4,S5	ug/kg	1.3	SW846 8260B	1	04/07/2023 06:16	PDK	B
Cyclohexane	6.9	S4,S5	ug/kg	1.3	SW846 8260B	1	04/07/2023 06:16	PDK	B
Dichlorodifluoromethane	ND	ND,S4,S5	ug/kg	1.3	SW846 8260B	1	04/07/2023 06:16	PDK	B
Ethylbenzene	ND	ND,S4,S5	ug/kg	1.3	SW846 8260B	1	04/07/2023 06:16	PDK	B
Freon 113	ND	ND,S4,S5	ug/kg	1.3	SW846 8260B	1	04/07/2023 06:16	PDK	B
Isopropylbenzene	ND	ND,S4,S5	ug/kg	1.3	SW846 8260B	1	04/07/2023 06:16	PDK	B
Methyl acetate	ND	ND,S4,S5	ug/kg	1.3	SW846 8260B	1	04/07/2023 06:16	PDK	B
Methyl cyclohexane	12.0	S4,S5	ug/kg	1.3	SW846 8260B	1	04/07/2023 06:16	PDK	B
Methyl t-Butyl Ether	ND	ND,3,S4,S5	ug/kg	1.3	SW846 8260B	1	04/07/2023 06:16	PDK	B
Methylene Chloride	ND	ND,S4,S5	ug/kg	1.3	SW846 8260B	1	04/07/2023 06:16	PDK	B
mp-Xylene	ND	ND,S4,S5	ug/kg	2.5	SW846 8260B	1	04/07/2023 06:16	PDK	B
o-Xylene	ND	ND,S4,S5	ug/kg	1.3	SW846 8260B	1	04/07/2023 06:16	PDK	B
Styrene	ND	ND,S4,S5	ug/kg	1.3	SW846 8260B	1	04/07/2023 06:16	PDK	B
Tetrachloroethene	ND	ND,S4,S5	ug/kg	1.3	SW846 8260B	1	04/07/2023 06:16	PDK	B
Toluene	4.9	S4,S5	ug/kg	1.3	SW846 8260B	1	04/07/2023 06:16	PDK	B
Total Xylenes	ND	ND,S4,S5	ug/kg	3.8	SW846 8260B	1	04/07/2023 06:16	PDK	B
trans-1,2-Dichloroethene	ND	ND,S4,S5	ug/kg	1.3	SW846 8260B	1	04/07/2023 06:16	PDK	B
trans-1,3-Dichloropropene	ND	ND,S4,S5	ug/kg	1.3	SW846 8260B	1	04/07/2023 06:16	PDK	B

Results

Client Sample ID	SB-07A-0-2	Collected	04/03/2023 15:10
Lab Sample ID	3296086014	Lab Receipt	04/05/2023 08:53

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Trichloroethene	ND	ND,S4,S5	ug/kg	1.3	SW846 8260B	1	04/07/2023 06:16	PDK	B
Trichlorofluoromethane	ND	ND,S4,S5	ug/kg	1.3	SW846 8260B	1	04/07/2023 06:16	PDK	B
Vinyl Chloride	ND	ND,S4,S5	ug/kg	1.3	SW846 8260B	1	04/07/2023 06:16	PDK	B

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	88.6%	56 – 124	04/07/2023 06:16	
Dibromofluoromethane	1868-53-7	92.7%	62 – 123	04/07/2023 06:16	
Toluene-d8	2037-26-5	149*%	59 – 131	04/07/2023 06:16	29

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Hexavalent Chromium	ND	ND,S4,S5	mg/kg	2.4	SW846 7196A	1	04/07/2023 12:56	AKH	E
Moisture	15.8	S4,S5	%	0.1	S2540G-11	1	04/07/2023 14:18	AKH	
Total Solids	84.2	S4,S5	%	0.1	S2540G-11	1	04/07/2023 14:18	AKH	

Results

Client Sample ID	SB-07A-2-4	Collected	04/03/2023 15:20
Lab Sample ID	3296086015	Lab Receipt	04/05/2023 08:53

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Aluminum, Total	8850		mg/kg	44.3	SW846 6020A	5	04/18/2023 13:55	MO	E1
Antimony, Total	1.3		mg/kg	1.1	SW846 6020A	5	04/18/2023 13:55	MO	E1
Arsenic, Total	12.9		mg/kg	1.7	SW846 6020A	5	04/18/2023 13:55	MO	E1
Barium, Total	87.3		mg/kg	2.8	SW846 6020A	5	04/18/2023 13:55	MO	E1
Beryllium, Total	0.64		mg/kg	0.55	SW846 6020A	5	04/18/2023 13:55	MO	E1
Cadmium, Total	ND	ND	mg/kg	0.55	SW846 6020A	5	04/18/2023 13:55	MO	E1
Calcium, Total	1950		mg/kg	55.3	SW846 6020A	5	04/18/2023 13:55	MO	E1
Chromium, Total	13.0		mg/kg	1.1	SW846 6020A	5	04/18/2023 13:55	MO	E1
Cobalt, Total	13.0		mg/kg	2.8	SW846 6020A	5	04/18/2023 13:55	MO	E1
Copper, Total	33.0		mg/kg	2.8	SW846 6020A	5	04/18/2023 13:55	MO	E1
Iron, Total	40700	6	mg/kg	27.7	SW846 6020A	5	04/18/2023 13:55	MO	E1
Lead, Total	50.1		mg/kg	1.1	SW846 6020A	5	04/18/2023 13:55	MO	E1
Magnesium, Total	1710		mg/kg	55.3	SW846 6020A	5	04/18/2023 13:55	MO	E1
Manganese, Total	638		mg/kg	2.8	SW846 6020A	5	04/18/2023 13:55	MO	E1
Mercury, Total	0.15		mg/kg	0.051	SW846 7471B	1	04/07/2023 12:33	WDA	E
Nickel, Total	23.0		mg/kg	2.8	SW846 6020A	5	04/18/2023 13:55	MO	E1
Potassium, Total	1090		mg/kg	55.3	SW846 6020A	5	04/18/2023 13:55	MO	E1
Selenium, Total	ND	ND	mg/kg	2.8	SW846 6020A	5	04/18/2023 13:55	MO	E1
Silver, Total	ND	ND	mg/kg	1.1	SW846 6020A	5	04/18/2023 13:55	MO	E1
Sodium, Total	58.8		mg/kg	55.3	SW846 6020A	5	04/18/2023 13:55	MO	E1
Thallium, Total	ND	ND	mg/kg	0.55	SW846 6020A	5	04/18/2023 13:55	MO	E1
Trivalent Chromium	13.0		mg/kg	2.4	Calculation	1	04/18/2023 17:07	CW	E
Vanadium, Total	19.4		mg/kg	1.1	SW846 6020A	5	04/18/2023 13:55	MO	E1
Zinc, Total	68.9		mg/kg	2.8	SW846 6020A	5	04/18/2023 13:55	MO	E1

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1-Trichloroethane	ND	ND	ug/kg	1.2	SW846 8260B	1	04/07/2023 06:41	PDK	B
1,1,2,2-Tetrachloroethane	ND	ND	ug/kg	1.2	SW846 8260B	1	04/07/2023 06:41	PDK	B
1,1,2-Trichloroethane	ND	ND	ug/kg	1.2	SW846 8260B	1	04/07/2023 06:41	PDK	B
1,1-Dichloroethane	ND	ND	ug/kg	1.2	SW846 8260B	1	04/07/2023 06:41	PDK	B
1,1-Dichloroethene	ND	ND	ug/kg	1.2	SW846 8260B	1	04/07/2023 06:41	PDK	B
1,2,3-Trichlorobenzene	ND	ND	ug/kg	2.9	SW846 8260B	1	04/07/2023 06:41	PDK	B
1,2,4-Trichlorobenzene	ND	ND	ug/kg	2.9	SW846 8260B	1	04/07/2023 06:41	PDK	B
1,2-Dibromo-3-chloropropane	ND	ND	ug/kg	2.9	SW846 8260B	1	04/07/2023 06:41	PDK	B
1,2-Dibromoethane	ND	ND	ug/kg	1.2	SW846 8260B	1	04/07/2023 06:41	PDK	B
1,2-Dichlorobenzene	ND	ND	ug/kg	1.2	SW846 8260B	1	04/07/2023 06:41	PDK	B
1,2-Dichloroethane	ND	ND	ug/kg	1.2	SW846 8260B	1	04/07/2023 06:41	PDK	B
1,2-Dichloropropane	ND	ND	ug/kg	1.2	SW846 8260B	1	04/07/2023 06:41	PDK	B
1,3-Dichlorobenzene	ND	ND	ug/kg	1.2	SW846 8260B	1	04/07/2023 06:41	PDK	B
1,4-Dichlorobenzene	ND	ND	ug/kg	1.2	SW846 8260B	1	04/07/2023 06:41	PDK	B
2-Butanone	13.2		ug/kg	5.9	SW846 8260B	1	04/07/2023 06:41	PDK	B
2-Chloroethylvinyl ether	ND	ND,2	ug/kg	88.5	SW846 8260B	1	04/07/2023 06:41	PDK	B
2-Hexanone	ND	ND	ug/kg	5.9	SW846 8260B	1	04/07/2023 06:41	PDK	B
4-Methyl-2-Pentanone(MIBK)	ND	ND	ug/kg	5.9	SW846 8260B	1	04/07/2023 06:41	PDK	B
Acetone	70.4		ug/kg	5.9	SW846 8260B	1	04/07/2023 06:41	PDK	B

Results

Client Sample ID	SB-07A-2-4	Collected	04/03/2023 15:20
Lab Sample ID	3296086015	Lab Receipt	04/05/2023 08:53

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Benzene	ND	ND	ug/kg	1.2	SW846 8260B	1	04/07/2023 06:41	PDK	B
Bromochloromethane	ND	ND	ug/kg	1.2	SW846 8260B	1	04/07/2023 06:41	PDK	B
Bromodichloromethane	ND	ND	ug/kg	1.2	SW846 8260B	1	04/07/2023 06:41	PDK	B
Bromoform	ND	ND	ug/kg	1.2	SW846 8260B	1	04/07/2023 06:41	PDK	B
Bromomethane	ND	ND	ug/kg	1.2	SW846 8260B	1	04/07/2023 06:41	PDK	B
Carbon Disulfide	ND	ND	ug/kg	1.2	SW846 8260B	1	04/07/2023 06:41	PDK	B
Carbon Tetrachloride	ND	ND	ug/kg	1.2	SW846 8260B	1	04/07/2023 06:41	PDK	B
Chlorobenzene	ND	ND	ug/kg	1.2	SW846 8260B	1	04/07/2023 06:41	PDK	B
Chlorodibromomethane	ND	ND	ug/kg	1.2	SW846 8260B	1	04/07/2023 06:41	PDK	B
Chloroethane	ND	ND	ug/kg	2.9	SW846 8260B	1	04/07/2023 06:41	PDK	B
Chloroform	ND	ND	ug/kg	1.2	SW846 8260B	1	04/07/2023 06:41	PDK	B
Chloromethane	ND	ND	ug/kg	1.2	SW846 8260B	1	04/07/2023 06:41	PDK	B
cis-1,2-Dichloroethene	ND	ND	ug/kg	1.2	SW846 8260B	1	04/07/2023 06:41	PDK	B
cis-1,3-Dichloropropene	ND	ND	ug/kg	1.2	SW846 8260B	1	04/07/2023 06:41	PDK	B
Cyclohexane	ND	ND	ug/kg	1.2	SW846 8260B	1	04/07/2023 06:41	PDK	B
Dichlorodifluoromethane	ND	ND	ug/kg	1.2	SW846 8260B	1	04/07/2023 06:41	PDK	B
Ethylbenzene	ND	ND	ug/kg	1.2	SW846 8260B	1	04/07/2023 06:41	PDK	B
Freon 113	ND	ND	ug/kg	1.2	SW846 8260B	1	04/07/2023 06:41	PDK	B
Isopropylbenzene	ND	ND	ug/kg	1.2	SW846 8260B	1	04/07/2023 06:41	PDK	B
Methyl acetate	ND	ND	ug/kg	1.2	SW846 8260B	1	04/07/2023 06:41	PDK	B
Methyl cyclohexane	ND	ND	ug/kg	1.2	SW846 8260B	1	04/07/2023 06:41	PDK	B
Methyl t-Butyl Ether	ND	ND,3	ug/kg	1.2	SW846 8260B	1	04/07/2023 06:41	PDK	B
Methylene Chloride	ND	ND	ug/kg	1.2	SW846 8260B	1	04/07/2023 06:41	PDK	B
mp-Xylene	ND	ND	ug/kg	2.4	SW846 8260B	1	04/07/2023 06:41	PDK	B
o-Xylene	ND	ND	ug/kg	1.2	SW846 8260B	1	04/07/2023 06:41	PDK	B
Styrene	ND	ND	ug/kg	1.2	SW846 8260B	1	04/07/2023 06:41	PDK	B
Tetrachloroethene	ND	ND	ug/kg	1.2	SW846 8260B	1	04/07/2023 06:41	PDK	B
Toluene	ND	ND	ug/kg	1.2	SW846 8260B	1	04/07/2023 06:41	PDK	B
Total Xylenes	ND	ND	ug/kg	3.5	SW846 8260B	1	04/07/2023 06:41	PDK	B
trans-1,2-Dichloroethene	ND	ND	ug/kg	1.2	SW846 8260B	1	04/07/2023 06:41	PDK	B
trans-1,3-Dichloropropene	ND	ND	ug/kg	1.2	SW846 8260B	1	04/07/2023 06:41	PDK	B
Trichloroethene	ND	ND	ug/kg	1.2	SW846 8260B	1	04/07/2023 06:41	PDK	B
Trichlorofluoromethane	ND	ND	ug/kg	1.2	SW846 8260B	1	04/07/2023 06:41	PDK	B
Vinyl Chloride	ND	ND	ug/kg	1.2	SW846 8260B	1	04/07/2023 06:41	PDK	B

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	109%	56 – 124	04/07/2023 06:41	
4-Bromofluorobenzene	460-00-4	110%	51 – 128	04/07/2023 06:41	
Dibromofluoromethane	1868-53-7	96.1%	62 – 123	04/07/2023 06:41	
Toluene-d8	2037-26-5	103%	59 – 131	04/07/2023 06:41	

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Hexavalent Chromium	ND	ND	mg/kg	2.4	SW846 7196A	1	04/07/2023 12:56	AKH	E

Results

Client Sample ID	SB-07A-2-4	Collected	04/03/2023 15:20
Lab Sample ID	3296086015	Lab Receipt	04/05/2023 08:53

WET CHEMISTRY (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Moisture	16.3		%	0.1	S2540G-11	1	04/07/2023 14:18	AKH	
Total Solids	83.7		%	0.1	S2540G-11	1	04/07/2023 14:18	AKH	

Results

Client Sample ID	SB-08A-0-2	Collected	04/03/2023 09:20
Lab Sample ID	3296086016	Lab Receipt	04/05/2023 08:53

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Aluminum, Total	20100		mg/kg	39.0	SW846 6020A	5	04/18/2023 13:57	MO	E1
Antimony, Total	ND	ND	mg/kg	0.98	SW846 6020A	5	04/18/2023 13:57	MO	E1
Arsenic, Total	4.9		mg/kg	1.5	SW846 6020A	5	04/18/2023 13:57	MO	E1
Barium, Total	522		mg/kg	2.4	SW846 6020A	5	04/18/2023 13:57	MO	E1
Beryllium, Total	3.4		mg/kg	0.49	SW846 6020A	5	04/18/2023 13:57	MO	E1
Cadmium, Total	ND	ND	mg/kg	0.49	SW846 6020A	5	04/18/2023 13:57	MO	E1
Calcium, Total	148000		mg/kg	488	SW846 6020A	50	04/18/2023 15:03	MO	E1
Chromium, Total	9.6		mg/kg	0.98	SW846 6020A	5	04/18/2023 13:57	MO	E1
Cobalt, Total	ND	ND	mg/kg	2.4	SW846 6020A	5	04/18/2023 13:57	MO	E1
Copper, Total	8.6		mg/kg	2.4	SW846 6020A	5	04/18/2023 13:57	MO	E1
Iron, Total	8570	6	mg/kg	24.4	SW846 6020A	5	04/18/2023 13:57	MO	E1
Lead, Total	37.2		mg/kg	0.98	SW846 6020A	5	04/18/2023 13:57	MO	E1
Magnesium, Total	16800		mg/kg	48.8	SW846 6020A	5	04/18/2023 13:57	MO	E1
Manganese, Total	2490		mg/kg	2.4	SW846 6020A	5	04/18/2023 13:57	MO	E1
Mercury, Total	ND	ND	mg/kg	0.048	SW846 7471B	1	04/07/2023 12:37	WDA	E
Nickel, Total	8.3		mg/kg	2.4	SW846 6020A	5	04/18/2023 13:57	MO	E1
Potassium, Total	1030		mg/kg	48.8	SW846 6020A	5	04/18/2023 13:57	MO	E1
Selenium, Total	2.5		mg/kg	2.4	SW846 6020A	5	04/18/2023 13:57	MO	E1
Silver, Total	ND	ND	mg/kg	0.98	SW846 6020A	5	04/18/2023 13:57	MO	E1
Sodium, Total	998		mg/kg	48.8	SW846 6020A	5	04/18/2023 13:57	MO	E1
Thallium, Total	ND	ND	mg/kg	0.49	SW846 6020A	5	04/18/2023 13:57	MO	E1
Trivalent Chromium	9.6		mg/kg	2.2	Calculation	1	04/18/2023 14:38	CW	E
Vanadium, Total	19.0		mg/kg	0.98	SW846 6020A	5	04/18/2023 13:57	MO	E1
Zinc, Total	35.3		mg/kg	2.4	SW846 6020A	5	04/18/2023 13:57	MO	E1

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1-Trichloroethane	ND	ND	ug/kg	1.4	SW846 8260B	1	04/07/2023 07:05	PDK	B
1,1,2,2-Tetrachloroethane	ND	ND	ug/kg	1.4	SW846 8260B	1	04/07/2023 07:05	PDK	B
1,1,2-Trichloroethane	ND	ND	ug/kg	1.4	SW846 8260B	1	04/07/2023 07:05	PDK	B
1,1-Dichloroethane	ND	ND	ug/kg	1.4	SW846 8260B	1	04/07/2023 07:05	PDK	B
1,1-Dichloroethene	ND	ND	ug/kg	1.4	SW846 8260B	1	04/07/2023 07:05	PDK	B
1,2,3-Trichlorobenzene	ND	ND	ug/kg	3.5	SW846 8260B	1	04/07/2023 07:05	PDK	B
1,2,4-Trichlorobenzene	ND	ND	ug/kg	3.5	SW846 8260B	1	04/07/2023 07:05	PDK	B
1,2-Dibromo-3-chloropropane	ND	ND	ug/kg	3.5	SW846 8260B	1	04/07/2023 07:05	PDK	B
1,2-Dibromoethane	ND	ND	ug/kg	1.4	SW846 8260B	1	04/07/2023 07:05	PDK	B
1,2-Dichlorobenzene	ND	ND	ug/kg	1.4	SW846 8260B	1	04/07/2023 07:05	PDK	B
1,2-Dichloroethane	ND	ND	ug/kg	1.4	SW846 8260B	1	04/07/2023 07:05	PDK	B
1,2-Dichloropropane	ND	ND	ug/kg	1.4	SW846 8260B	1	04/07/2023 07:05	PDK	B
1,3-Dichlorobenzene	ND	ND	ug/kg	1.4	SW846 8260B	1	04/07/2023 07:05	PDK	B
1,4-Dichlorobenzene	ND	ND	ug/kg	1.4	SW846 8260B	1	04/07/2023 07:05	PDK	B
2-Butanone	ND	ND	ug/kg	7.0	SW846 8260B	1	04/07/2023 07:05	PDK	B
2-Chloroethylvinyl ether	ND	ND,2	ug/kg	105	SW846 8260B	1	04/07/2023 07:05	PDK	B
2-Hexanone	ND	ND	ug/kg	7.0	SW846 8260B	1	04/07/2023 07:05	PDK	B
4-Methyl-2-Pentanone(MIBK)	ND	ND	ug/kg	7.0	SW846 8260B	1	04/07/2023 07:05	PDK	B
Acetone	7.7		ug/kg	7.0	SW846 8260B	1	04/07/2023 07:05	PDK	B

Results

Client Sample ID	SB-08A-0-2	Collected	04/03/2023 09:20
Lab Sample ID	3296086016	Lab Receipt	04/05/2023 08:53

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Benzene	ND	ND	ug/kg	1.4	SW846 8260B	1	04/07/2023 07:05	PDK	B
Bromochloromethane	ND	ND	ug/kg	1.4	SW846 8260B	1	04/07/2023 07:05	PDK	B
Bromodichloromethane	ND	ND	ug/kg	1.4	SW846 8260B	1	04/07/2023 07:05	PDK	B
Bromoform	ND	ND	ug/kg	1.4	SW846 8260B	1	04/07/2023 07:05	PDK	B
Bromomethane	ND	ND	ug/kg	1.4	SW846 8260B	1	04/07/2023 07:05	PDK	B
Carbon Disulfide	ND	ND	ug/kg	1.4	SW846 8260B	1	04/07/2023 07:05	PDK	B
Carbon Tetrachloride	ND	ND	ug/kg	1.4	SW846 8260B	1	04/07/2023 07:05	PDK	B
Chlorobenzene	ND	ND	ug/kg	1.4	SW846 8260B	1	04/07/2023 07:05	PDK	B
Chlorodibromomethane	ND	ND	ug/kg	1.4	SW846 8260B	1	04/07/2023 07:05	PDK	B
Chloroethane	ND	ND	ug/kg	3.5	SW846 8260B	1	04/07/2023 07:05	PDK	B
Chloroform	ND	ND	ug/kg	1.4	SW846 8260B	1	04/07/2023 07:05	PDK	B
Chloromethane	ND	ND	ug/kg	1.4	SW846 8260B	1	04/07/2023 07:05	PDK	B
cis-1,2-Dichloroethene	ND	ND	ug/kg	1.4	SW846 8260B	1	04/07/2023 07:05	PDK	B
cis-1,3-Dichloropropene	ND	ND	ug/kg	1.4	SW846 8260B	1	04/07/2023 07:05	PDK	B
Cyclohexane	ND	ND	ug/kg	1.4	SW846 8260B	1	04/07/2023 07:05	PDK	B
Dichlorodifluoromethane	ND	ND	ug/kg	1.4	SW846 8260B	1	04/07/2023 07:05	PDK	B
Ethylbenzene	ND	ND	ug/kg	1.4	SW846 8260B	1	04/07/2023 07:05	PDK	B
Freon 113	ND	ND	ug/kg	1.4	SW846 8260B	1	04/07/2023 07:05	PDK	B
Isopropylbenzene	ND	ND	ug/kg	1.4	SW846 8260B	1	04/07/2023 07:05	PDK	B
Methyl acetate	ND	ND	ug/kg	1.4	SW846 8260B	1	04/07/2023 07:05	PDK	B
Methyl cyclohexane	ND	ND	ug/kg	1.4	SW846 8260B	1	04/07/2023 07:05	PDK	B
Methyl t-Butyl Ether	ND	ND,3	ug/kg	1.4	SW846 8260B	1	04/07/2023 07:05	PDK	B
Methylene Chloride	ND	ND	ug/kg	1.4	SW846 8260B	1	04/07/2023 07:05	PDK	B
mp-Xylene	ND	ND	ug/kg	2.8	SW846 8260B	1	04/07/2023 07:05	PDK	B
o-Xylene	ND	ND	ug/kg	1.4	SW846 8260B	1	04/07/2023 07:05	PDK	B
Styrene	ND	ND	ug/kg	1.4	SW846 8260B	1	04/07/2023 07:05	PDK	B
Tetrachloroethene	ND	ND	ug/kg	1.4	SW846 8260B	1	04/07/2023 07:05	PDK	B
Toluene	ND	ND	ug/kg	1.4	SW846 8260B	1	04/07/2023 07:05	PDK	B
Total Xylenes	ND	ND	ug/kg	4.2	SW846 8260B	1	04/07/2023 07:05	PDK	B
trans-1,2-Dichloroethene	ND	ND	ug/kg	1.4	SW846 8260B	1	04/07/2023 07:05	PDK	B
trans-1,3-Dichloropropene	ND	ND	ug/kg	1.4	SW846 8260B	1	04/07/2023 07:05	PDK	B
Trichloroethene	ND	ND	ug/kg	1.4	SW846 8260B	1	04/07/2023 07:05	PDK	B
Trichlorofluoromethane	ND	ND	ug/kg	1.4	SW846 8260B	1	04/07/2023 07:05	PDK	B
Vinyl Chloride	ND	ND	ug/kg	1.4	SW846 8260B	1	04/07/2023 07:05	PDK	B

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	106%	56 – 124	04/07/2023 07:05	
4-Bromofluorobenzene	460-00-4	108%	51 – 128	04/07/2023 07:05	
Dibromofluoromethane	1868-53-7	88%	62 – 123	04/07/2023 07:05	
Toluene-d8	2037-26-5	99.2%	59 – 131	04/07/2023 07:05	

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Hexavalent Chromium	ND	ND	mg/kg	2.2	SW846 7196A	1	04/07/2023 12:56	AKH	E

Results

Client Sample ID	SB-08A-0-2	Collected	04/03/2023 09:20
Lab Sample ID	3296086016	Lab Receipt	04/05/2023 08:53

WET CHEMISTRY (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Moisture	11.0		%	0.1	S2540G-11	1	04/07/2023 14:18	AKH	
Total Solids	89.0		%	0.1	S2540G-11	1	04/07/2023 14:18	AKH	

Results

Client Sample ID	SB-08A-10-12	Collected	04/03/2023 09:15
Lab Sample ID	3296086017	Lab Receipt	04/05/2023 08:53

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Aluminum, Total	3670		mg/kg	41.0	SW846 6020A	5	04/18/2023 14:21	MO	E1
Antimony, Total	ND	ND	mg/kg	1.0	SW846 6020A	5	04/18/2023 14:21	MO	E1
Arsenic, Total	4.3		mg/kg	1.5	SW846 6020A	5	04/18/2023 14:21	MO	E1
Barium, Total	57.5		mg/kg	2.6	SW846 6020A	5	04/18/2023 14:21	MO	E1
Beryllium, Total	ND	ND	mg/kg	0.51	SW846 6020A	5	04/18/2023 14:21	MO	E1
Cadmium, Total	ND	ND	mg/kg	0.51	SW846 6020A	5	04/18/2023 14:21	MO	E1
Calcium, Total	16600		mg/kg	51.3	SW846 6020A	5	04/18/2023 14:21	MO	E1
Chromium, Total	13.0		mg/kg	1.0	SW846 6020A	5	04/18/2023 14:21	MO	E1
Cobalt, Total	3.3		mg/kg	2.6	SW846 6020A	5	04/18/2023 14:21	MO	E1
Copper, Total	8.3		mg/kg	2.6	SW846 6020A	5	04/18/2023 14:21	MO	E1
Iron, Total	10600	22	mg/kg	25.6	SW846 6020A	5	04/18/2023 14:21	MO	E1
Lead, Total	29.2		mg/kg	1.0	SW846 6020A	5	04/18/2023 14:21	MO	E1
Magnesium, Total	1270		mg/kg	51.3	SW846 6020A	5	04/18/2023 14:21	MO	E1
Manganese, Total	261		mg/kg	2.6	SW846 6020A	5	04/18/2023 14:21	MO	E1
Mercury, Total	0.061		mg/kg	0.054	SW846 7471B	1	04/07/2023 12:38	WDA	E
Nickel, Total	7.4		mg/kg	2.6	SW846 6020A	5	04/18/2023 14:21	MO	E1
Potassium, Total	527		mg/kg	51.3	SW846 6020A	5	04/18/2023 14:21	MO	E1
Selenium, Total	ND	ND,30	mg/kg	2.6	SW846 6020A	5	04/18/2023 14:21	MO	E1
Silver, Total	ND	ND	mg/kg	1.0	SW846 6020A	5	04/18/2023 14:21	MO	E1
Sodium, Total	345		mg/kg	51.3	SW846 6020A	5	04/18/2023 14:21	MO	E1
Thallium, Total	ND	ND	mg/kg	0.51	SW846 6020A	5	04/18/2023 14:21	MO	E1
Trivalent Chromium	13.0		mg/kg	2.4	Calculation	1	04/18/2023 17:08	CW	E
Vanadium, Total	10.3		mg/kg	1.0	SW846 6020A	5	04/18/2023 14:21	MO	E1
Zinc, Total	33.5		mg/kg	2.6	SW846 6020A	5	04/18/2023 14:21	MO	E1

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1-Trichloroethane	ND	ND	ug/kg	0.94	SW846 8260B	1	04/07/2023 07:30	PDK	B
1,1,2,2-Tetrachloroethane	ND	ND	ug/kg	0.94	SW846 8260B	1	04/07/2023 07:30	PDK	B
1,1,2-Trichloroethane	ND	ND	ug/kg	0.94	SW846 8260B	1	04/07/2023 07:30	PDK	B
1,1-Dichloroethane	ND	ND	ug/kg	0.94	SW846 8260B	1	04/07/2023 07:30	PDK	B
1,1-Dichloroethene	ND	ND	ug/kg	0.94	SW846 8260B	1	04/07/2023 07:30	PDK	B
1,2,3-Trichlorobenzene	ND	ND	ug/kg	2.4	SW846 8260B	1	04/07/2023 07:30	PDK	B
1,2,4-Trichlorobenzene	ND	ND	ug/kg	2.4	SW846 8260B	1	04/07/2023 07:30	PDK	B
1,2-Dibromo-3-chloropropane	ND	ND	ug/kg	2.4	SW846 8260B	1	04/07/2023 07:30	PDK	B
1,2-Dibromoethane	ND	ND	ug/kg	0.94	SW846 8260B	1	04/07/2023 07:30	PDK	B
1,2-Dichlorobenzene	ND	ND	ug/kg	0.94	SW846 8260B	1	04/07/2023 07:30	PDK	B
1,2-Dichloroethane	ND	ND	ug/kg	0.94	SW846 8260B	1	04/07/2023 07:30	PDK	B
1,2-Dichloropropane	ND	ND	ug/kg	0.94	SW846 8260B	1	04/07/2023 07:30	PDK	B
1,3-Dichlorobenzene	ND	ND	ug/kg	0.94	SW846 8260B	1	04/07/2023 07:30	PDK	B
1,4-Dichlorobenzene	ND	ND	ug/kg	0.94	SW846 8260B	1	04/07/2023 07:30	PDK	B
2-Butanone	ND	ND	ug/kg	4.7	SW846 8260B	1	04/07/2023 07:30	PDK	B
2-Chloroethylvinyl ether	ND	ND,2	ug/kg	70.6	SW846 8260B	1	04/07/2023 07:30	PDK	B
2-Hexanone	ND	ND	ug/kg	4.7	SW846 8260B	1	04/07/2023 07:30	PDK	B
4-Methyl-2-Pentanone(MIBK)	ND	ND	ug/kg	4.7	SW846 8260B	1	04/07/2023 07:30	PDK	B
Acetone	ND	ND	ug/kg	4.7	SW846 8260B	1	04/07/2023 07:30	PDK	B

Results

Client Sample ID	SB-08A-10-12	Collected	04/03/2023 09:15
Lab Sample ID	3296086017	Lab Receipt	04/05/2023 08:53

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Benzene	ND	ND	ug/kg	0.94	SW846 8260B	1	04/07/2023 07:30	PDK	B
Bromochloromethane	ND	ND	ug/kg	0.94	SW846 8260B	1	04/07/2023 07:30	PDK	B
Bromodichloromethane	ND	ND	ug/kg	0.94	SW846 8260B	1	04/07/2023 07:30	PDK	B
Bromoform	ND	ND	ug/kg	0.94	SW846 8260B	1	04/07/2023 07:30	PDK	B
Bromomethane	ND	ND	ug/kg	0.94	SW846 8260B	1	04/07/2023 07:30	PDK	B
Carbon Disulfide	ND	ND	ug/kg	0.94	SW846 8260B	1	04/07/2023 07:30	PDK	B
Carbon Tetrachloride	ND	ND	ug/kg	0.94	SW846 8260B	1	04/07/2023 07:30	PDK	B
Chlorobenzene	ND	ND	ug/kg	0.94	SW846 8260B	1	04/07/2023 07:30	PDK	B
Chlorodibromomethane	ND	ND	ug/kg	0.94	SW846 8260B	1	04/07/2023 07:30	PDK	B
Chloroethane	ND	ND	ug/kg	2.4	SW846 8260B	1	04/07/2023 07:30	PDK	B
Chloroform	ND	ND	ug/kg	0.94	SW846 8260B	1	04/07/2023 07:30	PDK	B
Chloromethane	ND	ND	ug/kg	0.94	SW846 8260B	1	04/07/2023 07:30	PDK	B
cis-1,2-Dichloroethene	ND	ND	ug/kg	0.94	SW846 8260B	1	04/07/2023 07:30	PDK	B
cis-1,3-Dichloropropene	ND	ND	ug/kg	0.94	SW846 8260B	1	04/07/2023 07:30	PDK	B
Cyclohexane	ND	ND	ug/kg	0.94	SW846 8260B	1	04/07/2023 07:30	PDK	B
Dichlorodifluoromethane	ND	ND	ug/kg	0.94	SW846 8260B	1	04/07/2023 07:30	PDK	B
Ethylbenzene	ND	ND	ug/kg	0.94	SW846 8260B	1	04/07/2023 07:30	PDK	B
Freon 113	ND	ND	ug/kg	0.94	SW846 8260B	1	04/07/2023 07:30	PDK	B
Isopropylbenzene	ND	ND	ug/kg	0.94	SW846 8260B	1	04/07/2023 07:30	PDK	B
Methyl acetate	ND	ND	ug/kg	0.94	SW846 8260B	1	04/07/2023 07:30	PDK	B
Methyl cyclohexane	ND	ND	ug/kg	0.94	SW846 8260B	1	04/07/2023 07:30	PDK	B
Methyl t-Butyl Ether	ND	ND,3	ug/kg	0.94	SW846 8260B	1	04/07/2023 07:30	PDK	B
Methylene Chloride	ND	ND	ug/kg	0.94	SW846 8260B	1	04/07/2023 07:30	PDK	B
mp-Xylene	ND	ND	ug/kg	1.9	SW846 8260B	1	04/07/2023 07:30	PDK	B
o-Xylene	ND	ND	ug/kg	0.94	SW846 8260B	1	04/07/2023 07:30	PDK	B
Styrene	ND	ND	ug/kg	0.94	SW846 8260B	1	04/07/2023 07:30	PDK	B
Tetrachloroethene	ND	ND	ug/kg	0.94	SW846 8260B	1	04/07/2023 07:30	PDK	B
Toluene	ND	ND	ug/kg	0.94	SW846 8260B	1	04/07/2023 07:30	PDK	B
Total Xylenes	ND	ND	ug/kg	2.8	SW846 8260B	1	04/07/2023 07:30	PDK	B
trans-1,2-Dichloroethene	ND	ND	ug/kg	0.94	SW846 8260B	1	04/07/2023 07:30	PDK	B
trans-1,3-Dichloropropene	ND	ND	ug/kg	0.94	SW846 8260B	1	04/07/2023 07:30	PDK	B
Trichloroethene	ND	ND	ug/kg	0.94	SW846 8260B	1	04/07/2023 07:30	PDK	B
Trichlorofluoromethane	ND	ND	ug/kg	0.94	SW846 8260B	1	04/07/2023 07:30	PDK	B
Vinyl Chloride	ND	ND	ug/kg	0.94	SW846 8260B	1	04/07/2023 07:30	PDK	B

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	111%	56 – 124	04/07/2023 07:30	
4-Bromofluorobenzene	460-00-4	113%	51 – 128	04/07/2023 07:30	
Dibromofluoromethane	1868-53-7	98.1%	62 – 123	04/07/2023 07:30	
Toluene-d8	2037-26-5	103%	59 – 131	04/07/2023 07:30	

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Hexavalent Chromium	ND	ND	mg/kg	2.4	SW846 7196A	1	04/07/2023 12:56	AKH	E

Results

Client Sample ID	SB-08A-10-12	Collected	04/03/2023 09:15
Lab Sample ID	3296086017	Lab Receipt	04/05/2023 08:53

WET CHEMISTRY (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Moisture	18.3		%	0.1	S2540G-11	1	04/07/2023 14:18	AKH	
Total Solids	81.7		%	0.1	S2540G-11	1	04/07/2023 14:18	AKH	

Sample - Method Cross Reference Table

Lab ID	Sample ID	Analysis Method	Preparation Method	Leachate Method
3296086001	SB-01A-0-2	SW846 6020A	SW846 3051A	
		SW846 7471B	SW846 7471B	
		SW846 8260B	SW846 5035A	
		Calculation	N/A	
		S2540G-11	N/A	
		SW846 7196A	SW846 3060A	
3296086002	SB-01A-14-16	SW846 6020A	SW846 3051A	
		SW846 7471B	SW846 7471B	
		SW846 8260B	SW846 5035A	
		Calculation	N/A	
		S2540G-11	N/A	
		SW846 7196A	SW846 3060A	
3296086003	SB-02A-0-2	SW846 6020A	SW846 3051A	
		SW846 7471B	SW846 7471B	
		SW846 8260B	SW846 5035A	
		Calculation	N/A	
		S2540G-11	N/A	
		SW846 7196A	SW846 3060A	
3296086004	SB-02A-24-26	SW846 6020A	SW846 3051A	
		SW846 7471B	SW846 7471B	
		SW846 8260B	SW846 5035A	
		Calculation	N/A	
		S2540G-11	N/A	
		SW846 7196A	SW846 3060A	
3296086005	SB-02A-24-26-DUP	SW846 6020A	SW846 3051A	
		SW846 7471B	SW846 7471B	
		SW846 8260B	SW846 5035A	
		Calculation	N/A	
		S2540G-11	N/A	
		SW846 7196A	SW846 3060A	
3296086006	SB-03A-0-2	SW846 6020A	SW846 3051A	
		SW846 7471B	SW846 7471B	
		SW846 8260B	SW846 5035A	
		Calculation	N/A	
		S2540G-11	N/A	
		SW846 7196A	SW846 3060A	
3296086007	SB-03A-6-8	SW846 6020A	SW846 3051A	
		SW846 7471B	SW846 7471B	
		SW846 8260B	SW846 5035A	
		Calculation	N/A	
		S2540G-11	N/A	
		SW846 7196A	SW846 3060A	
3296086008	SB-04A-0-2	SW846 6020A	SW846 3051A	
		SW846 7471B	SW846 7471B	
		SW846 8260B	SW846 5035A	
		Calculation	N/A	
		S2540G-11	N/A	
		SW846 7196A	SW846 3060A	
3296086009	SB-04A-14-16	SW846 6020A	SW846 3051A	
		SW846 7471B	SW846 7471B	
		SW846 8260B	SW846 5035A	
		Calculation	N/A	
		S2540G-11	N/A	
		SW846 7196A	SW846 3060A	

Lab ID	Sample ID	Analysis Method	Preparation Method	Leachate Method
3296086010	SB-05A-0-2	SW846 6020A	SW846 3051A	
		SW846 7471B	SW846 7471B	
		SW846 8260B	SW846 5035A	
		Calculation	N/A	
		S2540G-11	N/A	
		SW846 7196A	SW846 3060A	
3296086011	SB-05A-2-4	SW846 6020A	SW846 3051A	
		SW846 7471B	SW846 7471B	
		SW846 8260B	SW846 5035A	
		Calculation	N/A	
		S2540G-11	N/A	
		SW846 7196A	SW846 3060A	
3296086012	SB-06A-0-2	SW846 6020A	SW846 3051A	
		SW846 7471B	SW846 7471B	
		SW846 8260B	SW846 5035A	
		Calculation	N/A	
		S2540G-11	N/A	
		SW846 7196A	SW846 3060A	
3296086013	SB-06A-2-4	SW846 6020A	SW846 3051A	
		SW846 7471B	SW846 7471B	
		SW846 8260B	SW846 5035A	
		Calculation	N/A	
		S2540G-11	N/A	
		SW846 7196A	SW846 3060A	
3296086014	SB-07A-0-2	SW846 6020A	SW846 3051A	
		SW846 7471B	SW846 7471B	
		SW846 8260B	SW846 5035A	
		Calculation	N/A	
		S2540G-11	N/A	
		SW846 7196A	SW846 3060A	
3296086015	SB-07A-2-4	SW846 6020A	SW846 3051A	
		SW846 7471B	SW846 7471B	
		SW846 8260B	SW846 5035A	
		Calculation	N/A	
		S2540G-11	N/A	
		SW846 7196A	SW846 3060A	
3296086016	SB-08A-0-2	SW846 6020A	SW846 3051A	
		SW846 7471B	SW846 7471B	
		SW846 8260B	SW846 5035A	
		Calculation	N/A	
		S2540G-11	N/A	
		SW846 7196A	SW846 3060A	
3296086017	SB-08A-10-12	SW846 6020A	SW846 3051A	
		SW846 7471B	SW846 7471B	
		SW846 8260B	SW846 5035A	
		Calculation	N/A	
		S2540G-11	N/A	
		SW846 7196A	SW846 3060A	

QUALITY CONTROL SAMPLES

METALS

QC Batch

QC Batch	970585	Prep Method	SW846 3051A
Date	04/06/2023 09:47	Analysis Method	SW846 6020A
Tech.	JSE		

Associated Samples

3296086001	3296086002	3296086003	3296086004
3296086005	3296086006		

Matrix Spike 3649474 (MS2) 3296053001 (non-Project Sample) For QC Batch 970585

****NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

Matrix Spike Duplicate 3649475 (MSD2) 3296053001 (non-Project Sample) For QC Batch 970585

RESULTS

Compound	CAS No		Result (mg/kg)	Orig. Result (mg/kg)	Spk Added (mg/kg)	Rec. (%)	Limits (%)	RPD Limit (%)	Qualifiers
Arsenic, Total	7440-38-2	MS	16.10	1.80	17.10	83.4	75 - 125		
Arsenic, Total	7440-38-2	MSD	18	1.80	19.80	81.6	75 - 125	RPD 11 (Max-20)	
Barium, Total	7440-39-3	MS	290	102	171	110	75 - 125		
Barium, Total	7440-39-3	MSD	327	102	198	114	75 - 125	RPD 11.90 (Max-20)	
Cadmium, Total	7440-43-9	MS	16.80	0.0940	17.10	97.3	75 - 125		
Cadmium, Total	7440-43-9	MSD	19.90	0.0940	19.80	99.8	75 - 125	RPD 17 (Max-20)	
Chromium, Total	7440-47-3	MS	27.70	10.20	17.10	102	75 - 125		
Chromium, Total	7440-47-3	MSD	32.60	10.20	19.80	113	75 - 125	RPD 16.30 (Max-20)	
Lead, Total	7439-92-1	MS	27.30	9.40	17.10	105	75 - 125		
Lead, Total	7439-92-1	MSD	30.60	9.40	19.80	107	75 - 125	RPD 11.50 (Max-20)	
Selenium, Total	7782-49-2	MS	15.20	0.75	17.10	84.5	75 - 125		
Selenium, Total	7782-49-2	MSD	15.70	0.75	19.80	75.6	75 - 125	RPD 3.23 (Max-20)	
Silver, Total	7440-22-4	MS	8.80	0.02	8.60	102	75 - 125		
Silver, Total	7440-22-4	MSD	10.20	0.02	9.90	102	75 - 125	RPD 14.60 (Max-20)	

Method Blank 3649472 (MB) Created on 04/05/2023 11:22 For QC Batch 970585

RESULTS

Compound	CAS No		Result	Units	RDL	Qualifiers
Aluminum, Total	7429-90-5	BLK	ND	mg/kg	40.0	ND
Antimony, Total	7440-36-0	BLK	ND	mg/kg	1.0	ND
Arsenic, Total	7440-38-2	BLK	ND	mg/kg	1.5	ND
Barium, Total	7440-39-3	BLK	ND	mg/kg	2.5	ND
Beryllium, Total	7440-41-7	BLK	ND	mg/kg	0.50	ND
Cadmium, Total	7440-43-9	BLK	ND	mg/kg	0.50	ND
Calcium, Total	7440-70-2	BLK	ND	mg/kg	50.0	ND
Chromium, Total	7440-47-3	BLK	ND	mg/kg	1.0	ND
Cobalt, Total	7440-48-4	BLK	ND	mg/kg	2.5	ND
Copper, Total	7440-50-8	BLK	ND	mg/kg	2.5	ND
Iron, Total	7439-89-6	BLK	ND	mg/kg	25.0	ND
Lead, Total	7439-92-1	BLK	ND	mg/kg	1.0	ND
Magnesium, Total	7439-95-4	BLK	ND	mg/kg	50.0	ND
Manganese, Total	7439-96-5	BLK	ND	mg/kg	2.5	ND

QUALITY CONTROL SAMPLES

METALS (cont.)

RESULTS

Compound	CAS No		Result	Units	RDL	Qualifiers
Nickel, Total	7440-02-0	BLK	ND	mg/kg	2.5	ND
Potassium, Total	7440-09-7	BLK	ND	mg/kg	50.0	ND
Selenium, Total	7782-49-2	BLK	ND	mg/kg	2.5	ND
Silver, Total	7440-22-4	BLK	ND	mg/kg	1.0	ND
Sodium, Total	7440-23-5	BLK	ND	mg/kg	50.0	ND
Thallium, Total	7440-28-0	BLK	ND	mg/kg	0.50	ND
Vanadium, Total	7440-62-2	BLK	ND	mg/kg	1.0	ND
Zinc, Total	7440-66-6	BLK	ND	mg/kg	2.5	ND

Lab Control Standard 3649473 (LCS2) Created on 04/05/2023 11:22 For QC Batch 970585

RESULTS

Compound	CAS No		Result (mg/kg)	Orig. Result (mg/kg)	Spk Added (mg/kg)	Rec. (%)	Limits (%)	RPD Limit (%)	Qualifiers
Aluminum, Total	7429-90-5	LCS	195		200	97.5	80 - 120		
Antimony, Total	7440-36-0	LCS	19.90		20	99.3	80 - 120		
Arsenic, Total	7440-38-2	LCS	19.40		20	97	80 - 120		
Barium, Total	7440-39-3	LCS	192		200	95.8	80 - 120		
Beryllium, Total	7440-41-7	LCS	20		20	99.8	80 - 120		
Cadmium, Total	7440-43-9	LCS	19.90		20	99.4	80 - 120		
Calcium, Total	7440-70-2	LCS	199		200	99.4	80 - 120		
Chromium, Total	7440-47-3	LCS	19.30		20	96.7	80 - 120		
Cobalt, Total	7440-48-4	LCS	19.30		20	96.6	80 - 120		
Copper, Total	7440-50-8	LCS	19.50		20	97.4	80 - 120		
Iron, Total	7439-89-6	LCS	191		200	95.6	80 - 120		
Lead, Total	7439-92-1	LCS	19.80		20	98.8	80 - 120		
Magnesium, Total	7439-95-4	LCS	190		200	94.9	80 - 120		
Manganese, Total	7439-96-5	LCS	19.40		20	96.9	80 - 120		
Nickel, Total	7440-02-0	LCS	20		20	99.8	80 - 120		
Potassium, Total	7440-09-7	LCS	178		200	89.2	80 - 120		
Selenium, Total	7782-49-2	LCS	18.10		20	90.6	80 - 120		
Silver, Total	7440-22-4	LCS	10.20		10	102	80 - 120		
Sodium, Total	7440-23-5	LCS	199		200	99.7	80 - 120		
Thallium, Total	7440-28-0	LCS	19.10		20	95.7	80 - 120		
Vanadium, Total	7440-62-2	LCS	19.30		20	96.3	80 - 120		
Zinc, Total	7440-66-6	LCS	191		200	95.6	80 - 120		

QC Batch

QC Batch	971011	Prep Method	SW846 7471B
Date	04/07/2023 09:35	Analysis Method	SW846 7471B
Tech.	WDA		

Associated Samples

3296086006	3296086001	3296086007	3296086002
3296086008	3296086003	3296086009	3296086004
3296086010	3296086005	3296086011	

QUALITY CONTROL SAMPLES

METALS (cont.)

Matrix Spike 3650371 (MS) 3296062002 (non-Project Sample) For QC Batch 971011

****NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

Matrix Spike Duplicate 3650372 (MSD) 3296062002 (non-Project Sample) For QC Batch 971011

RESULTS

Compound	CAS No		Result (mg/kg)	Orig. Result (mg/kg)	Spk Added (mg/kg)	Rec. (%)	Limits (%)	RPD Limit (%)	Qualifiers
Mercury, Total	7439-97-6	MS	0.89	0.0085	0.91	96.3	80 - 120		
Mercury, Total	7439-97-6	MSD	0.88	0.0085	0.92	94.1	80 - 120	RPD 0.82 (Max-20)	

Method Blank 3650369 (MB) Created on 04/06/2023 14:46 For QC Batch 971011

RESULTS

Compound	CAS No		Result	Units	RDL	Qualifiers
Mercury, Total	7439-97-6	BLK	ND	mg/kg	0.050	ND

Lab Control Standard 3650370 (LCS) Created on 04/06/2023 14:46 For QC Batch 971011

RESULTS

Compound	CAS No		Result (mg/kg)	Orig. Result (mg/kg)	Spk Added (mg/kg)	Rec. (%)	Limits (%)	RPD Limit (%)	Qualifiers
Mercury, Total	7439-97-6	LCS	0.36		0.40	90.5	80 - 120		

Matrix Spike 3650373 (MS) 3296086007 For QC Batch 971011

****NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

Matrix Spike Duplicate 3650374 (MSD) 3296086007 For QC Batch 971011

RESULTS

Compound	CAS No		Result (mg/kg)	Orig. Result (mg/kg)	Spk Added (mg/kg)	Rec. (%)	Limits (%)	RPD Limit (%)	Qualifiers
Mercury, Total	7439-97-6	MS	0.89	0.04	0.94	90.1	80 - 120		
Mercury, Total	7439-97-6	MSD	0.85	0.04	0.92	88	80 - 120	RPD 4.37 (Max-20)	

QC Batch

QC Batch	971012	Prep Method	SW846 7471B
Date	04/07/2023 09:35	Analysis Method	SW846 7471B
Tech.	WDA		

Associated Samples

3296086013	3296086014	3296086015	3296086016
3296086017	3296086012		

QUALITY CONTROL SAMPLES

METALS (cont.)

Matrix Spike 3650379 (MS) 3296355001 (non-Project Sample) For QC Batch 971012

****NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

Matrix Spike Duplicate 3650380 (MSD) 3296355001 (non-Project Sample) For QC Batch 971012

RESULTS

Compound	CAS No		Result (mg/kg)	Orig. Result (mg/kg)	Spk Added (mg/kg)	Rec. (%)	Limits (%)	RPD Limit (%)	Qualifiers
Mercury, Total	7439-97-6	MS	0.94	0.0089	0.97	95.9	80 - 120		
Mercury, Total	7439-97-6	MSD	0.93	0.0089	0.96	95.9	80 - 120	RPD 1.16 (Max-20)	

Method Blank 3650375 (MB) Created on 04/06/2023 14:48 For QC Batch 971012

RESULTS

Compound	CAS No		Result	Units	RDL	Qualifiers
Mercury, Total	7439-97-6	BLK	ND	mg/kg	0.050	ND

Lab Control Standard 3650376 (LCS) Created on 04/06/2023 14:48 For QC Batch 971012

RESULTS

Compound	CAS No		Result (mg/kg)	Orig. Result (mg/kg)	Spk Added (mg/kg)	Rec. (%)	Limits (%)	RPD Limit (%)	Qualifiers
Mercury, Total	7439-97-6	LCS	0.40		0.40	101	80 - 120		

Matrix Spike 3650377 (MS) 3296086015 For QC Batch 971012

****NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

Matrix Spike Duplicate 3650378 (MSD) 3296086015 For QC Batch 971012

RESULTS

Compound	CAS No		Result (mg/kg)	Orig. Result (mg/kg)	Spk Added (mg/kg)	Rec. (%)	Limits (%)	RPD Limit (%)	Qualifiers
Mercury, Total	7439-97-6	MS	0.82	0.12	0.84	82.8	80 - 120		
Mercury, Total	7439-97-6	MSD	0.98	0.12	0.96	89	80 - 120	RPD 17.50 (Max-20)	

QC Batch

QC Batch	971603	Prep Method	SW846 3051A
Date	04/07/2023 12:40	Analysis Method	SW846 6020A
Tech.	JSE		

Associated Samples

3296086013	3296086007	3296086014	3296086008
3296086015	3296086009	3296086016	3296086010
3296086017	3296086011	3296086012	

Method Blank 3650688 (MB) Created on 04/07/2023 08:54 For QC Batch 971603

QUALITY CONTROL SAMPLES

METALS (cont.)

RESULTS

Compound	CAS No		Result	Units	RDL	Qualifiers
Aluminum, Total	7429-90-5	BLK	ND	mg/kg	40.0	ND
Antimony, Total	7440-36-0	BLK	ND	mg/kg	1.0	ND
Arsenic, Total	7440-38-2	BLK	ND	mg/kg	1.5	ND
Barium, Total	7440-39-3	BLK	ND	mg/kg	2.5	ND
Beryllium, Total	7440-41-7	BLK	ND	mg/kg	0.50	ND
Cadmium, Total	7440-43-9	BLK	ND	mg/kg	0.50	ND
Calcium, Total	7440-70-2	BLK	ND	mg/kg	50.0	ND
Chromium, Total	7440-47-3	BLK	ND	mg/kg	1.0	ND
Cobalt, Total	7440-48-4	BLK	ND	mg/kg	2.5	ND
Copper, Total	7440-50-8	BLK	ND	mg/kg	2.5	ND
Iron, Total	7439-89-6	BLK	ND	mg/kg	25.0	ND
Lead, Total	7439-92-1	BLK	ND	mg/kg	1.0	ND
Magnesium, Total	7439-95-4	BLK	ND	mg/kg	50.0	ND
Manganese, Total	7439-96-5	BLK	ND	mg/kg	2.5	ND
Nickel, Total	7440-02-0	BLK	ND	mg/kg	2.5	ND
Potassium, Total	7440-09-7	BLK	ND	mg/kg	50.0	ND
Selenium, Total	7782-49-2	BLK	ND	mg/kg	2.5	ND
Silver, Total	7440-22-4	BLK	ND	mg/kg	1.0	ND
Sodium, Total	7440-23-5	BLK	ND	mg/kg	50.0	ND
Thallium, Total	7440-28-0	BLK	ND	mg/kg	0.50	ND
Vanadium, Total	7440-62-2	BLK	ND	mg/kg	1.0	ND
Zinc, Total	7440-66-6	BLK	ND	mg/kg	2.5	ND

Lab Control Standard 3650689 (LCS2) Created on 04/07/2023 08:54 For QC Batch 971603

RESULTS

Compound	CAS No		Result (mg/kg)	Orig. Result (mg/kg)	Spk Added (mg/kg)	Rec. (%)	Limits (%)	RPD Limit (%)	Qualifiers
Aluminum, Total	7429-90-5	LCS	205		200	103	80 - 120		
Antimony, Total	7440-36-0	LCS	20		20	100	80 - 120		
Arsenic, Total	7440-38-2	LCS	19.70		20	98.3	80 - 120		
Barium, Total	7440-39-3	LCS	201		200	100	80 - 120		
Beryllium, Total	7440-41-7	LCS	20.10		20	100	80 - 120		
Cadmium, Total	7440-43-9	LCS	19.90		20	99.5	80 - 120		
Calcium, Total	7440-70-2	LCS	211		200	105	80 - 120		
Chromium, Total	7440-47-3	LCS	19.50		20	97.7	80 - 120		
Cobalt, Total	7440-48-4	LCS	19.50		20	97.3	80 - 120		
Copper, Total	7440-50-8	LCS	19.50		20	97.7	80 - 120		
Iron, Total	7439-89-6	LCS	197		200	98.4	80 - 120		
Lead, Total	7439-92-1	LCS	19.60		20	97.9	80 - 120		
Magnesium, Total	7439-95-4	LCS	204		200	102	80 - 120		
Manganese, Total	7439-96-5	LCS	19.50		20	97.5	80 - 120		
Nickel, Total	7440-02-0	LCS	20.10		20	100	80 - 120		
Potassium, Total	7440-09-7	LCS	183		200	91.7	80 - 120		
Selenium, Total	7782-49-2	LCS	20.10		20	100	80 - 120		
Silver, Total	7440-22-4	LCS	10.10		10	101	80 - 120		

QUALITY CONTROL SAMPLES

METALS (cont.)

RESULTS

Compound	CAS No		Result (mg/kg)	Orig. Result (mg/kg)	Spk Added (mg/kg)	Rec. (%)	Limits (%)	RPD Limit (%)	Qualifiers
Sodium, Total	7440-23-5	LCS	204		200	102	80 - 120		
Thallium, Total	7440-28-0	LCS	19.20		20	96.1	80 - 120		
Vanadium, Total	7440-62-2	LCS	19.10		20	95.7	80 - 120		
Zinc, Total	7440-66-6	LCS	200		200	99.9	80 - 120		

Matrix Spike 3650690 (MS2) 3296086007 For QC Batch 971603

****NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

Matrix Spike Duplicate 3650691 (MSD2) 3296086007 For QC Batch 971603

RESULTS

Compound	CAS No		Result (mg/kg)	Orig. Result (mg/kg)	Spk Added (mg/kg)	Rec. (%)	Limits (%)	RPD Limit (%)	Qualifiers
Aluminum, Total	7429-90-5	MS	6110	3570	178	NC	75 - 125		
Aluminum, Total	7429-90-5	MSD	7270	3570	186	NC	75 - 125	RPD 17.30 (Max-20)	
Antimony, Total	7440-36-0	MS	13.90	3.10	17.80	60.5*	75 - 125		
Antimony, Total	7440-36-0	MSD	14.80	3.10	18.60	62.7*	75 - 125	RPD 6.08 (Max-20)	
Arsenic, Total	7440-38-2	MS	24.90	17.40	17.80	42.2*	75 - 125		
Arsenic, Total	7440-38-2	MSD	27.50	17.40	18.60	54.3*	75 - 125	RPD 9.75 (Max-20)	
Barium, Total	7440-39-3	MS	329	93.40	178	133*	75 - 125		
Barium, Total	7440-39-3	MSD	358	93.40	186	143*	75 - 125	RPD 8.37 (Max-20)	
Beryllium, Total	7440-41-7	MS	17.40	0.41	17.80	95.6	75 - 125		
Beryllium, Total	7440-41-7	MSD	17.80	0.41	18.60	93.8	75 - 125	RPD 2.30 (Max-20)	
Cadmium, Total	7440-43-9	MS	17.70	0.84	17.80	94.5	75 - 125		
Cadmium, Total	7440-43-9	MSD	18.20	0.84	18.60	93.7	75 - 125	RPD 3.13 (Max-20)	
Calcium, Total	7440-70-2	MS	37300	113000	178	NC	75 - 125		
Calcium, Total	7440-70-2	MSD	15000	113000	186	NC	75 - 125	RPD 85.30* (Max-20)	
Chromium, Total	7440-47-3	MS	34.60	171	17.80	NC	75 - 125		
Chromium, Total	7440-47-3	MSD	33.20	171	18.60	NC	75 - 125	RPD 4.08 (Max-20)	
Cobalt, Total	7440-48-4	MS	22.50	14.90	17.80	42.8*	75 - 125		
Cobalt, Total	7440-48-4	MSD	23.50	14.90	18.60	46.7*	75 - 125	RPD 4.54 (Max-20)	
Copper, Total	7440-50-8	MS	35.20	339	17.80	NC	75 - 125		
Copper, Total	7440-50-8	MSD	35.90	339	18.60	NC	75 - 125	RPD 1.80 (Max-20)	
Iron, Total	7439-89-6	MS	22100	153000	178	NC	75 - 125		
Iron, Total	7439-89-6	MSD	23500	153000	186	NC	75 - 125	RPD 5.82 (Max-20)	
Lead, Total	7439-92-1	MS	153	60.70	17.80	518*	75 - 125		
Lead, Total	7439-92-1	MSD	1570	60.70	18.60	8130*	75 - 125	RPD 164* (Max-20)	
Magnesium, Total	7439-95-4	MS	2530	2430	178	NC	75 - 125		
Magnesium, Total	7439-95-4	MSD	1880	2430	186	NC	75 - 125	RPD 29.70* (Max-20)	
Manganese, Total	7439-96-5	MS	931	955	17.80	NC	75 - 125		
Manganese, Total	7439-96-5	MSD	552	955	18.60	NC	75 - 125	RPD 51* (Max-20)	
Nickel, Total	7440-02-0	MS	30.90	119	17.80	NC	75 - 125		
Nickel, Total	7440-02-0	MSD	31.90	119	18.60	NC	75 - 125	RPD 3.19 (Max-20)	
Potassium, Total	7440-09-7	MS	995	566	178	241*	75 - 125		
Potassium, Total	7440-09-7	MSD	1180	566	186	331*	75 - 125	RPD 17.10 (Max-20)	
Selenium, Total	7782-49-2	MS	17.20	0.31	17.80	95.2	75 - 125		

QUALITY CONTROL SAMPLES

METALS (cont.)

RESULTS

Compound	CAS No		Result (mg/kg)	Orig. Result (mg/kg)	Spk Added (mg/kg)	Rec. (%)	Limits (%)	RPD Limit (%)	Qualifiers
Selenium, Total	7782-49-2	MSD	16.70	0.31	18.60	88.2	75 - 125	RPD 3.39 (Max-20)	
Silver, Total	7440-22-4	MS	8.80	0.24	8.90	96.5	75 - 125		
Silver, Total	7440-22-4	MSD	9	0.24	9.30	94.1	75 - 125	RPD 1.60 (Max-20)	
Sodium, Total	7440-23-5	MS	241	75	178	93.1	75 - 125		
Sodium, Total	7440-23-5	MSD	228	75	186	82.5	75 - 125	RPD 5.37 (Max-20)	
Thallium, Total	7440-28-0	MS	16.50	0.0540	17.80	92.4	75 - 125		
Thallium, Total	7440-28-0	MSD	16.90	0.0540	18.60	90.7	75 - 125	RPD 2.34 (Max-20)	
Vanadium, Total	7440-62-2	MS	34.40	14.20	17.80	113	75 - 125		
Vanadium, Total	7440-62-2	MSD	37.40	14.20	18.60	125	75 - 125	RPD 8.53 (Max-20)	
Zinc, Total	7440-66-6	MS	250	52	178	112	75 - 125		
Zinc, Total	7440-66-6	MSD	289	52	186	128*	75 - 125	RPD 14.20 (Max-20)	

QUALITY CONTROL SAMPLES

VOLATILE ORGANICS

QC Batch

QC Batch	971568	Prep Method	SW846 5035A
Date	04/06/2023 23:08	Analysis Method	SW846 8260B
Tech.	PDK		

Associated Samples

3296086002	3296086005	3296086011	3296086017
3296086001	3296086003	3296086006	3296086015
3296086009	3296086012	3296086014	3296086016

Method Blank 3650513 (MB) Created on 04/06/2023 23:07 For QC Batch 971568

RESULTS

Compound	CAS No		Result	Units	RDL	Qualifiers
1,1,1-Trichloroethane	71-55-6	BLK	ND	ug/kg	2.0	ND
1,1,2,2-Tetrachloroethane	79-34-5	BLK	ND	ug/kg	2.0	ND
1,1,2-Trichloroethane	79-00-5	BLK	ND	ug/kg	2.0	ND
1,1-Dichloroethane	75-34-3	BLK	ND	ug/kg	2.0	ND
1,1-Dichloroethene	75-35-4	BLK	ND	ug/kg	2.0	ND
1,2,3-Trichlorobenzene	87-61-6	BLK	ND	ug/kg	5.0	ND
1,2,4-Trichlorobenzene	120-82-1	BLK	ND	ug/kg	5.0	ND
1,2-Dibromo-3-chloropropane	96-12-8	BLK	ND	ug/kg	5.0	ND
1,2-Dibromoethane	106-93-4	BLK	ND	ug/kg	2.0	ND
1,2-Dichlorobenzene	95-50-1	BLK	ND	ug/kg	2.0	ND
1,2-Dichloroethane	107-06-2	BLK	ND	ug/kg	2.0	ND
1,2-Dichloropropane	78-87-5	BLK	ND	ug/kg	2.0	ND
1,3-Dichlorobenzene	541-73-1	BLK	ND	ug/kg	2.0	ND
1,4-Dichlorobenzene	106-46-7	BLK	ND	ug/kg	2.0	ND
2-Butanone	78-93-3	BLK	ND	ug/kg	10.0	ND
2-Chloroethylvinyl ether	110-75-8	BLK	ND	ug/kg	150	ND
2-Hexanone	591-78-6	BLK	ND	ug/kg	10.0	ND
4-Methyl-2-Pentanone(MIBK)	108-10-1	BLK	ND	ug/kg	10.0	ND
Acetone	67-64-1	BLK	ND	ug/kg	10.0	ND
Benzene	71-43-2	BLK	ND	ug/kg	2.0	ND
Bromochloromethane	74-97-5	BLK	ND	ug/kg	2.0	ND
Bromodichloromethane	75-27-4	BLK	ND	ug/kg	2.0	ND
Bromoform	75-25-2	BLK	ND	ug/kg	2.0	ND
Bromomethane	74-83-9	BLK	ND	ug/kg	2.0	ND
Carbon Disulfide	75-15-0	BLK	ND	ug/kg	2.0	ND
Carbon Tetrachloride	56-23-5	BLK	ND	ug/kg	2.0	ND
Chlorobenzene	108-90-7	BLK	ND	ug/kg	2.0	ND
Chlorodibromomethane	124-48-1	BLK	ND	ug/kg	2.0	ND
Chloroethane	75-00-3	BLK	ND	ug/kg	5.0	ND
Chloroform	67-66-3	BLK	ND	ug/kg	2.0	ND
Chloromethane	74-87-3	BLK	ND	ug/kg	2.0	ND
cis-1,2-Dichloroethene	156-59-2	BLK	ND	ug/kg	2.0	ND
cis-1,3-Dichloropropene	10061-01-5	BLK	ND	ug/kg	2.0	ND
Cyclohexane	110-82-7	BLK	ND	ug/kg	2.0	ND
Dichlorodifluoromethane	75-71-8	BLK	ND	ug/kg	2.0	ND
Ethylbenzene	100-41-4	BLK	ND	ug/kg	2.0	ND
Freon 113	76-13-1	BLK	ND	ug/kg	2.0	ND
Isopropylbenzene	98-82-8	BLK	ND	ug/kg	2.0	ND
Methyl acetate	79-20-9	BLK	ND	ug/kg	2.0	ND

QUALITY CONTROL SAMPLES

VOLATILE ORGANICS (cont.)

RESULTS

Compound	CAS No		Result	Units	RDL	Qualifiers
Methyl cyclohexane	108-87-2	BLK	ND	ug/kg	2.0	ND
Methyl t-Butyl Ether	1634-04-4	BLK	ND	ug/kg	2.0	ND
Methylene Chloride	75-09-2	BLK	ND	ug/kg	2.0	ND
mp-Xylene	108383/106423	BLK	ND	ug/kg	4.0	ND
o-Xylene	95-47-6	BLK	ND	ug/kg	2.0	ND
Styrene	100-42-5	BLK	ND	ug/kg	2.0	ND
Tetrachloroethene	127-18-4	BLK	ND	ug/kg	2.0	ND
Toluene	108-88-3	BLK	ND	ug/kg	2.0	ND
Total Xylenes	1330-20-7	BLK	ND	ug/kg	6.0	ND
trans-1,2-Dichloroethene	156-60-5	BLK	ND	ug/kg	2.0	ND
trans-1,3-Dichloropropene	10061-02-6	BLK	ND	ug/kg	2.0	ND
Trichloroethene	79-01-6	BLK	ND	ug/kg	2.0	ND
Trichlorofluoromethane	75-69-4	BLK	ND	ug/kg	2.0	ND
Vinyl Chloride	75-01-4	BLK	ND	ug/kg	2.0	ND

SURROGATES

Compound	CAS No		Result (ug/kg)	Expected (ug/kg)	Rec. (%)	Limits (%)	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	BLK	32.40	30	108	56 - 124	
4-Bromofluorobenzene	460-00-4	BLK	33.30	30	111	51 - 128	
Dibromofluoromethane	1868-53-7	BLK	29.10	30	96.9	62 - 123	
Toluene-d8	2037-26-5	BLK	32.40	30	108	59 - 131	

Lab Control Standard 3650514 (LCS) Created on 04/06/2023 23:07 For QC Batch 971568

Lab Control Std Duplicate 3650515 (LCSD) Created on 04/06/2023 23:07 For QC Batch 971568

RESULTS

Compound	CAS No		Result (ug/kg)	Orig. Result (ug/kg)	Spk Added (ug/kg)	Rec. (%)	Limits (%)	RPD Limit (%)	Qualifiers
1,1,1-Trichloroethane	71-55-6	LCS	21.90		20	109	68 - 131		
1,1,1-Trichloroethane	71-55-6	LCSD	21.10		20	106	68 - 131	RPD 3.39 (Max-40)	
1,1,2,2-Tetrachloroethane	79-34-5	LCS	20.70		20	103	72 - 134		
1,1,2,2-Tetrachloroethane	79-34-5	LCSD	19.60		20	98.1	72 - 134	RPD 5.20 (Max-40)	
1,1,2-Trichloroethane	79-00-5	LCS	19.80		20	99.2	79 - 123		
1,1,2-Trichloroethane	79-00-5	LCSD	19.20		20	96	79 - 123	RPD 3.29 (Max-40)	
1,1-Dichloroethane	75-34-3	LCS	21.90		20	110	74 - 131		
1,1-Dichloroethane	75-34-3	LCSD	21		20	105	74 - 131	RPD 4.33 (Max-40)	
1,1-Dichloroethene	75-35-4	LCS	19.80		20	98.8	59 - 139		
1,1-Dichloroethene	75-35-4	LCSD	19.10		20	95.3	59 - 139	RPD 3.60 (Max-40)	
1,2,3-Trichlorobenzene	87-61-6	LCS	17.70		20	88.7	68 - 129		
1,2,3-Trichlorobenzene	87-61-6	LCSD	16.70		20	83.5	68 - 129	RPD 5.98 (Max-40)	
1,2,4-Trichlorobenzene	120-82-1	LCS	17.20		20	86.1	63 - 132		
1,2,4-Trichlorobenzene	120-82-1	LCSD	16.30		20	81.5	63 - 132	RPD 5.55 (Max-40)	
1,2-Dibromo-3-chloropropane	96-12-8	LCS	17.50		20	87.7	52 - 151		
1,2-Dibromo-3-chloropropane	96-12-8	LCSD	16.70		20	83.7	52 - 151	RPD 4.63 (Max-40)	
1,2-Dibromoethane	106-93-4	LCS	17.30		20	86.7	76 - 127		

QUALITY CONTROL SAMPLES

VOLATILE ORGANICS (cont.)

RESULTS

Compound	CAS No		Result (ug/kg)	Orig. Result (ug/kg)	Spk Added (ug/kg)	Rec. (%)	Limits (%)	RPD Limit (%)	Qualifiers
1,2-Dibromoethane	106-93-4	LCSD	16.70		20	83.4	76 - 127	RPD 3.88 (Max-40)	
1,2-Dichlorobenzene	95-50-1	LCS	18.70		20	93.7	75 - 126		
1,2-Dichlorobenzene	95-50-1	LCSD	17.80		20	88.8	75 - 126	RPD 5.35 (Max-40)	
1,2-Dichloroethane	107-06-2	LCS	20.80		20	104	69 - 132		
1,2-Dichloroethane	107-06-2	LCSD	19.90		20	99.6	69 - 132	RPD 4.22 (Max-40)	
1,2-Dichloropropane	78-87-5	LCS	21.30		20	106	78 - 131		
1,2-Dichloropropane	78-87-5	LCSD	20.70		20	103	78 - 131	RPD 2.97 (Max-40)	
1,3-Dichlorobenzene	541-73-1	LCS	18.50		20	92.5	72 - 127		
1,3-Dichlorobenzene	541-73-1	LCSD	17.60		20	88.2	72 - 127	RPD 4.74 (Max-40)	
1,4-Dichlorobenzene	106-46-7	LCS	18.60		20	93	72 - 126		
1,4-Dichlorobenzene	106-46-7	LCSD	17.60		20	88.1	72 - 126	RPD 5.46 (Max-40)	
2-Butanone	78-93-3	LCS	112		100	112	64 - 148		
2-Butanone	78-93-3	LCSD	106		100	106	64 - 148	RPD 5.56 (Max-40)	
2-Chloroethylvinyl ether	110-75-8	LCS	52.30		20	261*	0 - 200		ND
2-Hexanone	591-78-6	LCS	108		100	108	62 - 147		
2-Hexanone	591-78-6	LCSD	102		100	102	62 - 147	RPD 5.49 (Max-40)	
4-Methyl-2-Pentanone(MIBK)	108-10-1	LCS	113		100	113	64 - 143		
4-Methyl-2-Pentanone(MIBK)	108-10-1	LCSD	107		100	107	64 - 143	RPD 5.57 (Max-40)	
Acetone	67-64-1	LCS	115		100	115	58 - 146		
Acetone	67-64-1	LCSD	107		100	107	58 - 146	RPD 6.83 (Max-40)	
Benzene	71-43-2	LCS	22.20		20	111	75 - 132		
Benzene	71-43-2	LCSD	21.40		20	107	75 - 132	RPD 3.35 (Max-40)	
Bromochloromethane	74-97-5	LCS	22.30		20	112	71 - 120		
Bromochloromethane	74-97-5	LCSD	21.60		20	108	71 - 120	RPD 3.40 (Max-40)	
Bromodichloromethane	75-27-4	LCS	16.20		20	81.1	74 - 127		
Bromodichloromethane	75-27-4	LCSD	15.60		20	78	74 - 127	RPD 3.87 (Max-40)	
Bromoform	75-25-2	LCS	16.70		20	83.3	68 - 131		
Bromoform	75-25-2	LCSD	16		20	79.9	68 - 131	RPD 4.20 (Max-40)	
Bromomethane	74-83-9	LCS	18.40		20	91.8	43 - 148		
Bromomethane	74-83-9	LCSD	17		20	84.9	43 - 148	RPD 7.82 (Max-40)	
Carbon Disulfide	75-15-0	LCS	19.30		20	96.5	47 - 144		
Carbon Disulfide	75-15-0	LCSD	18.70		20	93.6	47 - 144	RPD 3.07 (Max-40)	
Carbon Tetrachloride	56-23-5	LCS	17.30		20	86.5	64 - 136		
Carbon Tetrachloride	56-23-5	LCSD	16.60		20	83.1	64 - 136	RPD 4.05 (Max-40)	
Chlorobenzene	108-90-7	LCS	19.10		20	95.3	76 - 125		
Chlorobenzene	108-90-7	LCSD	18.40		20	92.1	76 - 125	RPD 3.36 (Max-40)	
Chlorodibromomethane	124-48-1	LCS	16.30		20	81.5	75 - 124		
Chlorodibromomethane	124-48-1	LCSD	15.80		20	79.1	75 - 124	RPD 3.07 (Max-40)	
Chloroethane	75-00-3	LCS	12		20	60	1 - 141		
Chloroethane	75-00-3	LCSD	10.90		20	54.7	1 - 141	RPD 9.10 (Max-40)	
Chloroform	67-66-3	LCS	21.50		20	107	73 - 126		
Chloroform	67-66-3	LCSD	20.70		20	104	73 - 126	RPD 3.40 (Max-40)	
Chloromethane	74-87-3	LCS	20.90		20	105	44 - 139		
Chloromethane	74-87-3	LCSD	20.20		20	101	44 - 139	RPD 3.28 (Max-40)	
cis-1,2-Dichloroethene	156-59-2	LCS	22.40		20	112	75 - 128		
cis-1,2-Dichloroethene	156-59-2	LCSD	21.90		20	109	75 - 128	RPD 2.48 (Max-40)	
cis-1,3-Dichloropropene	10061-01-5	LCS	16.10		20	80.7	76 - 123		
cis-1,3-Dichloropropene	10061-01-5	LCSD	15.50		20	77.7	76 - 123	RPD 3.71 (Max-40)	

QUALITY CONTROL SAMPLES

VOLATILE ORGANICS (cont.)

RESULTS

Compound	CAS No		Result (ug/kg)	Orig. Result (ug/kg)	Spk Added (ug/kg)	Rec. (%)	Limits (%)	RPD Limit (%)	Qualifiers
Cyclohexane	110-82-7	LCS	22.40		20	112	62 - 143		
Cyclohexane	110-82-7	LCSD	21.60		20	108	62 - 143	RPD 3.60 (Max-40)	
Dichlorodifluoromethane	75-71-8	LCS	22.60		20	113	16 - 152		
Dichlorodifluoromethane	75-71-8	LCSD	21.70		20	108	16 - 152	RPD 4.18 (Max-40)	
Ethylbenzene	100-41-4	LCS	19.80		20	99.2	73 - 133		
Ethylbenzene	100-41-4	LCSD	19.10		20	95.6	73 - 133	RPD 3.75 (Max-40)	
Freon 113	76-13-1	LCS	21.10		20	105	40 - 109		
Freon 113	76-13-1	LCSD	20.60		20	103	40 - 109	RPD 2.18 (Max-40)	
Isopropylbenzene	98-82-8	LCS	20.50		20	102	71 - 137		
Isopropylbenzene	98-82-8	LCSD	19.60		20	98.2	71 - 137	RPD 4.07 (Max-40)	
Methyl acetate	79-20-9	LCS	24.80		20	124	70 - 130		
Methyl acetate	79-20-9	LCSD	23.80		20	119	70 - 130	RPD 3.97 (Max-40)	
Methyl cyclohexane	108-87-2	LCS	18.50		20	92.5	70 - 130		
Methyl cyclohexane	108-87-2	LCSD	18		20	90.1	70 - 130	RPD 2.66 (Max-40)	
Methyl t-Butyl Ether	1634-04-4	LCS	24.40		20	122*	70 - 118		
Methyl t-Butyl Ether	1634-04-4	LCSD	23.60		20	118	70 - 118	RPD 3.39 (Max-40)	
Methylene Chloride	75-09-2	LCS	22.30		20	112	68 - 133		
Methylene Chloride	75-09-2	LCSD	21.40		20	107	68 - 133	RPD 4.04 (Max-40)	
mp-Xylene	108383/106423	LCS	37.60		40	94	72 - 130		
mp-Xylene	108383/106423	LCSD	36.40		40	91	72 - 130	RPD 3.25 (Max-40)	
o-Xylene	95-47-6	LCS	17		20	85.2	75 - 129		
o-Xylene	95-47-6	LCSD	16.50		20	82.5	75 - 129	RPD 3.23 (Max-40)	
Styrene	100-42-5	LCS	18.90		20	94.4	77 - 130		
Styrene	100-42-5	LCSD	18		20	89.9	77 - 130	RPD 4.94 (Max-40)	
Tetrachloroethene	127-18-4	LCS	16.80		20	84.2	58 - 137		
Tetrachloroethene	127-18-4	LCSD	16.50		20	82.5	58 - 137	RPD 2.01 (Max-40)	
Toluene	108-88-3	LCS	20.50		20	102	73 - 129		
Toluene	108-88-3	LCSD	19.70		20	98.6	73 - 129	RPD 3.72 (Max-40)	
Total Xylenes	1330-20-7	LCS	54.60		60	91	73 - 130		
Total Xylenes	1330-20-7	LCSD	52.90		60	88.1	73 - 130	RPD 3.24 (Max-40)	
trans-1,2-Dichloroethene	156-60-5	LCS	22.40		20	112	66 - 133		
trans-1,2-Dichloroethene	156-60-5	LCSD	21.40		20	107	66 - 133	RPD 4.43 (Max-40)	
trans-1,3-Dichloropropene	10061-02-6	LCS	17.40		20	87.1	77 - 123		
trans-1,3-Dichloropropene	10061-02-6	LCSD	16.80		20	84.2	77 - 123	RPD 3.41 (Max-40)	
Trichloroethene	79-01-6	LCS	20.20		20	101	72 - 129		
Trichloroethene	79-01-6	LCSD	19.30		20	96.6	72 - 129	RPD 4.52 (Max-40)	
Trichlorofluoromethane	75-69-4	LCS	17.50		20	87.5	40 - 130		
Trichlorofluoromethane	75-69-4	LCSD	16.60		20	83.2	40 - 130	RPD 4.96 (Max-40)	
Vinyl Chloride	75-01-4	LCS	21.60		20	108	53 - 141		
Vinyl Chloride	75-01-4	LCSD	20.70		20	103	53 - 141	RPD 4.56 (Max-40)	

SURROGATES

Compound	CAS No		Result (ug/kg)	Expected (ug/kg)	Rec. (%)	Limits (%)	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	LCS	32	30	107	56 - 124	
1,2-Dichloroethane-d4	17060-07-0	LCSD	29.70	30	98.9	56 - 124	
4-Bromofluorobenzene	460-00-4	LCS	31.90	30	106	51 - 128	
4-Bromofluorobenzene	460-00-4	LCSD	29.60	30	98.6	51 - 128	

QUALITY CONTROL SAMPLES

VOLATILE ORGANICS (cont.)

SURROGATES

Compound	CAS No		Result (ug/kg)	Expected (ug/kg)	Rec. (%)	Limits (%)	Qualifiers
Dibromofluoromethane	1868-53-7	LCS	30.50	30	102	62 - 123	
Dibromofluoromethane	1868-53-7	LCSD	28.50	30	95.1	62 - 123	
Toluene-d8	2037-26-5	LCS	30.90	30	103	59 - 131	
Toluene-d8	2037-26-5	LCSD	28.80	30	95.9	59 - 131	

Matrix Spike 3650586 (MS) 3296086008 For QC Batch 971568

****NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

SURROGATES

Compound	CAS No		Result (ug/kg)	Expected (ug/kg)	Rec. (%)	Limits (%)	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	MS	39	38.30	102	56 - 124	
4-Bromofluorobenzene	460-00-4	MS	42.50	38.30	111	51 - 128	
Dibromofluoromethane	1868-53-7	MS	35.40	38.30	92.6	62 - 123	
Toluene-d8	2037-26-5	MS	37.50	38.30	98	59 - 131	

QC Batch

QC Batch	972371	Prep Method	SW846 5035A
Date	04/10/2023 19:47	Analysis Method	SW846 8260B
Tech.	PDK		

Associated Samples

3296086013 3296086004 3296086007 3296086008 3296086010

Method Blank 3651778 (MB) Created on 04/10/2023 19:47 For QC Batch 972371

RESULTS

Compound	CAS No		Result	Units	RDL	Qualifiers
1,1,1-Trichloroethane	71-55-6	BLK	ND	ug/kg	2.0	ND
1,1,2,2-Tetrachloroethane	79-34-5	BLK	ND	ug/kg	2.0	ND
1,1,2-Trichloroethane	79-00-5	BLK	ND	ug/kg	2.0	ND
1,1-Dichloroethane	75-34-3	BLK	ND	ug/kg	2.0	ND
1,1-Dichloroethene	75-35-4	BLK	ND	ug/kg	2.0	ND
1,2,3-Trichlorobenzene	87-61-6	BLK	ND	ug/kg	5.0	ND
1,2,4-Trichlorobenzene	120-82-1	BLK	ND	ug/kg	5.0	ND
1,2-Dibromo-3-chloropropane	96-12-8	BLK	ND	ug/kg	5.0	ND
1,2-Dibromoethane	106-93-4	BLK	ND	ug/kg	2.0	ND
1,2-Dichlorobenzene	95-50-1	BLK	ND	ug/kg	2.0	ND
1,2-Dichloroethane	107-06-2	BLK	ND	ug/kg	2.0	ND
1,2-Dichloropropane	78-87-5	BLK	ND	ug/kg	2.0	ND
1,3-Dichlorobenzene	541-73-1	BLK	ND	ug/kg	2.0	ND
1,4-Dichlorobenzene	106-46-7	BLK	ND	ug/kg	2.0	ND
2-Butanone	78-93-3	BLK	ND	ug/kg	10.0	ND
2-Chloroethylvinyl ether	110-75-8	BLK	ND	ug/kg	150	ND

QUALITY CONTROL SAMPLES

VOLATILE ORGANICS (cont.)

RESULTS

Compound	CAS No		Result	Units	RDL	Qualifiers
2-Hexanone	591-78-6	BLK	ND	ug/kg	10.0	ND
4-Methyl-2-Pentanone(MIBK)	108-10-1	BLK	ND	ug/kg	10.0	ND
Acetone	67-64-1	BLK	ND	ug/kg	10.0	ND
Benzene	71-43-2	BLK	ND	ug/kg	2.0	ND
Bromochloromethane	74-97-5	BLK	ND	ug/kg	2.0	ND
Bromodichloromethane	75-27-4	BLK	ND	ug/kg	2.0	ND
Bromoform	75-25-2	BLK	ND	ug/kg	2.0	ND
Bromomethane	74-83-9	BLK	ND	ug/kg	2.0	ND
Carbon Disulfide	75-15-0	BLK	ND	ug/kg	2.0	ND
Carbon Tetrachloride	56-23-5	BLK	ND	ug/kg	2.0	ND
Chlorobenzene	108-90-7	BLK	ND	ug/kg	2.0	ND
Chlorodibromomethane	124-48-1	BLK	ND	ug/kg	2.0	ND
Chloroethane	75-00-3	BLK	ND	ug/kg	5.0	ND
Chloroform	67-66-3	BLK	ND	ug/kg	2.0	ND
Chloromethane	74-87-3	BLK	ND	ug/kg	2.0	ND
cis-1,2-Dichloroethene	156-59-2	BLK	ND	ug/kg	2.0	ND
cis-1,3-Dichloropropene	10061-01-5	BLK	ND	ug/kg	2.0	ND
Cyclohexane	110-82-7	BLK	ND	ug/kg	2.0	ND
Dichlorodifluoromethane	75-71-8	BLK	ND	ug/kg	2.0	ND
Ethylbenzene	100-41-4	BLK	ND	ug/kg	2.0	ND
Freon 113	76-13-1	BLK	ND	ug/kg	2.0	ND
Isopropylbenzene	98-82-8	BLK	ND	ug/kg	2.0	ND
Methyl acetate	79-20-9	BLK	ND	ug/kg	2.0	ND
Methyl cyclohexane	108-87-2	BLK	ND	ug/kg	2.0	ND
Methyl t-Butyl Ether	1634-04-4	BLK	ND	ug/kg	2.0	ND
Methylene Chloride	75-09-2	BLK	ND	ug/kg	2.0	ND
mp-Xylene	108383/106423	BLK	ND	ug/kg	4.0	ND
o-Xylene	95-47-6	BLK	ND	ug/kg	2.0	ND
Styrene	100-42-5	BLK	ND	ug/kg	2.0	ND
Tetrachloroethene	127-18-4	BLK	ND	ug/kg	2.0	ND
Toluene	108-88-3	BLK	ND	ug/kg	2.0	ND
Total Xylenes	1330-20-7	BLK	ND	ug/kg	6.0	ND
trans-1,2-Dichloroethene	156-60-5	BLK	ND	ug/kg	2.0	ND
trans-1,3-Dichloropropene	10061-02-6	BLK	ND	ug/kg	2.0	ND
Trichloroethene	79-01-6	BLK	ND	ug/kg	2.0	ND
Trichlorofluoromethane	75-69-4	BLK	ND	ug/kg	2.0	ND
Vinyl Chloride	75-01-4	BLK	ND	ug/kg	2.0	ND

SURROGATES

Compound	CAS No		Result (ug/kg)	Expected (ug/kg)	Rec. (%)	Limits (%)	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	BLK	31.60	30	105	56 - 124	
4-Bromofluorobenzene	460-00-4	BLK	33.20	30	111	51 - 128	
Dibromofluoromethane	1868-53-7	BLK	29.40	30	97.9	62 - 123	
Toluene-d8	2037-26-5	BLK	31.50	30	105	59 - 131	

QUALITY CONTROL SAMPLES

VOLATILE ORGANICS (cont.)

Lab Control Standard 3651779 (LCS) Created on 04/10/2023 19:47 For QC Batch 972371

Lab Control Std Duplicate 3651780 (LCSD) Created on 04/10/2023 19:47 For QC Batch 972371

RESULTS

Compound	CAS No		Result (ug/kg)	Orig. Result (ug/kg)	Spk Added (ug/kg)	Rec. (%)	Limits (%)	RPD Limit (%)	Qualifiers
1,1,1-Trichloroethane	71-55-6	LCS	22.30		20	112	68 - 131		
1,1,1-Trichloroethane	71-55-6	LCSD	23.50		20	117	68 - 131	RPD 5.13 (Max-40)	
1,1,2,2-Tetrachloroethane	79-34-5	LCS	19.80		20	99.1	72 - 134		
1,1,2,2-Tetrachloroethane	79-34-5	LCSD	20.90		20	104	72 - 134	RPD 5.19 (Max-40)	
1,1,2-Trichloroethane	79-00-5	LCS	19.10		20	95.7	79 - 123		
1,1,2-Trichloroethane	79-00-5	LCSD	20.20		20	101	79 - 123	RPD 5.21 (Max-40)	
1,1-Dichloroethane	75-34-3	LCS	21.90		20	110	74 - 131		
1,1-Dichloroethane	75-34-3	LCSD	23.20		20	116	74 - 131	RPD 5.52 (Max-40)	
1,1-Dichloroethene	75-35-4	LCS	20.90		20	104	59 - 139		
1,1-Dichloroethene	75-35-4	LCSD	21.80		20	109	59 - 139	RPD 4.16 (Max-40)	
1,2,3-Trichlorobenzene	87-61-6	LCS	16.70		20	83.4	68 - 129		
1,2,3-Trichlorobenzene	87-61-6	LCSD	17.20		20	86.1	68 - 129	RPD 3.23 (Max-40)	
1,2,4-Trichlorobenzene	120-82-1	LCS	16.10		20	80.6	63 - 132		
1,2,4-Trichlorobenzene	120-82-1	LCSD	16.70		20	83.4	63 - 132	RPD 3.35 (Max-40)	
1,2-Dibromo-3-chloropropane	96-12-8	LCS	17.40		20	87.1	52 - 151		
1,2-Dibromo-3-chloropropane	96-12-8	LCSD	18.10		20	90.6	52 - 151	RPD 3.94 (Max-40)	
1,2-Dibromoethane	106-93-4	LCS	16.80		20	84.2	76 - 127		
1,2-Dibromoethane	106-93-4	LCSD	17.50		20	87.6	76 - 127	RPD 4.03 (Max-40)	
1,2-Dichlorobenzene	95-50-1	LCS	17.50		20	87.4	75 - 126		
1,2-Dichlorobenzene	95-50-1	LCSD	18.60		20	92.9	75 - 126	RPD 6.10 (Max-40)	
1,2-Dichloroethane	107-06-2	LCS	20.10		20	101	69 - 132		
1,2-Dichloroethane	107-06-2	LCSD	20.80		20	104	69 - 132	RPD 3.47 (Max-40)	
1,2-Dichloropropane	78-87-5	LCS	20.90		20	105	78 - 131		
1,2-Dichloropropane	78-87-5	LCSD	22.20		20	111	78 - 131	RPD 5.78 (Max-40)	
1,3-Dichlorobenzene	541-73-1	LCS	17.40		20	87.2	72 - 127		
1,3-Dichlorobenzene	541-73-1	LCSD	18.40		20	91.9	72 - 127	RPD 5.18 (Max-40)	
1,4-Dichlorobenzene	106-46-7	LCS	17.40		20	86.9	72 - 126		
1,4-Dichlorobenzene	106-46-7	LCSD	18.10		20	90.6	72 - 126	RPD 4.15 (Max-40)	
2-Butanone	78-93-3	LCS	111		100	111	64 - 148		
2-Butanone	78-93-3	LCSD	118		100	118	64 - 148	RPD 5.75 (Max-40)	
2-Hexanone	591-78-6	LCS	103		100	103	62 - 147		
2-Hexanone	591-78-6	LCSD	109		100	109	62 - 147	RPD 6.05 (Max-40)	
4-Methyl-2-Pentanone(MIBK)	108-10-1	LCS	109		100	109	64 - 143		
4-Methyl-2-Pentanone(MIBK)	108-10-1	LCSD	115		100	115	64 - 143	RPD 5.12 (Max-40)	
Acetone	67-64-1	LCS	115		100	115	58 - 146		
Acetone	67-64-1	LCSD	121		100	121	58 - 146	RPD 5.20 (Max-40)	
Benzene	71-43-2	LCS	22.30		20	111	75 - 132		
Benzene	71-43-2	LCSD	23.30		20	117	75 - 132	RPD 4.73 (Max-40)	
Bromochloromethane	74-97-5	LCS	21.20		20	106	71 - 120		
Bromochloromethane	74-97-5	LCSD	22.40		20	112	71 - 120	RPD 5.46 (Max-40)	
Bromodichloromethane	75-27-4	LCS	16.20		20	81.2	74 - 127		
Bromodichloromethane	75-27-4	LCSD	17		20	85.2	74 - 127	RPD 4.75 (Max-40)	
Bromoform	75-25-2	LCS	16.40		20	82.1	68 - 131		
Bromoform	75-25-2	LCSD	17.20		20	85.9	68 - 131	RPD 4.50 (Max-40)	

QUALITY CONTROL SAMPLES

VOLATILE ORGANICS (cont.)

RESULTS

Compound	CAS No		Result (ug/kg)	Orig. Result (ug/kg)	Spk Added (ug/kg)	Rec. (%)	Limits (%)	RPD Limit (%)	Qualifiers
Bromomethane	74-83-9	LCS	18.30		20	91.6	43 - 148		
Bromomethane	74-83-9	LCSD	18.90		20	94.5	43 - 148	RPD 3.16 (Max-40)	
Carbon Disulfide	75-15-0	LCS	22		20	110	47 - 144		
Carbon Disulfide	75-15-0	LCSD	23.30		20	117	47 - 144	RPD 5.81 (Max-40)	
Carbon Tetrachloride	56-23-5	LCS	17.60		20	88.1	64 - 136		
Carbon Tetrachloride	56-23-5	LCSD	18.40		20	92.2	64 - 136	RPD 4.52 (Max-40)	
Chlorobenzene	108-90-7	LCS	17.90		20	89.5	76 - 125		
Chlorobenzene	108-90-7	LCSD	19		20	94.8	76 - 125	RPD 5.69 (Max-40)	
Chlorodibromomethane	124-48-1	LCS	15.70		20	78.5	75 - 124		
Chlorodibromomethane	124-48-1	LCSD	16.40		20	82.1	75 - 124	RPD 4.56 (Max-40)	
Chloroethane	75-00-3	LCS	11.90		20	59.4	1 - 141		
Chloroethane	75-00-3	LCSD	11.80		20	59	1 - 141	RPD 0.77 (Max-40)	
Chloroform	67-66-3	LCS	21.20		20	106	73 - 126		
Chloroform	67-66-3	LCSD	22.60		20	113	73 - 126	RPD 6.60 (Max-40)	
Chloromethane	74-87-3	LCS	21.10		20	105	44 - 139		
Chloromethane	74-87-3	LCSD	22.10		20	111	44 - 139	RPD 4.84 (Max-40)	
cis-1,2-Dichloroethene	156-59-2	LCS	22		20	110	75 - 128		
cis-1,2-Dichloroethene	156-59-2	LCSD	23.90		20	120	75 - 128	RPD 8.61 (Max-40)	
cis-1,3-Dichloropropene	10061-01-5	LCS	15.80		20	79.1	76 - 123		
cis-1,3-Dichloropropene	10061-01-5	LCSD	16.50		20	82.5	76 - 123	RPD 4.25 (Max-40)	
Cyclohexane	110-82-7	LCS	22.90		20	115	62 - 143		
Cyclohexane	110-82-7	LCSD	24.50		20	123	62 - 143	RPD 6.92 (Max-40)	
Dichlorodifluoromethane	75-71-8	LCS	22.10		20	110	16 - 152		
Dichlorodifluoromethane	75-71-8	LCSD	23.40		20	117	16 - 152	RPD 5.89 (Max-40)	
Ethylbenzene	100-41-4	LCS	19.10		20	95.5	73 - 133		
Ethylbenzene	100-41-4	LCSD	20.20		20	101	73 - 133	RPD 5.81 (Max-40)	
Freon 113	76-13-1	LCS	21.90		20	110*	40 - 109		
Freon 113	76-13-1	LCSD	23.10		20	116*	40 - 109	RPD 5.37 (Max-40)	
Isopropylbenzene	98-82-8	LCS	19.70		20	98.5	71 - 137		
Isopropylbenzene	98-82-8	LCSD	20.90		20	104	71 - 137	RPD 5.91 (Max-40)	
Methyl acetate	79-20-9	LCS	25.20		20	126	70 - 130		
Methyl acetate	79-20-9	LCSD	26.70		20	134*	70 - 130	RPD 6.07 (Max-40)	
Methyl cyclohexane	108-87-2	LCS	18.70		20	93.4	70 - 130		
Methyl cyclohexane	108-87-2	LCSD	19.80		20	99	70 - 130	RPD 5.79 (Max-40)	
Methyl t-Butyl Ether	1634-04-4	LCS	24		20	120*	70 - 118		
Methyl t-Butyl Ether	1634-04-4	LCSD	24.80		20	124*	70 - 118	RPD 3.15 (Max-40)	
Methylene Chloride	75-09-2	LCS	22.20		20	111	68 - 133		
Methylene Chloride	75-09-2	LCSD	23.40		20	117	68 - 133	RPD 5.32 (Max-40)	
mp-Xylene	108383/106423	LCS	35.80		40	89.4	72 - 130		
mp-Xylene	108383/106423	LCSD	37.90		40	94.6	72 - 130	RPD 5.69 (Max-40)	
o-Xylene	95-47-6	LCS	16		20	80.1	75 - 129		
o-Xylene	95-47-6	LCSD	17.20		20	85.8	75 - 129	RPD 6.91 (Max-40)	
Styrene	100-42-5	LCS	17.80		20	89.1	77 - 130		
Styrene	100-42-5	LCSD	18.70		20	93.3	77 - 130	RPD 4.61 (Max-40)	
Tetrachloroethene	127-18-4	LCS	16.20		20	81.1	58 - 137		
Tetrachloroethene	127-18-4	LCSD	17.30		20	86.4	58 - 137	RPD 6.35 (Max-40)	
Toluene	108-88-3	LCS	19.80		20	99	73 - 129		
Toluene	108-88-3	LCSD	21		20	105	73 - 129	RPD 5.91 (Max-40)	
Total Xylenes	1330-20-7	LCS	51.80		60	86.3	73 - 130		

QUALITY CONTROL SAMPLES

VOLATILE ORGANICS (cont.)

RESULTS

Compound	CAS No		Result (ug/kg)	Orig. Result (ug/kg)	Spk Added (ug/kg)	Rec. (%)	Limits (%)	RPD Limit (%)	Qualifiers
Total Xylenes	1330-20-7	LCSD	55		60	91.7	73 - 130	RPD 6.07 (Max-40)	
trans-1,2-Dichloroethene	156-60-5	LCS	22.80		20	114	66 - 133		
trans-1,2-Dichloroethene	156-60-5	LCSD	23.90		20	120	66 - 133	RPD 4.85 (Max-40)	
trans-1,3-Dichloropropene	10061-02-6	LCS	16.70		20	83.3	77 - 123		
trans-1,3-Dichloropropene	10061-02-6	LCSD	17.40		20	86.9	77 - 123	RPD 4.26 (Max-40)	
Trichloroethene	79-01-6	LCS	20		20	100	72 - 129		
Trichloroethene	79-01-6	LCSD	21.10		20	106	72 - 129	RPD 5.42 (Max-40)	
Trichlorofluoromethane	75-69-4	LCS	17.30		20	86.3	40 - 130		
Trichlorofluoromethane	75-69-4	LCSD	17.90		20	89.5	40 - 130	RPD 3.61 (Max-40)	
Vinyl Chloride	75-01-4	LCS	21		20	105	53 - 141		
Vinyl Chloride	75-01-4	LCSD	21.90		20	109	53 - 141	RPD 3.94 (Max-40)	

SURROGATES

Compound	CAS No		Result (ug/kg)	Expected (ug/kg)	Rec. (%)	Limits (%)	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	LCS	29.10	30	96.8	56 - 124	
1,2-Dichloroethane-d4	17060-07-0	LCSD	30.60	30	102	56 - 124	
4-Bromofluorobenzene	460-00-4	LCS	29.40	30	97.9	51 - 128	
4-Bromofluorobenzene	460-00-4	LCSD	31.50	30	105	51 - 128	
Dibromofluoromethane	1868-53-7	LCS	28.60	30	95.5	62 - 123	
Dibromofluoromethane	1868-53-7	LCSD	30.20	30	101	62 - 123	
Toluene-d8	2037-26-5	LCS	28.10	30	93.6	59 - 131	
Toluene-d8	2037-26-5	LCSD	29.70	30	98.9	59 - 131	

QUALITY CONTROL SAMPLES

WET CHEMISTRY

QC Batch

QC Batch	970959	Prep Method	SW846 3060A
Date	04/07/2023 08:20	Analysis Method	SW846 7196A
Tech.	AKH		

Associated Samples

3296086006	3296086013	3296086001	3296086007
3296086014	3296086002	3296086008	3296086015
3296086009	3296086003	3296086016	3296086004
3296086010	3296086017	3296086005	3296086011
3296086012			

Method Blank 3650311 (MB) Created on 04/06/2023 13:35 For QC Batch 970959

RESULTS

Compound	CAS No		Result	Units	RDL	Qualifiers
Hexavalent Chromium	CR6	BLK	ND	mg/kg	2.0	ND

Lab Control Standard 3650312 (LCS) Created on 04/06/2023 13:35 For QC Batch 970959

RESULTS

Compound	CAS No		Result (mg/kg)	Orig. Result (mg/kg)	Spk Added (mg/kg)	Rec. (%)	Limits (%)	RPD Limit (%)	Qualifiers
Hexavalent Chromium	CR6	LCS	15.70		19.30	81.2	80 - 120		

Duplicate 3650313 (DUP) 3296086001 For QC Batch 970959

****NOTE - The Original Result and Duplicate Result shown below are raw results and are only used for the purpose of calculating Sample Duplicate percent recoveries. This result is not a final value and cannot be used as such.

RESULTS

Compound	CAS No		Result (mg/kg)	Orig. Result (mg/kg)			Qualifiers
Hexavalent Chromium	CR6	DUP	0	0	RPD	0 (Max-20)	ND

Pre-digestion Soluble MS 3650314 (MS-PS) 3296086001 For QC Batch 970959

****NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

RESULTS

Compound	CAS No		Result (mg/kg)	Orig. Result (mg/kg)	Spk Added (mg/kg)	Rec. (%)	Limits (%)	RPD Limit (%)	Qualifiers
Hexavalent Chromium	CR6	MS	20.20	0	41.80	48.2*	75 - 125		

Pre-digestion Insoluble MS 3650315 (MS-PI) 3296086001 For QC Batch 970959

****NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

QUALITY CONTROL SAMPLES

WET CHEMISTRY (cont.)

RESULTS

Compound	CAS No		Result (mg/kg)	Orig. Result (mg/kg)	Spk Added (mg/kg)	Rec. (%)	Limits (%)	RPD Limit (%)	Qualifiers
Hexavalent Chromium	CR6	MS	481	0	625	77	75 - 125		

Post-digestion MS 3650316 (MSPOST) 3296086001 For QC Batch 970959

****NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

RESULTS

Compound	CAS No		Result (mg/kg)	Orig. Result (mg/kg)	Spk Added (mg/kg)	Rec. (%)	Limits (%)	RPD Limit (%)	Qualifiers
Hexavalent Chromium	CR6	MS	42.10	0	40.80	103	85 - 115		

QC Batch

QC Batch	971617	Prep Method	N/A
Date	N/A	Analysis Method	S2540G-11
Tech.			

Associated Samples

3296086001	3296086007	3296086014	3296086002
3296086008	3296086015	3296086003	3296086009
3296086016	3296086010	3296086004	3296086017
3296086005	3296086011	3296086006	3296086012
3296086013			

Duplicate 3650712 (DUP) 3296085002 (non-Project Sample) For QC Batch 971617

****NOTE - The Original Result and Duplicate Result shown below are raw results and are only used for the purpose of calculating Sample Duplicate percent recoveries. This result is not a final value and cannot be used as such.

RESULTS

Compound	CAS No		Result (%)	Orig. Result (%)			Qualifiers
Moisture	MOISTURE	DUP	17.5352	15.8342	RPD	10.20* (Max-10)	
Total Solids	TSP	DUP	82.4647	84.1657	RPD	2.04 (Max-5)	

Duplicate 3650713 (DUP) 3296085012 (non-Project Sample) For QC Batch 971617

****NOTE - The Original Result and Duplicate Result shown below are raw results and are only used for the purpose of calculating Sample Duplicate percent recoveries. This result is not a final value and cannot be used as such.

RESULTS

Compound	CAS No		Result (%)	Orig. Result (%)			Qualifiers
Moisture	MOISTURE	DUP	13.8452	13.8807	RPD	0.26 (Max-10)	
Total Solids	TSP	DUP	86.1547	86.1192	RPD	0.04 (Max-5)	

QUALITY CONTROL SAMPLES

WET CHEMISTRY (cont.)

Duplicate 3650714 (DUP) 3296085023 (non-Project Sample) For QC Batch 971617

****NOTE - The Original Result and Duplicate Result shown below are raw results and are only used for the purpose of calculating Sample Duplicate percent recoveries. This result is not a final value and cannot be used as such.

RESULTS

Compound	CAS No		Result (%)	Orig. Result (%)				Qualifiers
Moisture	MOISTURE	DUP	20.7007	20.5590	RPD	0.69	(Max-10)	
Total Solids	TSP	DUP	79.2992	79.4409	RPD	0.18	(Max-5)	

Duplicate 3650716 (DUP) 3296355002 (non-Project Sample) For QC Batch 971617

****NOTE - The Original Result and Duplicate Result shown below are raw results and are only used for the purpose of calculating Sample Duplicate percent recoveries. This result is not a final value and cannot be used as such.

RESULTS

Compound	CAS No		Result (%)	Orig. Result (%)				Qualifiers
Moisture	MOISTURE	DUP	10.8277	11.1386	RPD	2.83	(Max-10)	
Total Solids	TSP	DUP	89.1722	88.8613	RPD	0.35	(Max-5)	

Duplicate 3650717 (DUP) 3296355012 (non-Project Sample) For QC Batch 971617

****NOTE - The Original Result and Duplicate Result shown below are raw results and are only used for the purpose of calculating Sample Duplicate percent recoveries. This result is not a final value and cannot be used as such.

RESULTS

Compound	CAS No		Result (%)	Orig. Result (%)				Qualifiers
Moisture	MOISTURE	DUP	15.8124	15.5689	RPD	1.55	(Max-10)	
Total Solids	TSP	DUP	84.1875	84.4310	RPD	0.29	(Max-5)	

Duplicate 3650715 (DUP) 3296086009 For QC Batch 971617

****NOTE - The Original Result and Duplicate Result shown below are raw results and are only used for the purpose of calculating Sample Duplicate percent recoveries. This result is not a final value and cannot be used as such.

RESULTS

Compound	CAS No		Result (%)	Orig. Result (%)				Qualifiers
Moisture	MOISTURE	DUP	18.7017	18.3281	RPD	2.02	(Max-10)	
Total Solids	TSP	DUP	81.2982	81.6718	RPD	0.46	(Max-5)	

QUALITY CONTROL SAMPLES

WET CHEMISTRY (cont.)

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Lab ID	Sample ID	Preparation Method	Prep Batch	Prep Date/Time	By	Analysis Method	Anly Batch
3296086001	SB-01A-0-2	SW846 3051A	970585	04/06/2023 09:47	JSE	SW846 6020A	975351
		SW846 7471B	971011	04/07/2023 09:35	WDA	SW846 7471B	971668
		SW846 5035A	971568	04/03/2023 10:30	PDK	SW846 8260B	971569
		N/A	N/A	N/A		Calculation	
		N/A	N/A	N/A		S2540G-11	971617
		SW846 3060A	970959	04/07/2023 08:20	AKH	SW846 7196A	971609
3296086002	SB-01A-14-16	SW846 3051A	970585	04/06/2023 09:47	JSE	SW846 6020A	975351
		SW846 7471B	971011	04/07/2023 09:35	WDA	SW846 7471B	971668
		SW846 5035A	971568	04/03/2023 10:35	PDK	SW846 8260B	971569
		N/A	N/A	N/A		Calculation	
		N/A	N/A	N/A		S2540G-11	971617
		SW846 3060A	970959	04/07/2023 08:20	AKH	SW846 7196A	971609
3296086003	SB-02A-0-2	SW846 3051A	970585	04/06/2023 09:47	JSE	SW846 6020A	975351
		SW846 3051A	970585	04/06/2023 09:47	JSE	SW846 6020A	975421
		SW846 7471B	971011	04/07/2023 09:35	WDA	SW846 7471B	971668
		SW846 5035A	971568	04/04/2023 09:30	PDK	SW846 8260B	971569
		N/A	N/A	N/A		Calculation	
		N/A	N/A	N/A		S2540G-11	971617
		SW846 3060A	970959	04/07/2023 08:20	AKH	SW846 7196A	971609
3296086004	SB-02A-24-26	SW846 3051A	970585	04/06/2023 09:47	JSE	SW846 6020A	975351
		SW846 7471B	971011	04/07/2023 09:35	WDA	SW846 7471B	971668
		SW846 5035A	972371	04/04/2023 09:40	VLM	SW846 8260B	972372
		N/A	N/A	N/A		Calculation	
		N/A	N/A	N/A		S2540G-11	971617
		SW846 3060A	970959	04/07/2023 08:20	AKH	SW846 7196A	971609
3296086005	SB-02A-24-26-DUP	SW846 3051A	970585	04/06/2023 09:47	JSE	SW846 6020A	975351
		SW846 7471B	971011	04/07/2023 09:35	WDA	SW846 7471B	971668
		SW846 5035A	971568	04/04/2023 10:00	PDK	SW846 8260B	971569
		N/A	N/A	N/A		Calculation	
		N/A	N/A	N/A		S2540G-11	971617
		SW846 3060A	970959	04/07/2023 08:20	AKH	SW846 7196A	971609
3296086006	SB-03A-0-2	SW846 3051A	970585	04/06/2023 09:47	JSE	SW846 6020A	975351
		SW846 3051A	970585	04/06/2023 09:47	JSE	SW846 6020A	975421
		SW846 7471B	971011	04/07/2023 09:35	WDA	SW846 7471B	971668
		SW846 5035A	971568	04/03/2023 12:30	PDK	SW846 8260B	971569
		N/A	N/A	N/A		Calculation	
		N/A	N/A	N/A		S2540G-11	971617
		SW846 3060A	970959	04/07/2023 08:20	AKH	SW846 7196A	971609
3296086007	SB-03A-6-8	SW846 3051A	971603	04/07/2023 12:40	JSE	SW846 6020A	975352
		SW846 3051A	971603	04/07/2023 12:40	JSE	SW846 6020A	975421
		SW846 7471B	971011	04/07/2023 09:35	WDA	SW846 7471B	971668
		SW846 5035A	972371	04/04/2023 12:40	VLM	SW846 8260B	972372
		N/A	N/A	N/A		Calculation	
		N/A	N/A	N/A		S2540G-11	971617
		SW846 3060A	970959	04/07/2023 08:20	AKH	SW846 7196A	971609
3296086008	SB-04A-0-2	SW846 3051A	971603	04/07/2023 12:40	JSE	SW846 6020A	975352
		SW846 7471B	971011	04/07/2023 09:35	WDA	SW846 7471B	971668
		SW846 5035A	972371	04/10/2023 19:41	VLM	SW846 8260B	972372
		N/A	N/A	N/A		Calculation	
		N/A	N/A	N/A		S2540G-11	971617
		SW846 3060A	970959	04/07/2023 08:20	AKH	SW846 7196A	971609
3296086009	SB-04A-14-16	SW846 3051A	971603	04/07/2023 12:40	JSE	SW846 6020A	975352
		SW846 7471B	971011	04/07/2023 09:35	WDA	SW846 7471B	971668
		SW846 5035A	971568	04/04/2023 11:00	PDK	SW846 8260B	971569
		N/A	N/A	N/A		Calculation	
		N/A	N/A	N/A		S2540G-11	971617
		SW846 3060A	970959	04/07/2023 08:20	AKH	SW846 7196A	971609

Lab ID	Sample ID	Preparation Method	Prep Batch	Prep Date/Time	By	Analysis Method	Anly Batch
3296086010	SB-05A-0-2	SW846 3051A	971603	04/07/2023 12:40	JSE	SW846 6020A	975352
		SW846 7471B	971011	04/07/2023 09:35	WDA	SW846 7471B	971668
		SW846 5035A	972371	04/04/2023 13:30	VLM	SW846 8260B	972372
		N/A	N/A	N/A		Calculation	
		N/A	N/A	N/A		S2540G-11	971617
		SW846 3060A	970959	04/07/2023 08:20	AKH	SW846 7196A	971609
3296086011	SB-05A-2-4	SW846 3051A	971603	04/07/2023 12:40	JSE	SW846 6020A	975352
		SW846 7471B	971011	04/07/2023 09:35	WDA	SW846 7471B	971668
		SW846 5035A	971568	04/03/2023 13:55	PDK	SW846 8260B	971569
		N/A	N/A	N/A		Calculation	
		N/A	N/A	N/A		S2540G-11	971617
		SW846 3060A	970959	04/07/2023 08:20	AKH	SW846 7196A	971609
3296086012	SB-06A-0-2	SW846 3051A	971603	04/07/2023 12:40	JSE	SW846 6020A	975352
		SW846 7471B	971012	04/07/2023 09:35	WDA	SW846 7471B	971669
		SW846 5035A	971568	04/03/2023 14:10	PDK	SW846 8260B	971569
		N/A	N/A	N/A		Calculation	
		N/A	N/A	N/A		S2540G-11	971617
		SW846 3060A	970959	04/07/2023 08:20	AKH	SW846 7196A	971609
3296086013	SB-06A-2-4	SW846 3051A	971603	04/07/2023 12:40	JSE	SW846 6020A	975352
		SW846 7471B	971012	04/07/2023 09:35	WDA	SW846 7471B	971669
		SW846 5035A	972371	04/04/2023 14:20	VLM	SW846 8260B	972372
		N/A	N/A	N/A		Calculation	
		N/A	N/A	N/A		S2540G-11	971617
		SW846 3060A	970959	04/07/2023 08:20	AKH	SW846 7196A	971609
3296086014	SB-07A-0-2	SW846 3051A	971603	04/07/2023 12:40	JSE	SW846 6020A	975352
		SW846 3051A	971603	04/07/2023 12:40	JSE	SW846 6020A	975421
		SW846 7471B	971012	04/07/2023 09:35	WDA	SW846 7471B	971669
		SW846 5035A	971568	04/03/2023 15:10	PDK	SW846 8260B	971569
		N/A	N/A	N/A		Calculation	
		N/A	N/A	N/A		S2540G-11	971617
		SW846 3060A	970959	04/07/2023 08:20	AKH	SW846 7196A	971609
3296086015	SB-07A-2-4	SW846 3051A	971603	04/07/2023 12:40	JSE	SW846 6020A	975352
		SW846 7471B	971012	04/07/2023 09:35	WDA	SW846 7471B	971669
		SW846 5035A	971568	04/03/2023 15:20	PDK	SW846 8260B	971569
		N/A	N/A	N/A		Calculation	
		N/A	N/A	N/A		S2540G-11	971617
		SW846 3060A	970959	04/07/2023 08:20	AKH	SW846 7196A	971609
3296086016	SB-08A-0-2	SW846 3051A	971603	04/07/2023 12:40	JSE	SW846 6020A	975352
		SW846 3051A	971603	04/07/2023 12:40	JSE	SW846 6020A	975421
		SW846 7471B	971012	04/07/2023 09:35	WDA	SW846 7471B	971669
		SW846 5035A	971568	04/03/2023 09:20	PDK	SW846 8260B	971569
		N/A	N/A	N/A		Calculation	
		N/A	N/A	N/A		S2540G-11	971617
		SW846 3060A	970959	04/07/2023 08:20	AKH	SW846 7196A	971609
3296086017	SB-08A-10-12	SW846 3051A	971603	04/07/2023 12:40	JSE	SW846 6020A	975352
		SW846 7471B	971012	04/07/2023 09:35	WDA	SW846 7471B	971669
		SW846 5035A	971568	04/03/2023 09:15	PDK	SW846 8260B	971569
		N/A	N/A	N/A		Calculation	
		N/A	N/A	N/A		S2540G-11	971617
		SW846 3060A	970959	04/07/2023 08:20	AKH	SW846 7196A	971609

ALS
301 Fulling Mill Rd, Suite A
Middletown, PA 17057
P. 717-944-5541

CHAIN OF CUSTO / REQUEST FOR ANAL

ALL SHADED AREAS MUST BE COMP
SAMPLER. INSTRUCTIONS

3296086
Logged By: KSB
PM: EXP

COC #: 6086 | i of 2
ALS Quote #:

Client Name: Rhea Engineers
Address: 333 Rouser Rd ste 301 Moon Twp, PA 15108
Contact: Zach Wicks
Phone#: 717-580-7511
Project Name/#: SCI Pitt Ph II / 2390-05
Bill To:
Purchase Order #: 2390-05
TAT: [X] Normal-Standard TAT is 10-12 business days. [ ] Rush-Subject to ALS approval and surcharges.
Date Required: Approved?
Email? [ ]

Orthophosphate Filtered? Y N (NA) Hexavalent Chromium Filtered? Y N (NA)

ANALYSIS / METHOD REQUESTED

	Sample Description/Location (as it will appear on the lab report)	Date Collected mm/dd/yy	Time hh:mm	SDWA Sample Type (see key)	*G or C	**Matrix (See bottom of COC)	Container Type	Container Size	Preservative	8260 TCL VOCs	TAL Metals/CR6
							G	TerraCore	/		
								80z			
1	SB-01A-0-2	4/3/23	10:30		G	S				4	1
2	SB-01A-14-16	4/3/23	10:35								
3	SB-02A-0-2	4/4/23	9:30								
4	SB-02A-24-26	4/4/23	9:40								
5	SB-02A-24-26-Dup	4/4/23	10:00								
6	SB-03A-0-2	4/3/23	12:30								
7	SB-03A-6-8	4/3/23	12:40								
8	SB-04A-0-2	4/4/23	10:50								
9	SB-04A-14-16	4/4/23	11:00								
10	SB-05A-0-2	4/3/23	13:30								

Enter Number of Containers Per Sample or Field Results Below.

Circle Sample Collector: ALS Tech / Client
Name: ID:

Comments:

Receipt Information (completed by Receiving Lab)
Temp Taken By: KSD Therm ID: 570 WO Temp (°C) 2
Receipt Info completed by: KSD WV Containers 0-6°C Y N (NA)

Cooler Custody Seals Intact	(Y)	N	NA	Deviations? (NO) YES
Sample Custody Seal Intact	Y	N	(NA)	If YES, list below:
Received on Ice	(Y)	N	NA	
Coolers & Samples Intact	(Y)	N		
Correct Containers Provided	(Y)	N		
Sample Label/COC Agree	(Y)	N		
Adequate Sample Volumes	(Y)	N		
VOA only: Headspace Present	Y	N	(NA)	
VOA only: Trip Blank	Y	N	(NA)	Client contact:
NJ ≤ 4 days?	Y	N		Date/Tech:

Courier/Tracking #:
Sample(s) for Radiation testing? Y (N) Rad Screen (uCi)
Reportable SDWA Sample(s)? Y (N) New Source? Y N
SDWA State of Origin? New Source Contact:
PWSID #
PWS Contact: PWS Phone #:

SDWA Sample Type Key: D=Distribution E=Entry Point
R=Raw P=Plant C=Check S=Special A=Annual Startup

Contains Short Hold Testing YES (NO)
Internal Use: If less than 48 hours - notify lab upon receipt

Date:	Time		Relinquished By / Company Name		Received By / Company Name
4/4/23	16:30	1	Tyler Newell / RHEA	2	ALS
4/4/23	1700	3	ALS	4	Fedex
4.5.23	853	5	Fedex	6	
		7		8	
		9		10	

Data Deliverables: [ ] Standard Lvl 1 [ ] Standard Lvl 2 [ ] Standard Lvl 3 [ ] Standard Lvl 4 [ ] CLP-like [ ] DOD [ ] NJ RED [ ] NJ Full [ ] HSCA [ ] Landfill [ ] NJ GW
EDDs: [ ] Excel Summary [ ] Equis [ ] Custom
Sample Disposal: [ ] Lab [ ] Special
EDDS: Format Type
State Samples Collected In: [ ] NY [ ] NJ [ ] PA [ ] WV [ ] FL [ ] other

* G=Grab; C=Composite **Matrix - A=Air; D=Drinking Water; GW=Groundwater; O=Oil; LW=Liquid Waste; S=Solid/Soil/Sludge; SW=Surface Water; WP=Wipe; WW=Wastewater

301 Fulling Mill Rd, Suite A
Middletown, PA 17057
P. 717-944-5541

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

COC #: |

ALS Quote #:

Client Name: Rhea Engineers

Address: 333 Rouser Rd, Suite 301, Moon Twp, PA 15108

Contact: Zach Wicks

Phone#: 717-580-7511

Project Name/#: SCI PITT PH2 / 2390.05

Bill To:

Purchase Order #: 2390-05

TAT ☐ Normal-Standard TAT is 10-12 business days. ☐ Rush-Subject to ALS approval and surcharges.

Date Required: Approved?

Email? ☐

Sample Description/Location (as it will appear on the lab report)	Date Collected mm/dd/yy	Time hh:mm	SDWA Sample Type (see key)	*G or C	**Matrix (See bottom of COC)	8260 TCL VOCs	TAL metals /ICP-6
Container Type						G	
Container Size						Terracore 80Z	
Preservative						1	
1 SB-05A-2-4	4/3/23	13:55		G	S	4	1
2 SB-06A-0-2	4/3/23	14:10					
3 SB-06A-2-4	4/3/23	14:20					
4 SB-07A-0-2	4/3/23	15:10					
5 SB-07A-2-4	4/3/23	15:20					
6 SB-08A-0-2	4/3/23	9:20					
7 SB-08A-10-12	4/3/23	9:15					
8							
9							
10							

Orthophosphate Filtered? Y N NA Hexavalent Chromium Filtered? Y N NA

ANALYSIS / METHOD REQUESTED

Enter Number of Containers Per Sample or Field Results Below.

Circle Sample Collector: ALS Tech / Client

Name: ID:

Comments:

Date:	Time		Relinquished By / Company Name		Received By / Company Name
4/4/23	16:30	1	Tyler Merrell RHEA	2	ALS
4/4/23	1700	3	ALS	4	Fedex
4.5.23	853	5	Fedex	6	
		7		8	
		9		10	

Receipt Information (completed by Receiving Lab)

Temp Taken By: Therm ID: WO Temp (°C)

Receipt Info completed by:_____ WV Containers 0-6°C Y N NA

Cooler Custody Seals Intact	Y	N	NA
Sample Custody Seal Intact	Y	N	NA
Received on Ice	Y	N	NA
Coolers & Samples Intact	Y	N	
Correct Containers Provided	Y	N	
Sample Label/COC Agree	Y	N	
Adequate Sample Volumes	Y	N	
VOA only: Headspace Present	Y	N	NA
VOA only: Trip Blank	Y	N	NA

NJ ≤ 4 days? Y N

Courier/Tracking #:_____

Deviations? NO YES

If YES, list below:

Client contact:

Date/Tech:

Sample(s) for Radiation testing? Y N Rad Screen (uCi)_____

Reportable SDWA Sample(s)? Y N New Source? Y N

SDWA State of Origin?_____ New Source Contact:

PWSID #_____

PWS Contact:_____ PWS Phone #:_____

SDWA Sample Type Key: D=Distribution E=Entry Point R=Raw P=Plant C=Check S=Special A=Annual Startup

Contains Short Hold Testing YES NO

Internal Use: If less than 48 hours - notify lab upon receipt

Data Deliverables: ☐ Standard Lvl 1 ☐ Standard Lvl 2 ☐ Standard Lvl 3 ☐ Standard Lvl 4 ☐ CLP-like ☐ DOD ☐ NJ RED ☐ NJ Full ☐ HSCA ☐ Landfill ☐ NJ GW ☐ _____

EDDs: ☐ Excel Summary ☐ Equis ☐ Custom

Sample Disposal: Lab ☐ Special ☐

EDDS: Format Type

State Samples Collected In: ☐ NY ☐ NJ ☐ PA ☐ WV ☐ FL ☐ other

* G=Grab; C=Composite **Matrix - A=Air; D=Drinking Water; GW=Groundwater; O=Oil; LW=Liquid Waste; S=Solid/Soil/Sludge; SW=Surface Water; WP=Wipe; WW=Wastewater

ATTACHMENT E

January 2023 Phase II ESA Analytical Results Information

TABLE 1A
SUMMARY OF ANALYTICAL RESULTS COMPARED TO APPLICABLE ACT 2 STANDARDS FOR SURFACE SOIL
SCI Pittsburgh Phase II ESA
3001 Beaver Avenue, Pittsburgh, Pennsylvania

SAMPLE ID / SAMPLE DATE	Used Aquifer Non-Residential 100 X GW MSC TDS ≤ 2500*	Used Aquifer Non-Residential Generic Value TDS ≤ 2500*	Non-Residential Direct Contact MSC (0-2 Feet)*	SB-01-0-2 1/12/2023		SB-02-0-2 1/11/2023		SB-03-0-2 1/11/2023		SB-04-0-2 1/11/2023		SB-05-0-2 1/11/2023		SB-06-0-2 1/11/2023		SB-07-0-2 1/11/2023		SB-08-0-2 1/13/2023		SB-09-0-2 1/13/2023		SB-10-0-2 1/13/2023		SB-11-0-2 1/12/2023		SB-12-0-2 1/12/2023	
Volatile Organic Compounds (Method 8260B)																											
Acetone	**8,800**	980	10,000	0.0055	U	0.0056	U	**0.0211**		**0.0400**		0.0052	U	0.0050	U	**0.0112**		0.0072	U	**0.0082**		0.0060	U	**0.0114**		**0.0078**	
Carbon Disulfide	**620**	530	10,000	0.0011	U	0.0011	U	0.0014	U	0.0011	U	0.0010	U	0.0010	U	0.0011	U	0.0014	U	**0.0089**		0.0012	U	**0.0068**		**0.0030**	
Methyl Cyclohexane**	NA	NA	NA	0.0011	U	0.0011	U	0.0014	U	**0.0012**		0.0010	U	0.0010	U	0.0011	U	0.0014	U	0.0013	U	0.0012	U	0.0013	U	0.0012	U
Metals - Target Analyte List (Method 6010B)																											
Aluminum, Total	NA	NA	**190,000**	**9,000**		**7,250**		**11,100**		**8,670**		**9,390**		**9,400**		**8,020**		**9,780**		**20,900**		**7,850**		**12,000**		**8,960**	
Antimony, Total	0.6	**27**	1,300	1	U	**1.7**		0.97	U	1.1	U	1.1	U	1.1	U	**1.7**		**1.6**		1.1	U	**2.1**		1	U	1.1	U
Arsenic, Total	1	**29**	61	**9.5**		**17.2**		**12.1**		**10.3**		**12**		**10.9**		**11.8**		**13.7**		**3.6**		**17.1**		**14.3**		**15.4**	
Barium, Total	200	**8,200**	190,000	**74.9**		**138**		**132**		**153**		**145**		**232**		**113**		**148**		**444**		**119**		**232**		**126**	
Beryllium, Total	0.4	**320**	6,400	**0.66**		**0.79**		**1.3**		**0.73**		**0.73**		**0.78**		**0.92**		**0.95**		**3.3**		**1.1**		**1.40**		**1.1**	
Cadmium, Total	0.5	**38**	1,600	0.5	U	**0.65**		0.48	U	0.55	U	0.55	U	0.55	U	0.57	U	**0.86**		0.54	U	**1.1**		0.51	U	**0.67**	
Calcium, Total	NA	NA	NA	**25,600**		**3,960**		**36,800**		**2,080**		**2,200**		**1,760**		**21,700**		**4,100**		**120,000**		**3,250**		**37,900**		**9,300**	
Chromium, Total	NA	NA	NA	**11.8**		**17.9**		**13.8**		**12.8**		**14.6**		**13.7**		**9.9**		**29.9**		**13**		**34.7**		**10**		**13**	
Cobalt, Total	2.9	**130**	960	**8.8**		**9.5**		**8**		**11.7**		**11.6**		**11.7**		**6.9**		**12**		2.7	U	**10.6**		**6.7**		**9.5**	
Copper, Total	100	**43,000**	100,000	**14.8**		**44.0**		**20.3**		**14.8**		**19.7**		**18.3**		**25.9**		**38.3**		**7.2**		**35.9**		**18.1**		**37.6**	
Hexavalent Chromium *(Method 7196A)*	10	190	**180**	2.3	U	2.4	U	2.2	U	2.2	U	2.3	U	2.4	U	2.4	U	2.3	U	2.1	U	2.3	U	2.2	U	2.2	U
Iron, Total	NA	NA	**190,000**	**25,500**		**27,600**		**26,400**		**27,300**		**29,100**		**27,200**		**21,400**		**29,900**		**8,710**		**30,700**		**24,900**		**30,000**	
Lead, Total	0.5	**450**	1,000	**12.1**		**122**		**94.7**		**26.9**		**54.8**		**35**		**157**		**118**		**124**		**108**		**61**		**57.2**	
Magnesium, Total	NA	NA	NA	**2,870**		**1,550**		**4,830**		**1,560**		**1,740**		**1,630**		**3,150**		**1,870**		**22,000**		**1,220**		**7,470**		**2,530**	
Manganese, Total	30	**2,000**	190,000	**1,270**		**731**		**730**		**784**		**829**		**1,090**		**718**		**754**		**1,660**		**591**		**2,850**		**423**	
Mercury, Total *(Method 7471B)*	0.2	**10**	510	0.049	U	**0.12**		**0.12**		**0.063**		**0.1**		0.053	U	**0.083**		**0.17**		0.051	U	**0.29**		**0.1**		**0.18**	
Nickel, Total	10	**650**	64,000	**14.9**		**19.2**		**16**		**19.5**		**19.3**		**21.8**		**14.8**		**23.6**		**12**		**24.3**		**12.6**		**18.6**	
Potassium, Total	NA	NA	NA	**1,100**		**896**		**1,270**		**1,150**		**979**		**1,210**		**889**		**1,040**		**1,660**		**705**		**1,320**		**982**	
Selenium, Total	5	**26**	16,000	2.5	U	2.5	U	2.4	U	2.7	U	2.8	U	2.8	U	2.9	U	2.5	U	2.7	U	2.8	U	2.6	U	2.6	U
Silver, Total	10	**84**	16,000	1.0	U	1	U	0.97	U	1.1	U	1.1	U	1.1	U	1.1	U	0.98	U	1.1	U	1.1	U	1.0	U	1.1	U
Sodium, Total	NA	NA	NA	**235**		50.4	U	**177**		54.8	U	55.5	U	55.1	U	**107**		49.2	U	**642**		**58.9**		**250**		**208**	
Thallium, Total	0.2	**14**	32	0.5	U	0.5	U	0.48	U	0.55	U	0.55	U	0.55	U	0.57	U	0.49	U	0.54	U	0.57	U	0.51	U	0.53	U
Trivalent Chromium	10	**190,000**	190,000	**11.8**		**17.9**		**13.8**		**12.8**		**14.6**		**13.6**		**9.9**		**29.6**		**13**		**34.5**		**10**		**13**	
Vanadium, Total	0.68	680	**220**	**22**		**18.1**		**18.2**		**19.3**		**20.4**		**18.9**		**15.4**		**21.7**		**17**		**19.6**		**17.4**		**17.7**	
Zinc, Total	200	**12,000**	190,000	**56.9**		**152**		**82.3**		**68.5**		**87.5**		**88.5**		**71.2**		**138**		**49.7**		**171**		**78.1**		**119**	

Notes:
All concentrations presented in milligrams/kilogram (mg/kg)
*PADEP Medium Specific Concentrations (MSCs), November 2021
**No Act 2 or MSC standard could be identified for this constituent
Bold, grey shaded values shall be used to determine compliance with Act 2.
Bold values indicate detections.
Bold, red shaded values indicate an exceedance of the Act 2 Standard
U - Not detected
NA - Not applicable.
Refer to Appendix C for a full list of analytical results

TABLE 1B
SUMMARY OF ANALYTICAL RESULTS COMPARED TO APPLICABLE ACT 2 STANDARDS FOR SUBSURFACE SOIL
SCI Pittsburgh Phase II ESA
3001 Beaver Avenue, Pittsburgh, Pennsylvania

SAMPLE ID / SAMPLE DATE	Used Aquifer Non-Residential 100 X GW MSC TDS ≤ 2500*	Used Aquifer Non-Residential Generic Value TDS ≤ 2500*	Non-Residential Direct Contact MSC (2-15 Feet)*	SB-01-10-12 1/12/2023		SB-02-10-12 1/11/2023		SB-03-8-10 1/11/2023		SB-04-14-16 1/11/2023		SB-05-4-6 1/11/2023		SB-06-8-10 1/11/2023		SB-07-2-4 1/11/2023		SB-08-6-8 1/13/2023		SB-09-4-6 1/13/2023		SB-10-4-6 1/13/2023		SB-11-6-8 1/12/2023		SB-12-10-12 1/12/2023	
Volatile Organic Compounds (Method 8260B)																											
Acetone	**8,800**	980	10,000	**0.0069**		0.0055	U	0.0051	U	0.0054	U	0.0055	U	0.0045	U	**0.0104**		0.0065	U	0.0053	U	0.0077	U	**0.0111**		**0.0128**	
Methylene Chloride	**0.5**	0.076	10,000	0.0094	U	**0.0011**		0.0010	U	0.0011	U	0.0011	U	0.0009	U	0.0015	U	0.0013	U	0.0011	U	0.0015	U	0.0013	U	0.00095	U
Tetrachloroethene	**0.5**	0.43	3,600	0.0094	U	0.0011	U	0.0010	U	**0.0150**		0.0011	U	**0.0041**		0.0015	U	0.0013	U	0.0011	U	0.0015	U	0.0013	U	0.00095	U
Metals - Target Analyte List (Method 6010B)																											
Aluminum, Total	NA	NA	**190,000**	**6,330**		**4,020**		**4,320**		**5,890**		**10,200**		**7,560**		**11,100**		**6,190**		**9,650**		**11,500**		**5,500**		**7,270**	
Antimony, Total	0.6	**27**	190,000	0.99	U	1	U	1	U	1.2	U	1.1	U	1	U	1.1	U	1.1	U	**1.3**		1	U	1.1	U	1.2	U
Arsenic, Total	1	**29**	190,000	**11.2**		**8.1**		**11.5**		**10.6**		**12**		**11.8**		**10.9**		**7.8**		**9.8**		**9.9**		**12.4**		**8.4**	
Barium, Total	200	**8,200**	190,000	**43.5**		**47.6**		**51.4**		**64.7**		**120**		**92.1**		**143**		**77.5**		**122**		**215**		**72.3**		**163**	
Beryllium, Total	0.4	**320**	190,000	0.49	U	0.51	U	**0.59**		0.6	U	**0.76**		**0.74**		**1.5**		**0.54**		**0.78**		**0.9**		**0.59**		**0.8**	
Cadmium, Total	0.5	**38**	190,000	0.49	U	0.51	U	0.52	U	0.6	U	0.56	U	0.5	U	0.57	U	0.53	U	0.51	U	0.51	U	0.57	U	0.58	U
Calcium, Total	NA	NA	NA	**935**		**566**		**10,100**		**904**		**1,710**		**1,220**		**40,600**		**1,100**		**2,710**		**1,990**		**2,090**		**2,400**	
Chromium, Total	NA	NA	NA	**13.1**		**7.8**		**11.9**		**10.2**		**13.9**		**12.5**		**10.6**		**10.5**		**15.9**		**15.7**		**11.3**		**11.2**	
Cobalt, Total	2.9	**130**	190,000	**10.6**		**4.1**		**6.6**		**9.5**		**12.7**		**9.8**		**6.4**		**7.9**		**9.7**		**13**		**7.7**		**10.3**	
Copper, Total	100	**43,000**	190,000	**14.2**		10.6		**12.6**		**13.1**		**17**		**15.5**		**24.8**		**10.8**		**24.2**		**15.8**		**13**		**13.9**	
Hexavalent Chromium *(Method 7196A)*	10	**190**	140,000	2.3	U	2.1	U	2.3	U	2.4	U	2.4	U	2.3	U	2.5	U	2.3	U	2.2	U	2.4	U	2.4	U	2.4	U
Iron, Total	NA	NA	**190,000**	**29,900**		**24,300**		**24,800**		**27,700**		**30,600**		**29,400**		**20,100**		**24,300**		**32,700**		**30,200**		**27,600**		**24,900**	
Lead, Total	0.5	**450**	190,000	**12.8**		**7.9**		**15.9**		**11.8**		**15.7**		**13.3**		**84.7**		**11.2**		**33.5**		**15.5**		**13.4**		**17.7**	
Magnesium, Total	NA	NA	NA	**1,340**		**971**		**1,540**		**1,480**		**2,280**		**1,540**		**5,860**		**1,310**		**2,000**		**1,890**		**1,310**		**1,410**	
Manganese, Total	30	**2,000**	190,000	**701**		**569**		**500**		**747**		**990**		**674**		**1,210**		**541**		**574**		**1,120**		**382**		**962**	
Mercury, Total *(Method 7471B)*	0.2	**10**	190,000	0.054	U	0.046	U	0.05	U	0.057	U	0.057	U	0.056	U	**0.13**		**1.3**		**0.25**		0.06	U	**0.11**		**0.072**	
Nickel, Total	10	**650**	190,000	**14.8**		**10.4**		**12.8**		**15.1**		**22.3**		**18.2**		**14.3**		**14.4**		**19.3**		**25.3**		**13.6**		**18.8**	
Potassium, Total	NA	NA	NA	**672**		**314**		**447**		**533**		**867**		**652**		**1,120**		**674**		**1580**		**1,300**		**737**		**842**	
Selenium, Total	5	**26**	190,000	2.5	U	2.5	U	2.6	U	3.0	U	2.8	U	2.5	U	2.9	U	2.7	U	2.5	U	2.6	U	2.8	U	2.9	U
Silver, Total	10	**84**	190,000	0.99	U	1	U	1	U	1.2	U	1.1	U	1	U	1.1	U	1.1	U	1	U	1	U	1.1	U	1.2	U
Sodium, Total	NA	NA	NA	**232**		50.6	U	52.3	U	59.8	U	56.2	U	50.5	U	**150**		53	U	**57.5**		51.2	U	**139**		**214**	
Thallium, Total	0.2	**14**	190,000	0.49	U	0.51	U	0.52	U	0.6	U	0.56	U	0.5	U	0.57	U	0.53	U	0.51	U	0.51	U	0.57	U	0.58	U
Trivalent Chromium	10.0	**190,000**	190,000	**12.1**		**7.8**		**11.9**		**10.2**		**13.9**		**12.5**		**10.6**		**10.5**		**15.9**		**15.7**		**11.3**		**11.2**	
Vanadium, Total	0.68	**680**	190,000	**16.6**		**11**		**12.2**		**15.7**		**21.4**		**17.6**		**15.6**		**15.2**		**23.2**		**21.9**		**15**		**15.7**	
Zinc, Total	200	**12,000**	190,000	**55.5**		**39.9**		**55**		**54.9**		**73.7**		**63.8**		**63**		**50**		**53.3**		**88.1**		**51.3**		**66.2**	

Notes:
All concentrations presented in milligrams/kilogram (mg/kg)
*PADEP Medium Specific Concentrations (MSCs), November 2021
Bold, grey shaded values shall be used to determine compliance with Act 2.
Bold values indicate detections.
Bold, red shaded values indicate an exceedance of the Act 2 Standard
U - Not Detected
NA - Not applicable.
Refer to Appendix C for a full list of analytical results

TABLE 2
SUMMARY OF ANALYTICAL RESULTS COMPARED TO APPLICABLE ACT 2 STANDARDS FOR GROUNDWATER
SCI Pittsburgh Phase II ESA
3001 Beaver Avenue, Pittsburgh, Pennsylvania

SAMPLE ID / SAMPLE DATE	Used Aquifer Non-Residential TDS ≤ 2500*	MW-01 1/16/2023		MW-02 1/12/2023		MW-03 1/12/2023		MW-04 1/12/2023		MW-05 1/13/2023		MW-05D 1/13/2023		MW-06 1/13/2023		MW-07 1/16/2023		MW-08 1/17/2023		MW-09 1/16/2023		MW-10 1/16/2023		MW-11 1/16/2023		MW-12 1/13/2023	
Volatile Organic Compounds (Method 8260C)																											
cis-1,2-Dichloroethene	**70**	1	U	1	U	**26.3**		1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Methyl acetate	**97,000**	**6.9**	**MB**	2	U	2	U	2	U	2	U	2	U	2	U	**8.9**	**MB**	2	U	**5.9**	**MB**	**7.7**	**MB**	**6.1**	**MB**	2	U
Tetrachloroethene (PCE)	**5**	**3.7**		**1.7**		**207**		**63.7**		**26.3**		**27.2**		**21**		**4.7**		1	U	1	U	1	U	1	U	1	U
Toluene	**1,000**	1	U	1	U	**2.4**		1	U	1	U	1	U	1	U	**1.7**		1	U	1	U	1	U	1	U	1	U
Trichloroethene (TCE)	**5**	**1.3**		**1**		**10.9**		1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Dissolved Metals - Target Analyte List (Method 6020A)																											
Aluminum [(1)]	**200**	89	U	89	U	89	U	89	U	89	U	89	U	89	U	89	U	**120**		89	U	89	U	89	U	89	U
Arsenic	**10**	3	U	3	U	3	U	3	U	3	U	3	U	3	U	3	U	**8.4**		3	U	**39**		**13**		**8.5**	
Barium	**2,000**	**61**		**110**		**53**		**54**		**47**		**47**		**63**		**48**		**130**		**77**		**200**		**370**		**140**	
Calcium	**NA**	**160,000**		**161,000**		**68,300**		**41,900**		**117,000**		**116,000**		**51,200**		**75,500**		**61,100**		**96,800**		**115,000**		**179,000**		**96,500**	
Hexavalent Chromium *(Method 7196A)* [(3)]	**100**	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	1,000	U	10	U	**11**		10	U	10	U
Iron [(1)]	**300**	**78**		56	U	56	U	56	U	56	U	56	U	56	U	56	U	**440**		56	U	**72,500**		**13,200**		**6,200**	
Magnesium	**NA**	**41,700**		**31,300**		**13,100**		**5,600**		**12,600**		**12,600**		**2,800**		**7,900**		**11,300**		**7,500**		**18,500**		**23,500**		**7,100**	
Manganese[(2)]	**300**	**180**		**450**		**3,300**		5.6	U	**36**		**35**		**6.7**		**140**		**3,000**		**67**		**18,700**		**8,200**		**2,800**	
Potassium	**NA**	**16,000**		**14,300**		**3,700**		**8,800**		**4,800**		**4,800**		**3,000**		**5,100**		**5,700**		**7,000**		**2,400**		**8,500**		**9,600**	
Sodium	**NA**	**440,000**		**385,000**		**25,800**		**19,000**		**22,600**		**22,200**		**9,700**		**26,000**		**61,400**		**104,000**		**62,900**		**71,400**		**137,000**	
Zinc	**2,000**	5.6	U	5.6	U	5.6	U	5.6	U	5.6	U	5.6	U	5.6	U	5.6	U	**7.2**		**16**		**6.1**		**8.4**		**5.6**	

Notes:
All concentrations presented in micrograms per liter (µg/L)
*PADEP Medium Specific Concentrations (MSCs), November 2021
Bold, grey shaded values shall be used to determine compliance with Act 2.
Bold values indicate detections
Bold, red shaded values indicated an exceedance of the Act 2 Standard
(1) Indicates the standard is a Secondary Maximum Contaminant Level
(2) Indicates the standard is a Lifetime Health Advisory Level
(3) No standard for Chromium (VI) in groundwater could be identified, therefore the Total Chromium standard was used
NA - Not applicable.
U - Not detected
MB - Constituent detected in associated method blank

Refer to Appendix C for a full list of analytical results

Legend

- Soil Boring Location
- Site Boundary

NOTES:
SB = Soil Boring
mg/kg = milligram per kilogram

0 75 150 300 Feet

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FIGURE 4

Exceedances in Soil
SCI Pittsburgh Phase II ESA
Pittsburgh, Pennsylvania

Drawn By	Checked By	Date	Project	Sheet No.
ZDW	MRS	1/24/23	2390	4

MW-08	
Sampled 1/17/2023	
Constituent	Concentration
TAL Metals (ug/L)	
Iron	440
Manganese	3,000

MW-04	
Sampled 1/12/2023	
Constituent	Concentration
Volatile Organic Compounds (ug/L)	
Tetrachloroethene (PCE)	63.7

MW-10	
Sampled 1/16/2023	
Constituent	Concentration
TAL Metals (ug/L)	
Arsenic	39
Iron	72,500
Manganese	18,700

MW-05	
Sampled 1/13/2023	
Constituent	Concentration
Volatile Organic Compounds (ug/L)	
Tetrachloroethene (PCE)	27.2

MW-11	
Sampled 1/16/2023	
Constituent	Concentration
TAL Metals (ug/L)	
Arsenic	13
Iron	13,200
Manganese	8,200

MW-12	
Sampled 1/13/2023	
Constituent	Concentration
TAL Metals (ug/L)	
Iron	6,200
Manganese	2,800

MW-03	
Sampled 1/12/2023	
Constituent	Concentration
Volatile Organic Compounds (ug/L)	
Tetrachloroethene (PCE)	207
Trichloroethene (TCE)	10.9
TAL Metals (ug/L)	
Manganese	3,300

MW-02	
Sampled 1/12/2023	
Constituent	Concentration
TAL Metals (ug/L)	
Manganese	450

MW-06	
Sampled 1/13/2023	
Constituent	Concentration
Volatile Organic Compounds (ug/L)	
Tetrachloroethene (PCE)	21

Legend

- Temporary Monitoring Well Location
- Site Boundary

NOTES:
MW = Monitoring Well
ug/L = microgram per liter
The highest value between the parent sample (MW-05) and duplicate (MW-05D) is presented.

0 75 150 300 Feet

RHEA Engineers & Consultants, Inc.

FIGURE 5

Exceedances in Groundwater
SCI Pittsburgh Phase II ESA
Pittsburgh, Pennsylvania

Drawn By	Checked By	Date	Project	Sheet No.
ZDW	MRS	2/2/23	2390	5

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