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Attention: Mr. Mark Gregor
Manager of Environmental Quality
City of Rochester Department of Environmental Services
30 Church Street, Room 300-B
Rochester, New York 14614-1278

Reference: Confirmatory Phase II Site Investigation Report
920 Exchange Street, Rochester, New York

Dear Mark,

This report summarizes the results of our Confirmatory Phase II Site Investigation (Phase II SI) of the property located at 920 Exchange Street in the City of Rochester, New York (herein referred to as the "Site").

PROJECT BACKGROUND

The Site lies within the footprint of the former Vacuum Oil Works, and is situated just west of the Genesee River. The City of Rochester received a United States Environmental Protection (USEPA) Region 2 Brownfield Opportunity Area (BOA) Program community-wide grant to fund this investigation.

The Site consists of a 3.5± acre parcel developed with a 121,528± square foot building. The building is comprised of two adjoining sections: a four-level structure dating from the Vacuum Oil Works era, and a newer single-level addition. Both sections of the building are largely vacant; a few areas are used for storage of restaurant fixtures and equipment and other miscellaneous items. A Site plan showing the Site building sections, parking lot and undeveloped areas is presented on Figure 1.

Bergmann Associates (Bergmann) recently completed a Phase I Environmental Site Assessment (ESA) of the Site ([1]). Bergmann identified 17 recognized environmental conditions (RECs, as defined in the ASTM E 1527-13 *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*) associated with the Site.

[1] "City of Rochester Phase I Environmental Site Assessment, 920 Exchange Street, Rochester, Monroe County, New York", Bergmann Associates, Rochester, New York, April 1, 2016.

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Stantec performed this Phase II SI to confirm and generally evaluate, as feasible given project budgetary constraints, the presence of subsurface environmental impacts at the Site related to the RECs identified in the Bergmann Phase I ESA report. Delineation of the full nature and extent of environmental impacts at the Site was beyond the scope of the Phase II SI. The Phase II SI did not include investigation of Site-wide groundwater conditions or conditions below the top of bedrock, and it did not investigate the potential for soil vapor intrusion in the building or for soil vapor encroachment from adjacent sites.

RECS AND PHASE II SI SAMPLING LOCATIONS

The RECs identified in the Bergmann Phase I ESA report and the Phase II SI sampling locations which addressed each one are listed below. Sample locations are numbered as shown on Figure 1. Given the complicated history of the Site and the overlapping nature of a number of the RECs, many of the sample locations addressed conditions related to two or more RECs.

Former Oil Facility, Historic Petroleum Bulk Storage, Documented Discharge, and Compromised Historic Infrastructure – Potential releases and documented discharges (spills) from the various petroleum storage, handling and processing operations reportedly conducted at the Site and the related historic infrastructure reportedly present at the Site were addressed by soil sampling at 12 test borings (B/MW-1, B/MW-2, B3 through B12). Groundwater monitoring wells were also installed and sampled at test borings B/MW-1 and B/MW-2.

Potential Impacts from Off-Site Properties – This REC was addressed by sampling at test boring B/MW-1, where oil staining along the adjacent basement wall indicates the possible presence of petroleum contamination in the subsurface on the adjacent property to the south.

Railroad Spur – Soil sampling at test borings B3, B9, B10, B11 and B12 addressed this REC.

Solid Waste Disposal – Soil sampling at test borings B9, B10 and B11 addressed this REC.

Undocumented UST Removal – Test boring B8 was drilled in the area west of the facility loading dock in the general area of the site where the tank is thought to have been located.

Vaulted Below Grade Storage Tanks – This REC was addressed by collection of a tank-vault water sample (VAULT3) and by the test boring at the southeast end of the tank vault (B4).

Boiler Room – This REC was addressed by sampling of water from the boiler room sump (SUMP2) and addressed indirectly with the nearby tank-vault water sample and test boring described above (VAULT3 and B4).

Sump Pumps – Potential impacts from possible on-Site discharge of water pumped from sumps were evaluated indirectly with the Boiler Room sump sample (SUMP2) and a second sump water sample collected at the SUMP1 location.

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Floor Drains/Filled-in Floor Drains – This REC was addressed by collection of water from the floor drain sump at sample location SUMP3 and also by the soil sampling performed at the B3 test boring located near one end of the apparent former floor drain network in that section of the Site building.

Former On-Site Barrel Storage – Concrete sampling performed at locations C1 and C2 addressed this REC.

Current On-Site Barrel Storage – Since staining or other evidence of potential releases was not reported in areas of recent barrel storage, some of which were located on the second floor of the building, this REC was not addressed by sampling during the Phase II investigation.

Former Tannery – Test boring B7 was drilled in the reported tanning pits area of the former tannery (as recorded on a Sanborn™ fire insurance map dated 1892). A shallow soil sample was collected from the B7 boring, but drilling equipment refusal on a concrete feature at a depth of 3 feet prevented collection of deeper soil samples at this location. Because of the shallow depth of the B7 sample (1.1 to 1.6 feet), and because the concrete feature encountered at the 3-ft. depth is likely to post-date the period during which the tannery was in operation at the Site, it's likely that the B7 sample was not representative of subsurface conditions related to possible impacts from the operation of the former tanning pits.

While the tanning pits are presumed to represent the principal potential source of releases from former tannery operations, test borings B4, B5, B6, B8, B9 and B10 were drilled in other portions of the former J.C. Lighthouse tannery facility parcel at locations surrounding the reported footprint of the tanning pits.

Soil Vapor Intrusion and Soil Vapor Encroachment – Investigation of these two RECs was not conducted during the Phase II SI, as it was understood that investigation of soil vapor intrusion and encroachment, if such investigation was necessary, would be deferred until a later phase of the project.

FIELD INVESTIGATION ACTVIITES AND RESULTS

Collection of Concrete Samples

As shown on Figure 1, there are two areas, both along the northwest wall of the building, where impressions of the bottom rings of 55-gallon drums are evident on the floor of the building (Drum Ring Areas 1 and 2). The concrete floor is visibly distressed in both areas, with minor erosion of the surface possibly due to chemical etching apparent in the northern area and more significant erosion of the surface, possibly due to scaling or long-term abrasion in the southern area (located in the older section of the building). Thorough black staining of the eroded floor in the southern area is also apparent.

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Stantec collected a concrete sample at each of the drum ring areas on May 20, 2016. A masonry drill bit was used to generate sample material (concrete dust and chips) from the top two inches of the floor slab at locations C1 and C2. Field screening for the presence of volatile organic compounds (VOCs) was performed using a photo-ionization detector (PID) equipped with a 10.6 electron volt (eV) lamp.

During the sample collection at C1, a petroleum odor was observed and the PID readings of VOCs in ambient air ranged between 0.9 and 1.1 parts per million (ppm). PID readings in the approximately 2-inch deep concrete penetration were between 50 and 60 ppm. During the sample collection at C2, no odor was observed and the ambient PID was approximately 0.5 ppm. The down-hole PID readings at C2 were approximately 3.0 ppm. Sample analysis parameters and methods for the concrete and other project samples are described below in the laboratory analysis section of the report.

Collection of Sump/Floor Drain and Vault Water Samples

A total of four water samples (SUMP1, SUMP2, SUMP3 and VAULT3) were collected from various sump, vault and floor drain system structures within the building.

To our knowledge, no building or utility plans are available to identify drainage and plumbing features for the building, and we therefore do not have any definitive information regarding inlet or discharge piping that may be connected to the sumps, floor drains and vault. Nevertheless, we consider it likely that some or all of them would have ultimately drained, or been pumped, to sanitary sewer lines.

Of the four structures sampled, three (Sump 1, Sump 2 and Vault 3) were each partially filled with a few feet or more of standing water. These structures do not appear to actively discharge at the current time. Given the inactive status of the building, it seems likely that the water that was present in Sump 1, Sump 2 and Vault 3 is primarily groundwater that has infiltrated the structures and accumulated over time.

Sump 3 appears to be at the downstream end of a network of floor drains present in the part of the building that has a raised floor (the part of the building which was reportedly used for a fish processing operation for which the floor drains were installed). Sump 3 has a PVC discharge pipe leading from the floor of the sump, and a few inches of water were present in the bottom of the sump below the level of the top end of the discharge pipe.

Sampling of water from the sumps and vault was performed on May 20, 2016. The water samples were collected using dedicated bailers. The samples collected at SUMP1 and SUMP2 were clear in appearance with no odor. A sulfur odor was observed while sampling at SUMP3; the water was clear with coarse dark suspended material. The sample collected at VAULT3 was light brownish

red and turbid, and minor accumulations of material (possibly bacterial organic matter) were observed floating on top of the water in the tank vault. No free petroleum product or petroleum sheen was observed on the water in the structures or in the associated water samples. All four samples reacted with the hydrochloric acid preservative in the sample containers designated for VOC analysis.

Test Boring and Subsurface Soil Sampling Program

Nothnagle Drilling, Inc. (Nothnagle) of Scottsville, New York was subcontracted by Stantec to perform environmental drilling services. Prior to the initiation of field activities, Nothnagle contacted Dig Safely New York (Dig Safely) for a standard underground utility stakeout.

Coring of the building floor slab at interior boring locations (B1 through B7) was performed on May 20, 2016. Concrete slab thickness ranged from 0.50 to 1.0 ft. Possible petroleum impacts (black staining, odors, and low-level PID readings) were observed within the concrete floor cores at two locations, as shown in the following table.

Summary of Observations from Floor Slab Coring Activities

Location ID (see Figure 1)	Concrete Slab Thickness (ft.)	PID Reading (ppm)		Observed Impacts
		Concrete Core	Downhole	
B1	0.60	3.1	14.5	Petroleum odor; minor black staining on base
B2	0.65	0.2	0.2	Slight petroleum odor; minor black staining on base
B3	0.60	0.1 - 0.2	0.1 - 0.2	None
B4	0.65	0.0	0.0	None
B5	0.55	0.0 - 0.1	0.0 - 0.1	None
B6	0.50	0.0 - 0.2	0.0 - 0.2	None
B7	1.0	0.1 - 0.2	0.1 - 0.2	None

Soil sampling at the test borings was conducted on May 23 and 24, 2016. Direct-push drilling methods and a Geoprobe® Macro-Core® sampler were used to obtain continuous soil samples at each boring. At each location, the test boring was advanced until refusal was encountered at the apparent top of bedrock. At two exterior drilling locations (B8 and B11), drilling equipment refusal was encountered at relatively shallow depths (between 6 and 6.5 ft. bgs), and multiple borings were therefore drilled at these locations to confirm that the refusal was not due to a small obstruction in the subsurface.

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Soil samples were described in terms of grain size distribution and potential fill materials, and inspected for indications of staining, petroleum sheen, or other evidence of potential environmental contamination. The soil samples were screened with a calibrated 10.6 eV PID for the presence of VOCs. Portions of each soil sample were collected and placed in individual sealed zip-lock bags, and the vapors that accumulated within the headspace of the bags were then screened using the PID. Soil descriptions, PID screening results, and other pertinent subsurface information were recorded on the soil boring logs presented in Appendix A. One sample was selected for laboratory analysis from the interval in each boring which exhibited the greatest degree of apparent contaminant impact based on visual observations, odors and PID screening results.

On May 23rd, indications of the presence of petroleum contamination were observed in the soils of the first test borings drilled. The apparent evidence of a past petroleum spill (or spills) was reported by Stantec to City personnel, and City personnel subsequently reported the observed spill to the Region 8 office of the New York State Department of Environmental Conservation (NYSDEC) on the morning of May 23rd. NYSDEC assigned Spill Number 1601806 to the file for the reported spill.

Non-dedicated drilling and sampling equipment was decontaminated using steam cleaning methods before beginning project work, between borehole locations, and at the completion of the project. Decontamination rinse water was containerized as investigation-derived waste (IDW). The decontamination pad liner was also containerized as IDW at the conclusion of drilling activities. Handling, storage, sampling, and disposal of the IDW are described below in the IDW management section of the report.

Following completion of the field program, concrete repairs were completed at the interior boring locations, and an asphalt pavement surface patch was completed at the boring in the parking lot (B8).

Conditions Observed at Outdoor Locations

Refusal depths at the outdoor boring locations ranged from 6.0 to 10.7 ft. bgs. Saturated soils were encountered at two of the five exterior boring locations, between 4.7 and 5.5 ft. bgs. Potential petroleum impacts were observed at each exterior soil boring. Indications of petroleum impacts included petroleum odors, black staining, brownish-yellow petroleum product (B12), black tar-like petroleum product (B10 and B11), and elevated PID readings (a peak reading of 815 ppm at a depth of approximately 8.9 ft. in boring B10).

Five holes were drilled at location B8 (identified as B8a through B8e) to confirm the shallow refusal depth encountered in this area. The soil sample submitted for laboratory analysis was collected from the borehole identified as B8a; the B8 boring location depicted on Figure 1 is the sampling

location (B8a). Boring logs are included for B8a and B8b. The other three sample cores were not logged given the similar lithology observed at each of the five holes.

Similarly, three holes were drilled at location B11 (identified as B11a through B11c) to confirm the shallow refusal depth encountered in this area. The soil sample submitted for laboratory analysis was collected from the borehole identified as B11c; the B11 boring location depicted on Figure 1 is the sampling location (B11c). Boring logs are included for B11a and B11c. The other sample core was not logged given the similar lithology observed at each of the three holes and poor recovery at B11b.

In general, the subsurface soil encountered consisted of fill material beneath a thin grass and topsoil or asphalt layer. The fill material was primarily comprised of gray to brown sand with variable gravel, silt & clay, ash & cinder, wood, and brick components. Fill thickness ranged from 2.5 to 6.2 ft. Native overburden consisting of dark gray to brown silty to clayey sand with varying percentages of gravel was encountered at depths ranging from 2.6 ft. to 6.3 ft. bgs. Native overburden deposits are likely to be of fluvial origin, although fluvial bedding was not readily apparent in the samples. Possible weathered bedrock (dolostone; Upper Silurian Lockport Group) was observed at approximately 5.0 ft. at boring B11c.

Conditions Observed at Indoor Locations

Refusal depths at the interior boring locations ranged from 5.5 to 8.9 ft. bgs. The exception was at location B7 (refusal at 3 ft. bgs) where a second layer of concrete was encountered less than one foot below the bottom of the cored concrete slab. Saturated soils were encountered at five of the eight interior borings, between approximately 4.0 and 5.7 ft. bgs. Varying degrees of potential petroleum impacts were observed at each of the seven indoor soil borings. Indications of petroleum impacts included odors, black staining, brownish-yellow petroleum product (B1), and elevated PID readings (peak: 583.1 ppm at approximately 4.1 ft. in boring B1).

Fill material encountered beneath the building floor slab primarily consisted of brown silty sand with variable gravel, clay, ash & cinder, and brick components. Fill thickness ranged from possibly as thin as a few inches at B1 inside the older section of the building to approximately 9 ft. at B4, located just south of the oil storage tank vault. Native overburden deposits encountered beneath the fill was similar to that encountered at the outdoor borings (as described above). Possible weathered dolostone bedrock was observed directly above the refusal depths at borings B4 and B5 (8.9 ft. bgs and 5.4 ft. bgs, respectively).

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Well Installation and Groundwater Sampling:

Although the proposed scope of work did not include groundwater sampling, two monitoring wells were installed at the request of the City to evaluate the presence of groundwater impacts. The wells were installed at borings B1 and B2, located in the older building section. Saturated soil was observed at a depth of approximately 4 ft. at both locations, below which were indications of petroleum-impacted soil (petroleum product, petroleum odor, high PID readings, and/or staining).

The two wells (B/MW-1 and B/MW-2) were installed on May 25, 2016. Both wells were constructed with 1-inch-diameter Schedule 40 PVC well screen installed to refusal depth (see table below), and extending above the apparent depth of the water table (~4 ft). Filter sand was placed around the well to approximately 0.5 to 1 ft. above the top of the well screen. Bentonite powder (~0.5 to 1 ft. thick) was placed on top of the sand and hydrated to create a hydraulic seal. Additional sand was placed in the remaining annular space, into which a curb box surface cover was inserted. The wells are capped with expandable J-plugs.

Following installation, the wells were developed using dedicated tubing connected to a ball valve. Each well was purged dry twice, and allowed to recharge in-between purging and then again overnight prior to gauging/sampling activities conducted the following day. The development water and tubing were containerized as IDW.

On May 26, 2016, both wells were gauged using an oil/water interface probe. As shown in the table below, no measurable petroleum product layer was detected in either well although sheens were present (as indicated by the probe, and as observed in the sample). Groundwater samples were collected from each well using dedicated disposable bailers.

Location ID (see Figure 1)	Construction Details			Well Gauging (May 26, 2016)		
	Well Depth (ft. bgs)	Screen Length (ft.)	Screen Interval (ft. bgs)	Depth to Water (ft. bTOC)	Depth to Bottom (ft. bTOC)	Comments
B/MW-1	5.5	4.0	1.0 - 5.5	1.51	4.93	Petroleum odor, sheen
B/MW-2	8.0	5.0	3.0 – 8.0	2.35	7.85	Petroleum odor, sheen, thin film of oil observed in bailer

IDW Management:

To the extent practicable, drill cuttings were placed back into completed boreholes unless evidence of significant impact, such as the apparent presence of petroleum product, was observed in the soils. For those locations (B1, B2, B11, and B12), cuttings were containerized in one 55-gallon drum. Given the odor, minor staining, and PID readings from at least one of the concrete cores, the cores were containerized in a sealed 5-gal bucket placed in the soil drum. Decontamination fluids were containerized in a second 55-gallon drum. The decontamination pad, Macro-Core® samplers, and well development/sampling tubing and materials were containerized in two additional 55-gallon drums.

The four drums of IDW were stored on-Site pending waste profiling and waste disposal coordination. Stantec subcontracted with Sun Environmental Corp. (NYETECH/Sun) of Rochester, New York to provide waste management and disposal services for the project. The four drums were transported to Industrial Oil Tank Service Corp. in Oriskany, New York on August 4, 2016 for disposal as non-hazardous waste. A copy of the waste transport manifest is presented in Appendix C.

Location Survey:

Stantec established horizontal coordinates of test borings, concrete sample, and water samples (collected from the sumps/floor drain and vault) using GPS equipment at outdoor locations and using swing-tie measurements at indoor locations.

LABORATORY ANALYSIS ACTIVITIES AND RESULTS

Soil, water, and concrete samples were submitted for chemical analysis to TestAmerica Laboratories, Inc. (TestAmerica), of Amherst, New York. Test America is accredited under the New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP). Laboratory analytical parameters and methods are listed in the table on the following page; also shown are the analysis quantities for samples collected from each sample medium.

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Analysis Parameters	Analytical Method (USEPA SW-846)	Number of Site Samples			
		Soil	Concrete	Sump/Floor Drain and Vault Water	Groundwater
TCL and CP-51 VOCs (+ up to 10 TICs)	8260C	12	2	4	2
TCL and CP-51 SVOCs (+ up to 20 TICs)	8270D	12	2	4	2
TCL Pesticides	8081B	2	2	-	-
TCL PCBs	8082A	2	2	-	-
TAL Metals	6010C and 7470A/7471B	2	2	-	-
Total and Amenable Cyanide	9012B	2	2	-	-

The laboratory analytical reports are presented in Appendix B. The reports meet the requirements for a "Category A" deliverable as defined by the New York State Department of Environmental Conservation (NYSDEC) Analytical Services Protocol (ASP). In accordance with the proposal, no quality assurance/quality control samples such as field duplicates, matrix spike samples, or rinse blanks were collected. Note that soil samples selected for VOC analyses were collected using preserved ENCORE samplers in accordance with USEPA Method 5035A.

Sample analysis results are summarized in the attached Tables 1-4. Table 1 presents a comparison of the soil analytical data to Soil Cleanup Objectives (SCOs) for Unrestricted Use (UU) and Restricted Commercial Use (CU), specified in NYSDEC's Part 375 Environmental Remediation Program regulations. Additionally these results are compared to NYSDEC's CP-51 Tables 1-3 (Table 1 - Supplemental CU SCOs, Table 2 - Soil Cleanup Levels for Gasoline Contaminated Soil, and Table 3 - Soil Cleanup Levels for Fuel Oil Contaminated Soil, or CP-51 Tables). Table 2 presents a comparison of the groundwater analytical data to NYSDEC TOGS 1.1.1 [Class GA] Standards and Guidance Values (SGVs).

There are no regulatory standards or guidance values (SGVs) that are directly applicable to evaluating the levels of environmental contaminants in the concrete of the floor slab in the Site building. For the purposes of this report, concrete sample analysis results, which are presented in

Table 3, were compared to SCOs applicable to soil remediation at petroleum spill sites and sites restricted to commercial uses. While we regard the comparison to the SCOs as a useful measure of the level of contaminants present in the concrete in the areas sampled, please note that the SCO exceedances in the concrete sample results do not represent exceedances of an applicable regulatory standard.

Similarly, there are no regulatory standards or guidance values for sump water or tank vault water. For the purposes of this report, the analytical results for the sump water and vault water samples presented on Table 4 have been compared to NYSDEC TOGS 1.1.1 [Class GA] SGVs. Please note, however, that while exceedances of the TOGS SGVs in sump and vault sample results are indications of the degree to which contaminants are present, they do not represent exceedances of an applicable regulatory standard.

Below is a brief summary of the detections and exceedances identified for each sample medium and parameter group.

Soil:

Twelve subsurface soil samples were collected during the test boring program. As described above, the samples were collected at the depth interval indicating the greatest potential for contaminant impacts based on field observations. Samples from two of the twelve test borings were submitted for analysis of a full suite of chemical parameters, including VOCs, SVOCs, PCBs, Pesticides, Metals, and Cyanide: B1 (inside) and B10 (outside). The remaining ten samples were analyzed for VOCs and SVOCs only.

PCBs, Pesticides, Metals, and Cyanide

No PCBs or pesticides were detected above reporting limits in either of the full-suite samples.

Several metals were identified in both full-suite samples. Both samples exhibited metals exceedances: calcium and magnesium in B1 and calcium, iron, magnesium, and zinc in B10. Note that the concentration of zinc in B10 only exceeds the UU SCO (the Site is zoned for commercial uses).

Cyanide was detected at a low-level concentration below SCOs in the B1 sample.

VOCs and SVOCs

All of the soil data meets the CU SCOs for VOCs. However, as shown on Table 1, soil samples from the B3, B6 and B12 test borings exhibited VOCs at concentrations exceeding UU SCOs. The B6 and B12 sample VOC exceedances were for the following aromatic compounds: 1,2,4-trimethylbenzene, chlorobenzene, ethylbenzene and o- and m&p-

xylene isomers. One or more of the compounds in both samples also exceeded its CP-51 SCO for gasoline- and fuel-oil-contaminated soil.

The B3 sample exhibited an acetone concentration exceeding the UU SCO; however, this result was "B" qualified by the laboratory to indicate that the compound was found in both the sample and the lab blank. Acetone is widely accepted as a common laboratory contaminant, and is therefore not considered a contaminant of concern for the Site.

SVOC concentrations detected in half of the soil samples exhibited one or more exceedances of UU SCOs and CP-51 fuel-oil-site SCOs. SVOC exceedance compounds include the polycyclic aromatic hydrocarbons (PAHs) benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, and indeno(1,2,3-c,d)pyrene. Of the six SVOC exceedance locations, four are located inside the building (B4-B7) and two are located outside (B11 and B12). At three of the SVOC exceedance locations (B5, B6, and B11), the soil meets CU SCOs for the single exceedance compound (chrysene). CU SCOs were exceeded at the other three locations.

Non-target tentatively-identified VOCs and SVOCs (TICs) were reported in all twelve samples.

It is noted that for some of the samples, elevated reporting limits (RLs) due to laboratory dilution necessary for analysis may have masked exceedances of SCOs for some compounds reported as not detected but with SCOs that were lower than the RLs for those compounds. The VOC analysis results for the B6 soil sample are an example, where, for example, benzene may have been present at a concentration less than its RL of 530 micrograms per kilogram (ug/kg) but above its UU and CP-51 SCOs of 60 ug/kg.

Groundwater:

Two groundwater samples were collected for VOC and SVOC analyses. The groundwater analytical data indicated minor petroleum impacts at both of the well locations. One exceedance was identified at B/MW-1 for 1,2,4-Trimethylbenzene, detected at a concentration of 12 ug/L (vs. the standard of 5 ug/L). Low-level concentrations of methylcyclohexane and naphthalene were also reported at this location. Additionally, both VOC and SVOC TICs were reported in B/MW-1. The only detections reported for B/MW-2 were SVOC TICs.

Concrete:

Two concrete samples (locations C1 and C2) were collected for full-suite analyses. No PCBs were detected above reporting limits in either sample. Low-level concentrations of cyanide and

pesticide were reported at one or both of the concrete sample locations, all below the comparison criteria. Both samples exhibited several detections of metals, two of which exceeded the comparison criteria: calcium and magnesium. Given that the sample media was concrete, the metals concentrations are expected and do not appear to be indicative of contamination impacts.

Several petroleum-related VOCs were detected at low-level concentrations in C2, although none exceeded the comparison criteria. Sample C1 similarly exhibited petroleum-VOC impacts, although at greater concentrations (2-3 orders of magnitude higher), with benzene and toluene at concentrations exceeding the CP-51 soil clean-up levels for gasoline- and fuel-oil-contaminated soils. VOC TICs were also reported in sample C1. A few PAHs were detected at low-levels in sample C2 in addition to SVOC TICs. Several PAHs and SVOC TICs were reported at C1. Five PAHs were reported at concentrations exceeding the CU SCOs and soil clean-up levels for fuel oil contaminated soil: benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, chrysene, and indeno(1,2,3-c,d)pyrene.

Water:

Four sump and tank-vault water samples were collected for VOC and SVOC analyses. In general, the analytical data indicated minor concentrations of petroleum compounds in the water samples. No VOCs or VOC TICs were detected. SVOC TICs were reported at all four locations. The water samples collected from SUMP2 and SUMP3 exhibited several low-level detections of SVOC target compounds. Three SVOCs exceeded the comparison criteria at SUMP2 (boiler room): benzo(a)anthracene, benzo(b)fluoranthene, and chrysene. Eleven SVOCs exceeded the comparison criteria at SUMP3: acenaphthene, anthracene, benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, fluoranthene, fluorine, indeno(1,2,3-c,d)pyrene, phenanthrene, and pyrene. No other analytes were reported for SUMP1 and VAULT3.

FINDINGS RELATED TO THE FORMER TANNERY

As indicated above, test boring B7, which was drilled in the footprint of the former tannery facility tanning pits encountered an obstruction and therefore soils likely to represent material that would have underlain the tanning pits could not be sampled. However, the results for surrounding tannery-area borings B4, B5, B6, B8, B9 and B10 do allow for limited assessment of impacts on environmental media in the former tannery area.

Test boring B10 was drilled approximately 32 feet southeast of the southeast edge of the mapped footprint of the tanning pits, a location that is likely to be hydraulically downgradient from the former pits. The soil sample collected from the apparent water table horizon at the B10 boring was analyzed for the full suite of potential Site contaminants. While minor apparent petroleum impacts were evident in this sample, no cyanide, pesticides or PCBs were detected, and with the

exception of zinc, which was detected at a concentration of 131 parts per million, no heavy metals were detected at concentrations above likely background levels. The zinc concentration was above NYSDEC's UU SCO of 109 ppm which, in the case of zinc, is based on protection of ecological resources. It was below NYSDEC's other SCOs for restricted use sites (2,200 ppm and above) where protection of human health and/or protection of groundwater resources are concerns.

Test boring B4 was drilled in close proximity to (approximately 12 feet from) the southwest edge of the tanning pits footprint. As indicated above, apparent petroleum impacts were evident at the B4 location and the other tannery area borings (B5 through B9). While cyanide, pesticides, PCBs and metals were not analyzed in these samples, indications of odors, coloration or staining related to impacts other than petroleum were not noted during field screening and logging of soil conditions. A trace of red staining noted in soil at B9 at a depth of 9.4 feet appeared to be from an iron oxide mineral component of the soil rather than a stain indicative of a heavy metal compound.

The results of the sampling conducted at B4 through B10 suggest that the former tanning pits did not have a broad impact on Site conditions in areas beyond the reported footprint of the pits.

CONCLUSIONS

Results of the analyses of Site samples indicate the presence of contamination of Site soil, groundwater, and concrete by petroleum products and petroleum-related compounds. Water samples from building sumps also contained petroleum constituents.

Further investigation of the full nature and extent of the contamination identified at the Site in soil, groundwater, floor-slab concrete, and sump/vault water is warranted. Given the confirmed presence of petroleum contamination at the Site, assessment of the potential for soil vapor intrusion at the Site is also warranted. Should any plans develop to reoccupy the Site building or redevelop the Site before further investigation of the Site is substantially complete, we recommend that a vapor intrusion assessment be performed in advance of the implementation of those plans regardless of the schedule for other aspects of the investigation.

The investigation of the nature and extent of contamination should address potential sources of contamination related to the former Vacuum Oil works and former tannery operations as well as other potential sources of the contamination identified in the Phase II SI samples.

We understand that going forward, a Quality Assurance Project Plan (QAPP) will need to be developed and implemented in accordance with EPA brownfield program requirements to specify the QA/QC program for the investigation of the nature and extent of contamination at the

Reference: **Confirmatory Phase II Site Investigation Report**
920 Exchange Street, Rochester, New York

Site. We understand that an EPA-approved QAPP would be necessary whether the future investigation is performed under federally-led or state-led oversight.

CLOSING

We recommended that a copy of this report be provided to NYSDEC as a follow-up to the initial report of NYSDEC Spill Number 1601806.

Should you have any questions, or require additional information, please contact us.

Sincerely,

STANTEC CONSULTING SERVICES INC.

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Attachments:

Figure 1 – Site Plan Showing Investigation Locations
Table 1 – Summary of Analytical Results for Soil Samples
Table 2 – Summary of Analytical Results for Groundwater Samples
Table 3 – Summary of Analytical Results for Concrete Samples
Table 4 – Summary of Analytical Results for Water Samples
Appendix A – Test Boring Logs
Appendix B – Laboratory Analytical Reports
Appendix C – Investigation Derived Waste Manifest

c.: J. Biondolillo, City of Rochester

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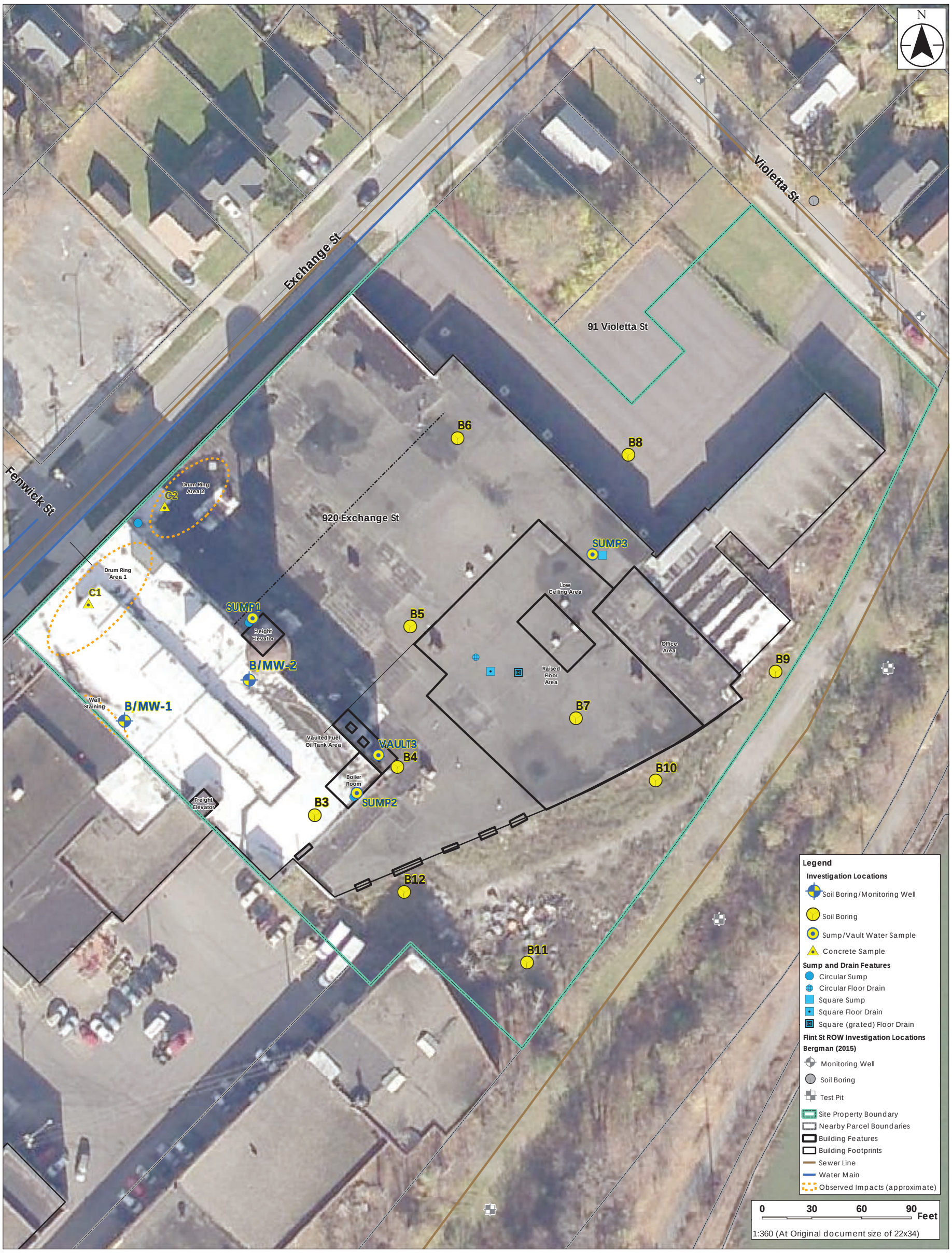
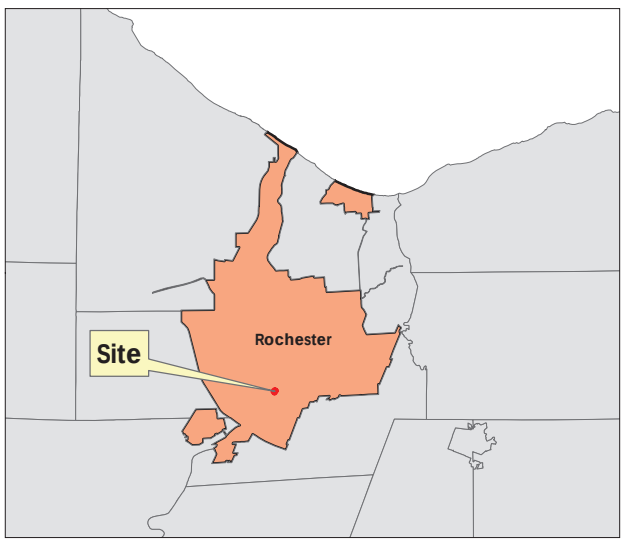
Figure





Notes

1. Coordinate System: NAD 1983 StatePlane New York West FIPS 3103 Feet
2. Five holes were drilled at boring B8 within a few feet of each other to confirm depth of shallow refusal. The location depicted is the sampling location (B8a). Three holes were drilled at boring B11 within a few feet of each other to confirm depth of shallow refusal. The location depicted is the sampling location (B11c).

Stantec

DRAFT

Project Location:
920 Exchange Street
City of Rochester, Monroe County, NY

Prepared by LB on 2016-05-25
Technical Review by MS on 2016-05-26

190500905

Client/Project
920 Exchange St.
City of Rochester BOA
Confirmatory Phase II Site Investigation

Figure No.
1

Title
Investigation Locations

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Revised: 2016-08-19 By: lbest

Tables

Table 1
Summary of Analytical Results for Soil Samples
Confirmatory Phase II Site Investigation Report
920 Exchange Street, Rochester, New York

DRAFT

Sample Location				B/MW-1	B/MW-2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12
Sample Date				24-May-16	24-May-16	24-May-16	24-May-16	24-May-16	24-May-16	24-May-16	23-May-16	23-May-16	23-May-16	23-May-16	23-May-16
Sample ID				VO-B1-S	VO-B2-S	VO-B3-S	VO-B4-S	VO-B5-S	VO-B6-S	VO-B7-S	VO-B8a-S	VO-B9-S	VO-B10-S	VO-B11c-S	VO-B12-S
Sample Depth				4 - 5.5 ft	5.5 - 6.2 ft	4.4 - 4.8 ft	5 - 5.6 ft	4.6 - 5.1 ft	4 - 4.6 ft	1.1 - 1.6 ft	4 - 4.5 ft	6.4 - 7 ft	8.2 - 9.2 ft	4 - 5.3 ft	8.4 - 9.2 ft
Sampling Company				STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC
Laboratory				TALBUFF	TALBUFF	TALBUFF	TALBUFF	TALBUFF	TALBUFF	TALBUFF	TALBUFF	TALBUFF	TALBUFF	TALBUFF	TALBUFF
Laboratory Work Order				4801006561	4801006561	4801006561	4801006561	4801006561	4801006561	4801006561	4801005761	4801005761	4801005761	4801005761	4801005761
Laboratory Sample ID	Units	NYSDEC-Part 375	NYSDEC CP-51	480-100656-5	480-100656-6	480-100656-7	480-100656-1	480-100656-2	480-100656-3	480-100656-4	480-100576-1	480-100576-2	480-100576-3	480-100576-4	480-100576-5
Field Measurement															
Photoionization meter with 10.6 eV lamp	ppm	n/v	n/v	80.6 -583.1	21.2	10.2	1.7	3.6	414.2	19.5	302.2	704.9	602.9 -815.1	46.2 -126.0	539.5
General Chemistry															
Cyanide	mg/kg	27_{i}^{A} 27_{i}^{B}	n/v	1.5	-	-	-	-	-	-	-	-	1.2 U	-	-
Cyanide, Amenable To Chlorination	mg/kg	n/v	n/v	1.2 U	-	-	-	-	-	-	-	-	1.2 U	-	-
Metals															
Aluminum	mg/kg	10000_{e}^{A} 10000_{e}^{B}	10000_{a}^{C}	4540 B	-	-	-	-	-	-	-	-	6410	-	-
Antimony	mg/kg	10000_{e}^{A} 10000_{e}^{B}	10000_{a}^{C}	18.0 U	-	-	-	-	-	-	-	-	18.7 U	-	-
Arsenic	mg/kg	13_{n}^{A} 16_{n}^{B}	n/v	1.5 J	-	-	-	-	-	-	-	-	4.6	-	-
Barium	mg/kg	350_{n}^{A} 400^{B}	n/v	21.6	-	-	-	-	-	-	-	-	27.3	-	-
Beryllium	mg/kg	7.2^{A} 590^{B}	n/v	0.18 J	-	-	-	-	-	-	-	-	0.25	-	-
Cadmium	mg/kg	2.5_{n}^{A} 9.3^{B}	n/v	0.094 J	-	-	-	-	-	-	-	-	0.40	-	-
Calcium	mg/kg	10000_{e}^{A} 10000_{e}^{B}	10000_{a}^{C}	**35500 B**[ABC]	-	-	-	-	-	-	-	-	**47500 B**[ABC]	-	-
Chromium, Total	mg/kg	$30_{n,i}^{A}$ 1500^{B}	n/v	7.8	-	-	-	-	-	-	-	-	8.8	-	-
Cobalt	mg/kg	10000_{e}^{A} 10000_{e}^{B}	10000_{a}^{C}	3.3	-	-	-	-	-	-	-	-	3.2	-	-
Copper	mg/kg	50^{A} 270^{B}	n/v	7.3	-	-	-	-	-	-	-	-	8.8	-	-
Iron	mg/kg	10000_{e}^{A} 10000_{e}^{B}	10000_{a}^{C}	8680 B	-	-	-	-	-	-	-	-	**11300**[ABC]	-	-
Lead	mg/kg	63_{n}^{A} 1000^{B}	n/v	5.3	-	-	-	-	-	-	-	-	12.4	-	-
Magnesium	mg/kg	10000_{e}^{A} 10000_{e}^{B}	n/v	**10900 B**[AB]	-	-	-	-	-	-	-	-	**31200 B**[AB]	-	-
Manganese	mg/kg	1600_{n}^{A} 10000_{e}^{B}	n/v	298 B	-	-	-	-	-	-	-	-	489	-	-
Mercury	mg/kg	0.18_{n}^{A} 2.8_{e}^{B}	n/v	0.021 U	-	-	-	-	-	-	-	-	0.015 J	-	-
Nickel	mg/kg	30^{A} 310^{B}	n/v	7.4	-	-	-	-	-	-	-	-	8.4	-	-
Potassium	mg/kg	10000_{e}^{A} 10000_{e}^{B}	n/v	1390	-	-	-	-	-	-	-	-	1440	-	-
Selenium	mg/kg	3.9_{n}^{A} 1500^{B}	n/v	4.8 U	-	-	-	-	-	-	-	-	5.0 U	-	-
Silver	mg/kg	2^{A} 1500^{B}	n/v	0.72 U	-	-	-	-	-	-	-	-	0.75 U	-	-
Sodium	mg/kg	10000_{e}^{A} 10000_{e}^{B}	n/v	234	-	-	-	-	-	-	-	-	189	-	-
Thallium	mg/kg	10000_{e}^{A} 10000_{e}^{B}	10000_{a}^{C}	7.2 U	-	-	-	-	-	-	-	-	7.5 U	-	-
Vanadium	mg/kg	10000_{e}^{A} 10000_{e}^{B}	10000_{a}^{C}	13.2	-	-	-	-	-	-	-	-	16.9	-	-
Zinc	mg/kg	109_{n}^{A} 10000_{e}^{B}	n/v	25.5	-	-	-	-	-	-	-	-	**131**[A]	-	-
Polychlorinated Biphenyls															
PCB-1016 (Aroclor 1016)	mg/kg	$_{o}^{AB}$	n/v	0.20 U	-	-	-	-	-	-	-	-	0.26 U	-	-
PCB-1221 (Aroclor 1221)	mg/kg	$_{o}^{AB}$	n/v	0.20 U	-	-	-	-	-	-	-	-	0.26 U	-	-
PCB-1232 (Aroclor 1232)	mg/kg	$_{o}^{AB}$	n/v	0.20 U	-	-	-	-	-	-	-	-	0.26 U	-	-
PCB-1242 (Aroclor 1242)	mg/kg	$_{o}^{AB}$	n/v	0.20 U	-	-	-	-	-	-	-	-	0.26 U	-	-
PCB-1248 (Aroclor 1248)	mg/kg	$_{o}^{AB}$	n/v	0.20 U	-	-	-	-	-	-	-	-	0.26 U	-	-
PCB-1254 (Aroclor 1254)	mg/kg	$_{o}^{AB}$	n/v	0.20 U	-	-	-	-	-	-	-	-	0.26 U	-	-
PCB-1260 (Aroclor 1260)	mg/kg	$_{o}^{AB}$	n/v	0.20 U	-	-	-	-	-	-	-	-	0.26 U	-	-
Polychlorinated Biphenyl (PCBs)	mg/kg	0.1^{A} 1^{B}	n/v	ND	-	-	-	-	-	-	-	-	ND	-	-
Pesticides															
Aldrin	µg/kg	5_{n}^{A} 680^{B}	n/v	38 U	-	-	-	-	-	-	-	-	2.0 U	-	-
Alpha Bhc (Alpha Hexachlorocyclohexane)	µg/kg	20^{A} 3400^{B}	n/v	38 U	-	-	-	-	-	-	-	-	2.0 U	-	-
Alpha Chlordane	µg/kg	94^{A} 24000^{B}	n/v	38 U	-	-	-	-	-	-	-	-	2.0 U	-	-
Alpha Endosulfan	µg/kg	2400_{n}^{A} 200000_{i}^{B}	n/v	38 U	-	-	-	-	-	-	-	-	2.0 U	-	-
Beta Bhc (Beta Hexachlorocyclohexane)	µg/kg	36^{A} 3000^{B}	n/v	38 U	-	-	-	-	-	-	-	-	2.0 U	-	-
Beta Endosulfan	µg/kg	2400_{n}^{A} 200000_{i}^{B}	n/v	38 U	-	-	-	-	-	-	-	-	2.0 U	-	-
Delta BHC (Delta Hexachlorocyclohexane)	µg/kg	40_{n}^{A} 500000_{c}^{B}	n/v	38 U	-	-	-	-	-	-	-	-	2.0 U	-	-
Dieldrin	µg/kg	5_{n}^{A} 1400^{B}	n/v	38 U	-	-	-	-	-	-	-	-	2.0 U	-	-
Endosulfan Sulfate	µg/kg	2400_{n}^{A} 200000_{i}^{B}	n/v	38 U	-	-	-	-	-	-	-	-	2.0 U	-	-
Endrin	µg/kg	14^{A} 89000^{B}	n/v	38 U	-	-	-	-	-	-	-	-	2.0 U	-	-
Endrin Aldehyde	µg/kg	100000_{a}^{A} 500000_{c}^{B}	n/v	38 U	-	-	-	-	-	-	-	-	2.0 U	-	-
Endrin Ketone	µg/kg	100000_{a}^{A} 500000_{c}^{B}	n/v	38 U	-	-	-	-	-	-	-	-	2.0 U	-	-
Gamma Bhc (Lindane)	µg/kg	100^{A} 9200^{B}	n/v	38 U	-	-	-	-	-	-	-	-	2.0 U	-	-
Gamma Chlordane	µg/kg	100000_{a}^{A} 500000_{c}^{B}	n/v	38 U	-	-	-	-	-	-	-	-	2.0 U	-	-
Heptachlor	µg/kg	42^{A} 15000^{B}	n/v	38 U	-	-	-	-	-	-	-	-	2.0 U	-	-
Heptachlor Epoxide	µg/kg	100000_{a}^{A} 500000_{c}^{B}	500000_{a}^{C}	38 U	-	-	-	-	-	-	-	-	2.0 U	-	-
Methoxychlor	µg/kg	100000_{a}^{A} 500000_{c}^{B}	500000_{a}^{C}	38 U	-	-	-	-	-	-	-	-	2.0 U	-	-
P,P'-DDD	µg/kg	3.3_{m}^{A} 92000^{B}	n/v	38 U	-	-	-	-	-	-	-	-	2.0 U	-	-
P,P'-DDE	µg/kg	3.3_{m}^{A} 62000^{B}	n/v	38 U	-	-	-	-	-	-	-	-	2.0 U	-	-
P,P'-DDT	µg/kg	3.3_{m}^{A} 47000^{B}	n/v	38 U	-	-	-	-	-	-	-	-	2.0 U	-	-
Toxaphene	µg/kg	100000_{a}^{A} 500000_{c}^{B}	n/v	380 U	-	-	-	-	-	-	-	-	20 U	-	-

See notes on last page.

Table 1
Summary of Analytical Results for Soil Samples
Confirmatory Phase II Site Investigation Report
920 Exchange Street, Rochester, New York

DRAFT

Sample Location				B/MW-1	B/MW-2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12
Sample Date				24-May-16	24-May-16	24-May-16	24-May-16	24-May-16	24-May-16	24-May-16	23-May-16	23-May-16	23-May-16	23-May-16	23-May-16
Sample ID				VO-B1-S	VO-B2-S	VO-B3-S	VO-B4-S	VO-B5-S	VO-B6-S	VO-B7-S	VO-B8a-S	VO-B9-S	VO-B10-S	VO-B11c-S	VO-B12-S
Sample Depth				4 - 5.5 ft	5.5 - 6.2 ft	4.4 - 4.8 ft	5 - 5.6 ft	4.6 - 5.1 ft	4 - 4.6 ft	1.1 - 1.6 ft	4 - 4.5 ft	6.4 - 7 ft	8.2 - 9.2 ft	4 - 5.3 ft	8.4 - 9.2 ft
Sampling Company				STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC
Laboratory				TALBUFF	TALBUFF	TALBUFF	TALBUFF	TALBUFF	TALBUFF	TALBUFF	TALBUFF	TALBUFF	TALBUFF	TALBUFF	TALBUFF
Laboratory Work Order				4801006561	4801006561	4801006561	4801006561	4801006561	4801006561	4801006561	4801005761	4801005761	4801005761	4801005761	4801005761
Laboratory Sample ID	Units	NYSDEC-Part 375	NYSDEC CP-51	480-100656-5	480-100656-6	480-100656-7	480-100656-1	480-100656-2	480-100656-3	480-100656-4	480-100576-1	480-100576-2	480-100576-3	480-100576-4	480-100576-5
Semi-Volatile Organics															
2,4,5-Trichlorophenol	µg/kg	100000$_a$[A] 500000$_c$[B]	500000$_a$[C]	980 U	1200 U	900 U	2000 U	1000 U	2000 U	1800 U	1800 U	980 U	1000 U	2000 U	1000 U
2,4,6-Trichlorophenol	µg/kg	100000$_a$[A] 500000$_c$[B]	500000$_a$[C]	980 U	1200 U	900 U	2000 U	1000 U	2000 U	1800 U	1800 U	980 U	1000 U	2000 U	1000 U
2,4-Dichlorophenol	µg/kg	100000$_a$[A] 500000$_c$[B]	500000$_a$[C]	980 U	1200 U	900 U	2000 U	1000 U	2000 U	1800 U	1800 U	980 U	1000 U	2000 U	1000 U
2,4-Dimethylphenol	µg/kg	100000$_a$[A] 500000$_c$[B]	n/v	980 U	1200 U	900 U	2000 U	1000 U	2000 U	1800 U	1800 U	980 U	1000 U	2000 U	1000 U
2,4-Dinitrophenol	µg/kg	100000$_a$[A] 500000$_c$[B]	500000$_a$[C]	9500 U	12000 U	8800 U	20000 U	10000 U	19000 U	18000 U	18000 U	9600 U	10000 U	20000 U	10000 U
2,4-Dinitrotoluene	µg/kg	100000$_a$[A] 500000$_c$[B]	n/v	980 U	1200 U	900 U	2000 U	1000 U	2000 U	1800 U	1800 U	980 U	1000 U	2000 U	1000 U
2,6-Dinitrotoluene	µg/kg	100000$_a$[A] 500000$_c$[B]	500000$_a$[C]	980 U	1200 U	900 U	2000 U	1000 U	2000 U	1800 U	1800 U	980 U	1000 U	2000 U	1000 U
2-Chloronaphthalene	µg/kg	100000$_a$[A] 500000$_c$[B]	n/v	980 U	1200 U	900 U	2000 U	1000 U	2000 U	1800 U	1800 U	980 U	1000 U	2000 U	1000 U
2-Chlorophenol	µg/kg	100000$_a$[A] 500000$_c$[B]	500000$_a$[C]	980 U	1200 U	900 U	2000 U	1000 U	2000 U	1800 U	1800 U	980 U	1000 U	2000 U	1000 U
2-Methylnaphthalene	µg/kg	100000$_a$[A] 500000$_c$[B]	500000$_a$[C]	1300	1200 U	900 U	2100	1000 U	2000 U	450 J	1800 U	980 U	1000 U	2000 U	1000 U
2-Methylphenol (O-Cresol)	µg/kg	330$_m$[A] 500000$_c$[B]	n/v	980 U	1200 U	900 U	2000 U	1000 U	2000 U	1800 U	1800 U	980 U	1000 U	2000 U	1000 U
2-Nitroaniline	µg/kg	100000$_a$[A] 500000$_c$[B]	500000$_a$[C]	1900 U	2400 U	1800 U	3900 U	2000 U	3900 U	3500 U	3600 U	1900 U	2000 U	4000 U	2000 U
2-Nitrophenol	µg/kg	100000$_a$[A] 500000$_c$[B]	500000$_a$[C]	980 U	1200 U	900 U	2000 U	1000 U	2000 U	1800 U	1800 U	980 U	1000 U	2000 U	1000 U
3,3'-Dichlorobenzidine	µg/kg	100000$_a$[A] 500000$_c$[B]	n/v	1900 U	2400 U	1800 U	3900 U	2000 U	3900 U	3500 U	3600 U	1900 U	2000 U	4000 U	2000 U
3-Nitroaniline	µg/kg	100000$_a$[A] 500000$_c$[B]	500000$_a$[C]	1900 U	2400 U	1800 U	3900 U	2000 U	3900 U	3500 U	3600 U	1900 U	2000 U	4000 U	2000 U
4,6-Dinitro-2-Methylphenol	µg/kg	100000$_a$[A] 500000$_c$[B]	n/v	1900 U	2400 U	1800 U	3900 U	2000 U	3900 U	3500 U	3600 U	1900 U	2000 U	4000 U	2000 U
4-Bromophenyl Phenyl Ether	µg/kg	100000$_a$[A] 500000$_c$[B]	n/v	980 U	1200 U	900 U	2000 U	1000 U	2000 U	1800 U	1800 U	980 U	1000 U	2000 U	1000 U
4-Chloro-3-Methylphenol	µg/kg	100000$_a$[A] 500000$_c$[B]	n/v	980 U	1200 U	900 U	2000 U	1000 U	2000 U	1800 U	1800 U	980 U	1000 U	2000 U	1000 U
4-Chloroaniline	µg/kg	100000$_a$[A] 500000$_c$[B]	500000$_a$[C]	980 U	1200 U	900 U	2000 U	1000 U	2000 U	1800 U	1800 U	980 U	1000 U	2000 U	1000 U
4-Chlorophenyl Phenyl Ether	µg/kg	100000$_a$[A] 500000$_c$[B]	n/v	980 U	1200 U	900 U	2000 U	1000 U	2000 U	1800 U	1800 U	980 U	1000 U	2000 U	1000 U
4-Methylphenol (P-Cresol)	µg/kg	330$_m$[A] 500000$_c$[B]	n/v	1900 U	2400 U	1800 U	3900 U	2000 U	3900 U	3500 U	3600 U	1900 U	2000 U	4000 U	2000 U
4-Nitroaniline	µg/kg	100000$_a$[A] 500000$_c$[B]	n/v	1900 U	2400 U	1800 U	3900 U	2000 U	3900 U	3500 U	3600 U	1900 U	2000 U	4000 U	2000 U
4-Nitrophenol	µg/kg	100000$_a$[A] 500000$_c$[B]	500000$_a$[C]	1900 U	2400 U	1800 U	3900 U	2000 U	3900 U	3500 U	3600 U	1900 U	2000 U	4000 U	2000 U
Acenaphthene	µg/kg	20000[A] 500000$_c$[B]	20000[E]	980 U	1200 U	900 U	3200	1000 U	2000 U	1200 J	1800 U	980 U	1000 U	2000 U	500 J
Acenaphthylene	µg/kg	100000$_a$[A] 500000$_c$[B]	100000[E]	170 J	1200 U	900 U	320 J	1000 U	2000 U	240 J	1800 U	980 U	1000 U	2000 U	1000 U
Acetophenone	µg/kg	100000$_a$[A] 500000$_c$[B]	n/v	1900 U	2400 U	180 U	4000 U	1000 U	8000 U	3700 U	1800 U	980 U	1000 U	2000 U	1000 U
Anthracene	µg/kg	100000$_a$[A] 500000$_c$[B]	100000[E]	980 U	1200 U	900 U	6100	1000 U	2000 U	3800	1800 U	980 U	1000 U	2000 U	1000
Atrazine	µg/kg	100000$_a$[A] 500000$_c$[B]	n/v	980 U	1200 U	900 U	2000 U	1000 U	2000 U	1800 U	1800 U	980 U	1000 U	2000 U	1000 U
Benzaldehyde	µg/kg	100000$_a$[A] 500000$_c$[B]	n/v	980 U	1200 U	900 U	2000 U	1000 U	2000 U	1800 U	1800 U	980 U	1000 U	2000 U	1000 U
Benzo(A)Anthracene	µg/kg	1000$_h$[A] 5600[B]	1000[E]	510 J	450 J	900 U	**8200[ABE]**	530 J	910 J	**7000[ABE]**	1800 U	980 U	520 J	2000 U	**2400[AE]**
Benzo(A)Pyrene	µg/kg	1000$_h$[A] 1000$_a$[B]	1000[E]	190 J	1200 U	900 U	**7000[ABE]**	1000 U	2000 U	**5800[ABE]**	1800 U	980 U	450 J	2000 U	**1900[ABE]**
Benzo(B)Fluoranthene	µg/kg	1000$_h$[A] 5600[B]	1000[E]	980 U	1200 U	900 U	**8300[ABE]**	1000 U	380 J	**7100[ABE]**	1800 U	980 U	650 J	2000 U	**2400[AE]**
Benzo(G,H,I)Perylene	µg/kg	100000[A] 500000$_c$[B]	100000[E]	980 U	1200 U	900 U	4300	1000 U	230 J	3800	1800 U	980 U	330 J	2000 U	1500
Benzo(K)Fluoranthene	µg/kg	800$_h$[A] 56000[B]	800[E]	980 U	1200 U	900 U	**3800[AE]**	1000 U	2000 U	1800 U	1800 U	980 U	240 J	2000 U	**1100[AE]**
Benzyl Butyl Phthalate	µg/kg	100000$_a$[A] 500000$_c$[B]	500000$_a$[C]	980 U	1200 U	900 U	2000 U	1000 U	2000 U	1800 U	1800 U	980 U	1000 U	2000 U	1000 U
Biphenyl (Diphenyl)	µg/kg	100000$_a$[A] 500000$_c$[B]	500000$_a$[C]	380 J	1200 U	900 U	2000 U	1000 U	2000 U	1800 U	1800 U	980 U	1000 U	2000 U	1000 U
Bis(2-Chloroethoxy) Methane	µg/kg	100000$_a$[A] 500000$_c$[B]	n/v	980 U	1200 U	900 U	2000 U	1000 U	2000 U	1800 U	1800 U	980 U	1000 U	2000 U	1000 U
Bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	µg/kg	100000$_a$[A] 500000$_c$[B]	n/v	980 U	1200 U	900 U	2000 U	1000 U	2000 U	1800 U	1800 U	980 U	1000 U	2000 U	1000 U
Bis(2-Chloroisopropyl) Ether	µg/kg	100000$_a$[A] 500000$_c$[B]	n/v	980 U	1200 U	900 U	2000 U	1000 U	2000 U	1800 U	1800 U	980 U	1000 U	2000 U	1000 U
Bis(2-Ethylhexyl) Phthalate	µg/kg	100000$_a$[A] 500000$_c$[B]	500000$_a$[C]	980 U	1200 U	900 U	2000 U	1000 U	2000 U	1800 U	1800 U	980 U	1000 U	2000 U	1000 U
Caprolactam	µg/kg	100000$_a$[A] 500000$_c$[B]	n/v	980 U	1200 U	900 U	2000 U	1000 U	2000 U	1800 U	1800 U	980 U	1000 U	2000 U	1000 U
Carbazole	µg/kg	100000$_a$[A] 500000$_c$[B]	n/v	980 U	1200 U	900 U	1800 J	1000 U	2000 U	2000	1800 U	980 U	130 J	2000 U	750 J
Chrysene	µg/kg	1000$_h$[A] 56000[B]	1000[E]	930 J	930 J	210 J	**8400[AE]**	**1200[AE]**	**1400 J[AE]**	**7800[AE]**	1800 U	980 U	560 J	**1400 J[AE]**	**2500[AE]**
Dibenz(A,H)Anthracene	µg/kg	330$_m$[A] 560[B]	330[E]	980 U	1200 U	900 U	2000 U	1000 U	2000 U	1800 U	1800 U	980 U	1000 U	2000 U	1000 U
Dibenzofuran	µg/kg	7000[A] 350000[B]	500000$_a$[C]	130 J	1200 U	900 U	3100	1000 U	230 J	840 J	1800 U	980 U	1000 U	2000 U	280 J
Diethyl Phthalate	µg/kg	100000$_a$[A] 500000$_c$[B]	500000$_a$[C]	980 U	1200 U	900 U	2000 U	1000 U	2000 U	1800 U	1800 U	980 U	1000 U	2000 U	1000 U
Dimethyl Phthalate	µg/kg	100000$_a$[A] 500000$_c$[B]	500000$_a$[C]	980 U	1200 U	900 U	2000 U	1000 U	2000 U	1800 U	1800 U	980 U	1000 U	2000 U	1000 U
Di-N-Butyl Phthalate	µg/kg	100000$_a$[A] 500000$_c$[B]	500000$_a$[C]	980 U	1200 U	900 U	2000 U	1000 U	2000 U	1800 U	1800 U	980 U	1000 U	2000 U	1000 U
Di-N-Octylphthalate	µg/kg	100000$_a$[A] 500000$_c$[B]	500000$_a$[C]	980 U	1200 U	900 U	2000 U	1000 U	2000 U	1800 U	1800 U	980 U	1000 U	2000 U	1000 U
Fluoranthene	µg/kg	100000$_a$[A] 500000$_c$[B]	100000[E]	540 J	340 J	98 J	22000	550 J	920 J	18000	210 J	980 U	1300	2000 U	5400
Fluorene	µg/kg	30000[A] 500000$_c$[B]	30000[E]	380 J	160 J	900 U	4800	260 J	410 J	1500 J	1800 U	980 U	1000 U	2000 U	480 J
Hexachlorobenzene	µg/kg	330$_m$[A] 6000[B]	500000$_a$[C]	980 U	1200 U	900 U	2000 U	1000 U	2000 U	1800 U	1800 U	980 U	1000 U	2000 U	1000 U
Hexachlorobutadiene	µg/kg	100000$_a$[A] 500000$_c$[B]	n/v	980 U	1200 U	900 U	2000 U	1000 U	2000 U	1800 U	1800 U	980 U	1000 U	2000 U	1000 U
Hexachlorocyclopentadiene	µg/kg	100000$_a$[A] 500000$_c$[B]	500000$_a$[C]	980 U	1200 U	900 U	2000 U	1000 U	2000 U	1800 U	1800 U	980 U	1000 U	2000 U	1000 U
Hexachloroethane	µg/kg	100000$_a$[A] 500000$_c$[B]	n/v	980 U	1200 U	900 U	2000 U	1000 U	2000 U	1800 U	1800 U	980 U	1000 U	2000 U	1000 U
Indeno(1,2,3-C,D)Pyrene	µg/kg	500$_h$[A] 5600[B]	500[E]	980 U	1200 U	900 U	**3700[AE]**	1000 U	2000 U	**3300[AE]**	1800 U	980 U	290 J	2000 U	**1300[AE]**
Isophorone	µg/kg	100000$_a$[A] 500000$_c$[B]	500000$_a$[C]	980 U	1200 U	900 U	2000 U	1000 U	2000 U	1800 U	1800 U	980 U	1000 U	2000 U	1000 U
Naphthalene	µg/kg	12000[A] 500000$_c$[B]	12000[DE]	540 J	1200 U	900 U	3900	1000 U	460 J	560 J	1800 U	980 U	1000 U	2000 U	260 J
Nitrobenzene	µg/kg	100000$_a$[A] 500000$_c$[B]	69000[C]	980 U	1200 U	900 U	2000 U	1000 U	2000 U	1800 U	1800 U	980 U	1000 U	2000 U	1000 U
N-Nitrosodi-N-Propylamine	µg/kg	100000$_a$[A] 500000$_c$[B]	n/v	980 U	1200 U	900 U	2000 U	1000 U	2000 U	1800 U	1800 U	980 U	1000 U	2000 U	1000 U
N-Nitrosodiphenylamine	µg/kg	100000$_a$[A] 500000$_c$[B]	500000$_a$[C]	980 U	1200 U	900 U	2000 U	1000 U	2000 U	1800 U	1800 U	980 U	1000 U	2000 U	1000 U
Pentachlorophenol	µg/kg	800$_m$[A] 6700[B]	n/v	1900 U	2400 U	1800 U	3900 U	2000 U	3900 U	3500 U	3600 U	1900 U	2000 U	4000 U	2000 U
Phenanthrene	µg/kg	100000[A] 500000$_c$[B]	100000[E]	1500	1200 U	900 U	24000	1400	1600 J	15000	1800 U	980 U	790 J	2000 U	3800
Phenol	µg/kg	330$_m$[A] 500000$_c$[B]	n/v	980 U	1200 U	900 U	2000 U	1000 U	2000 U	1800 U	1800 U	980 U	1000 U	2000 U	1000 U
Pyrene	µg/kg	100000[A] 500000$_c$[B]	100000[E]	780 J	720 J	130 J	17000	990 J	1300 J	14000	1800 U	980 U	980 J	520 J	4400
SVOC - Tentatively Identified Compounds															
Total SVOC Tics	µg/kg	n/v	n/v	161000	88400	15850	51500	76950	130100	16700	19000	34930	60300	76400	150900

See notes on last page.

Table 1
Summary of Analytical Results for Soil Samples
Confirmatory Phase II Site Investigation Report
920 Exchange Street, Rochester, New York

DRAFT

Sample Location				B/MW-1	B/MW-2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12
Sample Date				24-May-16	24-May-16	24-May-16	24-May-16	24-May-16	24-May-16	24-May-16	23-May-16	23-May-16	23-May-16	23-May-16	23-May-16
Sample ID				VO-B1-S	VO-B2-S	VO-B3-S	VO-B4-S	VO-B5-S	VO-B6-S	VO-B7-S	VO-B8a-S	VO-B9-S	VO-B10-S	VO-B11c-S	VO-B12-S
Sample Depth				4 - 5.5 ft	5.5 - 6.2 ft	4.4 - 4.8 ft	5 - 5.6 ft	4.6 - 5.1 ft	4 - 4.6 ft	1.1 - 1.6 ft	4 - 4.5 ft	6.4 - 7 ft	8.2 - 9.2 ft	4 - 5.3 ft	8.4 - 9.2 ft
Sampling Company				STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC
Laboratory				TALBUFF	TALBUFF	TALBUFF	TALBUFF	TALBUFF	TALBUFF	TALBUFF	TALBUFF	TALBUFF	TALBUFF	TALBUFF	TALBUFF
Laboratory Work Order				4801006561	4801006561	4801006561	4801006561	4801006561	4801006561	4801006561	4801005761	4801005761	4801005761	4801005761	4801005761
Laboratory Sample ID	Units	NYSDEC-Part 375	NYSDEC CP-51	480-100656-5	480-100656-6	480-100656-7	480-100656-1	480-100656-2	480-100656-3	480-100656-4	480-100576-1	480-100576-2	480-100576-3	480-100576-4	480-100576-5
Volatile Organic Compounds															
1,1,1-Trichloroethane	µg/kg	680[A] 500000$_c$[B]	n/v	48 U	120 U	3.9 U	4.0 U	62 U	530 U	3.3 U	48 U	3.8 UT	220 U	230 U	59 U
1,1,2,2-Tetrachloroethane	µg/kg	100000$_a$[A] 500000$_c$[B]	500000$_a$[C]	48 U	120 U	3.9 UT	4.0 U	62 U	530 U	3.3 U	48 U	3.8 UT	220 U	230 U	59 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	µg/kg	100000$_a$[A] 500000$_c$[B]	500000$_a$[C]	48 U	120 U	3.9 U	4.0 U	62 U	530 U	3.3 U	48 U	3.8 UT	220 U	230 U	59 U
1,1,2-Trichloroethane	µg/kg	100000$_a$[A] 500000$_c$[B]	n/v	48 U	120 U	3.9 U	4.0 U	62 U	530 U	3.3 U	48 U	3.8 UT	220 U	230 U	59 U
1,1-Dichloroethane	µg/kg	270[A] 240000[B]	n/v	48 U	120 U	3.9 U	4.0 U	62 U	530 U	3.3 U	48 U	3.8 UT	220 U	230 U	59 U
1,1-Dichloroethene	µg/kg	330[A] 500000$_c$[B]	n/v	48 U	120 U	3.9 U	4.0 U	62 U	530 U	3.3 U	48 U	3.8 UT	220 U	230 U	59 U
1,2,4-Trichlorobenzene	µg/kg	100000$_a$[A] 500000$_c$[B]	500000$_a$[C]	48 U	120 U	3.9 UT	4.0 U	62 U	530 U	3.3 U	48 U	3.8 UT	220 U	230 U	59 U
1,2,4-Trimethylbenzene	µg/kg	3600[A] 190000[B]	3600[DE]	1800	120 U	3.9 T	4.0 U	24 J	**11000[ADE]**	3.3 U	48 U	3.8 UT	220 U	230 U	41 J
1,2-Dibromo-3-Chloropropane	µg/kg	100000$_a$[A] 500000$_c$[B]	n/v	48 U	120 U	3.9 UT	4.0 U	62 U	530 U	3.3 U	48 U	3.8 UT	220 U	230 U	59 U
1,2-Dibromoethane (Ethylene Dibromide)	µg/kg	100000$_a$[A] 500000$_c$[B]	n/v	48 U	120 U	3.9 U	4.0 U	62 U	530 U	3.3 U	48 U	3.8 UT	220 U	230 U	59 U
1,2-Dichlorobenzene	µg/kg	1100[A] 500000$_c$[B]	n/v	48 U	120 U	3.9 UT	4.0 U	62 U	530 U	3.3 U	48 U	3.8 UT	220 U	230 U	36 J
1,2-Dichloroethane	µg/kg	20$_m$[A] 30000[B]	n/v	48 U	120 U	3.9 U	4.0 U	62 U	530 U	3.3 U	48 U	3.8 UT	220 U	230 U	59 U
1,2-Dichloropropane	µg/kg	100000$_a$[A] 500000$_c$[B]	500000$_a$[C]	48 U	120 U	3.9 U	4.0 U	62 U	530 U	3.3 U	48 U	3.8 UT	220 U	230 U	59 U
1,3,5-Trimethylbenzene (Mesitylene)	µg/kg	8400[A] 190000[B]	8400[DE]	48 U	120 U	3.9 UT	4.0 U	62 U	6900	0.37 J	48 U	3.8 UT	220 U	230 U	59 U
1,3-Dichlorobenzene	µg/kg	2400[A] 280000[B]	n/v	48 U	120 U	3.9 UT	4.0 U	62 U	530 U	3.3 U	48 U	3.8 UT	220 U	230 U	59 U
1,4-Dichlorobenzene	µg/kg	1800[A] 130000[B]	n/v	48 U	120 U	3.9 UT	4.0 U	62 U	530 U	3.3 U	48 U	3.8 UT	220 U	230 U	1000
2-Hexanone	µg/kg	100000$_a$[A] 500000$_c$[B]	n/v	240 U	610 U	20 U	20 U	310 U	2700 U	17 U	240 U	500 T	1100 U	1200 U	290 U
Acetone	µg/kg	50[A] 500000$_c$[B]	n/v	240 U	610 U	**64 B[A]**	31 B	310 U	2700 U	29 B	240 U	19 UT	1100 U	1200 U	290 U
Benzene	µg/kg	60[A] 44000[B]	60[DE]	48 U	120 U	1.8 J	0.89 J	62 U	530 U	3.3 U	48 U	3.8 UT	220 U	230 U	**66[ADE]**
Bromodichloromethane	µg/kg	100000$_a$[A] 500000$_c$[B]	n/v	48 U	120 U	3.9 U	4.0 U	62 U	530 U	3.3 U	48 U	3.8 UT	220 U	230 U	59 U
Bromoform	µg/kg	100000$_a$[A] 500000$_c$[B]	n/v	48 U	120 U	3.9 U	4.0 U	62 U	530 U	3.3 U	48 U	3.8 UT	220 U	230 U	59 U
Bromomethane	µg/kg	100000$_a$[A] 500000$_c$[B]	n/v	48 U	120 U	3.9 U	4.0 U	62 U	530 U	3.3 U	48 U	3.8 UT	220 U	230 U	59 U
Carbon Disulfide	µg/kg	100000$_a$[A] 500000$_c$[B]	500000$_a$[C]	48 U	120 U	3.9 U	4.0 U	62 U	530 U	3.3 U	48 U	3.8 UT	220 U	230 U	59 U
Carbon Tetrachloride	µg/kg	760[A] 22000[B]	n/v	48 U	120 U	3.9 U	4.0 U	62 U	530 U	3.3 U	48 U	3.8 UT	220 U	230 U	59 U
Chlorobenzene	µg/kg	1100[A] 500000$_c$[B]	n/v	48 U	120 U	3.9 U	4.0 U	62 U	530 U	3.3 U	48 U	3.8 UT	220 U	230 U	**8600[A]**
Chloroethane	µg/kg	100000$_a$[A] 500000$_c$[B]	500000$_a$[C]	48 U	120 U	3.9 U	4.0 U	62 U	530 U	3.3 U	48 U	3.8 UT	220 U	230 U	59 U
Chloroform	µg/kg	370[A] 350000[B]	n/v	48 U	120 U	3.9 U	4.0 U	62 U	530 U	3.3 U	48 U	3.8 UT	220 U	230 U	59 U
Chloromethane	µg/kg	100000$_a$[A] 500000$_c$[B]	n/v	48 U	120 U	3.9 U	4.0 U	62 U	530 U	3.3 U	48 U	3.8 UT	220 U	230 U	59 U
Cis-1,2-Dichloroethylene	µg/kg	250[A] 500000$_c$[B]	n/v	48 U	120 U	3.9 U	4.0 U	62 U	530 U	3.3 U	48 U	3.8 UT	220 U	230 U	59 U
Cis-1,3-Dichloropropene	µg/kg	100000$_a$[A] 500000$_c$[B]	n/v	48 U	120 U	3.9 U	4.0 U	62 U	530 U	3.3 U	48 U	3.8 UT	220 U	230 U	59 U
Cyclohexane	µg/kg	100000$_a$[A] 500000$_c$[B]	n/v	3400	72 J	39	0.96 J	62 U	1800	3.3 U	460	3.8 UT	220 U	230 U	2500
Cymene	µg/kg	100000$_a$[A] 500000$_c$[B]	500000$_a$[C] 10000[DE]	48 U	120 U	3.9 UT	4.0 U	62 U	380 J	0.27 J	48 U	3.8 UT	220 U	230 U	59 U
Dibromochloromethane	µg/kg	100000$_a$[A] 500000$_c$[B]	500000$_a$[C]	48 U	120 U	3.9 U	4.0 U	62 U	530 U	3.3 U	48 U	3.8 UT	220 U	230 U	59 U
Dichlorodifluoromethane	µg/kg	100000$_a$[A] 500000$_c$[B]	n/v	48 U	120 U	3.9 U	4.0 U	62 U	530 U	3.3 U	48 U	3.8 UT	220 U	230 U	59 U
Ethylbenzene	µg/kg	1000[A] 390000[B]	1000[DE]	48 U	120 U	3.9 U	4.0 U	62 U	**1100[ADE]**	3.3 U	48 U	3.8 UT	220 U	230 U	59 U
Isopropylbenzene (Cumene)	µg/kg	100000$_a$[A] 500000$_c$[B]	500000$_a$[C] 2300[DE]	740	120 U	3.9 UT	4.0 U	62 U	1300	3.3 U	48 U	3.8 UT	220 U	230 U	59 U
M,P-Xylene	µg/kg	260$_a$[A] 500000$_{c,a}$[B]	n/v	96 U	240 U	7.8 U	0.74 J	120 U	**14000[A]**	6.6 U	96 U	7.6 UT	440 U	470 U	120 U
Methyl Acetate	µg/kg	100000$_a$[A] 500000$_c$[B]	n/v	48 U	120 U	3.9 U	4.0 U	61 J	530 U	3.3 U	110	3.8 UT	220 U	230 U	59 U
Methyl Ethyl Ketone (2-Butanone)	µg/kg	120[A] 500000$_c$[B]	500000$_a$[C]	240 U	610 U	8.7 J	7.6 J	310 U	2700 U	17 U	240 U	19 UT	1100 U	1200 U	290 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	µg/kg	100000$_a$[A] 500000$_c$[B]	500000$_a$[C]	240 U	610 U	20 U	20 U	310 U	2700 U	17 U	240 U	19 UT	1100 U	1200 U	290 U
Methylcyclohexane	µg/kg	100000$_a$[A] 500000$_c$[B]	n/v	35000	180	88	2.6 J	30 J	14000	1.7 J	1900	31 T	220 U	360	4900
Methylene Chloride	µg/kg	50[A] 500000$_c$[B]	n/v	48 U	120 U	1.9 J	4.0 U	62 U	530 U	3.3 U	48 U	3.8 UT	220 U	230 U	59 U
Naphthalene	µg/kg	12000[A] 500000$_c$[B]	12000[DE]	950	50 J	3.9 UT	8000	91	980	0.50 J	48 U	3.8 UT	220 U	230 U	76
N-Butylbenzene	µg/kg	12000[A] 500000$_c$[B]	12000[DE]	170	120 U	3.9 UT	4.0 U	62 U	510 J	3.3 U	48 U	3.8 UT	220 U	230 U	56 J
N-Propylbenzene	µg/kg	3900[A] 500000$_c$[B]	3900[DE]	920	120 U	3.9 UT	0.33 J	62 U	1600	0.27 J	48 U	3.8 UT	220 U	230 U	59 U
O-Xylene (1,2-Dimethylbenzene)	µg/kg	260$_b$[A] 500000$_{c,b}$[B]	n/v	48	120 U	3.9 U	1.4 J	62 U	**4200[A]**	3.3 U	10 J	3.8 UT	220 U	230 U	59 U
Sec-Butylbenzene	µg/kg	11000[A] 500000$_c$[B]	11000[DE]	490	120 U	3.9 UT	4.0 U	62 U	530 U	3.3 U	48 U	3.8 UT	220 U	230 U	59 U
Styrene	µg/kg	100000$_a$[A] 500000$_c$[B]	500000$_a$[C]	48 U	120 U	3.9 U	4.0 U	62 U	530 U	3.3 U	48 U	3.8 UT	220 U	230 U	59 U
T-Butylbenzene	µg/kg	5900[A] 500000$_c$[B]	5900[DE]	160	120 U	18 T	4.0 U	62 U	530 U	3.3 U	48	7.1 T	220 U	230 U	75
Tert-Butyl Methyl Ether	µg/kg	930[A] 500000$_c$[B]	930[D]	48 U	120 U	3.9 U	4.0 U	62 U	530 U	3.3 U	48 U	3.8 UT	220 U	230 U	59 U
Tetrachloroethylene (PCE)	µg/kg	1300[A] 150000[B]	500000$_a$[C]	48 U	120 U	3.9 U	4.0 U	62 U	530 U	3.3 U	48 U	3.8 UT	220 U	230 U	59 U
Toluene	µg/kg	700[A] 500000$_c$[B]	700[DE]	26 J	120 U	1.5 J	0.36 J	62 U	510 J	3.3 U	48 U	3.8 UT	220 U	230 U	31 J
Trans-1,2-Dichloroethene	µg/kg	190[A] 500000$_c$[B]	n/v	48 U	120 U	3.9 U	4.0 U	62 U	530 U	3.3 U	48 U	3.8 UT	220 U	230 U	59 U
Trans-1,3-Dichloropropene	µg/kg	100000$_a$[A] 500000$_c$[B]	n/v	48 U	120 U	3.9 U	4.0 U	62 U	530 U	3.3 U	48 U	3.8 UT	220 U	230 U	59 U
Trichloroethylene (TCE)	µg/kg	470[A] 200000[B]	n/v	48 U	120 U	3.9 U	4.0 U	62 U	530 U	3.3 U	48 U	3.8 UT	220 U	230 U	59 U
Trichlorofluoromethane	µg/kg	100000$_a$[A] 500000$_c$[B]	n/v	48 U	120 U	3.9 U	4.0 U	62 U	530 U	3.3 U	48 U	3.8 UT	220 U	230 U	59 U
Vinyl Chloride	µg/kg	20[A] 13000[B]	n/v	48 U	120 U	3.9 U	4.0 U	62 U	530 U	3.3 U	48 U	3.8 UT	220 U	230 U	59 U
Xylenes, Total	µg/kg	260[A] 500000$_c$[B]	n/v	48 J	240 U	7.8 U	2.1 J	120 U	**18000[A]**	6.6 U	96 U	7.6 U	440 U	470 U	120 U
VOC - Tentatively Identified Compounds															
Total VOC TICs	µg/kg	n/v	n/v	55600	2950	2460	180.8	210	60800	118.4	22300	4150	110900	680	32500

See notes on last page.

Table 1
Summary of Analytical Results for Soil Samples
Confirmatory Phase II Site Investigation Report
920 Exchange Street, Rochester, New York

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Notes:

NYSDEC-Part 375	NYSDEC 6 NYCRR Part 375 Soil Clean-up Objectives (SCOs)
A	NYSDEC 6 NYCRR Part 375 - Unrestricted Use Soil Cleanup Objectives
B	NYSDEC 6 NYCRR Part 375 - Restricted Use SCO - Protection of Human Health - Commercial
NYSDEC CP-51	New York State Department of Environmental Conservation, DEC Policy CP-51, October 21, 2010
C	Table 1 Supplemental Soil Cleanup Objectives - Commercial
D	Table 2 Soil Cleanup Levels for Gasoline Contaminated Soils
E	Table 3 Soil Cleanup Levels for Fuel Oil Contaminated Soil
6.5[A]	Concentration exceeds the indicated standard.
15.2	Measured concentration did not exceed the indicated standard.
0.03 U	Analyte was not detected at a concentration greater than the laboratory reporting limit.
n/v	No standard/guideline value.
-	Parameter not analyzed / not available.
A a	The SCOs for unrestricted use were capped at a maximum value of 100 mg/kg. See 6 NYCRR Part 375 TSD Section 9.3
C a	SCOs for organic contaminants (volatile organic compounds, semivolatile organic compounds, and pesticides) are capped at 100 ppm for residential use, 500 ppm for commercial use, 1000 ppm for industrial use. SCOs for metals are capped at 10,000 ppm.
c	The SCOs for commercial use were capped at a maximum value of 500 mg/kg. See TSD Section 9.3.
c,p	The SCOs for commercial use were capped at a maximum value of 500 mg/kg. See TSD Section 9.3. The criterion is applicable to total xylenes, and the individual isomers should be added for comparison.
AB e	The SCOS for metals were capped at a maximum value of 10,000 mg/kg. See 6 NYCRR Part 375 TSD Section 9.3.
g	For constituents where the calculated SCO was lower than the rural soil background concentration as determined by the DEC/DOH rural soil survey, the rural soil background concentration is used as the Track 2 SCO value for this use of the site.
AB i	The SCO for this specific compound (or family of compounds) is considered to be met if the analysis for the total species of this contaminant is below the specific SCO.
AB l	This SCO is the sum of endosulfan I, endosulfan II, and endosulfan sulfate.
k	This SCO is the lower of the values for mercury (elemental) or mercury (inorganic salts). See 6 NYCRR Part 375 TSD Table 5.6-1.
m	For constituents where the calculated SCO was lower than the Contract Required Quantitation Limit (CRQL), the CRQL is used as the Track 1 SCO value.
n	For constituents where the calculated SCO was lower than the rural soil background concentration as determined by the DEC/DOH rural soil survey, the rural soil background concentration is used as the Track 1 SCO value for this use of the site.
n,l	For constituents where the calculated SCO was lower than the rural soil background concentration as determined by the DEC/DOH rural soil survey, the rural soil background concentration is used as the Track 1 SCO value for this use of the site. The SCO for this specific compound (or family of compounds) is considered to be met if the analysis for the total species of this contaminant is below the specific SCO.
AB o	Standard is applicable to total PCBs, and the individual Aroclors should be added for comparison.
p	The criterion is applicable to total xylenes, and the individual isomers should be added for comparison.
B	Indicates the analyte is detected in the associated blank as well as in the sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
T	Indicates that a quality control parameter has exceeded laboratory limits.
TALBUFF	Test America Buffalo, Amherst, NY

Table 2
Summary of Analytical Results for Groundwater Samples
Confirmatory Phase II Site Investigation Report
920 Exchange Street, Rochester, New York

DRAFT

Sample Location			B/MW-1	B/MW-2
Sample Date			26-May-16	26-May-16
Sample ID			VO-MW1-W	VO-MW2-W
Sampling Company			STANTEC	STANTEC
Laboratory			TALBUFF	TALBUFF
Laboratory Work Order			4801008041	4801008041
Laboratory Sample ID			480-100804-1	480-100804-2
Sample Type	Units	TOGS		
Semi-Volatile Organics				
2,4,5-Trichlorophenol	µg/L	n/v	240 U	240 U
2,4,6-Trichlorophenol	µg/L	n/v	240 U	240 U
2,4-Dichlorophenol	µg/L	5** [B]	240 U	240 U
2,4-Dimethylphenol	µg/L	50 [A]	240 U	240 U
2,4-Dinitrophenol	µg/L	10 [A]	480 U	470 U
2,4-Dinitrotoluene	µg/L	5** [B]	240 U	240 U
2,6-Dinitrotoluene	µg/L	5** [B]	240 U	240 U
2-Chloronaphthalene	µg/L	10 [B]	240 U	240 U
2-Chlorophenol	µg/L	n/v	240 U	240 U
2-Methylnaphthalene	µg/L	n/v	240 U	240 U
2-Methylphenol (O-Cresol)	µg/L	n/v	240 U	240 U
2-Nitroaniline	µg/L	5** [B]	480 U	470 U
2-Nitrophenol	µg/L	n/v	240 U	240 U
3,3'-Dichlorobenzidine	µg/L	5** [B]	240 U	240 U
3-Nitroaniline	µg/L	5** [B]	480 U	470 U
4,6-Dinitro-2-Methylphenol	µg/L	n/v	480 U	470 U
4-Bromophenyl Phenyl Ether	µg/L	n/v	240 U	240 U
4-Chloro-3-Methylphenol	µg/L	n/v	240 U	240 U
4-Chloroaniline	µg/L	5** [B]	240 U	240 U
4-Chlorophenyl Phenyl Ether	µg/L	n/v	240 U	240 U
4-Methylphenol (P-Cresol)	µg/L	n/v	480 U	470 U
4-Nitroaniline	µg/L	5** [B]	480 U	470 U
4-Nitrophenol	µg/L	n/v	480 U	470 U
Acenaphthene	µg/L	20 [B]	240 U	240 U
Acenaphthylene	µg/L	n/v	240 U	240 U
Acetophenone	µg/L	n/v	240 U	240 U
Anthracene	µg/L	50 [A]	240 U	240 U
Atrazine	µg/L	7.5 [B]	240 U	240 U
Benzaldehyde	µg/L	n/v	240 UT	240 UT
Benzo(A)Anthracene	µg/L	0.002 [A]	240 U	240 U
Benzo(A)Pyrene	µg/L	n/v	240 U	240 U
Benzo(B)Fluoranthene	µg/L	0.002 [A]	240 U	240 U
Benzo(G,H,I)Perylene	µg/L	n/v	240 U	240 U
Benzo(K)Fluoranthene	µg/L	0.002 [A]	240 U	240 U
Benzyl Butyl Phthalate	µg/L	50 [A]	240 U	240 U
Biphenyl (Diphenyl)	µg/L	5** [B]	240 U	240 U
Bis(2-Chloroethoxy) Methane	µg/L	5** [B]	240 U	240 U
Bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	µg/L	1 [B]	240 U	240 U
Bis(2-Chloroisopropyl) Ether	µg/L	5** [B]	240 U	240 U
Bis(2-Ethylhexyl) Phthalate	µg/L	5 [B]	240 U	240 U
Caprolactam	µg/L	n/v	240 U	240 U
Carbazole	µg/L	n/v	240 U	240 U
Chrysene	µg/L	0.002 [A]	240 U	240 U
Dibenz(A,H)Anthracene	µg/L	n/v	240 U	240 U
Dibenzofuran	µg/L	n/v	480 U	470 U
Diethyl Phthalate	µg/L	50 [A]	240 U	240 U
Dimethyl Phthalate	µg/L	50 [A]	240 U	240 U
Di-N-Butyl Phthalate	µg/L	50 [B]	240 U	240 U
Di-N-Octylphthalate	µg/L	50 [A]	240 U	240 U
Fluoranthene	µg/L	50 [A]	240 U	240 U
Fluorene	µg/L	50 [A]	240 U	240 U
Hexachlorobenzene	µg/L	0.04 [B]	240 U	240 U
Hexachlorobutadiene	µg/L	0.5 [B]	240 U	240 U
Hexachlorocyclopentadiene	µg/L	5** [B]	240 U	240 U
Hexachloroethane	µg/L	5** [B]	240 U	240 U
Indeno(1,2,3-C,D)Pyrene	µg/L	0.002 [A]	240 U	240 U
Isophorone	µg/L	50 [A]	240 U	240 U
Naphthalene	µg/L	10 [B]	240 U	240 U
Nitrobenzene	µg/L	0.4 [B]	240 U	240 U
N-Nitrosodi-N-Propylamine	µg/L	n/v	240 U	240 U
N-Nitrosodiphenylamine	µg/L	50 [A]	240 U	240 U
Pentachlorophenol	µg/L	1.0 [B]	480 U	470 U
Phenanthrene	µg/L	50 [A]	240 U	240 U
Phenol	µg/L	1.0 [B]	240 U	240 U
Pyrene	µg/L	50 [A]	240 U	240 U
SVOC - Tentatively Identified Compounds				
Total SVOC Tics	µg/L	n/v	1369	1974

See notes on last page.

Table 2
Summary of Analytical Results for Groundwater Samples
Confirmatory Phase II Site Investigation Report
920 Exchange Street, Rochester, New York

DRAFT

Sample Location			B/MW-1	B/MW-2
Sample Date			26-May-16	26-May-16
Sample ID			VO-MW1-W	VO-MW2-W
Sampling Company			STANTEC	STANTEC
Laboratory			TALBUFF	TALBUFF
Laboratory Work Order			4801008041	4801008041
Laboratory Sample ID			480-100804-1	480-100804-2
Sample Type	Units	TOGS		
Volatile Organic Compounds				
1,1,1-Trichloroethane	µg/L	5** [B]	10 U	10 U
1,1,2,2-Tetrachloroethane	µg/L	5** [B]	10 U	10 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	µg/L	5** [B]	10 U	10 U
1,1,2-Trichloroethane	µg/L	1 [B]	10 U	10 U
1,1-Dichloroethane	µg/L	5** [B]	10 U	10 U
1,1-Dichloroethene	µg/L	5** [B]	10 U	10 U
1,2,4-Trichlorobenzene	µg/L	5** [B]	10 U	10 U
1,2,4-Trimethylbenzene	µg/L	5** [B]	**12 [B]**	10 U
1,2-Dibromo-3-Chloropropane	µg/L	0.04 [B]	10 U	10 U
1,2-Dibromoethane (Ethylene Dibromide)	µg/L	0.0006 [B]	10 U	10 U
1,2-Dichlorobenzene	µg/L	3 [B]	10 U	10 U
1,2-Dichloroethane	µg/L	0.6 [B]	10 U	10 U
1,2-Dichloropropane	µg/L	1 [B]	10 U	10 U
1,3,5-Trimethylbenzene (Mesitylene)	µg/L	5** [B]	10 U	10 U
1,3-Dichlorobenzene	µg/L	3 [B]	10 U	10 U
1,4-Dichlorobenzene	µg/L	3 [B]	10 U	10 U
2-Hexanone	µg/L	50 [A]	50 U	50 U
Acetone	µg/L	50 [A]	100 U	100 U
Benzene	µg/L	1 [B]	10 U	10 U
Bromodichloromethane	µg/L	50 [A]	10 U	10 U
Bromoform	µg/L	50 [A]	10 U	10 U
Bromomethane	µg/L	5** [B]	10 U	10 U
Carbon Disulfide	µg/L	60 [A]	10 U	10 U
Carbon Tetrachloride	µg/L	5 [B]	10 U	10 U
Chlorobenzene	µg/L	5** [B]	10 U	10 U
Chloroethane	µg/L	5** [B]	10 U	10 U
Chloroform	µg/L	7 [B]	10 U	10 U
Chloromethane	µg/L	5** [B]	10 U	10 U
Cis-1,2-Dichloroethylene	µg/L	5** [B]	10 U	10 U
Cis-1,3-Dichloropropene	µg/L	0.4 [B,D]	10 U	10 U
Cyclohexane	µg/L	n/v	10 U	10 U
Cymene	µg/L	5** [B]	10 U	10 U
Dibromochloromethane	µg/L	50 [A]	10 U	10 U
Dichlorodifluoromethane	µg/L	5** [B]	10 U	10 U
Ethylbenzene	µg/L	5** [B]	10 U	10 U
Isopropylbenzene (Cumene)	µg/L	5** [B]	10 U	10 U
M,P-Xylene	µg/L	n/v	20 U	20 U
Methyl Acetate	µg/L	n/v	25 U	25 U
Methyl Ethyl Ketone (2-Butanone)	µg/L	50 [A]	100 U	100 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	µg/L	n/v	50 U	50 U
Methylcyclohexane	µg/L	n/v	34	10 U
Methylene Chloride	µg/L	5** [B]	10 U	10 U
Naphthalene	µg/L	10 [B]	8.2 J	10 U
N-Butylbenzene	µg/L	5** [B]	10 U	10 U
N-Propylbenzene	µg/L	5** [B]	10 U	10 U
O-Xylene (1,2-Dimethylbenzene)	µg/L	5** [B]	10 U	10 U
Sec-Butylbenzene	µg/L	5** [B]	10 U	10 U
Styrene	µg/L	5** [B]	10 U	10 U
T-Butylbenzene	µg/L	5** [B]	10 U	10 U
Tert-Butyl Methyl Ether	µg/L	10 [A]	10 U	10 U
Tetrachloroethylene (PCE)	µg/L	5** [B]	10 U	10 U
Toluene	µg/L	5** [B]	10 U	10 U
Trans-1,2-Dichloroethene	µg/L	5** [B]	10 U	10 U
Trans-1,3-Dichloropropene	µg/L	0.4 [B,D]	10 U	10 U
Trichloroethylene (TCE)	µg/L	5** [B]	10 U	10 U
Trichlorofluoromethane	µg/L	5** [B]	10 U	10 U
Vinyl Chloride	µg/L	2 [B]	10 U	10 U
Xylenes, Total	µg/L	n/v	20 U	20 U
VOC - Tentatively Identified Compounds				
Total VOC TICs	µg/L	n/v	25	-

Notes:

TOGS	NYSDEC TOGS 1.1.1 (Reissued June 1998 with errata in January 1999 and addenda in April 2000 and June 2004)
[A]	TOGS 1.1.1 - Table 1 - Ambient Water Quality Standards and Guidance Values, Division of Water, Technical and Operational Guidance Series (TOGS 1.1.1); Guidance
[B]	TOGS 1.1.1 - Table 1 - Ambient Water Quality Standards and Guidance Values, Division of Water, Technical and Operational Guidance Series (TOGS 1.1.1); Standards
6.5 [A]	Concentration exceeds the indicated standard.
15.2	Measured concentration did not exceed the indicated standard.
0.03 U	Analyte was not detected at a concentration greater than the laboratory reporting limit.
n/v	No standard/guideline value.
-	Parameter not analyzed / not available.
**	The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in the TOGS table) applies to this substance.
[D]	Applies to the sum of cis- and trans-1,3-dichloropropene.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
T	Indicates that a quality control parameter has exceeded laboratory limits.
TALBUFF	Test America Buffalo, Amherst, NY

Table 3
Summary of Analytical Results for Concrete Samples
Confirmatory Phase II Site Investigation Report
920 Exchange Street, Rochester, New York

DRAFT

Sample Location Sample Date Sample ID Sampling Company Laboratory Laboratory Work Order Laboratory Sample ID	Units	NYSDEC-Part 375 (Comparison Criteria)	NYSDEC CP-51	C1 20-May-16 VO-DRA1-C STANTEC TALBUFF 4801005251 480-100525-1	C2 20-May-16 VO-DRA2-C STANTEC TALBUFF 4801005251 480-100525-2
General Chemistry					
Cyanide	mg/kg	27_i[A]	n/v	0.99 U	0.73 J
Cyanide, Amenable To Chlorination	mg/kg	n/v	n/v	1.0 U	1.0 U
Metals					
Aluminum	mg/kg	10000_e[A]	10000_a[B]	6920	9250
Antimony	mg/kg	10000_e[A]	10000_a[B]	15.6 U	15.6 UT
Arsenic	mg/kg	16_a[A]	n/v	2.1	3.2
Barium	mg/kg	400[A]	n/v	143	84.8 T
Beryllium	mg/kg	590[A]	n/v	0.28	0.35
Cadmium	mg/kg	9.3[A]	n/v	0.19 J	0.10 J
Calcium	mg/kg	10000_e[A]	10000_a[B]	**130000 B[AB]**	**135000 B[AB]**
Chromium, Total	mg/kg	1500[A]	n/v	10.2	12.1
Cobalt	mg/kg	10000_e[A]	10000_a[B]	3.7	3.6
Copper	mg/kg	270[A]	n/v	14.1	10.0
Iron	mg/kg	10000_e[A]	10000_a[B]	8210	8990
Lead	mg/kg	1000[A]	n/v	14.8	5.0
Magnesium	mg/kg	10000_e[A]	n/v	**31300 B[A]**	**39600 B[A]**
Manganese	mg/kg	10000_e[A]	n/v	317	316
Mercury	mg/kg	2.8_k[A]	n/v	0.021	0.017 J
Nickel	mg/kg	310[A]	n/v	12.6	10.3
Potassium	mg/kg	10000_e[A]	n/v	2080	2890 T
Selenium	mg/kg	1500[A]	n/v	4.2 U	4.2 U
Silver	mg/kg	1500[A]	n/v	2.6	0.60 J
Sodium	mg/kg	10000_e[A]	n/v	464	569
Thallium	mg/kg	10000_e[A]	10000_a[B]	6.3 U	6.2 U
Vanadium	mg/kg	10000_e[A]	10000_a[B]	29.1	18.6
Zinc	mg/kg	10000_e[A]	n/v	34.8	23.9
Polychlorinated Biphenyls					
PCB-1016 (Aroclor 1016)	mg/kg	$_o$[A]	n/v	1.2 U	0.23 U
PCB-1221 (Aroclor 1221)	mg/kg	$_o$[A]	n/v	1.2 U	0.23 U
PCB-1232 (Aroclor 1232)	mg/kg	$_o$[A]	n/v	1.2 U	0.23 U
PCB-1242 (Aroclor 1242)	mg/kg	$_o$[A]	n/v	1.2 U	0.23 U
PCB-1248 (Aroclor 1248)	mg/kg	$_o$[A]	n/v	1.2 U	0.23 U
PCB-1254 (Aroclor 1254)	mg/kg	$_o$[A]	n/v	1.2 U	0.23 U
PCB-1260 (Aroclor 1260)	mg/kg	$_o$[A]	n/v	1.2 U	0.23 U
Polychlorinated Biphenyl (PCBs)	mg/kg	1[A]	n/v	ND	ND
Pesticides					
Aldrin	µg/kg	680[A]	n/v	170 U	1.7 U
Alpha Bhc (Alpha Hexachlorocyclohexane)	µg/kg	3400[A]	n/v	170 U	1.7 U
Alpha Chlordane	µg/kg	24000[A]	n/v	170 U	1.7 U
Alpha Endosulfan	µg/kg	200000_i[A]	n/v	170 U	1.7 UT
Beta Bhc (Beta Hexachlorocyclohexane)	µg/kg	3000[A]	n/v	170 U	1.7 U
Beta Endosulfan	µg/kg	200000_i[A]	n/v	170 U	1.7 UT
Delta BHC (Delta Hexachlorocyclohexane)	µg/kg	500000_c[A]	n/v	170 U	0.65 J
Dieldrin	µg/kg	1400[A]	n/v	170 U	1.7 U
Endosulfan Sulfate	µg/kg	200000_i[A]	n/v	170 U	1.7 U
Endrin	µg/kg	89000[A]	n/v	170 U	1.7 U
Endrin Aldehyde	µg/kg	500000_c[A]	n/v	170 U	1.7 U
Endrin Ketone	µg/kg	500000_c[A]	n/v	85 J	1.7 U
Gamma Bhc (Lindane)	µg/kg	9200[A]	n/v	170 U	1.7 UT
Gamma Chlordane	µg/kg	500000_c[A]	n/v	170 U	1.7 U
Heptachlor	µg/kg	15000[A]	n/v	170 U	1.7 U
Heptachlor Epoxide	µg/kg	500000_c[A]	500000_a[B]	170 U	1.7 U
Methoxychlor	µg/kg	500000_c[A]	500000_a[B]	170 U	1.7 U
P,P'-DDD	µg/kg	92000[A]	n/v	170 U	1.7 U
P,P'-DDE	µg/kg	62000[A]	n/v	170 U	1.7 U
P,P'-DDT	µg/kg	47000[A]	n/v	170 U	1.7 U
Toxaphene	µg/kg	500000_c[A]	n/v	1700 U	17 U

See notes on last page.

Table 3
Summary of Analytical Results for Concrete Samples
Confirmatory Phase II Site Investigation Report
920 Exchange Street, Rochester, New York

DRAFT

Sample Location Sample Date Sample ID Sampling Company Laboratory Laboratory Work Order Laboratory Sample ID	Units	NYSDEC-Part 375 (Comparison Criteria)	NYSDEC CP-51	C1 20-May-16 VO-DRA1-C STANTEC TALBUFF 4801005251 480-100525-1	C2 20-May-16 VO-DRA2-C STANTEC TALBUFF 4801005251 480-100525-2
Semi-Volatile Organics					
2,4,5-Trichlorophenol	µg/kg	500000$_c$[A]	500000$_a$[B]	28000 U	180 U
2,4,6-Trichlorophenol	µg/kg	500000$_c$[A]	500000$_a$[B]	28000 U	180 U
2,4-Dichlorophenol	µg/kg	500000$_c$[A]	500000$_a$[B]	28000 U	180 U
2,4-Dimethylphenol	µg/kg	500000$_c$[A]	n/v	28000 U	180 U
2,4-Dinitrophenol	µg/kg	500000$_c$[A]	500000$_a$[B]	270000 U	1700 U
2,4-Dinitrotoluene	µg/kg	500000$_c$[A]	n/v	28000 U	180 U
2,6-Dinitrotoluene	µg/kg	500000$_c$[A]	500000$_a$[B]	28000 U	180 U
2-Chloronaphthalene	µg/kg	500000$_c$[A]	n/v	28000 U	180 U
2-Chlorophenol	µg/kg	500000$_c$[A]	500000$_a$[B]	28000 U	180 U
2-Methylnaphthalene	µg/kg	500000$_c$[A]	500000$_a$[B]	5800 J	180 U
2-Methylphenol (O-Cresol)	µg/kg	500000$_c$[A]	n/v	28000 U	180 U
2-Nitroaniline	µg/kg	500000$_c$[A]	500000$_a$[B]	53000 U	340 U
2-Nitrophenol	µg/kg	500000$_c$[A]	500000$_a$[B]	28000 U	180 U
3,3'-Dichlorobenzidine	µg/kg	500000$_c$[A]	n/v	53000 U	340 U
3-Nitroaniline	µg/kg	500000$_c$[A]	500000$_a$[B]	53000 U	340 U
4,6-Dinitro-2-Methylphenol	µg/kg	500000$_c$[A]	n/v	53000 U	340 U
4-Bromophenyl Phenyl Ether	µg/kg	500000$_c$[A]	n/v	28000 U	180 U
4-Chloro-3-Methylphenol	µg/kg	500000$_c$[A]	n/v	28000 U	180 U
4-Chloroaniline	µg/kg	500000$_c$[A]	500000$_a$[B]	28000 U	180 U
4-Chlorophenyl Phenyl Ether	µg/kg	500000$_c$[A]	n/v	28000 U	180 U
4-Methylphenol (P-Cresol)	µg/kg	500000$_c$[A]	n/v	53000 U	340 U
4-Nitroaniline	µg/kg	500000$_c$[A]	n/v	53000 U	340 U
4-Nitrophenol	µg/kg	500000$_c$[A]	500000$_a$[B]	53000 U	340 U
Acenaphthene	µg/kg	500000$_c$[A]	20000[D]	8900 J	180 U
Acenaphthylene	µg/kg	500000$_c$[A]	100000[D]	28000 U	180 U
Acetophenone	µg/kg	500000$_c$[A]	n/v	28000 U	180 U
Anthracene	µg/kg	500000$_c$[A]	100000[D]	15000 J	180 U
Atrazine	µg/kg	500000$_c$[A]	n/v	28000 U	180 U
Benzaldehyde	µg/kg	500000$_c$[A]	n/v	28000 U	180 U
Benzo(A)Anthracene	µg/kg	5600[A]	1000[D]	**20000 J**[AD]	180 U
Benzo(A)Pyrene	µg/kg	1000$_a$[A]	1000[D]	**11000 J**[AD]	180 U
Benzo(B)Fluoranthene	µg/kg	5600[A]	1000[D]	**15000 J**[AD]	180 U
Benzo(G,H,I)Perylene	µg/kg	500000$_c$[A]	100000[D]	6600 J	180 U
Benzo(K)Fluoranthene	µg/kg	56000[A]	800[D]	28000 U	180 U
Benzyl Butyl Phthalate	µg/kg	500000$_c$[A]	500000$_a$[B]	28000 U	180 U
Biphenyl (Diphenyl)	µg/kg	500000$_c$[A]	500000$_a$[B]	28000 U	180 U
Bis(2-Chloroethoxy) Methane	µg/kg	500000$_c$[A]	n/v	28000 U	180 U
Bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	µg/kg	500000$_c$[A]	n/v	28000 U	180 U
Bis(2-Chloroisopropyl) Ether	µg/kg	500000$_c$[A]	n/v	28000 U	180 U
Bis(2-Ethylhexyl) Phthalate	µg/kg	500000$_c$[A]	500000$_a$[B]	28000 U	180 U
Caprolactam	µg/kg	500000$_c$[A]	n/v	28000 U	180 U
Carbazole	µg/kg	500000$_c$[A]	n/v	28000 U	180 U
Chrysene	µg/kg	56000[A]	1000[D]	**21000 J**[D]	180 U
Dibenz(A,H)Anthracene	µg/kg	560[A]	330[D]	28000 U	180 U
Dibenzofuran	µg/kg	350000[A]	500000$_a$[B]	7800 J	180 U
Diethyl Phthalate	µg/kg	500000$_c$[A]	500000$_a$[B]	28000 U	180 U
Dimethyl Phthalate	µg/kg	500000$_c$[A]	500000$_a$[B]	28000 U	180 U
Di-N-Butyl Phthalate	µg/kg	500000$_c$[A]	500000$_a$[B]	28000 U	180 U
Di-N-Octylphthalate	µg/kg	500000$_c$[A]	500000$_a$[B]	28000 U	180 U
Fluoranthene	µg/kg	500000$_c$[A]	100000[D]	57000	43 J
Fluorene	µg/kg	500000$_c$[A]	30000[D]	5400 J	180 U
Hexachlorobenzene	µg/kg	6000[A]	500000$_a$[B]	28000 U	180 U
Hexachlorobutadiene	µg/kg	500000$_c$[A]	n/v	28000 U	180 U
Hexachlorocyclopentadiene	µg/kg	500000$_c$[A]	500000$_a$[B]	28000 U	180 U
Hexachloroethane	µg/kg	500000$_c$[A]	n/v	28000 U	180 U
Indeno(1,2,3-C,D)Pyrene	µg/kg	5600[A]	500[D]	**5600 J**[D]	180 U
Isophorone	µg/kg	500000$_c$[A]	500000$_a$[B]	28000 U	180 U
Naphthalene	µg/kg	500000$_c$[A]	12000[CD]	11000 J	180 U
Nitrobenzene	µg/kg	500000$_c$[A]	69000[B]	28000 U	180 U
N-Nitrosodi-N-Propylamine	µg/kg	500000$_c$[A]	n/v	28000 U	180 U
N-Nitrosodiphenylamine	µg/kg	500000$_c$[A]	500000$_a$[B]	28000 U	180 U
Pentachlorophenol	µg/kg	6700[A]	n/v	53000 U	340 U
Phenanthrene	µg/kg	500000$_c$[A]	100000[D]	75000	41 J
Phenol	µg/kg	500000$_c$[A]	n/v	28000 U	180 U
Pyrene	µg/kg	500000$_c$[A]	100000[D]	50000	34 J
SVOC - Tentatively Identified Compounds					
Total SVOC Tics	µg/kg	n/v	n/v	216000	90550

See notes on last page.

Table 3
Summary of Analytical Results for Concrete Samples
Confirmatory Phase II Site Investigation Report
920 Exchange Street, Rochester, New York

DRAFT

Sample Location				C1	C2
Sample Date				20-May-16	20-May-16
Sample ID				VO-DRA1-C	VO-DRA2-C
Sampling Company				STANTEC	STANTEC
Laboratory				TALBUFF	TALBUFF
Laboratory Work Order				4801005251	4801005251
Laboratory Sample ID	Units	NYSDEC-Part 375 (Comparison Criteria)	NYSDEC CP-51	480-100525-1	480-100525-2
Volatile Organic Compounds					
1,1,1-Trichloroethane	µg/kg	500000$_c$[A]	n/v	1000 UT	4.8 U
1,1,2,2-Tetrachloroethane	µg/kg	500000$_c$[A]	500000$_a$[B]	1000 U	4.8 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	µg/kg	500000$_c$[A]	500000$_a$[B]	1000 UT	4.8 U
1,1,2-Trichloroethane	µg/kg	500000$_c$[A]	n/v	1000 U	4.8 U
1,1-Dichloroethane	µg/kg	240000[A]	n/v	1000 U	4.8 U
1,1-Dichloroethene	µg/kg	500000$_c$[A]	n/v	1000 U	4.8 U
1,2,4-Trichlorobenzene	µg/kg	500000$_c$[A]	500000$_a$[B]	1000 U	4.8 U
1,2,4-Trimethylbenzene	µg/kg	190000[A]	3600[CD]	1100	2.1 J
1,2-Dibromo-3-Chloropropane	µg/kg	500000$_c$[A]	n/v	1000 U	4.8 U
1,2-Dibromoethane (Ethylene Dibromide)	µg/kg	500000$_c$[A]	n/v	1000 U	4.8 U
1,2-Dichlorobenzene	µg/kg	500000$_c$[A]	n/v	1000 U	4.8 U
1,2-Dichloroethane	µg/kg	30000[A]	n/v	1000 U	4.8 U
1,2-Dichloropropane	µg/kg	500000$_c$[A]	500000$_a$[B]	1000 U	4.8 U
1,3,5-Trimethylbenzene (Mesitylene)	µg/kg	190000[A]	8400[CD]	1200	0.71 J
1,3-Dichlorobenzene	µg/kg	280000[A]	n/v	1000 U	4.8 U
1,4-Dichlorobenzene	µg/kg	130000[A]	n/v	1000 U	4.8 U
2-Hexanone	µg/kg	500000$_c$[A]	n/v	5000 UT	24 U
Acetone	µg/kg	500000$_c$[A]	n/v	5000 U	26 B
Benzene	µg/kg	44000[A]	60[CD]	**200 J[CD]**	4.8 U
Bromodichloromethane	µg/kg	500000$_c$[A]	n/v	1000 U	4.8 U
Bromoform	µg/kg	500000$_c$[A]	n/v	1000 U	4.8 U
Bromomethane	µg/kg	500000$_c$[A]	n/v	1000 U	4.8 U
Carbon Disulfide	µg/kg	500000$_c$[A]	500000$_a$[B]	1000 U	4.8 U
Carbon Tetrachloride	µg/kg	22000[A]	n/v	1000 U	4.8 U
Chlorobenzene	µg/kg	500000$_c$[A]	n/v	1000 U	4.8 U
Chloroethane	µg/kg	500000$_c$[A]	500000$_a$[B]	1000 U	4.8 U
Chloroform	µg/kg	350000[A]	n/v	1000 U	4.8 U
Chloromethane	µg/kg	500000$_c$[A]	n/v	1000 U	4.8 U
Cis-1,2-Dichloroethylene	µg/kg	500000$_c$[A]	n/v	1000 U	4.8 U
Cis-1,3-Dichloropropene	µg/kg	500000$_c$[A]	n/v	1000 U	4.8 U
Cyclohexane	µg/kg	500000$_c$[A]	n/v	6300	4.8 U
Cymene	µg/kg	500000$_c$[A]	500000$_a$[B] 10000[CD]	1000 U	4.8 U
Dibromochloromethane	µg/kg	500000$_c$[A]	500000$_a$[B]	1000 U	4.8 U
Dichlorodifluoromethane	µg/kg	500000$_c$[A]	n/v	1000 UT	4.8 U
Ethylbenzene	µg/kg	390000[A]	1000[CD]	360 J	0.63 J
Isopropylbenzene (Cumene)	µg/kg	500000$_c$[A]	500000$_a$[B] 2300[CD]	1000 U	4.8 U
M,P-Xylene	µg/kg	500000$_{c,p}$[A]	n/v	3100	2.8 J
Methyl Acetate	µg/kg	500000$_c$[A]	n/v	1200 T	4.8 U
Methyl Ethyl Ketone (2-Butanone)	µg/kg	500000$_c$[A]	500000$_a$[B]	5000 U	24 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	µg/kg	500000$_c$[A]	500000$_a$[B]	5000 U	24 U
Methylcyclohexane	µg/kg	500000$_c$[A]	n/v	30000	4.8 U
Methylene Chloride	µg/kg	500000$_c$[A]	n/v	490 JT	5.6 B
Naphthalene	µg/kg	500000$_c$[A]	12000[CD]	8000 T	1.0 J
N-Butylbenzene	µg/kg	500000$_c$[A]	12000[CD]	1000 U	4.8 U
N-Propylbenzene	µg/kg	500000$_c$[A]	3900[CD]	1000 U	4.8 U
O-Xylene (1,2-Dimethylbenzene)	µg/kg	500000$_{c,p}$[A]	n/v	1200 T	0.97 J
Sec-Butylbenzene	µg/kg	500000$_c$[A]	11000[CD]	1000 U	4.8 U
Styrene	µg/kg	500000$_c$[A]	500000$_a$[B]	1000 U	4.8 U
T-Butylbenzene	µg/kg	500000$_c$[A]	5900[CD]	1000 U	4.8 U
Tert-Butyl Methyl Ether	µg/kg	500000$_c$[A]	930[C]	1000 U	4.8 U
Tetrachloroethylene (PCE)	µg/kg	150000[A]	500000$_a$[B]	1000 U	4.8 U
Toluene	µg/kg	500000$_c$[A]	700[CD]	**1000[CD]**	2.4 J
Trans-1,2-Dichloroethene	µg/kg	500000$_c$[A]	n/v	1000 U	4.8 U
Trans-1,3-Dichloropropene	µg/kg	500000$_c$[A]	n/v	1000 U	4.8 U
Trichloroethylene (TCE)	µg/kg	200000[A]	n/v	1000 UT	4.8 U
Trichlorofluoromethane	µg/kg	500000$_c$[A]	n/v	1000 UT	4.8 U
Vinyl Chloride	µg/kg	13000[A]	n/v	1000 U	4.8 U
Xylenes, Total	µg/kg	500000$_c$[A]	n/v	4300	3.8 J
VOC - Tentatively Identified Compounds					
Total VOC TICs	µg/kg	n/v	n/v	66600	-

Notes:

NYSDEC-Part 375 NYSDEC 6 NYCRR Part 375 Soil Clean-up Objectives (SCOs)

[A]	NYSDEC 6 NYCRR Part 375 - Restricted Use SCO - Protection of Human Health - Commercial
NYSDEC CP-51	New York State Department of Environmental Conservation, DEC Policy CP-51, October 21, 2010
[B]	Table 1 Supplemental Soil Cleanup Objectives - Commercial
[C]	Table 2 Soil Cleanup Levels for Gasoline Contaminated Soils
[D]	Table 3 Soil Cleanup Levels for Fuel Oil Contaminated Soil
*	The SCOs are not directly applicable to this concrete dataset but are included for discussion purposes.
6.5[A]	Concentration exceeds the indicated comparison criterion.
15.2	Measured concentration did not exceed the indicated comparison criterion.
0.03 U	Analyte was not detected at a concentration greater than the laboratory reporting limit.
n/v	No standard/guideline value.
-	Parameter not analyzed / not available.
a	SCOs for organic contaminants (volatile organic compounds, semivolatile organic compounds, and pesticides) are capped at 100 ppm for residential use, 500 ppm for commercial use, 1000 ppm for industrial use. SCOs for metals are capped at 10,000 ppm.
c	The SCOs for commercial use were capped at a maximum value of 500 mg/kg. See TSD Section 9.3.
c,p	The SCOs for commercial use were capped at a maximum value of 500 mg/kg. See TSD Section 9.3. The criterion is applicable to total xylenes, and the individual isomers should be added for comparison.
e	The SCOS for metals were capped at a maximum value of 10,000 mg/kg. See 6 NYCRR Part 375 TSD Section 9.3.
g	For constituents where the calculated SCO was lower than the rural soil background concentration as determined by the DEC/DOH rural soil survey, the rural soil background concentration is used as the Track 2 SCO value for this use of the site.
i	The SCO for this specific compound (or family of compounds) is considered to be met if the analysis for the total species of this contaminant is below the specific SCO.
j	This SCO is the sum of endosulfan I, endosulfan II, and endosulfan sulfate.
k	This SCO is the lower of the values for mercury (elemental) or mercury (inorganic salts). See 6 NYCRR Part 375 TSD Table 5.6-1.
o	Standard is applicable to total PCBs, and the individual Aroclors should be added for comparison.
B	Indicates the analyte is detected in the associated blank as well as in the sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
T	Indicates that a quality control parameter has exceeded laboratory limits.
TALBUFF	Test America Buffalo, Amherst, NY

Table 4
Summary of Analytical Results for Sump and Tank-Vault Water Samples
Confirmatory Phase II Site Investigation Report
920 Exchange Street, Rochester, New York

DRAFT

Sample Location			SUMP1	SUMP2	SUMP3	VAULT3	TRIPBLANK
Sample Date			20-May-16	20-May-16	20-May-16	20-May-16	20-May-16
Sample ID			VO-SUMP1-W	VO-SUMP2-W	VO-SUMP3-W	VO-VAULT3-W	TRIP BLANK
Sampling Company			STANTEC	STANTEC	STANTEC	STANTEC	STANTEC
Laboratory			TALBUFF	TALBUFF	TALBUFF	TALBUFF	TALBUFF
Laboratory Work Order			4801005252	4801005252	4801005252	4801005252	4801005252
Laboratory Sample ID		Comparison	480-100525-3	480-100525-4	480-100525-5	480-100525-6	480-100525-7
Sample Type	Units	Criteria: TOGS					TRIP BLANK
Semi-Volatile Organics							
2,4,5-Trichlorophenol	µg/L	n/v	24 UT	23 U	470 U	24 U	-
2,4,6-Trichlorophenol	µg/L	n/v	24 UT	23 U	470 U	24 U	-
2,4-Dichlorophenol	µg/L	5** [B]	24 UT	23 U	470 U	24 U	-
2,4-Dimethylphenol	µg/L	50 [A]	24 U	23 U	470 U	24 U	-
2,4-Dinitrophenol	µg/L	10 [A]	49 UT	47 U	950 U	48 U	-
2,4-Dinitrotoluene	µg/L	5** [B]	24 UT	23 U	470 U	24 U	-
2,6-Dinitrotoluene	µg/L	5** [B]	24 UT	23 U	470 U	24 U	-
2-Chloronaphthalene	µg/L	10 [B]	24 U	23 U	470 U	24 U	-
2-Chlorophenol	µg/L	n/v	24 UT	23 U	470 U	24 U	-
2-Methylnaphthalene	µg/L	n/v	24 U	23 U	470 U	24 U	-
2-Methylphenol (O-Cresol)	µg/L	n/v	24 UT	23 U	470 U	24 U	-
2-Nitroaniline	µg/L	5** [B]	49 UT	47 U	950 U	48 U	-
2-Nitrophenol	µg/L	n/v	24 UT	23 U	470 U	24 U	-
3,3'-Dichlorobenzidine	µg/L	5** [B]	24 UT	23 U	470 U	24 U	-
3-Nitroaniline	µg/L	5** [B]	49 U	47 U	950 U	48 U	-
4,6-Dinitro-2-Methylphenol	µg/L	n/v	49 UT	47 U	950 U	48 U	-
4-Bromophenyl Phenyl Ether	µg/L	n/v	24 U	23 U	470 U	24 U	-
4-Chloro-3-Methylphenol	µg/L	n/v	24 UT	23 U	470 U	24 U	-
4-Chloroaniline	µg/L	5** [B]	24 U	23 U	470 U	24 U	-
4-Chlorophenyl Phenyl Ether	µg/L	n/v	24 U	23 U	470 U	24 U	-
4-Methylphenol (P-Cresol)	µg/L	n/v	49 UT	47 U	950 U	48 U	-
4-Nitroaniline	µg/L	5** [B]	49 UT	47 U	950 U	48 U	-
4-Nitrophenol	µg/L	n/v	49 UT	47 U	950 U	48 U	-
Acenaphthene	µg/L	20 [B]	24 U	23 U	**86 J [B]**	24 U	-
Acenaphthylene	µg/L	n/v	24 U	23 U	470 U	24 U	-
Acetophenone	µg/L	n/v	24 U	23 U	470 U	24 U	-
Anthracene	µg/L	50 [A]	24 U	1.9 J	**210 J [A]**	24 U	-
Atrazine	µg/L	7.5 [B]	24 UT	23 U	470 U	24 U	-
Benzaldehyde	µg/L	n/v	24 UT	23 UT	470 UT	24 UT	-
Benzo(A)Anthracene	µg/L	0.002 [A]	24 U	**3.6 J [A]**	**570 [A]**	24 U	-
Benzo(A)Pyrene	µg/L	n/v	24 U	3.0 J	520	24 U	-
Benzo(B)Fluoranthene	µg/L	0.002 [A]	24 U	**4.4 J [A]**	**710 [A]**	24 U	-
Benzo(G,H,I)Perylene	µg/L	n/v	24 U	2.3 J	370 J	24 U	-
Benzo(K)Fluoranthene	µg/L	0.002 [A]	24 U	23 U	**340 J [A]**	24 U	-
Benzyl Butyl Phthalate	µg/L	50 [A]	24 UT	23 U	470 U	24 U	-
Biphenyl (Diphenyl)	µg/L	5** [B]	24 U	23 U	470 U	24 U	-
Bis(2-Chloroethoxy) Methane	µg/L	5** [B]	24 U	23 U	470 U	24 U	-
Bis(2-Chloroethyl) Ether (2-Chloroethyl Ether)	µg/L	1 [B]	24 U	23 U	470 U	24 U	-
Bis(2-Chloroisopropyl) Ether	µg/L	5** [B]	24 U	23 U	470 U	24 U	-
Bis(2-Ethylhexyl) Phthalate	µg/L	5 [B]	24 UT	23 U	470 U	24 U	-
Caprolactam	µg/L	n/v	24 U	23 U	470 U	24 U	-
Carbazole	µg/L	n/v	24 U	23 U	180 J	24 U	-
Chrysene	µg/L	0.002 [A]	24 U	**4.1 J [A]**	**610 [A]**	24 U	-
Dibenz(A,H)Anthracene	µg/L	n/v	24 U	23 U	100 J	24 U	-
Dibenzofuran	µg/L	n/v	49 U	47 U	54 J	48 U	-
Diethyl Phthalate	µg/L	50 [A]	24 U	23 U	470 U	24 U	-
Dimethyl Phthalate	µg/L	50 [A]	24 U	23 U	470 U	24 U	-
Di-N-Butyl Phthalate	µg/L	50 [B]	24 U	23 U	470 U	24 U	-
Di-N-Octylphthalate	µg/L	50 [A]	24 U	23 U	470 U	24 U	-
Fluoranthene	µg/L	50 [A]	24 U	8.7 J	**1800 [A]**	24 U	-
Fluorene	µg/L	50 [A]	24 U	23 U	**70 J [A]**	24 U	-
Hexachlorobenzene	µg/L	0.04 [B]	24 U	23 U	470 U	24 U	-
Hexachlorobutadiene	µg/L	0.5 [B]	24 U	23 U	470 U	24 U	-
Hexachlorocyclopentadiene	µg/L	5** [B]	24 UT	23 U	470 U	24 U	-
Hexachloroethane	µg/L	5** [B]	24 U	23 U	470 U	24 U	-
Indeno(1,2,3-C,D)Pyrene	µg/L	0.002 [A]	24 U	23 U	**340 J [A]**	24 U	-
Isophorone	µg/L	50 [A]	24 U	23 U	470 U	24 U	-
Naphthalene	µg/L	10 [B]	24 U	23 U	470 U	24 U	-
Nitrobenzene	µg/L	0.4 [B]	24 U	23 U	470 U	24 U	-
N-Nitrosodi-N-Propylamine	µg/L	n/v	24 U	23 U	470 U	24 U	-
N-Nitrosodiphenylamine	µg/L	50 [A]	24 U	23 U	470 U	24 U	-
Pentachlorophenol	µg/L	1.0 [B]	49 UT	47 U	950 U	48 U	-
Phenanthrene	µg/L	50 [A]	24 U	6.2 J	**1200 [A]**	24 U	-
Phenol	µg/L	1.0 [B]	24 UT	23 U	470 U	24 U	-
Pyrene	µg/L	50 [A]	24 U	6.2 J	**1100 [A]**	24 U	-
SVOC - Tentatively Identified Compounds							
Total SVOC Tics	µg/L	n/v	210	196.6	970	210.5	-

See notes on last page.

Table 4
Summary of Analytical Results for Sump and Tank-Vault Water Samples
Confirmatory Phase II Site Investigation Report
920 Exchange Street, Rochester, New York

DRAFT

Sample Location			SUMP1	SUMP2	SUMP3	VAULT3	TRIPBLANK
Sample Date			20-May-16	20-May-16	20-May-16	20-May-16	20-May-16
Sample ID			VO-SUMP1-W	VO-SUMP2-W	VO-SUMP3-W	VO-VAULT3-W	TRIP BLANK
Sampling Company			STANTEC	STANTEC	STANTEC	STANTEC	STANTEC
Laboratory			TALBUFF	TALBUFF	TALBUFF	TALBUFF	TALBUFF
Laboratory Work Order			4801005252	4801005252	4801005252	4801005252	4801005252
Laboratory Sample ID		Comparison	480-100525-3	480-100525-4	480-100525-5	480-100525-6	480-100525-7
Sample Type	Units	Criteria: TOGS					TRIP BLANK
Volatile Organic Compounds							
1,1,1-Trichloroethane	µg/L	5** [B]	4.0 U	1.0 U	10 U	10 U	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	5** [B]	4.0 U	1.0 U	10 U	10 U	1.0 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	µg/L	5** [B]	4.0 U	1.0 U	10 U	10 U	1.0 U
1,1,2-Trichloroethane	µg/L	1 [B]	4.0 U	1.0 U	10 U	10 U	1.0 U
1,1-Dichloroethane	µg/L	5** [B]	4.0 U	1.0 U	10 U	10 U	1.0 U
1,1-Dichloroethene	µg/L	5** [B]	4.0 U	1.0 U	10 U	10 U	1.0 U
1,2,4-Trichlorobenzene	µg/L	5** [B]	4.0 U	1.0 U	10 U	10 U	1.0 U
1,2,4-Trimethylbenzene	µg/L	5** [B]	4.0 U	1.0 U	10 U	10 U	1.0 U
1,2-Dibromo-3-Chloropropane	µg/L	0.04 [B]	4.0 U	1.0 U	10 U	10 U	1.0 U
1,2-Dibromoethane (Ethylene Dibromide)	µg/L	0.0006 [B]	4.0 U	1.0 U	10 U	10 U	1.0 U
1,2-Dichlorobenzene	µg/L	3 [B]	4.0 U	1.0 U	10 U	10 U	1.0 U
1,2-Dichloroethane	µg/L	0.6 [B]	4.0 U	1.0 U	10 U	10 U	1.0 U
1,2-Dichloropropane	µg/L	1 [B]	4.0 U	1.0 U	10 U	10 U	1.0 U
1,3,5-Trimethylbenzene (Mesitylene)	µg/L	5** [B]	4.0 U	1.0 U	10 U	10 U	1.0 U
1,3-Dichlorobenzene	µg/L	3 [B]	4.0 U	1.0 U	10 U	10 U	1.0 U
1,4-Dichlorobenzene	µg/L	3 [B]	4.0 U	1.0 U	10 U	10 U	1.0 U
2-Hexanone	µg/L	50 [A]	20 U	5.0 U	50 U	50 U	5.0 U
Acetone	µg/L	50 [A]	40 U	10 U	100 U	100 U	10 U
Benzene	µg/L	1 [B]	4.0 U	1.0 U	10 U	10 U	1.0 U
Bromodichloromethane	µg/L	50 [A]	4.0 U	1.0 U	10 U	10 U	1.0 U
Bromoform	µg/L	50 [A]	4.0 U	1.0 U	10 U	10 U	1.0 U
Bromomethane	µg/L	5** [B]	4.0 U	1.0 U	10 U	10 U	1.0 U
Carbon Disulfide	µg/L	60 [A]	4.0 U	1.0 U	10 U	10 U	1.0 U
Carbon Tetrachloride	µg/L	5 [B]	4.0 U	1.0 U	10 U	10 U	1.0 U
Chlorobenzene	µg/L	5** [B]	4.0 U	1.0 U	10 U	10 U	1.0 U
Chloroethane	µg/L	5** [B]	4.0 U	1.0 U	10 U	10 U	1.0 U
Chloroform	µg/L	7 [B]	4.0 U	1.0 U	10 U	10 U	1.0 U
Chloromethane	µg/L	5** [B]	4.0 U	1.0 U	10 U	10 U	1.0 U
Cis-1,2-Dichloroethylene	µg/L	5** [B]	4.0 U	1.0 U	10 U	10 U	1.0 U
Cis-1,3-Dichloropropene	µg/L	0.4 [B] $_{p}$	4.0 U	1.0 U	10 U	10 U	1.0 U
Cyclohexane	µg/L	n/v	4.0 U	1.0 U	10 U	10 U	1.0 U
Cymene	µg/L	5** [B]	4.0 U	1.0 U	10 U	10 U	1.0 U
Dibromochloromethane	µg/L	50 [A]	4.0 U	1.0 U	10 U	10 U	1.0 U
Dichlorodifluoromethane	µg/L	5** [B]	4.0 U	1.0 U	10 U	10 U	1.0 U
Ethylbenzene	µg/L	5** [B]	4.0 U	1.0 U	10 U	10 U	1.0 U
Isopropylbenzene (Cumene)	µg/L	5** [B]	4.0 U	1.0 U	10 U	10 U	1.0 U
M,P-Xylene	µg/L	n/v	8.0 U	2.0 U	20 U	20 U	2.0 U
Methyl Acetate	µg/L	n/v	10 U	2.5 U	25 U	25 U	2.5 U
Methyl Ethyl Ketone (2-Butanone)	µg/L	50 [A]	40 U	10 U	100 U	100 U	10 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	µg/L	n/v	20 U	5.0 U	50 U	50 U	5.0 U
Methylcyclohexane	µg/L	n/v	4.0 U	1.0 U	10 U	10 U	1.0 U
Methylene Chloride	µg/L	5** [B]	4.0 U	1.0 U	10 U	10 U	1.0 U
Naphthalene	µg/L	10 [B]	4.0 U	1.0 U	10 U	10 U	1.0 U
N-Butylbenzene	µg/L	5** [B]	4.0 U	1.0 U	10 U	10 U	1.0 U
N-Propylbenzene	µg/L	5** [B]	4.0 U	1.0 U	10 U	10 U	1.0 U
O-Xylene (1,2-Dimethylbenzene)	µg/L	5** [B]	4.0 U	1.0 U	10 U	10 U	1.0 U
Sec-Butylbenzene	µg/L	5** [B]	4.0 U	1.0 U	10 U	10 U	1.0 U
Styrene	µg/L	5** [B]	4.0 U	1.0 U	10 U	10 U	1.0 U
T-Butylbenzene	µg/L	5** [B]	4.0 U	1.0 U	10 U	10 U	1.0 U
Tert-Butyl Methyl Ether	µg/L	10 [A]	4.0 U	1.0 U	10 U	10 U	1.0 U
Tetrachloroethylene (PCE)	µg/L	5** [B]	4.0 U	1.0 U	10 U	10 U	1.0 U
Toluene	µg/L	5** [B]	4.0 U	1.0 U	10 U	10 U	1.0 U
Trans-1,2-Dichloroethene	µg/L	5** [B]	4.0 U	1.0 U	10 U	10 U	1.0 U
Trans-1,3-Dichloropropene	µg/L	0.4 [B] $_{p}$	4.0 U	1.0 U	10 U	10 U	1.0 U
Trichloroethylene (TCE)	µg/L	5** [B]	4.0 U	1.0 U	10 U	10 U	1.0 U
Trichlorofluoromethane	µg/L	5** [B]	4.0 U	1.0 U	10 U	10 U	1.0 U
Vinyl Chloride	µg/L	2 [B]	4.0 U	1.0 U	10 U	10 U	1.0 U
Xylenes, Total	µg/L	n/v	8.0 U	2.0 U	20 U	20 U	2.0 U
VOC - Tentatively Identified Compounds							
Total VOC TICs	µg/L	n/v	-	-	-	-	-

Notes:

TOGS	NYSDEC TOGS 1.1.1 (Reissued June 1998 with errata in January 1999 and addenda in April 2000 and June 2004)
*	Note that these standards apply to groundwater and therefore are not directly applicable to this dataset, although included for comparison.
[A]	TOGS 1.1.1 - Table 1 - Ambient Water Quality Standards and Guidance Values, Division of Water, Technical and Operational Guidance Series (TOGS 1.1.1); Guidance
[B]	TOGS 1.1.1 - Table 1 - Ambient Water Quality Standards and Guidance Values, Division of Water, Technical and Operational Guidance Series (TOGS 1.1.1); Standards
6.5 [A]	Concentration exceeds the indicated comparison criterion.
15.2	Measured concentration did not exceed the indicated comparison criterion.
0.03 U	Analyte was not detected at a concentration greater than the laboratory reporting limit.
n/v	No standard/guideline value.
-	Parameter not analyzed / not available.
**	The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in the TOGS table) applies to this substance.
p	Applies to the sum of cis- and trans-1,3-dichloropropene.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
T	Indicates that a quality control parameter has exceeded laboratory limits.
TALBUFF	Test America Buffalo, Amherst, NY

Appendix A
Soil Boring Logs

Stantec

61 Commercial St
Rochester, NY 14614
(585) 475-1440

Test Boring No.: B1
Page: 1 of 1

Project:	920 Exchange - Confirmatory Phase II	Drill Contractor:	Nothngale	Start Date:	5/24/2016
Project #:	190500905	Driller:	J. Schweitzer	Completion Date:	5/24/2016
Client:	City of Rochester	Elevation:	NM	Drilling Method:	Geoprobe, direct push
Location:	920 Exchange St.	Weather:	70s, sunny	Supervisor:	L. Best
	Rochester, NY				

0	SAMPLE PID (ppm)	SAMPLE No.	SAMPLE Rec. (ft)	SAMPLE Depth (ft)	Depth of Strata Change (ft)	Material Description and Remarks
		1	2.2	0	0.6	CONCRETE (cored 5/20/16)
	362.0					Brown SILTY FINE TO MEDIUM SAND (SM), trace clay and fine gravel, dry
	443.2					Moist at 0.8'
	9.3					
	525.6					
						- FILL OR DISTURBED NATIVE OVERBURDEN -
				4	▼	
	583.1	2	2.4			Wet at 4', with brownish-yellow petroleum product and petroleum odor
5	452.7					
	80.6			5.5		
						Refusal at 5.5'
10						
15						
20						**Sample**
						VO-B1-s: 4.0-5.5' at 15:30

Notes:

1. PID Model Mini-Rae 3000 with 10.6eV lamp.

Stantec

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Test Boring No.: **B2**
Page: **1 of 1**

Project:	920 Exchange - Confirmatory Phase II	Drill Contractor:	Nothngale	Start Date:	5/24/2016
Project #:	190500905	Driller:	J. Schweitzer	Completion Date:	5/24/2016
Client:	City of Rochester	Elevation:	NM	Drilling Method:	Geoprobe, direct push
Location:	920 Exchange St. Rochester, NY	Weather:	70s, sunny	Supervisor:	L. Best

	SAMPLE				Depth of Strata Change (ft)	Material Description and Remarks
0	PID (ppm)	No.	Rec. (ft)	Depth (ft)		
	4.1	1	2.1	0	0.7	CONCRETE (cored 5/20/16)
	5.2					Brown WELL-GRADED FINE TO MEDIUM SAND WITH SILT (SW-SM), dry (becoming moist at 1.3'), slight petroleum odor
	5.9					
	7.2				2.1	- FILL OR DISTURBED NATIVE OVERBURDEN -
						No recovery
				4	▼	
	6.8	2	3.1			Brown SILTY MEDIUM TO COARSE SAND WITH FINE TO MEDIUM GRAVEL (SM), trace clay, wet, petroleum odor
5						
	21.2					Black staining 5.6-6.5'
						- FILL OR DISTURBED NATIVE OVERBURDEN -
	4.0					Minor black staining at 7'
				8		
						Refusal at 8'
10						
15						
20						**Sample** VO-B2-s: 5.5-6.2' at 14:45

Notes:
1. PID Model Mini-Rae 3000 with 10.6eV lamp.

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Test Boring No.: B3
Page: 1 of 1

Project:	920 Exchange - Confirmatory Phase II	Drill Contractor:	Nothngale	Start Date:	5/24/2016
Project #:	190500905	Driller:	J. Schweitzer	Completion Date:	5/24/2016
Client:	City of Rochester	Elevation:	NM	Drilling Method:	Geoprobe, direct push
Location:	920 Exchange St. Rochester, NY	Weather:	70s, sunny	Supervisor:	L. Best

	SAMPLE				Depth of Strata Change (ft)	Material Description and Remarks
0	PID (ppm)	No.	Rec. (ft)	Depth (ft)		
	0.2	1	2.8	0	0.6	CONCRETE (cored 5/20/16)
	1.3					Brown SILTY SAND WITH GRAVEL (SM), dry
	5.6					
					2.1	- FILL -
					2.8	ROCK fragments, with some gray pulverized rock, dry
				4		No recovery
	10.2	2	0.8			Olive gray CLAYEY SAND WITH GRAVEL (SC), moist, slight petroleum odor
5						- NATIVE OVERBURDEN -
				8		
						Refusal at 8'
10						
15						
20						**Sample** VO-B3-s: 4.4-4.8' at 14:00

Notes:
1. PID Model Mini-Rae 3000 with 10.6eV lamp.

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Test Boring No.: B4
Page: 1 of 1

Project:	920 Exchange - Confirmatory Phase II	Drill Contractor:	Nothngale	Start Date:	5/24/2016
Project #:	190500905	Driller:	J. Schweitzer	Completion Date:	5/24/2016
Client:	City of Rochester	Elevation:	NM	Drilling Method:	Geoprobe, direct push
Location:	920 Exchange St.	Weather:	60s, sunny	Supervisor:	L. Best
	Rochester, NY				

	SAMPLE				Depth of Strata Change (ft)	Material Description and Remarks
0	PID (ppm)	No.	Rec. (ft)	Depth (ft)		
		1	1.4	0	0.7	CONCRETE (cored 5/20/16)
	0.0					Brown SILTY FINE TO MEDIUM SAND WITH FINE TO MEDIUM GRAVEL (SM), trace brick, dry
	0.0					
	0.0					Moist at 1', with trace clay
						- FILL -
				4		
	0.0	2	2.1		▼ 4.3	
5	0.1					Gray CLAYEY MEDIUM TO COARSE SAND WITH FINE TO MEDIUM GRAVEL (SC), trace brick, wet, petroleum odor
	1.7					
	1.4					- NATIVE OVERBURDEN/FILL MIX -
	0.4			8		No brick
	1.5	3	2.0		8.9	
	0.6			9		ROCK fragments (dolostone), with brown CLAYEY MEDIUM SAND WITH FINE GRAVEL (SC), dry
						Refusal at 9'
10						
15						
20						**Sample**
						VO-B4-s: 5.0-5.6' at 09:00

Notes:
1. PID Model Mini-Rae 3000 with 10.6eV lamp.

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Test Boring No.: **B5**
Page: **1 of 1**

Project:	920 Exchange - Confirmatory Phase II	Drill Contractor:	Nothngale	Start Date:	5/24/2016
Project #:	190500905	Driller:	J. Schweitzer	Completion Date:	5/24/2016
Client:	City of Rochester	Elevation:	NM	Drilling Method:	Geoprobe, direct push
Location:	920 Exchange St. Rochester, NY	Weather:	60s, sunny	Supervisor:	L. Best

0	SAMPLE PID (ppm)	SAMPLE No.	SAMPLE Rec. (ft)	SAMPLE Depth (ft)	Depth of Strata Change (ft)	Material Description and Remarks
		1		0	0.6	CONCRETE (cored 5/20/16)
	0.1				1.0	Brown POORLY GRADED COARSE SAND (SP), trace fine gravel, dry
	42.3					Brown SILTY FINE TO MEDIUM SAND WITH MEDIUM GRAVEL (SM), with brick fragments and
					2.0	trace clay, dry, petroleum odor
	3.9					Black CINDERS, trace brick and wood, dry, petroleum odor
	2.2				3.0	- FILL -
						Brown CLAYEY FINE TO MEDIUM SAND (SC), trace gravel, moist, petroleum odor
				4		
	3.3	2				Increasing medium gravel content
5	3.6					Moist at 4.6'
					5.4	- NATIVE OVERBURDEN -
	1.9					ROCK FRAGMENTS (dolostone), with brown SILTY FINE TO COARSE SAND (SM), dry, slight petroleum odor
						- WEATHERED BEDROCK -
				7.8		
						Refusal at 7.8'
10						
15						
20						**Sample** VO-B5-s: 4.6-5.1' at 10:15

Notes:
1. PID Model Mini-Rae 3000 with 10.6eV lamp.

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Test Boring No.: **B6**
Page: **1 of 1**

Project:	920 Exchange - Confirmatory Phase II	Drill Contractor:	Nothngale	Start Date:	5/24/2016
Project #:	190500905	Driller:	J. Schweitzer	Completion Date:	5/24/2016
Client:	City of Rochester	Elevation:	NM	Drilling Method:	Geoprobe, direct push
Location:	920 Exchange St. Rochester, NY	Weather:	60s, sunny	Supervisor:	L. Best

0	SAMPLE PID (ppm)	SAMPLE No.	SAMPLE Rec. (ft)	SAMPLE Depth (ft)	Depth of Strata Change (ft)	Material Description and Remarks
		1	2.6	0	0.5	CONCRETE (cored 5/20/16)
	111.6					Brown SILTY FINE TO MEDIUM SAND WITH FINE TO MEDIUM GRAVEL (SM), brick fragments,
	303.4				1.7	trace ash, cinders, and clay, dry, strong skunk-like odor (degraded petroleum?)
	372.0					Black-stained CLAYEY MEDIUM SAND (SC), trace fine to medium gravel, moist, same odor
	298.1					as above, tar-like appearance
						- FILL -
				4		
	414.2	2	3.5			Same as above, with gravel
5						
	377.3					
	319.2				▼	Wet at 5.7'
					6.6	
	20.5					Gray SILTY GRAVEL WITH SAND (GM), trace clay, slight skunk-like odor (degraded
						petroleum?), wet
	57.7			8		- FILL OR NATIVE OVERBURDEN
						Refusal at 8'
10						
15						
20						**Sample**
						VO-B6-s: 4.0-4.6' at 11:15

Notes:

1. PID Model Mini-Rae 3000 with 10.6eV lamp.

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Test Boring No.: B7
Page: 1 of 1

Project:	920 Exchange - Confirmatory Phase II	Drill Contractor:	Nothngale	Start Date:	5/24/2016
Project #:	190500905	Driller:	J. Schweitzer	Completion Date:	5/24/2016
Client:	City of Rochester	Elevation:	NM	Drilling Method:	Geoprobe, direct push
Location:	920 Exchange St.	Weather:	70s, sunny	Supervisor:	L. Best
	Rochester, NY				

0	SAMPLE PID (ppm)	SAMPLE No.	SAMPLE Rec. (ft)	SAMPLE Depth (ft)	Depth of Strata Change (ft)	Material Description and Remarks
		1	2.3	0		CONCRETE (cored 5/20/16)
	0.1				1.0	
	19.5					Brown SILTY MEDIUM TO COARSE SAND WITH FINE GRAVEL (SM), trace clay and brick, slight
					1.8	petroleum odor, minor black staining, dry - FILL -
	2.3					CONCRETE
				3		
						Refusal at 3'
5						
10						
15						
20						**Sample**
						VO-B7-s: 1.1-1.6' at 11:50'

Notes:

1. PID Model Mini-Rae 3000 with 10.6eV lamp.

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Test Boring No.: B8a
Page: 1 of 1

Project:	920 Exchange - Confirmatory Phase II	Drill Contractor:	Nothngale	Start Date:	5/23/2016
Project #:	190500905	Driller:	J. Schweitzer	Completion Date:	5/23/2016
Client:	City of Rochester	Elevation:	NM	Drilling Method:	Geoprobe, direct push
Location:	920 Exchange St. Rochester, NY	Weather:	60s, sunny	Supervisor:	L. Best

0	SAMPLE PID (ppm)	SAMPLE No.	SAMPLE Rec. (ft)	SAMPLE Depth (ft)	Depth of Strata Change (ft)	Material Description and Remarks
	0.7	1	3.1	0	0.1	ASPHALT
					1.4	Dark brown WELL-GRADED MEDIUM TO COARSE SAND WITH GRAVEL (SW), wood and brick fragments, dry
	97.0					Gray POORLY-GRADED FINE TO MEDIUM SAND WITH SILT (SW-SM), moist, petroleum odor, staining 2.3-2.8'
	150.0					- FILL -
				4		
	302.2	2	2.2			Trace brick and minor black staining at 4'
5					▼ 4.9	
	41.8					Gray WELL-GRADED GRAVEL WITH SILT AND SAND (GW-GM), wet, petroleum odor
					6.3	
	69.2			6.5		Gray SILTY SAND WITH GRAVEL (SM), moist, petroleum odor - NATIVE OVERBURDEN -
						Refusal at 6.5'
10						
15						
20						**Sample** VO-B8a-s: 4.0-4.5' at 09:35

Notes:
1. PID Model Mini-Rae 3000 with 10.6eV lamp.

Stantec

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Test Boring No.: **B8b**
Page: **1 of 1**

Project:	920 Exchange - Confirmatory Phase II	Drill Contractor:	Nothngale	Start Date:	5/23/2016
Project #:	190500905	Driller:	J. Schweitzer	Completion Date:	5/23/2016
Client:	City of Rochester	Elevation:	NM	Drilling Method:	Geoprobe, direct push
Location:	920 Exchange St. Rochester, NY	Weather:	60s, sunny	Supervisor:	L. Best

	SAMPLE				Depth of Strata Change (ft)	Material Description and Remarks
0	PID (ppm)	No.	Rec. (ft)	Depth (ft)		
	1.4	1	2.7	0	0.1	ASPHALT
	35.0					Dark brown WELL-GRADED MEDIUM TO COARSE SAND WITH GRAVEL (SW), wood and brick
	400.0				0.7	fragments, dry
					1.2	Dark gray SILTY MEDIUM TO COARSE SAND WITH GRAVEL (SM), wood, dry, petroleum odor
	284.5					Gray WELL-GRADED FINE TO MEDIUM SAND WITH SILT (SW-SM), moist, petroleum odor,
					2.5	black staining 1.9-2.3'
					2.6	GRAVEL fragments (pulverized cobble), dry - FILL -
				4		Black-stained SILTY MEDIUM TO COARSE SAND WITH GRAVEL (SM), moist, petroleum odor
	397.3	2.0	1.9		4.7	
5						Gray WELL-GRADED GRAVEL WITH SILT AND SAND (GM-GW), wet, black staining,
	116.7					petroleum odor
						- NATIVE OVERBURDEN -
				6.5		
						Refusal at 6.5'
10						
15						
20						**Sample**
						No sample collected

Notes:
1. PID Model Mini-Rae 3000 with 10.6eV lamp.

Stantec

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Test Boring No.: B9
Page: 1 of 1

Project:	920 Exchange - Confirmatory Phase II	Drill Contractor:	Nothngale	Start Date:	5/23/2016
Project #:	190500905	Driller:	J. Schweitzer	Completion Date:	5/23/2016
Client:	City of Rochester	Elevation:	NM	Drilling Method:	Geoprobe, direct push
Location:	920 Exchange St. Rochester, NY	Weather:	70s, sunny	Supervisor:	L. Best

0	SAMPLE PID (ppm)	SAMPLE No.	SAMPLE Rec. (ft)	SAMPLE Depth (ft)	Depth of Strata Change (ft)	Material Description and Remarks
	0.6	1	2.9	0	0.3	GRASS and dark brown TOPSOIL
	1.3					Gray POORLY-GRADED FINE TO COARSE SAND WITH GRAVEL (SW), dry
	1.7				1.1	
						Brown SILTY FINE TO MEDIUM SAND WITH GRAVEL (SM), trace black cinders, dry
						Black cinders 1.4-1.5'
	1.7				2.6	- FILL -
					2.9	Dark brown POORLY-GRADED COARSE SAND (SW) with ash and cinders, dry
				4		No recovery
	1.1	2	3.2		4.5	Brown SILTY FINE TO MEDIUM SAND WITH GRAVEL (SM), trace black cinders, dry
5	1.6				5.0	Black POORLY-GRADED COARSE SAND (SW) with ash and cinders, dry
	1.7				5.3	Brown SILT WITH FINE SAND (ML), moist
	575.3					Gray SILT WITH FINE SAND (ML), moist, slight petroleum odor, streaky black staining
	704.9				6.4	
						Gray CLAYEY SAND WITH FINE GRAVEL (SC), moist, petroleum odor, minor black staining
				8		- NATIVE OVERBURDEN -
	115.3	3	2.4			
						Trace red staining at 9.4'
	202.0					
10	433.5				10.0	
	355.9			10.5		Pulverized and fragmented cobble
						Refusal at 10.5'
15						
20						**Sample** VO-B9-s: 6.4-7.0' at 10:45

Notes:
1. PID Model Mini-Rae 3000 with 10.6eV lamp.

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Test Boring No.: **B10**
Page: **1 of 1**

Project:	920 Exchange - Confirmatory Phase II	Drill Contractor:	Nothngale	Start Date:	5/23/2016
Project #:	190500905	Driller:	J. Schweitzer	Completion Date:	5/23/2016
Client:	City of Rochester	Elevation:	NM	Drilling Method:	Geoprobe, direct push
Location:	920 Exchange St. Rochester, NY	Weather:	70s, sunny	Supervisor:	L. Best

0	SAMPLE PID (ppm)	No.	Rec. (ft)	Depth (ft)	Depth of Strata Change (ft)	Material Description and Remarks
	2.0	1	2.8	0	0.3	GRASS and brown TOPSOIL
	1.4				0.6	Gray WELL-GRADED FINE TO COARSE SAND WITH GRAVEL (SW), dry
	1.3					Brown SILTY MEDIUM TO COARSE SAND WITH GRAVEL (SM), dry
	4.4				1.9	
	0.9					Black CINDERS, gray ASH, and red BRICK fragments
				4		- FILL -
	1.6	2	3.0		4.8	
5	0.9					Brown SILTY FINE TO MEDIUM SAND (SM), dry, black staining 5.1-5.5'
	1.6				5.7	
	0.9					Brown SILTY MEDIUM TO COARSE SAND WITH GRAVEL (SM), moist
					6.3	
	63.1					Dark gray CLAYEY FINE SAND WITH GRAVEL (SC), moist, black staining
				8		- NATIVE OVERBURDEN -
	602.9	3	1.9			Wet at 8', with petroleum odor, black staining
	815.1					Possible petroleum product, slight sheen at 8.9-9.2'
					9.6	
10	133.9					Gray SILTY FINE TO MEDIUM SAND WITH GRAVEL (SM), dry, slight petroleum odor
				10.5		
						Refusal at 10.5'
15						
20						**Sample**
						VO-B10-s: 8.2-9.2' at 11:35

Notes:
1. PID Model Mini-Rae 3000 with 10.6eV lamp.

Stantec

61 Commercial St
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Test Boring No.: **B11a**
Page: **1 of 1**

Project:	920 Exchange - Confirmatory Phase II	Drill Contractor:	Nothngale	Start Date:	5/23/2016
Project #:	190500905	Driller:	J. Schweitzer	Completion Date:	5/23/2016
Client:	City of Rochester	Elevation:	NM	Drilling Method:	Geoprobe, direct push
Location:	920 Exchange St. Rochester, NY	Weather:	70s, sunny	Supervisor:	L. Best

0	SAMPLE PID (ppm)	SAMPLE No.	SAMPLE Rec. (ft)	SAMPLE Depth (ft)	Depth of Strata Change (ft)	Material Description and Remarks
	1.3	1	2.9	0	0.3	GRASS and TOPSOIL
	1.5				0.7	Gray WELL-GRADED FINE TO COARSE SAND WITH GRAVEL (SW), dry
	48				1.1	Brown SILTY MEDIUM SAND, trace gravel and brick, dry, black staining and petroleum odor at 1.5'
	12.8					
	37.5				1.9	Dark gray WELL-GRADED SAND WITH SILT AND GRAVEL (SW-SM), dry, black staining and petroleum odor at 2.1-2.4;
						- FILL -
				4		
	17.8	2	1.5			Same as above with black staining 4.7-5.9', wet black tar-like substance 4.7-5.3'
5	74.9					
					5.9	
				6		Gray WELL-GRADED GRAVEL (GW), dry
						Refusal at 6'
10						
15						
20						**Sample** No sample collected

Notes:

1. PID Model Mini-Rae 3000 with 10.6eV lamp.

Stantec

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Test Boring No.: **B11c**
Page: **1 of 1**

Project:	920 Exchange - Confirmatory Phase II	Drill Contractor:	Nothngale	Start Date:	5/23/2016
Project #:	190500905	Driller:	J. Schweitzer	Completion Date:	5/23/2016
Client:	City of Rochester	Elevation:	NM	Drilling Method:	Geoprobe, direct push
Location:	920 Exchange St. Rochester, NY	Weather:	70s, sunny	Supervisor:	L. Best

	SAMPLE				Depth of Strata Change (ft)	Material Description and Remarks
0	PID (ppm)	No.	Rec. (ft)	Depth (ft)		
	0.6	1	2.5	0	0.2	GRASS and TOPSOIL
	1.3				0.7	Gray WELL-GRADED SAND WITH GRAVEL (SW), dry
						Brown CLAYEY FINE TO MEDIUM SAND (SC), trace gravel moist
	3.2					Dark gray staining and petroleum odor 2-2.5'
	9.4					
						- FILL -
				4		
	46.9	2	1.4			Same, with dark gray to black wet tar-like substance, petroleum odor
5	46.2				5.0	
	126.0					Dark gray DOLOSTONE, dry
				6		- WEATHERED BEDROCK (?) -
						Refusal at 6'
10						
15						
20						**Sample** VO-B11c-s: 4.0-5.3' at 15:00

Notes:

1. PID Model Mini-Rae 3000 with 10.6eV lamp.

Stantec

61 Commercial St
Rochester, NY 14614
(585) 475-1440

Test Boring No.: B12
Page: 1 of 1

Project:	920 Exchange - Confirmatory Phase II	Drill Contractor:	Nothngale	Start Date:	5/23/2016
Project #:	190500905	Driller:	J. Schweitzer	Completion Date:	5/23/2016
Client:	City of Rochester	Elevation:	NM	Drilling Method:	Geoprobe, direct push
Location:	920 Exchange St. Rochester, NY	Weather:	70s, sunny	Supervisor:	L. Best

	SAMPLE				Depth of Strata Change (ft)	Material Description and Remarks
0	PID (ppm)	No.	Rec. (ft)	Depth (ft)		
	0.4	1	3.1	0	0.3	GRASS and TOPSOIL
	0.6				1.2	Brown POORLY-GRADED MEDIUM TO COARSE SAND WITH GRAVEL (SP), trace ash and cinders, dry
					1.3	ASH and CINDERS
	0.7					Brown SILTY MEDIUM TO COARSE SAND WITH GRAVEL (SM), trace clay, moist
						- FILL -
				4		
		2	2.7			Same as above, dark brown with petroleum odor, trace ash and cinders
5	145.5					
					▼ 5.5	
	403.6				6	Dark gray SILTY GRAVEL WITH SAND (SM), wet, petroleum odor, possible product/sheen
	504.2					Gray CLAYEY MEDIUM SAND (SC), moist, petroleum odor
				8		
	392.7	3	1.8			Wet, with gravel at 8'; brownish-yellow petroleum product
	539.5					
						- NATIVE OVERBURDEN -
10	388.5					
				10.7		
						Refusal at 10.7'
15						
20						**Sample** VO-B12-s: 8.4-9.2' at 13:20

Notes:
1. PID Model Mini-Rae 3000 with 10.6eV lamp.

Appendix B
Laboratory Analytical Reports

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

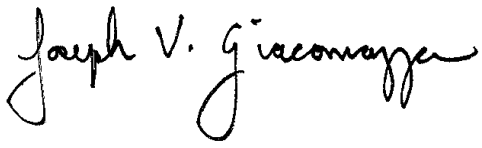
ANALYTICAL REPORT

Job Number: 480-100525-1

Job Description: Former Vacuum Oil Works - Concrete

For:
Stantec Consulting Services Inc
61 Commercial Street
Rochester, NY 14614

Attention: Mr. Thomas D Wells



Approved for release.
Joe V Giacomazza
Project Management Assistant II
6/3/2016 4:45 PM

Designee for
Ryan T VanDette, Project Manager II
10 Hazelwood Drive, Amherst, NY, 14228-2298
(716)504-9830
ryan.vandette@testamericainc.com
06/03/2016

The test results in this report meet all NELAP requirements for analytes for which accreditation is required or available. Any exceptions to the NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. All questions regarding this test report should be directed to the TestAmerica Project Manager who has signed this report.

TestAmerica Buffalo NELAC Certifications: CADPH 01169CA, FLDOH E87672, ILEPA 200003, KSDOH E-10187, LADEQ 30708, MDH 036-999-337, NHELAP 2973, NJDEP NY455, NHDOH 10026, ORELAP NY200003, PADEP 68-00281, TXCEQ T-104704412-10-1

Job Narrative
480-100525-1

Receipt
The samples were received on 5/21/2016 9:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.7º C.

GC/MS VOA
Method(s) 8260C: The following samples were diluted to bring the concentration of target analytes within the calibration range: VO-DRA1-C (480-100525-1), (480-100525-C-1-C MS) and (480-100525-C-1-D MSD). Elevated reporting limits (RLs) are provided.

Method(s) 8260C: Surrogate recovery for the following sample was outside control limits: VO-DRA2-C (480-100525-2). Re-analysis was performed with concurring results. The second analysis has been reported.

Method(s) 8260C: The method blank for preparation batch 480-303913 and analytical batch 480-303910 contained Methylene Chloride above the reporting limit (RL). This compound is considered a common laboratory contaminant. The associated samples were not re-analyzed because the concentration of the common lab contaminant in the method blank was less than 5 times the RL. VO-DRA2-C (480-100525-2)

Method(s) 8260C: Reported analyte concentrations in the following samples are below 200 ug/kg and may be biased low due to the sample not being collected according to 5035-L/5035A-L low-level specifications: VO-DRA2-C (480-100525-2).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA
Method(s) 8270D: The continuing calibration verification (CCV) associated with batch 480-303416 recovered outside acceptance criteria, low biased, for Benzaldehyde. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Since the associated samples were non-detect for this analyte, the data have been reported. VO-DRA1-C (480-100525-1) and VO-DRA2-C (480-100525-2).

Method(s) 8270D: The initial calibration curve analyzed in analytical batch 299919 was outside method criteria for the analyte 2,4-Dinitrophenol. As indicated in the reference method, sample analysis may proceed; however, any detection or non-detection for the affected analyte is considered an estimated concentration.

Method(s) 8270D: The following sample was diluted due to the nature of the sample matrix: VO-DRA1-C (480-100525-1). As such, surrogate recoveries are below the calibration range or are not reported, and elevated reporting limits (RLs) are provided.

Method(s) 8270D: Surrogate recovery for the following sample was outside control limits: VO-DRA2-C (480-100525-2). Re-extraction and re-analysis was performed with concurring results. The original analysis has been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC Semi VOA
Method(s) 8081B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method(s) 8082A: The following sample was diluted due to the nature of the sample matrix: VO-DRA1-C (480-100525-1). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals
Method(s) 6010C: The low level continuing calibration verification (CCVL 480-303864/30) for analytical batch 480-303864 recovered above the upper control limit for Total Barium, Calcium, Iron and Magnesium. The samples associated with this CCVL were either ND for this analyte or contained this analyte at a concentration greater than 10X the value found in the CCVL; therefore, re-analysis of samples VO-DRA1-C (480-100525-1), VO-DRA2-C (480-100525-2), (LCDSRM 480-303360/3-), (LCSSRM 480-303360/2-), (480-100525-B-2-C MS), (480-100525-B-2-D MSD), (480-100525-B-2-B PDS) and (480-100525-B-2-B SD) was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry
Method(s) 9012B, SM 4500 CN G: Total cyanide analysis was performed for sample VO-DRA2-C (480-100525-2), and the result obtained was less that the non-amenable to cyanide result. The sample has been re-preped and this anomaly has been confirmed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep
Method(s) 3550C: Due to the matrix, the following sample could not be concentrated to the final method required volume: VO-DRA1-C (480-100525-1). The reporting limits (RLs) are elevated proportionately.

Method(s) 3550C: The following samples required a Florisil clean-up, via EPA Method 3620C, to reduce matrix interferences: VO-DRA1-C (480-100525-1), VO-DRA2-C (480-100525-2), (480-100525-D-2 MS) and (480-100525-D-2 MSD).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

EXECUTIVE SUMMARY - Detections

Client: Stantec Consulting Services Inc Job Number: 480-100525-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
480-100525-1	**VO-DRA1-C**					
1,2,4-Trimethylbenzene		1100		1000	ug/Kg	8260C
1,3,5-Trimethylbenzene		1200		1000	ug/Kg	8260C
Benzene		200	J	1000	ug/Kg	8260C
Cyclohexane		6300		1000	ug/Kg	8260C
Ethylbenzene		360	J	1000	ug/Kg	8260C
Methyl acetate		1200	F1	1000	ug/Kg	8260C
Methylcyclohexane		30000		1000	ug/Kg	8260C
Methylene Chloride		490	J F1	1000	ug/Kg	8260C
m,p-Xylene		3100		2000	ug/Kg	8260C
Naphthalene		8000	F1	1000	ug/Kg	8260C
o-Xylene		1200	F1	1000	ug/Kg	8260C
Toluene		1000		1000	ug/Kg	8260C
Xylenes, Total		4300		2000	ug/Kg	8260C
2-Methylnaphthalene		5800	J	28000	ug/Kg	8270D
Acenaphthene		8900	J	28000	ug/Kg	8270D
Anthracene		15000	J	28000	ug/Kg	8270D
Benzo[a]anthracene		20000	J	28000	ug/Kg	8270D
Benzo[a]pyrene		11000	J	28000	ug/Kg	8270D
Benzo[b]fluoranthene		15000	J	28000	ug/Kg	8270D
Benzo[g,h,i]perylene		6600	J	28000	ug/Kg	8270D
Chrysene		21000	J	28000	ug/Kg	8270D
Dibenzofuran		7800	J	28000	ug/Kg	8270D
Fluoranthene		57000		28000	ug/Kg	8270D
Fluorene		5400	J	28000	ug/Kg	8270D
Indeno[1,2,3-cd]pyrene		5600	J	28000	ug/Kg	8270D
Naphthalene		11000	J	28000	ug/Kg	8270D
Phenanthrene		75000		28000	ug/Kg	8270D
Pyrene		50000		28000	ug/Kg	8270D
Endrin ketone		85	J	170	ug/Kg	8081B
Aluminum		6920		10.4	mg/Kg	6010C
Arsenic		2.1		2.1	mg/Kg	6010C
Barium		143	^	0.52	mg/Kg	6010C
Beryllium		0.28		0.21	mg/Kg	6010C
Cadmium		0.19	J	0.21	mg/Kg	6010C
Calcium		130000	B ^	52.1	mg/Kg	6010C
Chromium		10.2		0.52	mg/Kg	6010C
Cobalt		3.7		0.52	mg/Kg	6010C
Copper		14.1		1.0	mg/Kg	6010C
Iron		8210	^	10.4	mg/Kg	6010C
Lead		14.8		1.0	mg/Kg	6010C
Magnesium		31300	B ^	20.8	mg/Kg	6010C
Manganese		317		0.21	mg/Kg	6010C
Nickel		12.6		5.2	mg/Kg	6010C
Potassium		2080		31.3	mg/Kg	6010C
Silver		2.6		0.63	mg/Kg	6010C
Sodium		464		146	mg/Kg	6010C

EXECUTIVE SUMMARY - Detections

Client: Stantec Consulting Services Inc Job Number: 480-100525-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
Vanadium		29.1		0.52	mg/Kg	6010C
Zinc		34.8		2.1	mg/Kg	6010C
Mercury		0.021		0.020	mg/Kg	7471B
Percent Moisture		2.3		0.1	%	Moisture
Percent Solids		97.7		0.1	%	Moisture
480-100525-2	**VO-DRA2-C**					
1,2,4-Trimethylbenzene		2.1	J	4.8	ug/Kg	8260C
1,3,5-Trimethylbenzene		0.71	J	4.8	ug/Kg	8260C
Acetone		26	B	24	ug/Kg	8260C
Ethylbenzene		0.63	J	4.8	ug/Kg	8260C
Methylene Chloride		5.6	B	4.8	ug/Kg	8260C
m,p-Xylene		2.8	J	9.6	ug/Kg	8260C
Naphthalene		1.0	J	4.8	ug/Kg	8260C
o-Xylene		0.97	J	4.8	ug/Kg	8260C
Toluene		2.4	J	4.8	ug/Kg	8260C
Xylenes, Total		3.8	J	9.6	ug/Kg	8260C
Fluoranthene		43	J	180	ug/Kg	8270D
Phenanthrene		41	J	180	ug/Kg	8270D
Pyrene		34	J	180	ug/Kg	8270D
delta-BHC		0.65	J	1.7	ug/Kg	8081B
Aluminum		9250		10.4	mg/Kg	6010C
Arsenic		3.2		2.1	mg/Kg	6010C
Barium		84.8	F1 ^	0.52	mg/Kg	6010C
Beryllium		0.35		0.21	mg/Kg	6010C
Cadmium		0.10	J	0.21	mg/Kg	6010C
Calcium		135000	B ^	51.9	mg/Kg	6010C
Chromium		12.1		0.52	mg/Kg	6010C
Cobalt		3.6		0.52	mg/Kg	6010C
Copper		10.0		1.0	mg/Kg	6010C
Iron		8990	^	10.4	mg/Kg	6010C
Lead		5.0		1.0	mg/Kg	6010C
Magnesium		39600	B ^	20.8	mg/Kg	6010C
Manganese		316		0.21	mg/Kg	6010C
Nickel		10.3		5.2	mg/Kg	6010C
Potassium		2890	F1	31.1	mg/Kg	6010C
Silver		0.60	J	0.62	mg/Kg	6010C
Sodium		569		145	mg/Kg	6010C
Vanadium		18.6		0.52	mg/Kg	6010C
Zinc		23.9		2.1	mg/Kg	6010C
Mercury		0.017	J	0.019	mg/Kg	7471B
Cyanide, Total		0.73	J	1.0	mg/Kg	9012B
Percent Moisture		4.2		0.1	%	Moisture
Percent Solids		95.8		0.1	%	Moisture

METHOD SUMMARY

Client: Stantec Consulting Services Inc Job Number: 480-100525-1

Description	Lab Location	Method	Preparation Method
Matrix: Solid			
Volatile Organic Compounds by GC/MS	TAL BUF	SW846 8260C	
Closed System Purge & Trap	TAL BUF		SW846 5035A
Volatile Organic Compounds by GC/MS	TAL BUF	SW846 8260C	
Closed System Purge and Trap	TAL BUF		SW846 5035A
Semivolatile Organic Compounds (GC/MS)	TAL BUF	SW846 8270D	
Ultrasonic Extraction	TAL BUF		SW846 3550C
Organochlorine Pesticides (GC)	TAL BUF	SW846 8081B	
Ultrasonic Extraction	TAL BUF		SW846 3550C
Polychlorinated Biphenyls (PCBs) by Gas Chromatography	TAL BUF	SW846 8082A	
Ultrasonic Extraction	TAL BUF		SW846 3550C
Metals (ICP)	TAL BUF	SW846 6010C	
Preparation, Metals	TAL BUF		SW846 3050B
Mercury (CVAA)	TAL BUF	SW846 7471B	
Preparation, Mercury	TAL BUF		SW846 7471B
Cyanide, Total andor Amenable	TAL BUF	SW846 9012B	
Cyanide, Total and/or Amenable, Distillation	TAL BUF		SW846 9012B
Percent Moisture	TAL BUF	EPA Moisture	
Cyanide, Amenable	TAL BUF	SM SM 4500 CN G	

Lab References:

TAL BUF = TestAmerica Buffalo

Method References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: Stantec Consulting Services Inc

Job Number: 480-100525-1

Method	Analyst	Analyst ID
SW846 8260C	Gentile, Joseph W	JWG
SW846 8260C	O'Brien, Shaun W	SWO
SW846 8270D	Wolf, Leah M	LMW
SW846 8081B	Neary, Mary A	MAN
SW846 8082A	Owen, Joshua M	JMO
SW846 6010C	Brandt, Todd R	TRB
SW846 7471B	Kacalski, Jason R	JRK
SW846 9012B	Ferguson, Katelyn M	KMF
SW846 9012B	Jones, Zachary R	ZRJ
EPA Moisture	Kolb, Chris M	CMK
SM SM 4500 CN G	Hanks, Lisa M	LMH

SAMPLE SUMMARY

Client: Stantec Consulting Services Inc

Job Number: 480-100525-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
480-100525-1	VO-DRA1-C	Solid	05/20/2016 1155	05/21/2016 0900
480-100525-2	VO-DRA2-C	Solid	05/20/2016 1215	05/21/2016 0900

SAMPLE RESULTS

Client: Stantec Consulting Services Inc | Job Number: 480-100525-1

Client Sample ID: **VO-DRA1-C**

Lab Sample ID: 480-100525-1 | Date Sampled: 05/20/2016 1155
Client Matrix: Solid | Date Received: 05/21/2016 0900

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-303774	Instrument ID:	HP5973N
Prep Method:	5035A	Prep Batch:	480-303638	Lab File ID:	N3874.D
Dilution:	10			Initial Weight/Volume:	5.01 g
Analysis Date:	05/26/2016 1614			Final Weight/Volume:	10 mL
Prep Date:	05/25/2016 1446				

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	MDL	RL
1,1,1-Trichloroethane		ND	F1	280	1000
1,1,2,2-Tetrachloroethane		ND		160	1000
1,1,2-Trichloro-1,2,2-trifluoroethane		ND	F1	500	1000
1,1,2-Trichloroethane		ND		210	1000
1,1-Dichloroethane		ND		310	1000
1,1-Dichloroethene		ND		350	1000
1,2,4-Trichlorobenzene		ND		380	1000
1,2,4-Trimethylbenzene		1100		280	1000
1,2-Dibromo-3-Chloropropane		ND		500	1000
1,2-Dichlorobenzene		ND		250	1000
1,2-Dichloroethane		ND		410	1000
1,2-Dichloropropane		ND		160	1000
1,3,5-Trimethylbenzene		1200		300	1000
1,3-Dichlorobenzene		ND		270	1000
1,4-Dichlorobenzene		ND		140	1000
2-Butanone (MEK)		ND		3000	5000
2-Hexanone		ND	F1	2000	5000
4-Isopropyltoluene		ND		340	1000
4-Methyl-2-pentanone (MIBK)		ND		320	5000
Acetone		ND		4100	5000
Benzene		200	J	190	1000
Bromoform		ND		500	1000
Bromomethane		ND		220	1000
Carbon disulfide		ND		450	1000
Carbon tetrachloride		ND		250	1000
Chlorobenzene		ND		130	1000
Dibromochloromethane		ND		480	1000
Chloroethane		ND		210	1000
Chloroform		ND		680	1000
Chloromethane		ND		240	1000
cis-1,2-Dichloroethene		ND		280	1000
Cyclohexane		6300		220	1000
Bromodichloromethane		ND		200	1000
Dichlorodifluoromethane		ND	F2	440	1000
Ethylbenzene		360	J	290	1000
1,2-Dibromoethane		ND		170	1000
Isopropylbenzene		ND		150	1000
Methyl acetate		1200	F1	480	1000
Methyl tert-butyl ether		ND		380	1000
Methylcyclohexane		30000		470	1000
Methylene Chloride		490	J F1	200	1000
m,p-Xylene		3100		550	2000
Naphthalene		8000	F1	340	1000
n-Butylbenzene		ND		290	1000
N-Propylbenzene		ND		260	1000
o-Xylene		1200	F1	130	1000

Client: Stantec Consulting Services Inc | Job Number: 480-100525-1

Client Sample ID: **VO-DRA1-C**

Lab Sample ID: 480-100525-1 | Date Sampled: 05/20/2016 1155
Client Matrix: Solid | Date Received: 05/21/2016 0900

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-303774	Instrument ID:	HP5973N
Prep Method:	5035A	Prep Batch:	480-303638	Lab File ID:	N3874.D
Dilution:	10			Initial Weight/Volume:	5.01 g
Analysis Date:	05/26/2016 1614			Final Weight/Volume:	10 mL
Prep Date:	05/25/2016 1446				

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	MDL	RL
sec-Butylbenzene		ND		370	1000
Tetrachloroethene		ND		130	1000
Toluene		1000		270	1000
trans-1,2-Dichloroethene		ND		240	1000
trans-1,3-Dichloropropene		ND		98	1000
Trichloroethene		ND	F1	280	1000
Trichlorofluoromethane		ND	F2	470	1000
Vinyl chloride		ND		330	1000
Xylenes, Total		4300		550	2000
cis-1,3-Dichloropropene		ND		240	1000
Styrene		ND		240	1000
tert-Butylbenzene		ND		280	1000

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	100		53 - 146
4-Bromofluorobenzene (Surr)	110		49 - 148
Toluene-d8 (Surr)	101		50 - 149
Dibromofluoromethane (Surr)	100		60 - 140

Client: Stantec Consulting Services Inc | Job Number: 480-100525-1

Client Sample ID: **VO-DRA1-C**

Lab Sample ID: 480-100525-1 | Date Sampled: 05/20/2016 1155
Client Matrix: Solid | Date Received: 05/21/2016 0900

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-303774	Instrument ID:	HP5973N
Prep Method:	5035A	Prep Batch:	480-303638	Lab File ID:	N3874.D
Dilution:	10			Initial Weight/Volume:	5.01 g
Analysis Date:	05/26/2016 1614			Final Weight/Volume:	10 mL
Prep Date:	05/25/2016 1446				

Tentatively Identified Compounds **Number TIC's Found: 10**

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
	Unknown	6.29	3700	T J
	Unknown	6.79	5600	T J
638-04-0	Cyclohexane, 1,3-dimethyl-, cis-	6.99	20000	T J N
589-43-5	Hexane, 2,4-dimethyl-	7.21	3300	T J N
6876-23-9	Cyclohexane, 1,2-dimethyl-, trans-	7.36	8000	T J N
2207-03-6	Cyclohexane, 1,3-dimethyl-, trans-	7.48	5200	T J N
1678-91-7	Cyclohexane, ethyl-	7.95	4500	T J N
3073-66-3	Cyclohexane, 1,1,3-trimethyl-	8.00	4300	T J N
7094-26-0	Cyclohexane, 1,1,2-trimethyl-	8.24	7500	T J N
7785-70-8	1R-.alpha.-Pinene	9.57	4500	T J N

Client: Stantec Consulting Services Inc | Job Number: 480-100525-1

Client Sample ID: **VO-DRA2-C**

Lab Sample ID: 480-100525-2 | Date Sampled: 05/20/2016 1215
Client Matrix: Solid | Date Received: 05/21/2016 0900

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-303910	Instrument ID:	HP5973F
Prep Method:	5035A	Prep Batch:	480-303913	Lab File ID:	F6724.D
Dilution:	1.0			Initial Weight/Volume:	5.21 g
Analysis Date:	05/27/2016 0213			Final Weight/Volume:	5 mL
Prep Date:	05/26/2016 1707				

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	MDL	RL
1,1,1-Trichloroethane		ND		0.35	4.8
1,1,2,2-Tetrachloroethane		ND		0.78	4.8
1,1,2-Trichloro-1,2,2-trifluoroethane		ND		1.1	4.8
1,1,2-Trichloroethane		ND		0.62	4.8
1,1-Dichloroethane		ND		0.59	4.8
1,1-Dichloroethene		ND		0.59	4.8
1,2,4-Trichlorobenzene		ND		0.29	4.8
1,2,4-Trimethylbenzene		2.1	J	0.92	4.8
1,2-Dibromo-3-Chloropropane		ND		2.4	4.8
1,2-Dichlorobenzene		ND		0.38	4.8
1,2-Dichloroethane		ND		0.24	4.8
1,2-Dichloropropane		ND		2.4	4.8
1,3,5-Trimethylbenzene		0.71	J	0.31	4.8
1,3-Dichlorobenzene		ND		0.25	4.8
1,4-Dichlorobenzene		ND		0.67	4.8
2-Butanone (MEK)		ND		1.8	24
2-Hexanone		ND		2.4	24
4-Isopropyltoluene		ND		0.38	4.8
4-Methyl-2-pentanone (MIBK)		ND		1.6	24
Acetone		26	B	4.0	24
Benzene		ND		0.24	4.8
Bromoform		ND		2.4	4.8
Bromomethane		ND		0.43	4.8
Carbon disulfide		ND		2.4	4.8
Carbon tetrachloride		ND		0.46	4.8
Chlorobenzene		ND		0.63	4.8
Dibromochloromethane		ND		0.61	4.8
Chloroethane		ND		1.1	4.8
Chloroform		ND		0.30	4.8
Chloromethane		ND		0.29	4.8
cis-1,2-Dichloroethene		ND		0.61	4.8
Cyclohexane		ND		0.67	4.8
Bromodichloromethane		ND		0.64	4.8
Dichlorodifluoromethane		ND		0.40	4.8
Ethylbenzene		0.63	J	0.33	4.8
1,2-Dibromoethane		ND		0.62	4.8
Isopropylbenzene		ND		0.72	4.8
Methyl acetate		ND		2.9	4.8
Methyl tert-butyl ether		ND		0.47	4.8
Methylcyclohexane		ND		0.73	4.8
Methylene Chloride		5.6	B	2.2	4.8
m,p-Xylene		2.8	J	0.81	9.6
Naphthalene		1.0	J	0.64	4.8
n-Butylbenzene		ND		0.42	4.8
N-Propylbenzene		ND		0.38	4.8
o-Xylene		0.97	J	0.63	4.8

Client: Stantec Consulting Services Inc | Job Number: 480-100525-1

Client Sample ID: **VO-DRA2-C**

Lab Sample ID: 480-100525-2 | Date Sampled: 05/20/2016 1215
Client Matrix: Solid | Date Received: 05/21/2016 0900

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-303910	Instrument ID:	HP5973F
Prep Method:	5035A	Prep Batch:	480-303913	Lab File ID:	F6724.D
Dilution:	1.0			Initial Weight/Volume:	5.21 g
Analysis Date:	05/27/2016 0213			Final Weight/Volume:	5 mL
Prep Date:	05/26/2016 1707				

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	MDL	RL
sec-Butylbenzene		ND		0.42	4.8
Tetrachloroethene		ND		0.64	4.8
Toluene		2.4	J	0.36	4.8
trans-1,2-Dichloroethene		ND		0.50	4.8
trans-1,3-Dichloropropene		ND		2.1	4.8
Trichloroethene		ND		1.1	4.8
Trichlorofluoromethane		ND		0.45	4.8
Vinyl chloride		ND		0.59	4.8
Xylenes, Total		3.8	J	0.81	9.6
cis-1,3-Dichloropropene		ND		0.69	4.8
Styrene		ND		0.24	4.8
tert-Butylbenzene		ND		0.50	4.8

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	98		64 - 126
4-Bromofluorobenzene (Surr)	111		72 - 126
Toluene-d8 (Surr)	95		71 - 125
Dibromofluoromethane (Surr)	34	X	60 - 140

Client: Stantec Consulting Services Inc Job Number: 480-100525-1

Client Sample ID: **VO-DRA2-C**

Lab Sample ID: 480-100525-2 Date Sampled: 05/20/2016 1215
Client Matrix: Solid Date Received: 05/21/2016 0900

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-303910	Instrument ID:	HP5973F
Prep Method:	5035A	Prep Batch:	480-303913	Lab File ID:	F6724.D
Dilution:	1.0			Initial Weight/Volume:	5.21 g
Analysis Date:	05/27/2016 0213			Final Weight/Volume:	5 mL
Prep Date:	05/26/2016 1707				

Tentatively Identified Compounds **Number TIC's Found: 0**

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
	Tentatively Identified Compound		None	

Client: Stantec Consulting Services Inc | Job Number: 480-100525-1

Client Sample ID: **VO-DRA1-C**

Lab Sample ID: 480-100525-1 | Date Sampled: 05/20/2016 1155
Client Matrix: Solid | % Moisture: 2.3 | Date Received: 05/21/2016 0900

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	480-303416	Instrument ID:	HP5973X
Prep Method:	3550C	Prep Batch:	480-303069	Lab File ID:	X00905256.D
Dilution:	20			Initial Weight/Volume:	30.30 g
Analysis Date:	05/25/2016 0537			Final Weight/Volume:	8 mL
Prep Date:	05/23/2016 1158			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Biphenyl		ND		4100	28000
bis (2-chloroisopropyl) ether		ND		5500	28000
2,4,5-Trichlorophenol		ND		7500	28000
2,4,6-Trichlorophenol		ND		5500	28000
2,4-Dichlorophenol		ND		2900	28000
2,4-Dimethylphenol		ND		6600	28000
2,4-Dinitrophenol		ND		130000	270000
2,4-Dinitrotoluene		ND		5700	28000
2,6-Dinitrotoluene		ND		3200	28000
2-Chloronaphthalene		ND		4500	28000
2-Chlorophenol		ND		5000	28000
2-Methylnaphthalene		5800	J	5500	28000
2-Methylphenol		ND		3200	28000
2-Nitroaniline		ND		4100	53000
2-Nitrophenol		ND		7800	28000
3,3'-Dichlorobenzidine		ND		32000	53000
3-Nitroaniline		ND		7600	53000
4,6-Dinitro-2-methylphenol		ND		28000	53000
4-Bromophenyl phenyl ether		ND		3900	28000
4-Chloro-3-methylphenol		ND		6800	28000
4-Chloroaniline		ND		6800	28000
4-Chlorophenyl phenyl ether		ND		3400	28000
4-Methylphenol		ND		3200	53000
4-Nitroaniline		ND		14000	53000
4-Nitrophenol		ND		19000	53000
Acenaphthene		8900	J	4100	28000
Acenaphthylene		ND		3600	28000
Acetophenone		ND		3700	28000
Anthracene		15000	J	6800	28000
Atrazine		ND		9600	28000
Benzaldehyde		ND		22000	28000
Benzo[a]anthracene		20000	J	2800	28000
Benzo[a]pyrene		11000	J	4100	28000
Benzo[b]fluoranthene		15000	J	4400	28000
Benzo[g,h,i]perylene		6600	J	2900	28000
Benzo[k]fluoranthene		ND		3600	28000
Bis(2-chloroethoxy)methane		ND		5800	28000
Bis(2-chloroethyl)ether		ND		3600	28000
Bis(2-ethylhexyl) phthalate		ND		9400	28000
Butyl benzyl phthalate		ND		4500	28000
Caprolactam		ND		8300	28000
Carbazole		ND		3200	28000
Chrysene		21000	J	6200	28000
Di-n-butyl phthalate		ND		4700	28000
Di-n-octyl phthalate		ND		3200	28000
Dibenz(a,h)anthracene		ND		4900	28000

Client: Stantec Consulting Services Inc | Job Number: 480-100525-1

Client Sample ID: **VO-DRA1-C**

Lab Sample ID: 480-100525-1 | Date Sampled: 05/20/2016 1155
Client Matrix: Solid | % Moisture: 2.3 | Date Received: 05/21/2016 0900

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	480-303416	Instrument ID:	HP5973X
Prep Method:	3550C	Prep Batch:	480-303069	Lab File ID:	X00905256.D
Dilution:	20			Initial Weight/Volume:	30.30 g
Analysis Date:	05/25/2016 0537			Final Weight/Volume:	8 mL
Prep Date:	05/23/2016 1158			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Dibenzofuran		7800	J	3200	28000
Diethyl phthalate		ND		3600	28000
Dimethyl phthalate		ND		3200	28000
Fluoranthene		57000		2900	28000
Fluorene		5400	J	3200	28000
Hexachlorobenzene		ND		3700	28000
Hexachlorobutadiene		ND		4100	28000
Hexachlorocyclopentadiene		ND		3700	28000
Hexachloroethane		ND		3600	28000
Indeno[1,2,3-cd]pyrene		5600	J	3400	28000
Isophorone		ND		5800	28000
N-Nitrosodi-n-propylamine		ND		4700	28000
N-Nitrosodiphenylamine		ND		22000	28000
Naphthalene		11000	J	3600	28000
Nitrobenzene		ND		3100	28000
Pentachlorophenol		ND		28000	53000
Phenanthrene		75000		4100	28000
Phenol		ND		4200	28000
Pyrene		50000		3200	28000

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol	0	X	39 - 146
2-Fluorobiphenyl	0	X	37 - 120
2-Fluorophenol	0	X	18 - 120
Nitrobenzene-d5	0	X	34 - 132
p-Terphenyl-d14	0	X	65 - 153
Phenol-d5	0	X	11 - 120

Client: Stantec Consulting Services Inc | Job Number: 480-100525-1

Client Sample ID: **VO-DRA1-C**

Lab Sample ID: 480-100525-1 | Date Sampled: 05/20/2016 1155
Client Matrix: Solid | % Moisture: 2.3 | Date Received: 05/21/2016 0900

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	480-303416	Instrument ID:	HP5973X
Prep Method:	3550C	Prep Batch:	480-303069	Lab File ID:	X00905256.D
Dilution:	20			Initial Weight/Volume:	30.30 g
Analysis Date:	05/25/2016 0537			Final Weight/Volume:	8 mL
Prep Date:	05/23/2016 1158			Injection Volume:	1 uL

Tentatively Identified Compounds **Number TIC's Found: 5**

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
	Unknown	4.51	96000	T J
	Unknown	11.18	26000	T J
112-95-8	Eicosane	12.37	25000	T J N
3892-00-0	Pentadecane, 2,6,10-trimethyl-	12.62	37000	T J N
	Unknown	13.03	32000	T J

Client: Stantec Consulting Services Inc | Job Number: 480-100525-1

Client Sample ID: **VO-DRA2-C**

Lab Sample ID: 480-100525-2 | Date Sampled: 05/20/2016 1215
Client Matrix: Solid | % Moisture: 4.2 | Date Received: 05/21/2016 0900

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	480-303416	Instrument ID:	HP5973X
Prep Method:	3550C	Prep Batch:	480-303069	Lab File ID:	X00905257.D
Dilution:	1.0			Initial Weight/Volume:	30.21 g
Analysis Date:	05/25/2016 0605			Final Weight/Volume:	1 mL
Prep Date:	05/23/2016 1158			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Biphenyl		ND		26	180
bis (2-chloroisopropyl) ether		ND		35	180
2,4,5-Trichlorophenol		ND		48	180
2,4,6-Trichlorophenol		ND		35	180
2,4-Dichlorophenol		ND		19	180
2,4-Dimethylphenol		ND		43	180
2,4-Dinitrophenol		ND		810	1700
2,4-Dinitrotoluene		ND		36	180
2,6-Dinitrotoluene		ND		21	180
2-Chloronaphthalene		ND		29	180
2-Chlorophenol		ND		32	180
2-Methylnaphthalene		ND		35	180
2-Methylphenol		ND		21	180
2-Nitroaniline		ND		26	340
2-Nitrophenol		ND		50	180
3,3'-Dichlorobenzidine		ND		210	340
3-Nitroaniline		ND		49	340
4,6-Dinitro-2-methylphenol		ND		180	340
4-Bromophenyl phenyl ether		ND		25	180
4-Chloro-3-methylphenol		ND		44	180
4-Chloroaniline		ND		44	180
4-Chlorophenyl phenyl ether		ND		22	180
4-Methylphenol		ND		21	340
4-Nitroaniline		ND		92	340
4-Nitrophenol		ND		120	340
Acenaphthene		ND		26	180
Acenaphthylene		ND		23	180
Acetophenone		ND		24	180
Anthracene		ND		44	180
Atrazine		ND		61	180
Benzaldehyde		ND		140	180
Benzo[a]anthracene		ND		18	180
Benzo[a]pyrene		ND		26	180
Benzo[b]fluoranthene		ND		28	180
Benzo[g,h,i]perylene		ND		19	180
Benzo[k]fluoranthene		ND		23	180
Bis(2-chloroethoxy)methane		ND		37	180
Bis(2-chloroethyl)ether		ND		23	180
Bis(2-ethylhexyl) phthalate		ND		60	180
Butyl benzyl phthalate		ND		29	180
Caprolactam		ND		53	180
Carbazole		ND		21	180
Chrysene		ND		39	180
Di-n-butyl phthalate		ND		30	180
Di-n-octyl phthalate		ND		21	180
Dibenz(a,h)anthracene		ND		31	180

Client: Stantec Consulting Services Inc | Job Number: 480-100525-1

Client Sample ID: **VO-DRA2-C**

Lab Sample ID: 480-100525-2 | Date Sampled: 05/20/2016 1215
Client Matrix: Solid | % Moisture: 4.2 | Date Received: 05/21/2016 0900

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	480-303416	Instrument ID:	HP5973X
Prep Method:	3550C	Prep Batch:	480-303069	Lab File ID:	X00905257.D
Dilution:	1.0			Initial Weight/Volume:	30.21 g
Analysis Date:	05/25/2016 0605			Final Weight/Volume:	1 mL
Prep Date:	05/23/2016 1158			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Dibenzofuran		ND		21	180
Diethyl phthalate		ND		23	180
Dimethyl phthalate		ND		21	180
Fluoranthene		43	J	19	180
Fluorene		ND		21	180
Hexachlorobenzene		ND		24	180
Hexachlorobutadiene		ND		26	180
Hexachlorocyclopentadiene		ND		24	180
Hexachloroethane		ND		23	180
Indeno[1,2,3-cd]pyrene		ND		22	180
Isophorone		ND		37	180
N-Nitrosodi-n-propylamine		ND		30	180
N-Nitrosodiphenylamine		ND		140	180
Naphthalene		ND		23	180
Nitrobenzene		ND		20	180
Pentachlorophenol		ND		180	340
Phenanthrene		41	J	26	180
Phenol		ND		27	180
Pyrene		34	J	21	180

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol	0	X	39 - 146
2-Fluorobiphenyl	84		37 - 120
2-Fluorophenol	0.7	X	18 - 120
Nitrobenzene-d5	79		34 - 132
p-Terphenyl-d14	87		65 - 153
Phenol-d5	11		11 - 120

Client: Stantec Consulting Services Inc | Job Number: 480-100525-1

Client Sample ID: **VO-DRA2-C**

Lab Sample ID: 480-100525-2 | Date Sampled: 05/20/2016 1215
Client Matrix: Solid | % Moisture: 4.2 | Date Received: 05/21/2016 0900

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	480-303416	Instrument ID:	HP5973X
Prep Method:	3550C	Prep Batch:	480-303069	Lab File ID:	X00905257.D
Dilution:	1.0			Initial Weight/Volume:	30.21 g
Analysis Date:	05/25/2016 0605			Final Weight/Volume:	1 mL
Prep Date:	05/23/2016 1158			Injection Volume:	1 uL

Tentatively Identified Compounds **Number TIC's Found: 19**

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
	Unknown	1.72	950	T J
	Unknown	1.88	300	T J
	Unknown	1.98	1900	T J
	Unknown	4.17	790	T J
	Unknown	4.60	83000	T J
79-34-5	Ethane, 1,1,2,2-tetrachloro-	5.56	390	T J N
629-62-9	Pentadecane	10.12	190	T J N
544-76-3	Hexadecane	10.67	210	T J N
629-78-7	Heptadecane	11.16	320	T J N
593-45-3	Octadecane	11.60	200	T J N
629-92-5	Nonadecane	11.99	200	T J N
112-95-8	Eicosane	12.36	190	T J N
629-97-0	Docosane	13.03	230	T J N
638-67-5	Tricosane	13.34	250	T J N
112-95-8	Eicosane	13.63	270	T J N
629-94-7	Heneicosane	13.74	280	T J N
54833-48-6	Heptadecane, 2,6,10,15-tetramethyl-	14.21	280	T J N
	Unknown	14.30	270	T J
	Unknown	14.57	330	T J

Client: Stantec Consulting Services Inc | Job Number: 480-100525-1

Client Sample ID: **VO-DRA1-C**

Lab Sample ID: 480-100525-1 | Date Sampled: 05/20/2016 1155
Client Matrix: Solid | % Moisture: 2.3 | Date Received: 05/21/2016 0900

8081B Organochlorine Pesticides (GC)

Analysis Method:	8081B	Analysis Batch:	480-303506	Instrument ID:	HP6890-5
Prep Method:	3550C	Prep Batch:	480-303283	Initial Weight/Volume:	30.76 g
Dilution:	100			Final Weight/Volume:	10 mL
Analysis Date:	05/25/2016 1443			Injection Volume:	1 uL
Prep Date:	05/24/2016 0802			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
4,4'-DDD		ND		32	170
4,4'-DDE		ND		35	170
4,4'-DDT		ND		39	170
Aldrin		ND		41	170
alpha-BHC		ND		30	170
alpha-Chlordane		ND		83	170
beta-BHC		ND		30	170
delta-BHC		ND		31	170
Dieldrin		ND		40	170
Endosulfan I		ND		32	170
Endosulfan II		ND		30	170
Endosulfan sulfate		ND		31	170
Endrin		ND		33	170
Endrin aldehyde		ND		43	170
gamma-BHC (Lindane)		ND		31	170
Endrin ketone		85	J	41	170
gamma-Chlordane		ND		53	170
Heptachlor		ND		36	170
Heptachlor epoxide		ND		43	170
Methoxychlor		ND		34	170
Toxaphene		ND		970	1700

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	0	X	32 - 136
Tetrachloro-m-xylene	0	X	30 - 124

Client: Stantec Consulting Services Inc | Job Number: 480-100525-1

Client Sample ID: **VO-DRA2-C**

Lab Sample ID: 480-100525-2 | Date Sampled: 05/20/2016 1215
Client Matrix: Solid | % Moisture: 4.2 | Date Received: 05/21/2016 0900

8081B Organochlorine Pesticides (GC)

Analysis Method:	8081B	Analysis Batch:	480-303506	Instrument ID:	HP6890-5
Prep Method:	3550C	Prep Batch:	480-303283	Initial Weight/Volume:	30.08 g
Dilution:	1.0			Final Weight/Volume:	10 mL
Analysis Date:	05/25/2016 1423			Injection Volume:	1 uL
Prep Date:	05/24/2016 0802			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
4,4'-DDD		ND		0.34	1.7
4,4'-DDE		ND		0.36	1.7
4,4'-DDT		ND		0.41	1.7
Aldrin		ND		0.43	1.7
alpha-BHC		ND		0.31	1.7
alpha-Chlordane		ND		0.86	1.7
beta-BHC		ND		0.31	1.7
delta-BHC		0.65	J	0.32	1.7
Dieldrin		ND		0.42	1.7
Endosulfan I		ND	F2 F1	0.33	1.7
Endosulfan II		ND	F2 F1	0.31	1.7
Endosulfan sulfate		ND		0.32	1.7
Endrin		ND		0.34	1.7
Endrin aldehyde		ND		0.44	1.7
gamma-BHC (Lindane)		ND	F1	0.32	1.7
Endrin ketone		ND		0.43	1.7
gamma-Chlordane		ND		0.55	1.7
Heptachlor		ND		0.38	1.7
Heptachlor epoxide		ND		0.45	1.7
Methoxychlor		ND		0.35	1.7
Toxaphene		ND		10	17

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	72		32 - 136
Tetrachloro-m-xylene	58		30 - 124

Client: Stantec Consulting Services Inc

Job Number: 480-100525-1

Client Sample ID: **VO-DRA1-C**

Lab Sample ID: 480-100525-1
Client Matrix: Solid

Date Sampled: 05/20/2016 1155
Date Received: 05/21/2016 0900

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082A	Analysis Batch:	480-303462	Instrument ID:	HP6890-7
Prep Method:	3550C	Prep Batch:	480-303293	Initial Weight/Volume:	2.07 g
Dilution:	5.0			Final Weight/Volume:	10 mL
Analysis Date:	05/25/2016 0345			Injection Volume:	1 uL
Prep Date:	05/24/2016 0810			Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	MDL	RL
PCB-1016		ND		0.24	1.2
PCB-1221		ND		0.24	1.2
PCB-1232		ND		0.24	1.2
PCB-1242		ND		0.24	1.2
PCB-1248		ND		0.24	1.2
PCB-1254		ND		0.57	1.2
PCB-1260		ND		0.57	1.2

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	106		60 - 154
DCB Decachlorobiphenyl	109		65 - 174

Client: Stantec Consulting Services Inc

Job Number: 480-100525-1

Client Sample ID: **VO-DRA2-C**

Lab Sample ID: 480-100525-2
Client Matrix: Solid

Date Sampled: 05/20/2016 1215
Date Received: 05/21/2016 0900

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082A	Analysis Batch:	480-303462	Instrument ID:	HP6890-7
Prep Method:	3550C	Prep Batch:	480-303293	Initial Weight/Volume:	2.22 g
Dilution:	1.0			Final Weight/Volume:	10 mL
Analysis Date:	05/25/2016 0309			Injection Volume:	1 uL
Prep Date:	05/24/2016 0810			Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	MDL	RL
PCB-1016		ND		0.044	0.23
PCB-1221		ND		0.044	0.23
PCB-1232		ND		0.044	0.23
PCB-1242		ND		0.044	0.23
PCB-1248		ND		0.044	0.23
PCB-1254		ND		0.11	0.23
PCB-1260		ND		0.11	0.23

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	108		60 - 154
DCB Decachlorobiphenyl	129		65 - 174

Client: Stantec Consulting Services Inc | Job Number: 480-100525-1

Client Sample ID: **VO-DRA1-C**

Lab Sample ID: 480-100525-1 | Date Sampled: 05/20/2016 1155
Client Matrix: Solid | % Moisture: 2.3 | Date Received: 05/21/2016 0900

6010C Metals (ICP)

Analysis Method:	6010C	Analysis Batch:	480-303864	Instrument ID:	ICAP2
Prep Method:	3050B	Prep Batch:	480-303360	Lab File ID:	I2052616A-1.asc
Dilution:	1.0			Initial Weight/Volume:	+0.4908 g
Analysis Date:	05/26/2016 1318			Final Weight/Volume:	50 mL
Prep Date:	05/25/2016 1445				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		6920		4.6	10.4
Antimony		ND		0.42	15.6
Arsenic		2.1		0.42	2.1
Barium		143	^	0.11	0.52
Beryllium		0.28		0.029	0.21
Cadmium		0.19	J	0.031	0.21
Calcium		130000	B ^	3.4	52.1
Chromium		10.2		0.21	0.52
Cobalt		3.7		0.052	0.52
Copper		14.1		0.22	1.0
Iron		8210	^	3.6	10.4
Lead		14.8		0.25	1.0
Magnesium		31300	B ^	0.97	20.8
Nickel		12.6		0.24	5.2
Potassium		2080		20.8	31.3
Selenium		ND		0.42	4.2
Silver		2.6		0.21	0.63
Sodium		464		13.6	146
Thallium		ND		0.31	6.3
Vanadium		29.1		0.11	0.52
Zinc		34.8		0.67	2.1

Analysis Method:	6010C	Analysis Batch:	480-304266	Instrument ID:	ICAP2
Prep Method:	3050B	Prep Batch:	480-303360	Lab File ID:	I2052816A-7.asc
Dilution:	1.0			Initial Weight/Volume:	+0.4908 g
Analysis Date:	05/28/2016 2037			Final Weight/Volume:	50 mL
Prep Date:	05/25/2016 1445				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Manganese		317		0.033	0.21

7471B Mercury (CVAA)

Analysis Method:	7471B	Analysis Batch:	480-303378	Instrument ID:	LEEMAN3
Prep Method:	7471B	Prep Batch:	480-303181	Lab File ID:	J05246S1.PRN
Dilution:	1.0			Initial Weight/Volume:	+0.6050 g
Analysis Date:	05/24/2016 1041			Final Weight/Volume:	50 mL
Prep Date:	05/24/2016 0715				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.021		0.0080	0.020

Client: Stantec Consulting Services Inc | Job Number: 480-100525-1

Client Sample ID: **VO-DRA2-C**

Lab Sample ID: 480-100525-2 | Date Sampled: 05/20/2016 1215
Client Matrix: Solid | % Moisture: 4.2 | Date Received: 05/21/2016 0900

6010C Metals (ICP)

Analysis Method:	6010C	Analysis Batch:	480-303864	Instrument ID:	ICAP2
Prep Method:	3050B	Prep Batch:	480-303360	Lab File ID:	I2052616A-1.asc
Dilution:	1.0			Initial Weight/Volume:	+0.5029 g
Analysis Date:	05/26/2016 1321			Final Weight/Volume:	50 mL
Prep Date:	05/25/2016 1445				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		9250		4.6	10.4
Antimony		ND	F1	0.42	15.6
Arsenic		3.2		0.42	2.1
Barium		84.8	F1 ^	0.11	0.52
Beryllium		0.35		0.029	0.21
Cadmium		0.10	J	0.031	0.21
Calcium		135000	B ^	3.4	51.9
Chromium		12.1		0.21	0.52
Cobalt		3.6		0.052	0.52
Copper		10.0		0.22	1.0
Iron		8990	^	3.6	10.4
Lead		5.0		0.25	1.0
Magnesium		39600	B ^	0.96	20.8
Nickel		10.3		0.24	5.2
Potassium		2890	F1	20.8	31.1
Selenium		ND		0.42	4.2
Silver		0.60	J	0.21	0.62
Sodium		569		13.5	145
Thallium		ND		0.31	6.2
Vanadium		18.6		0.11	0.52
Zinc		23.9		0.66	2.1

Analysis Method:	6010C	Analysis Batch:	480-304266	Instrument ID:	ICAP2
Prep Method:	3050B	Prep Batch:	480-303360	Lab File ID:	I2052816A-7.asc
Dilution:	1.0			Initial Weight/Volume:	+0.5029 g
Analysis Date:	05/28/2016 2040			Final Weight/Volume:	50 mL
Prep Date:	05/25/2016 1445				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Manganese		316		0.033	0.21

7471B Mercury (CVAA)

Analysis Method:	7471B	Analysis Batch:	480-303378	Instrument ID:	LEEMAN3
Prep Method:	7471B	Prep Batch:	480-303181	Lab File ID:	J05246S1.PRN
Dilution:	1.0			Initial Weight/Volume:	+0.6330 g
Analysis Date:	05/24/2016 1043			Final Weight/Volume:	50 mL
Prep Date:	05/24/2016 0715				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.017	J	0.0077	0.019

General Chemistry

Client Sample ID: **VO-DRA1-C**

Lab Sample ID: 480-100525-1 Date Sampled: 05/20/2016 1155
Client Matrix: Solid % Moisture: 2.3 Date Received: 05/21/2016 0900

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Cyanide, Total	ND		mg/Kg	0.48	0.99	1.0	9012B
Analysis Batch: 480-304742	Analysis Date: 06/02/2016 1133						DryWt Corrected: Y
Prep Batch: 480-304591	Prep Date: 06/01/2016 1455						
Cyanide, Amenable	ND		mg/Kg	0.49	1.0	1.0	SM 4500 CN G
Analysis Batch: 480-305008	Analysis Date: 06/03/2016 1448						DryWt Corrected: Y

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	2.3		%	0.1	0.1	1.0	Moisture
Analysis Batch: 480-303012	Analysis Date: 05/21/2016 1535						DryWt Corrected: N
Percent Solids	97.7		%	0.1	0.1	1.0	Moisture
Analysis Batch: 480-303012	Analysis Date: 05/21/2016 1535						DryWt Corrected: N

General Chemistry

Client Sample ID: **VO-DRA2-C**

Lab Sample ID: 480-100525-2 Date Sampled: 05/20/2016 1215
Client Matrix: Solid % Moisture: 4.2 Date Received: 05/21/2016 0900

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Cyanide, Total	0.73	J	mg/Kg	0.50	1.0	1.0	9012B
Analysis Batch: 480-304118	Analysis Date: 05/27/2016 1457						DryWt Corrected: Y
Prep Batch: 480-304090	Prep Date: 05/27/2016 1408						
Cyanide, Amenable	ND		mg/Kg	0.50	1.0	1.0	SM 4500 CN G
Analysis Batch: 480-305008	Analysis Date: 06/03/2016 1448						DryWt Corrected: Y

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	4.2		%	0.1	0.1	1.0	Moisture
Analysis Batch: 480-303012	Analysis Date: 05/21/2016 1535						DryWt Corrected: N
Percent Solids	95.8		%	0.1	0.1	1.0	Moisture
Analysis Batch: 480-303012	Analysis Date: 05/21/2016 1535						DryWt Corrected: N

DATA REPORTING QUALIFIERS

Client: Stantec Consulting Services Inc Job Number: 480-100525-1

Lab Section	Qualifier	Description
GC/MS VOA		
	B	Compound was found in the blank and sample.
	J	Indicates an Estimated Value for TICs
	F1	MS and/or MSD Recovery is outside acceptance limits.
	4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
	F2	MS/MSD RPD exceeds control limits
	N	Presumptive evidence of material.
	T	Result is a tentatively identified compound (TIC) and an estimated value.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
	X	Surrogate is outside control limits
GC/MS Semi VOA		
	J	Indicates an Estimated Value for TICs
	N	Presumptive evidence of material.
	T	Result is a tentatively identified compound (TIC) and an estimated value.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
	X	Surrogate is outside control limits
GC Semi VOA		
	F1	MS and/or MSD Recovery is outside acceptance limits.
	F2	MS/MSD RPD exceeds control limits
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
	X	Surrogate is outside control limits

DATA REPORTING QUALIFIERS

Client: Stantec Consulting Services Inc Job Number: 480-100525-1

Lab Section	Qualifier	Description
Metals		
	B	Compound was found in the blank and sample.
	^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.
	F1	MS and/or MSD Recovery is outside acceptance limits.
	4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
General Chemistry		
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

QUALITY CONTROL RESULTS

Client: Stantec Consulting Services Inc Job Number: 480-100525-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Prep Batch: 480-303638					
LCS 480-303638/1-A	Lab Control Sample	T	Solid	5035A	
MB 480-303638/2-A	Method Blank	T	Solid	5035A	
480-100525-1	VO-DRA1-C	T	Solid	5035A	
480-100525-1MS	Matrix Spike	T	Solid	5035A	
480-100525-1MSD	Matrix Spike Duplicate	T	Solid	5035A	
Analysis Batch:480-303774					
LCS 480-303638/1-A	Lab Control Sample	T	Solid	8260C	480-303638
MB 480-303638/2-A	Method Blank	T	Solid	8260C	480-303638
480-100525-1	VO-DRA1-C	T	Solid	8260C	480-303638
480-100525-1MS	Matrix Spike	T	Solid	8260C	480-303638
480-100525-1MSD	Matrix Spike Duplicate	T	Solid	8260C	480-303638
Analysis Batch:480-303910					
LCS 480-303913/1-A	Lab Control Sample	T	Solid	8260C	480-303913
MB 480-303913/2-A	Method Blank	T	Solid	8260C	480-303913
480-100525-2	VO-DRA2-C	T	Solid	8260C	480-303913
Prep Batch: 480-303913					
LCS 480-303913/1-A	Lab Control Sample	T	Solid	5035A	
MB 480-303913/2-A	Method Blank	T	Solid	5035A	
480-100525-2	VO-DRA2-C	T	Solid	5035A	

Report Basis
T = Total

GC/MS Semi VOA

Prep Batch: 480-303069					
LCS 480-303069/2-A	Lab Control Sample	T	Solid	3550C	
MB 480-303069/1-A	Method Blank	T	Solid	3550C	
480-100525-1	VO-DRA1-C	T	Solid	3550C	
480-100525-2	VO-DRA2-C	T	Solid	3550C	
Analysis Batch:480-303416					
LCS 480-303069/2-A	Lab Control Sample	T	Solid	8270D	480-303069
MB 480-303069/1-A	Method Blank	T	Solid	8270D	480-303069
480-100525-1	VO-DRA1-C	T	Solid	8270D	480-303069
480-100525-2	VO-DRA2-C	T	Solid	8270D	480-303069

Report Basis
T = Total

Client: Stantec Consulting Services Inc Job Number: 480-100525-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC Semi VOA					
Prep Batch: 480-303283					
LCS 480-303283/2-A	Lab Control Sample	T	Solid	3550C	
MB 480-303283/1-A	Method Blank	T	Solid	3550C	
480-100525-1	VO-DRA1-C	T	Solid	3550C	
480-100525-2	VO-DRA2-C	T	Solid	3550C	
480-100525-2MS	Matrix Spike	T	Solid	3550C	
480-100525-2MSD	Matrix Spike Duplicate	T	Solid	3550C	
Prep Batch: 480-303293					
LCS 480-303293/2-A	Lab Control Sample	T	Solid	3550C	
MB 480-303293/1-A	Method Blank	T	Solid	3550C	
480-100525-1	VO-DRA1-C	T	Solid	3550C	
480-100525-2	VO-DRA2-C	T	Solid	3550C	
480-100525-2MS	Matrix Spike	T	Solid	3550C	
480-100525-2MSD	Matrix Spike Duplicate	T	Solid	3550C	
Analysis Batch:480-303462					
LCS 480-303293/2-A	Lab Control Sample	T	Solid	8082A	480-303293
MB 480-303293/1-A	Method Blank	T	Solid	8082A	480-303293
480-100525-1	VO-DRA1-C	T	Solid	8082A	480-303293
480-100525-2	VO-DRA2-C	T	Solid	8082A	480-303293
480-100525-2MS	Matrix Spike	T	Solid	8082A	480-303293
480-100525-2MSD	Matrix Spike Duplicate	T	Solid	8082A	480-303293
Analysis Batch:480-303506					
LCS 480-303283/2-A	Lab Control Sample	T	Solid	8081B	480-303283
MB 480-303283/1-A	Method Blank	T	Solid	8081B	480-303283
480-100525-1	VO-DRA1-C	T	Solid	8081B	480-303283
480-100525-2	VO-DRA2-C	T	Solid	8081B	480-303283
480-100525-2MS	Matrix Spike	T	Solid	8081B	480-303283
480-100525-2MSD	Matrix Spike Duplicate	T	Solid	8081B	480-303283

Report Basis
T = Total

Client: Stantec Consulting Services Inc Job Number: 480-100525-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 480-303181					
LCSSRM 480-303181/2-A ^5	LCS-Certified Reference Material	T	Solid	7471B	
LCDSRM 480-303181/3-A ^5	LCSD - Certified Reference Material	T	Solid	7471B	
MB 480-303181/1-A	Method Blank	T	Solid	7471B	
480-100525-1	VO-DRA1-C	T	Solid	7471B	
480-100525-2	VO-DRA2-C	T	Solid	7471B	
Prep Batch: 480-303360					
LCSSRM 480-303360/2-A	LCS-Certified Reference Material	T	Solid	3050B	
LCDSRM 480-303360/3-A	LCSD - Certified Reference Material	T	Solid	3050B	
MB 480-303360/1-A	Method Blank	T	Solid	3050B	
480-100525-1	VO-DRA1-C	T	Solid	3050B	
480-100525-2	VO-DRA2-C	T	Solid	3050B	
480-100525-2MS	Matrix Spike	T	Solid	3050B	
480-100525-2MSD	Matrix Spike Duplicate	T	Solid	3050B	
Analysis Batch:480-303378					
LCSSRM 480-303181/2-A ^5	LCS-Certified Reference Material	T	Solid	7471B	480-303181
LCDSRM 480-303181/3-A ^5	LCSD - Certified Reference Material	T	Solid	7471B	480-303181
MB 480-303181/1-A	Method Blank	T	Solid	7471B	480-303181
480-100525-1	VO-DRA1-C	T	Solid	7471B	480-303181
480-100525-2	VO-DRA2-C	T	Solid	7471B	480-303181
Analysis Batch:480-303864					
LCSSRM 480-303360/2-A	LCS-Certified Reference Material	T	Solid	6010C	480-303360
LCDSRM 480-303360/3-A	LCSD - Certified Reference Material	T	Solid	6010C	480-303360
MB 480-303360/1-A	Method Blank	T	Solid	6010C	480-303360
480-100525-1	VO-DRA1-C	T	Solid	6010C	480-303360
480-100525-2	VO-DRA2-C	T	Solid	6010C	480-303360
480-100525-2MS	Matrix Spike	T	Solid	6010C	480-303360
480-100525-2MSD	Matrix Spike Duplicate	T	Solid	6010C	480-303360
Analysis Batch:480-304266					
LCSSRM 480-303360/2-A	LCS-Certified Reference Material	T	Solid	6010C	480-303360
LCDSRM 480-303360/3-A	LCSD - Certified Reference Material	T	Solid	6010C	480-303360
MB 480-303360/1-A	Method Blank	T	Solid	6010C	480-303360
480-100525-1	VO-DRA1-C	T	Solid	6010C	480-303360
480-100525-2	VO-DRA2-C	T	Solid	6010C	480-303360
480-100525-2MS	Matrix Spike	T	Solid	6010C	480-303360
480-100525-2MSD	Matrix Spike Duplicate	T	Solid	6010C	480-303360

Report Basis
T = Total

Client: Stantec Consulting Services Inc Job Number: 480-100525-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:480-303012					
480-100525-1	VO-DRA1-C	T	Solid	Moisture	
480-100525-2	VO-DRA2-C	T	Solid	Moisture	
Prep Batch: 480-304090					
LCSSRM 480-304090/2-A	LCS-Certified Reference Material	T	Solid	9012B	
MB 480-304090/1-A	Method Blank	T	Solid	9012B	
480-100525-2	VO-DRA2-C	T	Solid	9012B	
Analysis Batch:480-304118					
LCSSRM 480-304090/2-A	LCS-Certified Reference Material	T	Solid	9012B	480-304090
MB 480-304090/1-A	Method Blank	T	Solid	9012B	480-304090
480-100525-2	VO-DRA2-C	T	Solid	9012B	480-304090
Prep Batch: 480-304591					
LCSSRM 480-304591/2-A ^2	LCS-Certified Reference Material	T	Solid	9012B	
MB 480-304591/1-A	Method Blank	T	Solid	9012B	
480-100525-1	VO-DRA1-C	T	Solid	9012B	
Analysis Batch:480-304742					
LCSSRM 480-304591/2-A ^2	LCS-Certified Reference Material	T	Solid	9012B	480-304591
MB 480-304591/1-A	Method Blank	T	Solid	9012B	480-304591
480-100525-1	VO-DRA1-C	T	Solid	9012B	480-304591
Analysis Batch:480-305008					
480-100525-1	VO-DRA1-C	T	Solid	SM 4500 CN G	
480-100525-2	VO-DRA2-C	T	Solid	SM 4500 CN G	

Report Basis
T = Total

Client: Stantec Consulting Services Inc

Job Number: 480-100525-1

Surrogate Recovery Report

8260C Volatile Organic Compounds by GC/MS

Client Matrix: Solid

Lab Sample ID	Client Sample ID	DCA %Rec	BFB %Rec	TOL %Rec	DBFM %Rec
480-100525-2	VO-DRA2-C	98	111	95	34X
MB 480-303913/2-A		99	112	96	100
LCS 480-303913/1-A		99	112	96	103

Surrogate	Acceptance Limits
DCA = 1,2-Dichloroethane-d4 (Surr)	64-126
BFB = 4-Bromofluorobenzene (Surr)	72-126
TOL = Toluene-d8 (Surr)	71-125
DBFM = Dibromofluoromethane (Surr)	60-140

Client: Stantec Consulting Services Inc

Job Number: 480-100525-1

Surrogate Recovery Report

8260C Volatile Organic Compounds by GC/MS

Client Matrix: Solid

Lab Sample ID	Client Sample ID	DCA %Rec	BFB %Rec	TOL %Rec	DBFM %Rec
480-100525-1	VO-DRA1-C	100	110	101	100
MB 480-303638/2-A		98	110	102	95
LCS 480-303638/1-A		95	109	100	99
480-100525-1 MS	VO-DRA1-C MS	100	115	95	101
480-100525-1 MSD	VO-DRA1-C MSD	105	111	97	103

Surrogate	Acceptance Limits
DCA = 1,2-Dichloroethane-d4 (Surr)	53-146
BFB = 4-Bromofluorobenzene (Surr)	49-148
TOL = Toluene-d8 (Surr)	50-149
DBFM = Dibromofluoromethane (Surr)	60-140

Client: Stantec Consulting Services Inc Job Number: 480-100525-1

Surrogate Recovery Report

8270D Semivolatile Organic Compounds (GC/MS)

Client Matrix: Solid

Lab Sample ID	Client Sample ID	TBP %Rec	FBP %Rec	2FP %Rec	NBZ %Rec	TPH %Rec	PHL %Rec
480-100525-1	VO-DRA1-C	0X	0X	0X	0X	0X	0X
480-100525-2	VO-DRA2-C	0X	84	0.7X	79	87	11
MB 480-303069/1-A		85	85	72	75	90	75
LCS 480-303069/2-A		100	87	74	78	88	78

Surrogate	Acceptance Limits
TBP = 2,4,6-Tribromophenol	39-146
FBP = 2-Fluorobiphenyl	37-120
2FP = 2-Fluorophenol	18-120
NBZ = Nitrobenzene-d5	34-132
TPH = p-Terphenyl-d14	65-153
PHL = Phenol-d5	11-120

Client: Stantec Consulting Services Inc

Job Number: 480-100525-1

Surrogate Recovery Report

8081B Organochlorine Pesticides (GC)

Client Matrix: Solid

Lab Sample ID	Client Sample ID	DCB2 %Rec	TCX2 %Rec
480-100525-1	VO-DRA1-C	0X	0X
480-100525-2	VO-DRA2-C	72	58
MB 480-303283/1-A		81	68
LCS 480-303283/2-A		75	58
480-100525-2 MS	VO-DRA2-C MS	55	48
480-100525-2 MSD	VO-DRA2-C MSD	58	54

Surrogate	Acceptance Limits
DCB = DCB Decachlorobiphenyl	32-136
TCX = Tetrachloro-m-xylene	30-124

Client: Stantec Consulting Services Inc

Job Number: 480-100525-1

Surrogate Recovery Report

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Matrix: Solid

Lab Sample ID	Client Sample ID	TCX1 %Rec	DCB1 %Rec
480-100525-1	VO-DRA1-C	106	109
480-100525-2	VO-DRA2-C	108	129
MB 480-303293/1-A		111	127
LCS 480-303293/2-A		130	146
480-100525-2 MS	VO-DRA2-C MS	127	138
480-100525-2 MSD	VO-DRA2-C MSD	126	142

Surrogate	Acceptance Limits
TCX = Tetrachloro-m-xylene	60-154
DCB = DCB Decachlorobiphenyl	65-174

Method Blank - Batch: 480-303638

Method: 8260C
Preparation: 5035A

Lab Sample ID:	MB 480-303638/2-A	Analysis Batch:	480-303774	Instrument ID:	HP5973N
Client Matrix:	Solid	Prep Batch:	480-303638	Lab File ID:	N3867.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5.01 g
Analysis Date:	05/26/2016 1301	Units:	ug/Kg	Final Weight/Volume:	10 mL
Prep Date:	05/25/2016 1446				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
1,1,1-Trichloroethane	ND		28	100
1,1,2,2-Tetrachloroethane	ND		16	100
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		50	100
1,1,2-Trichloroethane	ND		21	100
1,1-Dichloroethane	ND		31	100
1,1-Dichloroethene	ND		35	100
1,2,4-Trichlorobenzene	ND		38	100
1,2,4-Trimethylbenzene	ND		28	100
1,2-Dibromo-3-Chloropropane	ND		50	100
1,2-Dichlorobenzene	ND		25	100
1,2-Dichloroethane	ND		41	100
1,2-Dichloropropane	ND		16	100
1,3,5-Trimethylbenzene	ND		30	100
1,3-Dichlorobenzene	ND		27	100
1,4-Dichlorobenzene	ND		14	100
2-Butanone (MEK)	ND		300	500
2-Hexanone	ND		200	500
4-Isopropyltoluene	ND		34	100
4-Methyl-2-pentanone (MIBK)	ND		32	500
Acetone	ND		410	500
Benzene	ND		19	100
Bromoform	ND		50	100
Bromomethane	ND		22	100
Carbon disulfide	ND		45	100
Carbon tetrachloride	ND		25	100
Chlorobenzene	ND		13	100
Dibromochloromethane	ND		48	100
Chloroethane	ND		21	100
Chloroform	ND		68	100
Chloromethane	ND		24	100
cis-1,2-Dichloroethene	ND		28	100
Cyclohexane	ND		22	100
Bromodichloromethane	ND		20	100
Dichlorodifluoromethane	ND		44	100
Ethylbenzene	ND		29	100
1,2-Dibromoethane	ND		17	100
Isopropylbenzene	ND		15	100
Methyl acetate	ND		48	100
Methyl tert-butyl ether	ND		38	100
Methylcyclohexane	ND		47	100
Methylene Chloride	ND		20	100
m,p-Xylene	ND		55	200
Naphthalene	ND		34	100
n-Butylbenzene	ND		29	100
N-Propylbenzene	ND		26	100

Client: Stantec Consulting Services Inc

Job Number: 480-100525-1

Method Blank - Batch: 480-303638

Method: 8260C
Preparation: 5035A

Lab Sample ID:	MB 480-303638/2-A	Analysis Batch:	480-303774	Instrument ID:	HP5973N
Client Matrix:	Solid	Prep Batch:	480-303638	Lab File ID:	N3867.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5.01 g
Analysis Date:	05/26/2016 1301	Units:	ug/Kg	Final Weight/Volume:	10 mL
Prep Date:	05/25/2016 1446				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
o-Xylene	ND		13	100
sec-Butylbenzene	ND		37	100
Tetrachloroethene	ND		13	100
Toluene	ND		27	100
trans-1,2-Dichloroethene	ND		24	100
trans-1,3-Dichloropropene	ND		9.8	100
Trichloroethene	ND		28	100
Trichlorofluoromethane	ND		47	100
Vinyl chloride	ND		33	100
Xylenes, Total	ND		55	200
cis-1,3-Dichloropropene	ND		24	100
Styrene	ND		24	100
tert-Butylbenzene	ND		28	100

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	98	53 - 146
4-Bromofluorobenzene (Surr)	110	49 - 148
Toluene-d8 (Surr)	102	50 - 149
Dibromofluoromethane (Surr)	95	60 - 140

Method Blank TICs- Batch: 480-303638

Cas Number	Analyte	RT	Est. Result (ug/	Qual
	Tentatively Identified Compound		None	

Client: Stantec Consulting Services Inc

Job Number: 480-100525-1

Lab Control Sample - Batch: 480-303638

Method: 8260C
Preparation: 5035A

Lab Sample ID:	LCS 480-303638/1-A	Analysis Batch:	480-303774	Instrument ID:	HP5973N
Client Matrix:	Solid	Prep Batch:	480-303638	Lab File ID:	N3861.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 g
Analysis Date:	05/26/2016 1022	Units:	ug/Kg	Final Weight/Volume:	10 mL
Prep Date:	05/25/2016 1446				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
1,1,1-Trichloroethane	2500	2760	110	68 - 130	
1,1,2,2-Tetrachloroethane	2500	2130	85	73 - 119	
1,1,2-Trichloro-1,2,2-trifluoroethane	2500	3170	127	10 - 179	
1,1,2-Trichloroethane	2500	2340	93	81 - 115	
1,1-Dichloroethane	2500	2590	104	78 - 121	
1,1-Dichloroethene	2500	2730	109	48 - 133	
1,2,4-Trichlorobenzene	2500	2050	82	70 - 140	
1,2,4-Trimethylbenzene	2500	2320	93	77 - 127	
1,2-Dibromo-3-Chloropropane	2500	1870	75	56 - 122	
1,2-Dichlorobenzene	2500	2230	89	78 - 125	
1,2-Dichloroethane	2500	2400	96	74 - 127	
1,2-Dichloropropane	2500	2430	97	81 - 115	
1,3,5-Trimethylbenzene	2500	2380	95	79 - 119	
1,3-Dichlorobenzene	2500	2220	89	82 - 114	
1,4-Dichlorobenzene	2500	2280	91	81 - 113	
2-Butanone (MEK)	12500	9880	79	54 - 149	
2-Hexanone	12500	10900	87	59 - 127	
4-Isopropyltoluene	2500	2320	93	82 - 119	
4-Methyl-2-pentanone (MIBK)	12500	11100	89	74 - 120	
Acetone	12500	9330	75	47 - 141	
Benzene	2500	2500	100	77 - 125	
Bromoform	2500	2510	100	48 - 125	
Bromomethane	2500	1930	77	39 - 149	
Carbon disulfide	2500	2700	108	40 - 136	
Carbon tetrachloride	2500	2880	115	54 - 135	
Chlorobenzene	2500	2510	100	76 - 126	
Dibromochloromethane	2500	2420	97	64 - 118	
Chloroethane	2500	2270	91	23 - 164	
Chloroform	2500	2510	101	78 - 118	
Chloromethane	2500	2490	100	61 - 124	
cis-1,2-Dichloroethene	2500	2420	97	79 - 124	
Cyclohexane	2500	3010	120	49 - 129	
Bromodichloromethane	2500	2420	97	71 - 121	
Dichlorodifluoromethane	2500	2540	101	10 - 150	
Ethylbenzene	2500	2400	96	78 - 124	
1,2-Dibromoethane	2500	2420	97	81 - 119	
Isopropylbenzene	2500	2480	99	76 - 119	
Methyl acetate	12500	12100	97	71 - 123	
Methyl tert-butyl ether	2500	2360	94	67 - 137	
Methylcyclohexane	2500	2830	113	50 - 130	
Methylene Chloride	2500	2610	104	75 - 118	

Client: Stantec Consulting Services Inc

Job Number: 480-100525-1

Lab Control Sample - Batch: 480-303638

Method: 8260C
Preparation: 5035A

Lab Sample ID:	LCS 480-303638/1-A	Analysis Batch:	480-303774	Instrument ID:	HP5973N
Client Matrix:	Solid	Prep Batch:	480-303638	Lab File ID:	N3861.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 g
Analysis Date:	05/26/2016 1022	Units:	ug/Kg	Final Weight/Volume:	10 mL
Prep Date:	05/25/2016 1446				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
m,p-Xylene	2500	2510	100	77 - 125	
Naphthalene	2500	1850	74	65 - 142	
n-Butylbenzene	2500	2360	95	81 - 119	
N-Propylbenzene	2500	2440	98	76 - 118	
o-Xylene	2500	2370	95	80 - 124	
sec-Butylbenzene	2500	2420	97	79 - 118	
Tetrachloroethene	2500	2710	108	73 - 133	
Toluene	2500	2450	98	75 - 124	
trans-1,2-Dichloroethene	2500	2640	105	74 - 129	
trans-1,3-Dichloropropene	2500	2290	92	73 - 118	
Trichloroethene	2500	2630	105	75 - 131	
Trichlorofluoromethane	2500	2770	111	29 - 158	
Vinyl chloride	2500	2610	104	59 - 124	
cis-1,3-Dichloropropene	2500	2350	94	75 - 121	
Styrene	2500	2520	101	84 - 119	
tert-Butylbenzene	2500	2390	96	78 - 118	

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	95	53 - 146
4-Bromofluorobenzene (Surr)	109	49 - 148
Toluene-d8 (Surr)	100	50 - 149
Dibromofluoromethane (Surr)	99	60 - 140

Client: Stantec Consulting Services Inc

Job Number: 480-100525-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 480-303638

Method: 8260C
Preparation: 5035A

MS Lab Sample ID: 480-100525-1
Client Matrix: Solid
Dilution: 10
Analysis Date: 05/26/2016 1948
Prep Date: 05/25/2016 1446
Leach Date: N/A

Analysis Batch: 480-303774
Prep Batch: 480-303638
Leach Batch: N/A

Instrument ID: HP5973N
Lab File ID: N3882.D
Initial Weight/Volume: 5.03 g
Final Weight/Volume: 10 mL
5 mL

MSD Lab Sample ID: 480-100525-1
Client Matrix: Solid
Dilution: 10
Analysis Date: 05/26/2016 2015
Prep Date: 05/25/2016 1446
Leach Date: N/A

Analysis Batch: 480-303774
Prep Batch: 480-303638
Leach Batch: N/A

Instrument ID: HP5973N
Lab File ID: N3883.D
Initial Weight/Volume: 5.05 g
Final Weight/Volume: 10 mL
5 mL

Analyte	% Rec. MS	% Rec. MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
1,1,1-Trichloroethane	122	125	64 - 116	2	20	F1	F1
1,1,2,2-Tetrachloroethane	85	88	75 - 120	3	20		
1,1,2-Trichloro-1,2,2-trifluoroethane	134	121	40 - 120	10	20	F1	F1
1,1,2-Trichloroethane	115	115	70 - 130	1	20		
1,1-Dichloroethane	109	113	82 - 138	3	20		
1,1-Dichloroethene	101	120	50 - 147	16	20		
1,2,4-Trichlorobenzene	77	74	40 - 160	4	20		
1,2,4-Trimethylbenzene	89	87	78 - 134	1	20		
1,2-Dibromo-3-Chloropropane	88	101	60 - 110	13	20		
1,2-Dichlorobenzene	89	91	80 - 132	2	20		
1,2-Dichloroethane	102	101	78 - 129	2	20		
1,2-Dichloropropane	103	97	76 - 125	6	20		
1,3,5-Trimethylbenzene	89	90	40 - 160	0	20		
1,3-Dichlorobenzene	96	88	63 - 134	9	20		
1,4-Dichlorobenzene	92	92	60 - 134	0	20		
2-Butanone (MEK)	109	119	54 - 149	8	20		
2-Hexanone	145	144	70 - 127	1	20	F1	F1
4-Isopropyltoluene	104	101	82 - 119	3	20		
4-Methyl-2-pentanone (MIBK)	106	104	74 - 120	3	20		
Acetone	94	107	47 - 141	13	20		
Benzene	103	113	77 - 125	8	20		
Bromoform	103	97	48 - 125	7	20		
Bromomethane	98	106	39 - 149	7	20		
Carbon disulfide	74	77	40 - 136	3	20		
Carbon tetrachloride	105	119	54 - 135	12	20		
Chlorobenzene	103	102	76 - 126	1	20		
Dibromochloromethane	96	90	64 - 118	6	20		
Chloroethane	99	118	23 - 164	17	20		
Chloroform	108	108	78 - 118	1	20		
Chloromethane	105	106	61 - 124	0	20		
cis-1,2-Dichloroethene	104	99	79 - 124	6	20		
Cyclohexane	93	82	49 - 129	3	20		

Client: Stantec Consulting Services Inc

Job Number: 480-100525-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 480-303638

Method: 8260C
Preparation: 5035A

MS Lab Sample ID:	480-100525-1	Analysis Batch:	480-303774	Instrument ID:	HP5973N
Client Matrix:	Solid	Prep Batch:	480-303638	Lab File ID:	N3882.D
Dilution:	10	Leach Batch:	N/A	Initial Weight/Volume:	5.03 g
Analysis Date:	05/26/2016 1948			Final Weight/Volume:	10 mL
Prep Date:	05/25/2016 1446				5 mL
Leach Date:	N/A				

MSD Lab Sample ID:	480-100525-1	Analysis Batch:	480-303774	Instrument ID:	HP5973N
Client Matrix:	Solid	Prep Batch:	480-303638	Lab File ID:	N3883.D
Dilution:	10	Leach Batch:	N/A	Initial Weight/Volume:	5.05 g
Analysis Date:	05/26/2016 2015			Final Weight/Volume:	10 mL
Prep Date:	05/25/2016 1446				5 mL
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Bromodichloromethane	105	113	71 - 121	8	20		
Dichlorodifluoromethane	102	73	10 - 150	33	20		F2
Ethylbenzene	94	95	78 - 124	1	20		
1,2-Dibromoethane	95	96	81 - 119	1	20		
Isopropylbenzene	104	101	76 - 119	3	20		
Methyl acetate	151	146	71 - 123	4	20	F1	F1
Methyl tert-butyl ether	102	101	67 - 137	2	20		
Methylcyclohexane	-15	41	50 - 130	5	20	4	4
Methylene Chloride	131	133	75 - 118	1	20	F1	F1
m,p-Xylene	89	119	77 - 125	13	20		
Naphthalene	44	84	65 - 142	10	20	F1	
n-Butylbenzene	96	92	81 - 119	5	20		
N-Propylbenzene	106	105	76 - 118	2	20		
o-Xylene	79	99	80 - 124	14	20	F1	
sec-Butylbenzene	96	96	79 - 118	1	20		
Tetrachloroethene	108	106	73 - 133	2	20		
Toluene	87	90	75 - 124	3	20		
trans-1,2-Dichloroethene	109	106	74 - 129	3	20		
trans-1,3-Dichloropropene	94	94	73 - 118	1	20		
Trichloroethene	124	133	75 - 131	6	20		F1
Trichlorofluoromethane	102	127	29 - 158	21	20		F2
Vinyl chloride	112	114	59 - 124	1	20		
cis-1,3-Dichloropropene	91	91	75 - 121	0	20		
Styrene	102	102	84 - 119	0	20		
tert-Butylbenzene	91	93	78 - 118	2	20		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	100	105	53 - 146
4-Bromofluorobenzene (Surr)	115	111	49 - 148
Toluene-d8 (Surr)	95	97	50 - 149
Dibromofluoromethane (Surr)	101	103	60 - 140

Method Blank - Batch: 480-303913

Method: 8260C
Preparation: 5035A

Lab Sample ID:	MB 480-303913/2-A	Analysis Batch:	480-303910	Instrument ID:	HP5973F
Client Matrix:	Solid	Prep Batch:	480-303913	Lab File ID:	F6712.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5.04 g
Analysis Date:	05/26/2016 2107	Units:	ug/Kg	Final Weight/Volume:	5 mL
Prep Date:	05/26/2016 1707				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
1,1,1-Trichloroethane	ND		0.36	5.0
1,1,2,2-Tetrachloroethane	ND		0.80	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.1	5.0
1,1,2-Trichloroethane	ND		0.64	5.0
1,1-Dichloroethane	ND		0.61	5.0
1,1-Dichloroethene	ND		0.61	5.0
1,2,4-Trichlorobenzene	ND		0.30	5.0
1,2,4-Trimethylbenzene	ND		0.95	5.0
1,2-Dibromo-3-Chloropropane	ND		2.5	5.0
1,2-Dichlorobenzene	ND		0.39	5.0
1,2-Dichloroethane	ND		0.25	5.0
1,2-Dichloropropane	ND		2.5	5.0
1,3,5-Trimethylbenzene	ND		0.32	5.0
1,3-Dichlorobenzene	ND		0.25	5.0
1,4-Dichlorobenzene	ND		0.69	5.0
2-Butanone (MEK)	ND		1.8	25
2-Hexanone	ND		2.5	25
4-Isopropyltoluene	ND		0.40	5.0
4-Methyl-2-pentanone (MIBK)	ND		1.6	25
Acetone	10.6	J	4.2	25
Benzene	ND		0.24	5.0
Bromoform	ND		2.5	5.0
Bromomethane	ND		0.45	5.0
Carbon disulfide	ND		2.5	5.0
Carbon tetrachloride	ND		0.48	5.0
Chlorobenzene	ND		0.65	5.0
Dibromochloromethane	ND		0.63	5.0
Chloroethane	ND		1.1	5.0
Chloroform	ND		0.31	5.0
Chloromethane	ND		0.30	5.0
cis-1,2-Dichloroethene	ND		0.63	5.0
Cyclohexane	ND		0.69	5.0
Bromodichloromethane	ND		0.66	5.0
Dichlorodifluoromethane	ND		0.41	5.0
Ethylbenzene	ND		0.34	5.0
1,2-Dibromoethane	ND		0.64	5.0
Isopropylbenzene	ND		0.75	5.0
Methyl acetate	ND		3.0	5.0
Methyl tert-butyl ether	ND		0.49	5.0
Methylcyclohexane	ND		0.75	5.0
Methylene Chloride	5.83		2.3	5.0
m,p-Xylene	ND		0.83	9.9
Naphthalene	ND		0.66	5.0
n-Butylbenzene	ND		0.43	5.0
N-Propylbenzene	ND		0.40	5.0

Client: Stantec Consulting Services Inc

Job Number: 480-100525-1

Method Blank - Batch: 480-303913

Method: 8260C
Preparation: 5035A

Lab Sample ID:	MB 480-303913/2-A	Analysis Batch:	480-303910	Instrument ID:	HP5973F
Client Matrix:	Solid	Prep Batch:	480-303913	Lab File ID:	F6712.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5.04 g
Analysis Date:	05/26/2016 2107	Units:	ug/Kg	Final Weight/Volume:	5 mL
Prep Date:	05/26/2016 1707				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
o-Xylene	ND		0.65	5.0
sec-Butylbenzene	ND		0.43	5.0
Tetrachloroethene	ND		0.67	5.0
Toluene	ND		0.38	5.0
trans-1,2-Dichloroethene	ND		0.51	5.0
trans-1,3-Dichloropropene	ND		2.2	5.0
Trichloroethene	ND		1.1	5.0
Trichlorofluoromethane	ND		0.47	5.0
Vinyl chloride	ND		0.61	5.0
Xylenes, Total	ND		0.83	9.9
cis-1,3-Dichloropropene	ND		0.71	5.0
Styrene	ND		0.25	5.0
tert-Butylbenzene	ND		0.52	5.0

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	99	64 - 126
4-Bromofluorobenzene (Surr)	112	72 - 126
Toluene-d8 (Surr)	96	71 - 125
Dibromofluoromethane (Surr)	100	60 - 140

Method Blank TICs- Batch: 480-303913

Cas Number	Analyte	RT	Est. Result (ug/	Qual
	Tentatively Identified Compound		None	

Client: Stantec Consulting Services Inc

Job Number: 480-100525-1

Lab Control Sample - Batch: 480-303913

Method: 8260C
Preparation: 5035A

Lab Sample ID:	LCS 480-303913/1-A	Analysis Batch:	480-303910	Instrument ID:	HP5973F
Client Matrix:	Solid	Prep Batch:	480-303913	Lab File ID:	F6710.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5.14 g
Analysis Date:	05/26/2016 2015	Units:	ug/Kg	Final Weight/Volume:	5 mL
Prep Date:	05/26/2016 1707				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
1,1,1-Trichloroethane	48.6	52.1	107	77 - 121	
1,1,2,2-Tetrachloroethane	48.6	44.0	91	80 - 120	
1,1,2-Trichloro-1,2,2-trifluoroethane	48.6	46.4	95	60 - 140	
1,1,2-Trichloroethane	48.6	45.7	94	78 - 122	
1,1-Dichloroethane	48.6	45.9	94	73 - 126	
1,1-Dichloroethene	48.6	44.7	92	59 - 125	
1,2,4-Trichlorobenzene	48.6	45.9	94	64 - 120	
1,2,4-Trimethylbenzene	48.6	44.3	91	74 - 120	
1,2-Dibromo-3-Chloropropane	48.6	50.3	103	63 - 124	
1,2-Dichlorobenzene	48.6	44.5	92	75 - 120	
1,2-Dichloroethane	48.6	49.4	101	77 - 122	
1,2-Dichloropropane	48.6	43.5	90	75 - 124	
1,3,5-Trimethylbenzene	48.6	44.9	92	74 - 120	
1,3-Dichlorobenzene	48.6	45.3	93	74 - 120	
1,4-Dichlorobenzene	48.6	45.1	93	73 - 120	
2-Butanone (MEK)	243	295	121	70 - 134	
2-Hexanone	243	265	109	59 - 130	
4-Isopropyltoluene	48.6	46.1	95	74 - 120	
4-Methyl-2-pentanone (MIBK)	243	240	99	65 - 133	
Acetone	243	327	135	61 - 137	
Benzene	48.6	45.9	94	79 - 127	
Bromoform	48.6	49.6	102	68 - 126	
Bromomethane	48.6	56.2	116	37 - 149	
Carbon disulfide	48.6	43.6	90	64 - 131	
Carbon tetrachloride	48.6	55.4	114	75 - 135	
Chlorobenzene	48.6	46.2	95	76 - 124	
Dibromochloromethane	48.6	52.5	108	76 - 125	
Chloroethane	48.6	51.3	105	69 - 135	
Chloroform	48.6	47.8	98	80 - 118	
Chloromethane	48.6	42.8	88	63 - 127	
cis-1,2-Dichloroethene	48.6	47.0	97	81 - 117	
Cyclohexane	48.6	44.1	91	65 - 106	
Bromodichloromethane	48.6	51.2	105	80 - 122	
Dichlorodifluoromethane	48.6	47.6	98	57 - 142	
Ethylbenzene	48.6	46.6	96	80 - 120	
1,2-Dibromoethane	48.6	49.2	101	78 - 120	
Isopropylbenzene	48.6	45.1	93	72 - 120	
Methyl acetate	243	241	99	55 - 136	
Methyl tert-butyl ether	48.6	47.5	98	63 - 125	
Methylcyclohexane	48.6	46.6	96	60 - 140	
Methylene Chloride	48.6	52.4	108	61 - 127	

Client: Stantec Consulting Services Inc

Job Number: 480-100525-1

Lab Control Sample - Batch: 480-303913

Method: 8260C
Preparation: 5035A

Lab Sample ID:	LCS 480-303913/1-A	Analysis Batch:	480-303910	Instrument ID:	HP5973F
Client Matrix:	Solid	Prep Batch:	480-303913	Lab File ID:	F6710.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5.14 g
Analysis Date:	05/26/2016 2015	Units:	ug/Kg	Final Weight/Volume:	5 mL
Prep Date:	05/26/2016 1707				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
m,p-Xylene	48.6	45.7	94	70 - 130	
Naphthalene	48.6	47.0	97	38 - 137	
n-Butylbenzene	48.6	44.6	92	70 - 120	
N-Propylbenzene	48.6	44.1	91	70 - 130	
o-Xylene	48.6	45.0	93	70 - 130	
sec-Butylbenzene	48.6	45.1	93	74 - 120	
Tetrachloroethene	48.6	50.5	104	74 - 122	
Toluene	48.6	42.8	88	74 - 128	
trans-1,2-Dichloroethene	48.6	47.1	97	78 - 126	
trans-1,3-Dichloropropene	48.6	49.2	101	73 - 123	
Trichloroethene	48.6	48.2	99	77 - 129	
Trichlorofluoromethane	48.6	56.3	116	65 - 146	
Vinyl chloride	48.6	47.8	98	61 - 133	
cis-1,3-Dichloropropene	48.6	49.0	101	82 - 120	
Styrene	48.6	45.5	94	80 - 120	
tert-Butylbenzene	48.6	44.5	92	73 - 120	

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	99	64 - 126
4-Bromofluorobenzene (Surr)	112	72 - 126
Toluene-d8 (Surr)	96	71 - 125
Dibromofluoromethane (Surr)	103	60 - 140

Method Blank - Batch: 480-303069

Method: 8270D
Preparation: 3550C

Lab Sample ID:	MB 480-303069/1-A	Analysis Batch:	480-303416	Instrument ID:	HP5973X
Client Matrix:	Solid	Prep Batch:	480-303069	Lab File ID:	X00905235.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.94 g
Analysis Date:	05/24/2016 1937	Units:	ug/Kg	Final Weight/Volume:	1 mL
Prep Date:	05/23/2016 0724			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Biphenyl	ND		24	160
bis (2-chloroisopropyl) ether	ND		33	160
2,4,5-Trichlorophenol	ND		45	160
2,4,6-Trichlorophenol	ND		33	160
2,4-Dichlorophenol	ND		17	160
2,4-Dimethylphenol	ND		40	160
2,4-Dinitrophenol	ND		760	1600
2,4-Dinitrotoluene	ND		34	160
2,6-Dinitrotoluene	ND		19	160
2-Chloronaphthalene	ND		27	160
2-Chlorophenol	ND		30	160
2-Methylnaphthalene	ND		33	160
2-Methylphenol	ND		19	160
2-Nitroaniline	ND		24	320
2-Nitrophenol	ND		47	160
3,3'-Dichlorobenzidine	ND		190	320
3-Nitroaniline	ND		46	320
4,6-Dinitro-2-methylphenol	ND		160	320
4-Bromophenyl phenyl ether	ND		23	160
4-Chloro-3-methylphenol	ND		41	160
4-Chloroaniline	ND		41	160
4-Chlorophenyl phenyl ether	ND		20	160
4-Methylphenol	ND		19	320
4-Nitroaniline	ND		86	320
4-Nitrophenol	ND		120	320
Acenaphthene	ND		24	160
Acenaphthylene	ND		21	160
Acetophenone	ND		22	160
Anthracene	ND		41	160
Atrazine	ND		57	160
Benzaldehyde	ND		130	160
Benzo[a]anthracene	ND		16	160
Benzo[a]pyrene	ND		24	160
Benzo[b]fluoranthene	ND		26	160
Benzo[g,h,i]perylene	ND		17	160
Benzo[k]fluoranthene	ND		21	160
Bis(2-chloroethoxy)methane	ND		35	160
Bis(2-chloroethyl)ether	ND		21	160
Bis(2-ethylhexyl) phthalate	ND		56	160
Butyl benzyl phthalate	ND		27	160
Caprolactam	ND		49	160
Carbazole	ND		19	160
Chrysene	ND		37	160
Di-n-butyl phthalate	ND		28	160
Di-n-octyl phthalate	ND		19	160

Client: Stantec Consulting Services Inc

Job Number: 480-100525-1

Method Blank - Batch: 480-303069

Method: 8270D
Preparation: 3550C

Lab Sample ID:	MB 480-303069/1-A	Analysis Batch:	480-303416	Instrument ID:	HP5973X
Client Matrix:	Solid	Prep Batch:	480-303069	Lab File ID:	X00905235.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.94 g
Analysis Date:	05/24/2016 1937	Units:	ug/Kg	Final Weight/Volume:	1 mL
Prep Date:	05/23/2016 0724			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Dibenz(a,h)anthracene	ND		29	160
Dibenzofuran	ND		19	160
Diethyl phthalate	ND		21	160
Dimethyl phthalate	ND		19	160
Fluoranthene	ND		17	160
Fluorene	ND		19	160
Hexachlorobenzene	ND		22	160
Hexachlorobutadiene	ND		24	160
Hexachlorocyclopentadiene	ND		22	160
Hexachloroethane	ND		21	160
Indeno[1,2,3-cd]pyrene	ND		20	160
Isophorone	ND		35	160
N-Nitrosodi-n-propylamine	ND		28	160
N-Nitrosodiphenylamine	ND		130	160
Naphthalene	ND		21	160
Nitrobenzene	ND		18	160
Pentachlorophenol	ND		160	320
Phenanthrene	ND		24	160
Phenol	ND		25	160
Pyrene	ND		19	160

Surrogate	% Rec	Acceptance Limits
2,4,6-Tribromophenol	85	39 - 146
2-Fluorobiphenyl	85	37 - 120
2-Fluorophenol	72	18 - 120
Nitrobenzene-d5	75	34 - 132
p-Terphenyl-d14	90	65 - 153
Phenol-d5	75	11 - 120

Method Blank TICs- Batch: 480-303069

Cas Number	Analyte	RT	Est. Result (ug/	Qual
108-38-3	Benzene, 1,3-dimethyl-	4.98	947	T J N
79-34-5	Ethane, 1,1,2,2-tetrachloro-	5.55	221	T J N
	Unknown	1.95	1580	T J
	Unknown	1.99	2060	T J
	Unknown	4.50	467	T J
	Unknown	1.86	604	T J
	Unknown	1.72	746	T J

Lab Control Sample - Batch: 480-303069

Method: 8270D
Preparation: 3550C

Lab Sample ID:	LCS 480-303069/2-A	Analysis Batch:	480-303416	Instrument ID:	HP5973X
Client Matrix:	Solid	Prep Batch:	480-303069	Lab File ID:	X00905236.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.35 g
Analysis Date:	05/24/2016 2005	Units:	ug/Kg	Final Weight/Volume:	1 mL
Prep Date:	05/23/2016 0724			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Biphenyl	1650	1440	87	71 - 120	
bis (2-chloroisopropyl) ether	1650	1160	70	44 - 120	
2,4,5-Trichlorophenol	1650	1560	95	59 - 126	
2,4,6-Trichlorophenol	1650	1550	94	59 - 123	
2,4-Dichlorophenol	1650	1450	88	52 - 120	
2,4-Dimethylphenol	1650	1380	83	36 - 120	
2,4-Dinitrophenol	3290	3530	107	35 - 146	
2,4-Dinitrotoluene	1650	1590	96	55 - 125	
2,6-Dinitrotoluene	1650	1550	94	66 - 128	
2-Chloronaphthalene	1650	1400	85	57 - 120	
2-Chlorophenol	1650	1300	79	38 - 120	
2-Methylnaphthalene	1650	1410	86	47 - 120	
2-Methylphenol	1650	1330	81	48 - 120	
2-Nitroaniline	1650	1430	87	61 - 130	
2-Nitrophenol	1650	1380	84	50 - 120	
3,3'-Dichlorobenzidine	3290	2800	85	48 - 126	
3-Nitroaniline	1650	1430	87	61 - 127	
4,6-Dinitro-2-methylphenol	3290	3420	104	49 - 155	
4-Bromophenyl phenyl ether	1650	1540	93	58 - 131	
4-Chloro-3-methylphenol	1650	1530	93	49 - 125	
4-Chloroaniline	1650	1250	76	49 - 120	
4-Chlorophenyl phenyl ether	1650	1530	93	63 - 124	
4-Methylphenol	1650	1410	85	50 - 119	
4-Nitroaniline	1650	1540	94	63 - 128	
4-Nitrophenol	3290	3240	98	43 - 137	
Acenaphthene	1650	1460	88	53 - 120	
Acenaphthylene	1650	1480	90	58 - 121	
Acetophenone	1650	1300	79	66 - 120	
Anthracene	1650	1540	94	62 - 129	
Atrazine	3290	3450	105	60 - 164	
Benzaldehyde	3290	2530	77	21 - 120	
Benzo[a]anthracene	1650	1480	90	65 - 133	
Benzo[a]pyrene	1650	1580	96	64 - 127	
Benzo[b]fluoranthene	1650	1600	97	64 - 135	
Benzo[g,h,i]perylene	1650	1560	94	50 - 152	
Benzo[k]fluoranthene	1650	1530	93	58 - 138	
Bis(2-chloroethoxy)methane	1650	1290	78	61 - 133	
Bis(2-chloroethyl)ether	1650	1230	75	45 - 120	
Bis(2-ethylhexyl) phthalate	1650	1500	91	61 - 133	
Butyl benzyl phthalate	1650	1450	88	61 - 129	
Caprolactam	3290	2880	87	54 - 133	

Client: Stantec Consulting Services Inc

Job Number: 480-100525-1

Lab Control Sample - Batch: 480-303069

Method: 8270D
Preparation: 3550C

Lab Sample ID:	LCS 480-303069/2-A	Analysis Batch:	480-303416	Instrument ID:	HP5973X
Client Matrix:	Solid	Prep Batch:	480-303069	Lab File ID:	X00905236.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.35 g
Analysis Date:	05/24/2016 2005	Units:	ug/Kg	Final Weight/Volume:	1 mL
Prep Date:	05/23/2016 0724			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Carbazole	1650	1570	96	59 - 129	
Chrysene	1650	1500	91	64 - 131	
Di-n-butyl phthalate	1650	1580	96	58 - 130	
Di-n-octyl phthalate	1650	1500	91	62 - 133	
Dibenz(a,h)anthracene	1650	1570	95	54 - 148	
Dibenzofuran	1650	1510	92	56 - 120	
Diethyl phthalate	1650	1580	96	66 - 126	
Dimethyl phthalate	1650	1570	95	65 - 124	
Fluoranthene	1650	1630	99	62 - 131	
Fluorene	1650	1520	92	63 - 126	
Hexachlorobenzene	1650	1540	94	60 - 132	
Hexachlorobutadiene	1650	1340	82	45 - 120	
Hexachlorocyclopentadiene	1650	1150	70	31 - 120	
Hexachloroethane	1650	1170	71	41 - 120	
Indeno[1,2,3-cd]pyrene	1650	1550	94	56 - 149	
Isophorone	1650	1320	80	56 - 120	
N-Nitrosodi-n-propylamine	1650	1290	79	46 - 120	
N-Nitrosodiphenylamine	1650	1490	90	20 - 119	
Naphthalene	1650	1340	81	46 - 120	
Nitrobenzene	1650	1240	75	49 - 120	
Pentachlorophenol	3290	3280	100	33 - 136	
Phenanthrene	1650	1530	93	60 - 130	
Phenol	1650	1290	78	36 - 120	
Pyrene	1650	1520	92	51 - 133	

Surrogate	% Rec	Acceptance Limits
2,4,6-Tribromophenol	100	39 - 146
2-Fluorobiphenyl	87	37 - 120
2-Fluorophenol	74	18 - 120
Nitrobenzene-d5	78	34 - 132
p-Terphenyl-d14	88	65 - 153
Phenol-d5	78	11 - 120

Client: Stantec Consulting Services Inc

Job Number: 480-100525-1

Method Blank - Batch: 480-303283

Method: 8081B
Preparation: 3550C

Lab Sample ID:	MB 480-303283/1-A	Analysis Batch:	480-303506	Instrument ID:	HP6890-5
Client Matrix:	Solid	Prep Batch:	480-303283	Lab File ID:	5_04048.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.40 g
Analysis Date:	05/25/2016 1305	Units:	ug/Kg	Final Weight/Volume:	10 mL
Prep Date:	05/24/2016 0802			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Result	Qual	MDL	RL
4,4'-DDD	ND		0.32	1.6
4,4'-DDE	ND		0.35	1.6
4,4'-DDT	ND		0.38	1.6
Aldrin	ND		0.40	1.6
alpha-BHC	ND		0.30	1.6
alpha-Chlordane	ND		0.82	1.6
beta-BHC	ND		0.30	1.6
delta-BHC	ND		0.31	1.6
Dieldrin	ND		0.39	1.6
Endosulfan I	ND		0.32	1.6
Endosulfan II	ND		0.30	1.6
Endosulfan sulfate	ND		0.31	1.6
Endrin	ND		0.33	1.6
Endrin aldehyde	ND		0.42	1.6
gamma-BHC (Lindane)	0.344	J	0.30	1.6
Endrin ketone	ND		0.40	1.6
gamma-Chlordane	ND		0.52	1.6
Heptachlor	ND		0.36	1.6
Heptachlor epoxide	ND		0.42	1.6
Methoxychlor	ND		0.34	1.6
Toxaphene	ND		9.6	16

Surrogate	% Rec	Acceptance Limits
DCB Decachlorobiphenyl	81	32 - 136
Tetrachloro-m-xylene	68	30 - 124

Client: Stantec Consulting Services Inc

Job Number: 480-100525-1

Lab Control Sample - Batch: 480-303283

Method: 8081B
Preparation: 3550C

Lab Sample ID:	LCS 480-303283/2-A	Analysis Batch:	480-303506	Instrument ID:	HP6890-5
Client Matrix:	Solid	Prep Batch:	480-303283	Lab File ID:	5_04049.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.28 g
Analysis Date:	05/25/2016 1325	Units:	ug/Kg	Final Weight/Volume:	10 mL
Prep Date:	05/24/2016 0802			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
4,4'-DDD	16.5	12.8	77	52 - 138	
4,4'-DDE	16.5	12.0	73	52 - 131	
4,4'-DDT	16.5	11.1	67	50 - 131	
Aldrin	16.5	8.87	54	35 - 120	
alpha-BHC	16.5	9.21	56	49 - 120	
alpha-Chlordane	16.5	11.3	68	40 - 133	
beta-BHC	16.5	10.9	66	52 - 127	
delta-BHC	16.5	11.0	67	45 - 123	
Dieldrin	16.5	12.8	77	50 - 131	
Endosulfan I	16.5	12.2	74	43 - 121	
Endosulfan II	16.5	12.0	73	48 - 134	
Endosulfan sulfate	16.5	10.9	66	46 - 144	
Endrin	16.5	12.8	78	46 - 134	
Endrin aldehyde	16.5	12.1	73	31 - 137	
gamma-BHC (Lindane)	16.5	9.08	55	50 - 120	
Endrin ketone	16.5	11.4	69	44 - 140	
gamma-Chlordane	16.5	11.3	68	52 - 129	
Heptachlor	16.5	11.5	70	51 - 121	
Heptachlor epoxide	16.5	12.2	74	52 - 129	
Methoxychlor	16.5	14.1	85	50 - 149	

Surrogate	% Rec	Acceptance Limits
DCB Decachlorobiphenyl	75	32 - 136
Tetrachloro-m-xylene	58	30 - 124

Client: Stantec Consulting Services Inc

Job Number: 480-100525-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 480-303283

Method: 8081B
Preparation: 3550C

MS Lab Sample ID:	480-100525-2	Analysis Batch:	480-303506	Instrument ID:	HP6890-5
Client Matrix:	Solid	Prep Batch:	480-303283	Lab File ID:	5_04050.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.54 g
Analysis Date:	05/25/2016 1344			Final Weight/Volume:	10 mL
Prep Date:	05/24/2016 0802			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

MSD Lab Sample ID:	480-100525-2	Analysis Batch:	480-303506	Instrument ID:	HP6890-5
Client Matrix:	Solid	Prep Batch:	480-303283	Lab File ID:	5_04051.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.54 g
Analysis Date:	05/25/2016 1404			Final Weight/Volume:	10 mL
Prep Date:	05/24/2016 0802			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
4,4'-DDD	54	57	26 - 162	6	21		
4,4'-DDE	61	68	34 - 138	11	18		
4,4'-DDT	52	61	43 - 131	14	25		
Aldrin	49	55	37 - 125	12	12		
alpha-BHC	43	48	39 - 117	11	15		
alpha-Chlordane	47	51	29 - 141	9	23		
beta-BHC	50	54	36 - 139	6	19		
delta-BHC	37	39	23 - 132	6	14		
Dieldrin	55	60	38 - 135	10	12		
Endosulfan I	13	8	39 - 128	42	18	F1	J F1 F2
Endosulfan II	15	10	24 - 134	41	26	F1	J F1 F2
Endosulfan sulfate	49	54	19 - 137	9	35		
Endrin	52	59	41 - 147	11	20		
Endrin aldehyde	42	47	20 - 120	10	47		
gamma-BHC (Lindane)	46	52	50 - 120	12	12	F1	
Endrin ketone	52	58	31 - 139	12	37		
gamma-Chlordane	53	59	31 - 140	10	15		
Heptachlor	55	63	42 - 128	14	22		
Heptachlor epoxide	56	64	26 - 141	13	15		
Methoxychlor	58	66	44 - 157	13	24		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
DCB Decachlorobiphenyl	55	58	32 - 136
Tetrachloro-m-xylene	48	54	30 - 124

Method Blank - Batch: 480-303293

Method: 8082A
Preparation: 3550C

Lab Sample ID:	MB 480-303293/1-A	Analysis Batch:	480-303462	Instrument ID:	HP6890-7
Client Matrix:	Solid	Prep Batch:	480-303293	Lab File ID:	7_05-348.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	2.15 g
Analysis Date:	05/24/2016 2157	Units:	mg/Kg	Final Weight/Volume:	10 mL
Prep Date:	05/24/2016 0810			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Result	Qual	MDL	RL
PCB-1016	ND		0.045	0.23
PCB-1221	ND		0.045	0.23
PCB-1232	ND		0.045	0.23
PCB-1242	ND		0.045	0.23
PCB-1248	ND		0.045	0.23
PCB-1254	ND		0.11	0.23
PCB-1260	ND		0.11	0.23

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	111	60 - 154
DCB Decachlorobiphenyl	127	65 - 174

Lab Control Sample - Batch: 480-303293

Method: 8082A
Preparation: 3550C

Lab Sample ID:	LCS 480-303293/2-A	Analysis Batch:	480-303462	Instrument ID:	HP6890-7
Client Matrix:	Solid	Prep Batch:	480-303293	Lab File ID:	7_05-349.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	2.17 g
Analysis Date:	05/24/2016 2215	Units:	mg/Kg	Final Weight/Volume:	10 mL
Prep Date:	05/24/2016 0810			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
PCB-1016	2.30	2.81	122	51 - 185	
PCB-1260	2.30	2.96	128	61 - 184	

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	130	60 - 154
DCB Decachlorobiphenyl	146	65 - 174

Client: Stantec Consulting Services Inc

Job Number: 480-100525-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 480-303293

Method: 8082A
Preparation: 3550C

MS Lab Sample ID:	480-100525-2	Analysis Batch:	480-303462	Instrument ID:	HP6890-7
Client Matrix:	Solid	Prep Batch:	480-303293	Lab File ID:	7_06-013.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	2.13 g
Analysis Date:	05/25/2016 0233			Final Weight/Volume:	10 mL
Prep Date:	05/24/2016 0810			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

MSD Lab Sample ID:	480-100525-2	Analysis Batch:	480-303462	Instrument ID:	HP6890-7
Client Matrix:	Solid	Prep Batch:	480-303293	Lab File ID:	7_06-014.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	2.30 g
Analysis Date:	05/25/2016 0251			Final Weight/Volume:	10 mL
Prep Date:	05/24/2016 0810			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
PCB-1016	120	119	50 - 177	9	50		
PCB-1260	126	127	33 - 200	7	50		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
Tetrachloro-m-xylene	127	126	60 - 154
DCB Decachlorobiphenyl	138	142	65 - 174

Method Blank - Batch: 480-303360 **Method: 6010C**
Preparation: 3050B

Lab Sample ID:	MB 480-303360/1-A	Analysis Batch:	480-303864	Instrument ID:	ICAP2
Client Matrix:	Solid	Prep Batch:	480-303360	Lab File ID:	I2052616A-1.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	+0.5167 g
Analysis Date:	05/26/2016 1258	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	05/25/2016 1445				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Aluminum	ND		4.3	9.7
Antimony	ND		0.39	14.5
Arsenic	ND		0.39	1.9
Barium	ND		0.11	0.48
Beryllium	ND		0.027	0.19
Cadmium	ND		0.029	0.19
Calcium	4.39	J	3.2	48.4
Chromium	ND		0.19	0.48
Cobalt	ND		0.048	0.48
Copper	ND		0.20	0.97
Iron	ND		3.4	9.7
Lead	ND		0.23	0.97
Magnesium	0.943	J	0.90	19.4
Nickel	ND		0.22	4.8
Potassium	ND		19.4	29.0
Selenium	ND		0.39	3.9
Silver	ND		0.19	0.58
Sodium	ND		12.6	135
Thallium	ND		0.29	5.8
Vanadium	ND		0.11	0.48
Zinc	ND		0.62	1.9

Method Blank - Batch: 480-303360 **Method: 6010C**
Preparation: 3050B

Lab Sample ID:	MB 480-303360/1-A	Analysis Batch:	480-304266	Instrument ID:	ICAP2
Client Matrix:	Solid	Prep Batch:	480-303360	Lab File ID:	I2052816A-7.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	+0.5167 g
Analysis Date:	05/28/2016 2017	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	05/25/2016 1445				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Manganese	ND		0.031	0.19

Client: Stantec Consulting Services Inc Job Number: 480-100525-1

LCS-Certified Reference Material/ LCSD - Certified Reference Material Recovery Report - Batch: 480-303360

Method: 6010C
Preparation: 3050B

LCS Lab Sample ID:	LCSSRM 480-303360/2-A	Analysis Batch:	480-303864	Instrument ID:	ICAP2
Client Matrix:	Solid	Prep Batch:	480-303360	Lab File ID:	I2052616A-1.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	+0.5031 g
Analysis Date:	05/26/2016 1311	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	05/25/2016 1445				
Leach Date:	N/A				

LCSD Lab Sample ID:	LCDSRM 480-303360/3-A	Analysis Batch:	480-303864	Instrument ID:	ICAP2
Client Matrix:	Solid	Prep Batch:	480-303360	Lab File ID:	I2052616A-1.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	+0.4974 g
Analysis Date:	05/26/2016 1314	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	05/25/2016 1445				
Leach Date:	N/A				

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Aluminum	112.2	113.6	39.0 - 161.4	1	20		
Antimony	70.4	72.9	20.4 - 254.3	3	20		
Arsenic	89.0	90.5	69.3 - 145.2	2	20		
Barium	86.8	88.4	74.0 - 126.0	2	20	^	^
Beryllium	88.2	89.1	73.6 - 126.4	1	20		
Cadmium	90.0	90.4	73.3 - 126.7	0	20		
Calcium	85.5	85.7	74.1 - 125.9	0	20	^	^
Chromium	87.9	89.1	70.9 - 129.7	1	20		
Cobalt	100.3	101.4	74.1 - 125.3	1	20		
Copper	90.1	87.0	74.5 - 125.5	4	20		
Iron	98.5	105.7	35.6 - 163.9	7	20	^	^
Lead	96.8	100.0	72.5 - 126.9	3	20		
Magnesium	91.6	93.7	64.4 - 136.0	2	20	^	^
Nickel	102.9	103.3	73.2 - 126.8	0	20		
Potassium	103.0	104.6	60.8 - 138.8	2	20		
Selenium	89.0	90.2	67.5 - 132.5	1	20		
Silver	84.1	84.4	66.0 - 133.7	0	20		
Sodium	90.7	96.3	65.3 - 134.3	6	20		
Thallium	99.4	105.0	68.6 - 130.9	5	20		
Vanadium	94.6	98.1	64.4 - 135.5	4	20		
Zinc	84.6	85.8	69.6 - 130.4	1	20		

Client: Stantec Consulting Services Inc

Job Number: 480-100525-1

LCS-Certified Reference Material/ LCSD - Certified Reference Material Recovery Report - Batch: 480-303360

Method: 6010C
Preparation: 3050B

LCS Lab Sample ID:	LCSSRM 480-303360/2-A	Analysis Batch:	480-304266	Instrument ID:	ICAP2
Client Matrix:	Solid	Prep Batch:	480-303360	Lab File ID:	I2052816A-7.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	+0.5031 g
Analysis Date:	05/28/2016 2020	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	05/25/2016 1445				
Leach Date:	N/A				

LCSD Lab Sample ID:	LCDSRM 480-303360/3-A	Analysis Batch:	480-304266	Instrument ID:	ICAP2
Client Matrix:	Solid	Prep Batch:	480-303360	Lab File ID:	I2052816A-7.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	+0.4974 g
Analysis Date:	05/28/2016 2023	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	05/25/2016 1445				
Leach Date:	N/A				

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Manganese	87.6	89.5	76.3 - 123.9	2	20		

Client: Stantec Consulting Services Inc

Job Number: 480-100525-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 480-303360

Method: 6010C
Preparation: 3050B

MS Lab Sample ID: 480-100525-2
Client Matrix: Solid
Dilution: 1.0
Analysis Date: 05/26/2016 1332
Prep Date: 05/25/2016 1445
Leach Date: N/A

Analysis Batch: 480-303864
Prep Batch: 480-303360
Leach Batch: N/A

Instrument ID: ICAP2
Lab File ID: I2052616A-1.asc
Initial Weight/Volume: +0.4901 g
Final Weight/Volume: 50 mL

MSD Lab Sample ID: 480-100525-2
Client Matrix: Solid
Dilution: 1.0
Analysis Date: 05/26/2016 1335
Prep Date: 05/25/2016 1445
Leach Date: N/A

Analysis Batch: 480-303864
Prep Batch: 480-303360
Leach Batch: N/A

Instrument ID: ICAP2
Lab File ID: I2052616A-1.asc
Initial Weight/Volume: +0.4872 g
Final Weight/Volume: 50 mL

Analyte	% Rec. MS	% Rec. MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Aluminum	265	279	75 - 125	2	20	4	4
Antimony	52	52	75 - 125	0	20	F1	F1
Arsenic	97	97	75 - 125	0	20		
Barium	122	137	75 - 125	5	20	^	F1 ^
Beryllium	86	88	75 - 125	3	20		
Cadmium	94	94	75 - 125	1	20		
Calcium	163	399	75 - 125	4	20	4 ^	4 ^
Chromium	90	89	75 - 125	0	20		
Cobalt	98	98	75 - 125	1	20		
Copper	95	92	75 - 125	2	20		
Iron	111	115	75 - 125	1	20	4 ^	4 ^
Lead	102	102	75 - 125	1	20		
Magnesium	93	180	75 - 125	4	20	4 ^	4 ^
Nickel	97	97	75 - 125	0	20		
Potassium	200	210	75 - 125	3	20	F1	F1
Selenium	93	94	75 - 125	3	20		
Silver	97	96	75 - 125	0	20		
Sodium	101	105	75 - 125	3	20		
Thallium	96	97	75 - 125	1	20		
Vanadium	101	100	75 - 125	1	20		
Zinc	84	80	75 - 125	3	20		

Client: Stantec Consulting Services Inc

Job Number: 480-100525-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 480-303360

Method: 6010C
Preparation: 3050B

MS Lab Sample ID:	480-100525-2	Analysis Batch:	480-304266	Instrument ID:	ICAP2
Client Matrix:	Solid	Prep Batch:	480-303360	Lab File ID:	I2052816A-7.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	+0.4901 g
Analysis Date:	05/28/2016 2051			Final Weight/Volume:	50 mL
Prep Date:	05/25/2016 1445				
Leach Date:	N/A				

MSD Lab Sample ID:	480-100525-2	Analysis Batch:	480-304266	Instrument ID:	ICAP2
Client Matrix:	Solid	Prep Batch:	480-303360	Lab File ID:	I2052816A-7.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	+0.4872 g
Analysis Date:	05/28/2016 2054			Final Weight/Volume:	50 mL
Prep Date:	05/25/2016 1445				
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Manganese	98	105	75 - 125	1	20	4	4

Method Blank - Batch: 480-303181

Method: 7471B
Preparation: 7471B

Lab Sample ID:	MB 480-303181/1-A	Analysis Batch:	480-303378	Instrument ID:	LEEMAN3
Client Matrix:	Solid	Prep Batch:	480-303181	Lab File ID:	J05246S1.PRN
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	+0.6170 g
Analysis Date:	05/24/2016 1019	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	05/24/2016 0715				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Mercury	ND		0.0079	0.019

LCS-Certified Reference Material/ LCSD - Certified Reference Material Recovery Report - Batch: 480-303181

Method: 7471B
Preparation: 7471B

LCS Lab Sample ID:	LCSSRM 480-303181/2-A	Analysis Batch:	480-303378	Instrument ID:	LEEMAN3
Client Matrix:	Solid	Prep Batch:	480-303181	Lab File ID:	J05246S1.PRN
Dilution:	5.0	Leach Batch:	N/A	Initial Weight/Volume:	+0.1400 g
Analysis Date:	05/24/2016 1020	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	05/24/2016 0715				
Leach Date:	N/A				

LCSD Lab Sample ID:	LCDSRM 480-303181/3-A	Analysis Batch:	480-303378	Instrument ID:	LEEMAN3
Client Matrix:	Solid	Prep Batch:	480-303181	Lab File ID:	J05246S1.PRN
Dilution:	5.0	Leach Batch:	N/A	Initial Weight/Volume:	+0.1404 g
Analysis Date:	05/24/2016 1022	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	05/24/2016 0715				
Leach Date:	N/A				

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Mercury	82.7	81.0	51.3 - 149.3	2	20		

Client: Stantec Consulting Services Inc

Job Number: 480-100525-1

Method Blank - Batch: 480-304090

Method: 9012B
Preparation: 9012B

Lab Sample ID:	MB 480-304090/1-A	Analysis Batch:	480-304118	Instrument ID:	LACHAT2
Client Matrix:	Solid	Prep Batch:	480-304090	Lab File ID:	OM_5-27-2016_02-50-4
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.5579 g
Analysis Date:	05/27/2016 1454	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	05/27/2016 1408				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Cyanide, Total	ND		0.43	0.90

LCS-Certified Reference Material - Batch: 480-304090

Method: 9012B
Preparation: 9012B

Lab Sample ID:	LCSSRM 480-304090/2-A	Analysis Batch:	480-304118	Instrument ID:	LACHAT2
Client Matrix:	Solid	Prep Batch:	480-304090	Lab File ID:	OM_5-27-2016_02-50-4
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.5018 g
Analysis Date:	05/27/2016 1455	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	05/27/2016 1408				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Cyanide, Total	39.6	45.83	115.7	33.3 - 195.2	

Client: Stantec Consulting Services Inc

Job Number: 480-100525-1

Method Blank - Batch: 480-304591

Method: 9012B
Preparation: 9012B

Lab Sample ID:	MB 480-304591/1-A	Analysis Batch:	480-304742	Instrument ID:	LACHAT2
Client Matrix:	Solid	Prep Batch:	480-304591	Lab File ID:	OM_6-2-2016_11-25-13
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.5393 g
Analysis Date:	06/02/2016 1128	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	06/01/2016 1455				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Cyanide, Total	ND		0.45	0.93

LCS-Certified Reference Material - Batch: 480-304591

Method: 9012B
Preparation: 9012B

Lab Sample ID:	LCSSRM 480-304591/2-A	Analysis Batch:	480-304742	Instrument ID:	LACHAT2
Client Matrix:	Solid	Prep Batch:	480-304591	Lab File ID:	OM_6-2-2016_11-25-13
Dilution:	2.0	Leach Batch:	N/A	Initial Weight/Volume:	0.5054 g
Analysis Date:	06/02/2016 1156	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	06/01/2016 1455				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Cyanide, Total	39.6	50.46	127.4	33.3 - 195.2	

Chain of Custody Record

TAL-4124 (1007)

Temperature on Receipt ______

Drinking Water? Yes☐ No☐

TestAme[rica]
THE LEADER IN ENVIRONM[ENTAL TESTING]

480-100525 Chain of Custody

Client: Stantec	Project Manager: Tom Wellis	Date: 5/20/16	289089
Address: 61 Commercial St., Suite 100	Telephone Number (Area Code)/Fax Number: (585) 413-5271	Lab Number:	Page 1 of 1
City: Rochester; State: NY; Zip Code: 14614	Site Contact: Laura Best (585) 301-0166; Lab Contact: Ryan VanDette		
Project Name and Location (State): Former Vacuum Oil Works 920 Exchange St Rochester, NY	Carrier/Waybill Number: 8099 5002 9578		
Contract/Purchase Order/Quote No.: Quote # 48013836			

Analysis (Attach list if more space is needed)

Special Instructions/ Conditions of Receipt

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Concrete dust	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	TCL+CP-51 VOCs + up to 10 TICs 8260	TCL+CP-51 SVOCs + up to 20 TICs 8270	TCL Pesticides 8081	TCL PCBs 8082	TAL Metals 6010/7471	Total & Amenable Cyanide 9012
VO-DRA1-C	5/20/16	11:55					X	X5						X	X	X	X	X	X
VO-DRA2-C	5/20/16	12:15					X	X5						X	X	X	X	X	X
VO-SUMP1-W	5/20/16	15:10		X				2			3			X	X				
VO-SUMP2-W	5/20/16	14:40		X				2			3			X	X				
VO-SUMP3-W	5/20/16	15:25		X				2			3			X	X				
VO-VAULT3-W	5/20/16	14:55		X				2			3			X	X				
TRIPBLANK	5/20/16	10:00		X							1			X					

Laura Best 5/20/16

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☒ Disposal By Lab ☐ Archive For ______ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☒ 14 Days ☐ 21 Days ☐ Other std 10d TAT

QC Requirements (Specify): Category A (NYSDEC ASP) deliverables; NYSDEC EQuIS EDD

1. Relinquished By: Laura Best	Date: 5/20/16	Time: 1720	1. Received By: FEDEX	Date: 5/20/16	Time: 1720
2. Relinquished By:	Date:	Time:	2. Received By: [signature] TA	Date: 05/21/16	Time: 0900
3. Relinquished By:	Date:	Time:	3. Received By:	Date:	Time:

Comments: Temp 3.7 #1

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

Login Sample Receipt Checklist

Client: Stantec Consulting Services Inc

Job Number: 480-100525-1

Login Number: 100525
List Number: 1
Creator: Conway, Curtis R

List Source: TestAmerica Buffalo

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	STANTEC
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 480-100525-2

Job Description: Former Vacuum Oil Works - Water

For:
Stantec Consulting Services Inc
61 Commercial Street
Rochester, NY 14614

Attention: Mr. Thomas D Wells

Approved for release.
Lisa E Shaffer
Project Manager II
5/31/2016 4:42 PM

Designee for
Ryan T VanDette, Project Manager II
10 Hazelwood Drive, Amherst, NY, 14228-2298
(716)504-9830
ryan.vandette@testamericainc.com
05/31/2016

The test results in this report meet all NELAP requirements for analytes for which accreditation is required or available. Any exceptions to the NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. All questions regarding this test report should be directed to the TestAmerica Project Manager who has signed this report.

TestAmerica Buffalo NELAC Certifications: CADPH 01169CA, FLDOH E87672, ILEPA 200003, KSDOH E-10187, LADEQ 30708, MDH 036-999-337, NHELAP 2973, NJDEP NY455, NHDOH 10026, ORELAP NY200003, PADEP 68-00281, TXCEQ T-104704412-10-1

Job Narrative
480-100525-2

Comments
No additional comments.

Receipt
The samples were received on 5/21/2016 9:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.7º C.

GC/MS VOA
Method(s) 8260C: The following volatiles samples were diluted due to foaming at the time of purging during the original sample analysis: VO-SUMP1-W (480-100525-3), VO-SUMP3-W (480-100525-5) and VO-VAULT3-W (480-100525-6). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA
Method(s) 8270D: The following samples were diluted due to appearance and viscosity: VO-SUMP1-W (480-100525-3), (480-100525-A-3-A MS) and (480-100525-A-3-B MSD). Elevated reporting limits (RL) are provided.

Method(s) 8270D: The following sample was diluted due to the nature of the sample matrix : VO-SUMP3-W (480-100525-5). As such, surrogate recoveries are below the calibration range, and elevated reporting limits (RLs) are provided.

Method(s) 8270D: The laboratory control sample (LCS) for preparation batch 480-303303 and analytical batch 480-303536 recovered outside control limits for the following analyte: Benzaldehyde. This analyte was biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method(s) 8270D: The matrix spike duplicate (MSD) and surrogate recoveries for preparation batch 480-303303 and analytical batch 480-303536 were outside control limits. There is insufficient sample volume to re-extracted.

Method(s) 8270D: The laboratory control sample (LCS) for preparation batch 480-303303 and analytical batch 480-303749 recovered outside control limits for the following analytes: Benzaldehyde. This analyte was biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method(s) 8270D: The following samples were diluted due to the nature of the sample matrix: VO-SUMP2-W (480-100525-4) and VO-VAULT3-W (480-100525-6). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

EXECUTIVE SUMMARY - Detections

Client: Stantec Consulting Services Inc Job Number: 480-100525-2

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
480-100525-4	**VO-SUMP2-W**					
Anthracene		1.9	J	23	ug/L	8270D
Benzo(a)anthracene		3.6	J	23	ug/L	8270D
Benzo(a)pyrene		3.0	J	23	ug/L	8270D
Benzo(b)fluoranthene		4.4	J	23	ug/L	8270D
Benzo(g,h,i)perylene		2.3	J	23	ug/L	8270D
Chrysene		4.1	J	23	ug/L	8270D
Fluoranthene		8.7	J	23	ug/L	8270D
Phenanthrene		6.2	J	23	ug/L	8270D
Pyrene		6.2	J	23	ug/L	8270D
480-100525-5	**VO-SUMP3-W**					
Acenaphthene		86	J	470	ug/L	8270D
Anthracene		210	J	470	ug/L	8270D
Benzo(a)anthracene		570		470	ug/L	8270D
Benzo(a)pyrene		520		470	ug/L	8270D
Benzo(b)fluoranthene		710		470	ug/L	8270D
Benzo(g,h,i)perylene		370	J	470	ug/L	8270D
Benzo(k)fluoranthene		340	J	470	ug/L	8270D
Carbazole		180	J	470	ug/L	8270D
Chrysene		610		470	ug/L	8270D
Dibenz(a,h)anthracene		100	J	470	ug/L	8270D
Dibenzofuran		54	J	950	ug/L	8270D
Fluoranthene		1800		470	ug/L	8270D
Fluorene		70	J	470	ug/L	8270D
Indeno(1,2,3-cd)pyrene		340	J	470	ug/L	8270D
Phenanthrene		1200		470	ug/L	8270D
Pyrene		1100		470	ug/L	8270D

METHOD SUMMARY

Client: Stantec Consulting Services Inc

Job Number: 480-100525-2

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Volatile Organic Compounds by GC/MS	TAL BUF	SW846 8260C	
Purge and Trap	TAL BUF		SW846 5030C
Semivolatile Organic Compounds (GC/MS)	TAL BUF	SW846 8270D	
Liquid-Liquid Extraction (Separatory Funnel)	TAL BUF		SW846 3510C

Lab References:

TAL BUF = TestAmerica Buffalo

Method References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: Stantec Consulting Services Inc

Job Number: 480-100525-2

Method	Analyst	Analyst ID
SW846 8260C	O'Brien, Shaun W	SWO
SW846 8270D	Wolf, Leah M	LMW

SAMPLE SUMMARY

Client: Stantec Consulting Services Inc

Job Number: 480-100525-2

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
480-100525-3	VO-SUMP1-W	Water	05/20/2016 1510	05/21/2016 0900
480-100525-4	VO-SUMP2-W	Water	05/20/2016 1440	05/21/2016 0900
480-100525-5	VO-SUMP3-W	Water	05/20/2016 1525	05/21/2016 0900
480-100525-6	VO-VAULT3-W	Water	05/20/2016 1455	05/21/2016 0900
480-100525-7	TRIP BLANK	Water	05/20/2016 1000	05/21/2016 0900

SAMPLE RESULTS

Client: Stantec Consulting Services Inc | Job Number: 480-100525-2

Client Sample ID: **VO-SUMP1-W**

Lab Sample ID: 480-100525-3 | Date Sampled: 05/20/2016 1510
Client Matrix: Water | Date Received: 05/21/2016 0900

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-303740	Instrument ID:	HP5973S
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	S2100.D
Dilution:	4.0			Initial Weight/Volume:	5 mL
Analysis Date:	05/26/2016 1729			Final Weight/Volume:	5 mL
Prep Date:	05/26/2016 1729				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		3.3	4.0
1,1,2,2-Tetrachloroethane	ND		0.84	4.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.2	4.0
1,1,2-Trichloroethane	ND		0.92	4.0
1,1-Dichloroethane	ND		1.5	4.0
1,1-Dichloroethene	ND		1.2	4.0
1,2,4-Trichlorobenzene	ND		1.6	4.0
1,2,4-Trimethylbenzene	ND		3.0	4.0
1,2-Dibromo-3-Chloropropane	ND		1.6	4.0
1,2-Dichlorobenzene	ND		3.2	4.0
1,2-Dichloroethane	ND		0.84	4.0
1,2-Dichloropropane	ND		2.9	4.0
1,3,5-Trimethylbenzene	ND		3.1	4.0
1,3-Dichlorobenzene	ND		3.1	4.0
1,4-Dichlorobenzene	ND		3.4	4.0
2-Butanone (MEK)	ND		5.3	40
2-Hexanone	ND		5.0	20
4-Isopropyltoluene	ND		1.2	4.0
4-Methyl-2-pentanone (MIBK)	ND		8.4	20
Acetone	ND		12	40
Benzene	ND		1.6	4.0
Bromoform	ND		1.0	4.0
Bromomethane	ND		2.8	4.0
Carbon disulfide	ND		0.76	4.0
Carbon tetrachloride	ND		1.1	4.0
Chlorobenzene	ND		3.0	4.0
Dibromochloromethane	ND		1.3	4.0
Chloroethane	ND		1.3	4.0
Chloroform	ND		1.4	4.0
Chloromethane	ND		1.4	4.0
cis-1,2-Dichloroethene	ND		3.2	4.0
Cyclohexane	ND		0.72	4.0
Bromodichloromethane	ND		1.6	4.0
Dichlorodifluoromethane	ND		2.7	4.0
Ethylbenzene	ND		3.0	4.0
1,2-Dibromoethane	ND		2.9	4.0
Isopropylbenzene	ND		3.2	4.0
Methyl acetate	ND		5.2	10
Methyl tert-butyl ether	ND		0.64	4.0
Methylcyclohexane	ND		0.64	4.0
Methylene Chloride	ND		1.8	4.0
m,p-Xylene	ND		2.6	8.0
Naphthalene	ND		1.7	4.0
n-Butylbenzene	ND		2.6	4.0
N-Propylbenzene	ND		2.8	4.0
o-Xylene	ND		3.0	4.0

Client: Stantec Consulting Services Inc

Job Number: 480-100525-2

Client Sample ID: **VO-SUMP1-W**

Lab Sample ID: 480-100525-3
Client Matrix: Water

Date Sampled: 05/20/2016 1510
Date Received: 05/21/2016 0900

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-303740	Instrument ID:	HP5973S
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	S2100.D
Dilution:	4.0			Initial Weight/Volume:	5 mL
Analysis Date:	05/26/2016 1729			Final Weight/Volume:	5 mL
Prep Date:	05/26/2016 1729				

Analyte	Result (ug/L)	Qualifier	MDL	RL
sec-Butylbenzene	ND		3.0	4.0
Tetrachloroethene	ND		1.4	4.0
Toluene	ND		2.0	4.0
trans-1,2-Dichloroethene	ND		3.6	4.0
trans-1,3-Dichloropropene	ND		1.5	4.0
Trichloroethene	ND		1.8	4.0
Trichlorofluoromethane	ND		3.5	4.0
Vinyl chloride	ND		3.6	4.0
Xylenes, Total	ND		2.6	8.0
cis-1,3-Dichloropropene	ND		1.4	4.0
Styrene	ND		2.9	4.0
tert-Butylbenzene	ND		3.2	4.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	91		66 - 137
4-Bromofluorobenzene (Surr)	94		73 - 120
Toluene-d8 (Surr)	99		71 - 126
Dibromofluoromethane (Surr)	95		60 - 140

Client: Stantec Consulting Services Inc

Job Number: 480-100525-2

Client Sample ID: **VO-SUMP1-W**

Lab Sample ID: 480-100525-3
Client Matrix: Water

Date Sampled: 05/20/2016 1510
Date Received: 05/21/2016 0900

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-303740	Instrument ID:	HP5973S
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	S2100.D
Dilution:	4.0			Initial Weight/Volume:	5 mL
Analysis Date:	05/26/2016 1729			Final Weight/Volume:	5 mL
Prep Date:	05/26/2016 1729				

Tentatively Identified Compounds **Number TIC's Found:** **0**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Tentatively Identified Compound		None	

Client: Stantec Consulting Services Inc

Job Number: 480-100525-2

Client Sample ID: **VO-SUMP2-W**

Lab Sample ID: 480-100525-4
Client Matrix: Water

Date Sampled: 05/20/2016 1440
Date Received: 05/21/2016 0900

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-303740	Instrument ID:	HP5973S
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	S2101.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	05/26/2016 1752			Final Weight/Volume:	5 mL
Prep Date:	05/26/2016 1752				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		0.82	1.0
1,1,2,2-Tetrachloroethane	ND		0.21	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.31	1.0
1,1,2-Trichloroethane	ND		0.23	1.0
1,1-Dichloroethane	ND		0.38	1.0
1,1-Dichloroethene	ND		0.29	1.0
1,2,4-Trichlorobenzene	ND		0.41	1.0
1,2,4-Trimethylbenzene	ND		0.75	1.0
1,2-Dibromo-3-Chloropropane	ND		0.39	1.0
1,2-Dichlorobenzene	ND		0.79	1.0
1,2-Dichloroethane	ND		0.21	1.0
1,2-Dichloropropane	ND		0.72	1.0
1,3,5-Trimethylbenzene	ND		0.77	1.0
1,3-Dichlorobenzene	ND		0.78	1.0
1,4-Dichlorobenzene	ND		0.84	1.0
2-Butanone (MEK)	ND		1.3	10
2-Hexanone	ND		1.2	5.0
4-Isopropyltoluene	ND		0.31	1.0
4-Methyl-2-pentanone (MIBK)	ND		2.1	5.0
Acetone	ND		3.0	10
Benzene	ND		0.41	1.0
Bromoform	ND		0.26	1.0
Bromomethane	ND		0.69	1.0
Carbon disulfide	ND		0.19	1.0
Carbon tetrachloride	ND		0.27	1.0
Chlorobenzene	ND		0.75	1.0
Dibromochloromethane	ND		0.32	1.0
Chloroethane	ND		0.32	1.0
Chloroform	ND		0.34	1.0
Chloromethane	ND		0.35	1.0
cis-1,2-Dichloroethene	ND		0.81	1.0
Cyclohexane	ND		0.18	1.0
Bromodichloromethane	ND		0.39	1.0
Dichlorodifluoromethane	ND		0.68	1.0
Ethylbenzene	ND		0.74	1.0
1,2-Dibromoethane	ND		0.73	1.0
Isopropylbenzene	ND		0.79	1.0
Methyl acetate	ND		1.3	2.5
Methyl tert-butyl ether	ND		0.16	1.0
Methylcyclohexane	ND		0.16	1.0
Methylene Chloride	ND		0.44	1.0
m,p-Xylene	ND		0.66	2.0
Naphthalene	ND		0.43	1.0
n-Butylbenzene	ND		0.64	1.0
N-Propylbenzene	ND		0.69	1.0
o-Xylene	ND		0.76	1.0

Client: Stantec Consulting Services Inc

Job Number: 480-100525-2

Client Sample ID: **VO-SUMP2-W**

Lab Sample ID: 480-100525-4
Client Matrix: Water

Date Sampled: 05/20/2016 1440
Date Received: 05/21/2016 0900

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-303740	Instrument ID:	HP5973S
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	S2101.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	05/26/2016 1752			Final Weight/Volume:	5 mL
Prep Date:	05/26/2016 1752				

Analyte	Result (ug/L)	Qualifier	MDL	RL
sec-Butylbenzene	ND		0.75	1.0
Tetrachloroethene	ND		0.36	1.0
Toluene	ND		0.51	1.0
trans-1,2-Dichloroethene	ND		0.90	1.0
trans-1,3-Dichloropropene	ND		0.37	1.0
Trichloroethene	ND		0.46	1.0
Trichlorofluoromethane	ND		0.88	1.0
Vinyl chloride	ND		0.90	1.0
Xylenes, Total	ND		0.66	2.0
cis-1,3-Dichloropropene	ND		0.36	1.0
Styrene	ND		0.73	1.0
tert-Butylbenzene	ND		0.81	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	88		66 - 137
4-Bromofluorobenzene (Surr)	93		73 - 120
Toluene-d8 (Surr)	98		71 - 126
Dibromofluoromethane (Surr)	94		60 - 140

Client: Stantec Consulting Services Inc | Job Number: 480-100525-2

Client Sample ID: **VO-SUMP2-W**

Lab Sample ID: 480-100525-4 | Date Sampled: 05/20/2016 1440
Client Matrix: Water | Date Received: 05/21/2016 0900

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-303740	Instrument ID:	HP5973S
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	S2101.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	05/26/2016 1752			Final Weight/Volume:	5 mL
Prep Date:	05/26/2016 1752				

Tentatively Identified Compounds **Number TIC's Found:** **0**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Tentatively Identified Compound		None	

Client: Stantec Consulting Services Inc | Job Number: 480-100525-2

Client Sample ID: **VO-SUMP3-W**

Lab Sample ID: 480-100525-5 | Date Sampled: 05/20/2016 1525
Client Matrix: Water | Date Received: 05/21/2016 0900

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-303740	Instrument ID:	HP5973S
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	S2102.D
Dilution:	10			Initial Weight/Volume:	5 mL
Analysis Date:	05/26/2016 1815			Final Weight/Volume:	5 mL
Prep Date:	05/26/2016 1815				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		8.2	10
1,1,2,2-Tetrachloroethane	ND		2.1	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		3.1	10
1,1,2-Trichloroethane	ND		2.3	10
1,1-Dichloroethane	ND		3.8	10
1,1-Dichloroethene	ND		2.9	10
1,2,4-Trichlorobenzene	ND		4.1	10
1,2,4-Trimethylbenzene	ND		7.5	10
1,2-Dibromo-3-Chloropropane	ND		3.9	10
1,2-Dichlorobenzene	ND		7.9	10
1,2-Dichloroethane	ND		2.1	10
1,2-Dichloropropane	ND		7.2	10
1,3,5-Trimethylbenzene	ND		7.7	10
1,3-Dichlorobenzene	ND		7.8	10
1,4-Dichlorobenzene	ND		8.4	10
2-Butanone (MEK)	ND		13	100
2-Hexanone	ND		12	50
4-Isopropyltoluene	ND		3.1	10
4-Methyl-2-pentanone (MIBK)	ND		21	50
Acetone	ND		30	100
Benzene	ND		4.1	10
Bromoform	ND		2.6	10
Bromomethane	ND		6.9	10
Carbon disulfide	ND		1.9	10
Carbon tetrachloride	ND		2.7	10
Chlorobenzene	ND		7.5	10
Dibromochloromethane	ND		3.2	10
Chloroethane	ND		3.2	10
Chloroform	ND		3.4	10
Chloromethane	ND		3.5	10
cis-1,2-Dichloroethene	ND		8.1	10
Cyclohexane	ND		1.8	10
Bromodichloromethane	ND		3.9	10
Dichlorodifluoromethane	ND		6.8	10
Ethylbenzene	ND		7.4	10
1,2-Dibromoethane	ND		7.3	10
Isopropylbenzene	ND		7.9	10
Methyl acetate	ND		13	25
Methyl tert-butyl ether	ND		1.6	10
Methylcyclohexane	ND		1.6	10
Methylene Chloride	ND		4.4	10
m,p-Xylene	ND		6.6	20
Naphthalene	ND		4.3	10
n-Butylbenzene	ND		6.4	10
N-Propylbenzene	ND		6.9	10
o-Xylene	ND		7.6	10

Client: Stantec Consulting Services Inc

Job Number: 480-100525-2

Client Sample ID: **VO-SUMP3-W**

Lab Sample ID: 480-100525-5
Client Matrix: Water

Date Sampled: 05/20/2016 1525
Date Received: 05/21/2016 0900

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-303740	Instrument ID:	HP5973S
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	S2102.D
Dilution:	10			Initial Weight/Volume:	5 mL
Analysis Date:	05/26/2016 1815			Final Weight/Volume:	5 mL
Prep Date:	05/26/2016 1815				

Analyte	Result (ug/L)	Qualifier	MDL	RL
sec-Butylbenzene	ND		7.5	10
Tetrachloroethene	ND		3.6	10
Toluene	ND		5.1	10
trans-1,2-Dichloroethene	ND		9.0	10
trans-1,3-Dichloropropene	ND		3.7	10
Trichloroethene	ND		4.6	10
Trichlorofluoromethane	ND		8.8	10
Vinyl chloride	ND		9.0	10
Xylenes, Total	ND		6.6	20
cis-1,3-Dichloropropene	ND		3.6	10
Styrene	ND		7.3	10
tert-Butylbenzene	ND		8.1	10

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	94		66 - 137
4-Bromofluorobenzene (Surr)	93		73 - 120
Toluene-d8 (Surr)	98		71 - 126
Dibromofluoromethane (Surr)	99		60 - 140

Client: Stantec Consulting Services Inc | Job Number: 480-100525-2

Client Sample ID: **VO-SUMP3-W**

Lab Sample ID: 480-100525-5 | Date Sampled: 05/20/2016 1525
Client Matrix: Water | Date Received: 05/21/2016 0900

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-303740	Instrument ID:	HP5973S
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	S2102.D
Dilution:	10			Initial Weight/Volume:	5 mL
Analysis Date:	05/26/2016 1815			Final Weight/Volume:	5 mL
Prep Date:	05/26/2016 1815				

Tentatively Identified Compounds **Number TIC's Found:** **0**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Tentatively Identified Compound		None	

Client: Stantec Consulting Services Inc | Job Number: 480-100525-2

Client Sample ID: **VO-VAULT3-W**

Lab Sample ID: 480-100525-6 | Date Sampled: 05/20/2016 1455
Client Matrix: Water | Date Received: 05/21/2016 0900

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-303740	Instrument ID:	HP5973S
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	S2103.D
Dilution:	10			Initial Weight/Volume:	5 mL
Analysis Date:	05/26/2016 1838			Final Weight/Volume:	5 mL
Prep Date:	05/26/2016 1838				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		8.2	10
1,1,2,2-Tetrachloroethane	ND		2.1	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		3.1	10
1,1,2-Trichloroethane	ND		2.3	10
1,1-Dichloroethane	ND		3.8	10
1,1-Dichloroethene	ND		2.9	10
1,2,4-Trichlorobenzene	ND		4.1	10
1,2,4-Trimethylbenzene	ND		7.5	10
1,2-Dibromo-3-Chloropropane	ND		3.9	10
1,2-Dichlorobenzene	ND		7.9	10
1,2-Dichloroethane	ND		2.1	10
1,2-Dichloropropane	ND		7.2	10
1,3,5-Trimethylbenzene	ND		7.7	10
1,3-Dichlorobenzene	ND		7.8	10
1,4-Dichlorobenzene	ND		8.4	10
2-Butanone (MEK)	ND		13	100
2-Hexanone	ND		12	50
4-Isopropyltoluene	ND		3.1	10
4-Methyl-2-pentanone (MIBK)	ND		21	50
Acetone	ND		30	100
Benzene	ND		4.1	10
Bromoform	ND		2.6	10
Bromomethane	ND		6.9	10
Carbon disulfide	ND		1.9	10
Carbon tetrachloride	ND		2.7	10
Chlorobenzene	ND		7.5	10
Dibromochloromethane	ND		3.2	10
Chloroethane	ND		3.2	10
Chloroform	ND		3.4	10
Chloromethane	ND		3.5	10
cis-1,2-Dichloroethene	ND		8.1	10
Cyclohexane	ND		1.8	10
Bromodichloromethane	ND		3.9	10
Dichlorodifluoromethane	ND		6.8	10
Ethylbenzene	ND		7.4	10
1,2-Dibromoethane	ND		7.3	10
Isopropylbenzene	ND		7.9	10
Methyl acetate	ND		13	25
Methyl tert-butyl ether	ND		1.6	10
Methylcyclohexane	ND		1.6	10
Methylene Chloride	ND		4.4	10
m,p-Xylene	ND		6.6	20
Naphthalene	ND		4.3	10
n-Butylbenzene	ND		6.4	10
N-Propylbenzene	ND		6.9	10
o-Xylene	ND		7.6	10

Client: Stantec Consulting Services Inc | Job Number: 480-100525-2

Client Sample ID: **VO-VAULT3-W**

Lab Sample ID: 480-100525-6 | Date Sampled: 05/20/2016 1455
Client Matrix: Water | Date Received: 05/21/2016 0900

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-303740	Instrument ID:	HP5973S
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	S2103.D
Dilution:	10			Initial Weight/Volume:	5 mL
Analysis Date:	05/26/2016 1838			Final Weight/Volume:	5 mL
Prep Date:	05/26/2016 1838				

Analyte	Result (ug/L)	Qualifier	MDL	RL
sec-Butylbenzene	ND		7.5	10
Tetrachloroethene	ND		3.6	10
Toluene	ND		5.1	10
trans-1,2-Dichloroethene	ND		9.0	10
trans-1,3-Dichloropropene	ND		3.7	10
Trichloroethene	ND		4.6	10
Trichlorofluoromethane	ND		8.8	10
Vinyl chloride	ND		9.0	10
Xylenes, Total	ND		6.6	20
cis-1,3-Dichloropropene	ND		3.6	10
Styrene	ND		7.3	10
tert-Butylbenzene	ND		8.1	10

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	90		66 - 137
4-Bromofluorobenzene (Surr)	91		73 - 120
Toluene-d8 (Surr)	96		71 - 126
Dibromofluoromethane (Surr)	96		60 - 140

Client: Stantec Consulting Services Inc

Job Number: 480-100525-2

Client Sample ID: **VO-VAULT3-W**

Lab Sample ID: 480-100525-6
Client Matrix: Water

Date Sampled: 05/20/2016 1455
Date Received: 05/21/2016 0900

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-303740	Instrument ID:	HP5973S
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	S2103.D
Dilution:	10			Initial Weight/Volume:	5 mL
Analysis Date:	05/26/2016 1838			Final Weight/Volume:	5 mL
Prep Date:	05/26/2016 1838				

Tentatively Identified Compounds **Number TIC's Found:** **0**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Tentatively Identified Compound		None	

Client: Stantec Consulting Services Inc | Job Number: 480-100525-2

Client Sample ID: **TRIP BLANK**

Lab Sample ID: 480-100525-7 | Date Sampled: 05/20/2016 1000
Client Matrix: Water | Date Received: 05/21/2016 0900

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-303740	Instrument ID:	HP5973S
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	S2104.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	05/26/2016 1901			Final Weight/Volume:	5 mL
Prep Date:	05/26/2016 1901				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		0.82	1.0
1,1,2,2-Tetrachloroethane	ND		0.21	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.31	1.0
1,1,2-Trichloroethane	ND		0.23	1.0
1,1-Dichloroethane	ND		0.38	1.0
1,1-Dichloroethene	ND		0.29	1.0
1,2,4-Trichlorobenzene	ND		0.41	1.0
1,2,4-Trimethylbenzene	ND		0.75	1.0
1,2-Dibromo-3-Chloropropane	ND		0.39	1.0
1,2-Dichlorobenzene	ND		0.79	1.0
1,2-Dichloroethane	ND		0.21	1.0
1,2-Dichloropropane	ND		0.72	1.0
1,3,5-Trimethylbenzene	ND		0.77	1.0
1,3-Dichlorobenzene	ND		0.78	1.0
1,4-Dichlorobenzene	ND		0.84	1.0
2-Butanone (MEK)	ND		1.3	10
2-Hexanone	ND		1.2	5.0
4-Isopropyltoluene	ND		0.31	1.0
4-Methyl-2-pentanone (MIBK)	ND		2.1	5.0
Acetone	ND		3.0	10
Benzene	ND		0.41	1.0
Bromoform	ND		0.26	1.0
Bromomethane	ND		0.69	1.0
Carbon disulfide	ND		0.19	1.0
Carbon tetrachloride	ND		0.27	1.0
Chlorobenzene	ND		0.75	1.0
Dibromochloromethane	ND		0.32	1.0
Chloroethane	ND		0.32	1.0
Chloroform	ND		0.34	1.0
Chloromethane	ND		0.35	1.0
cis-1,2-Dichloroethene	ND		0.81	1.0
Cyclohexane	ND		0.18	1.0
Bromodichloromethane	ND		0.39	1.0
Dichlorodifluoromethane	ND		0.68	1.0
Ethylbenzene	ND		0.74	1.0
1,2-Dibromoethane	ND		0.73	1.0
Isopropylbenzene	ND		0.79	1.0
Methyl acetate	ND		1.3	2.5
Methyl tert-butyl ether	ND		0.16	1.0
Methylcyclohexane	ND		0.16	1.0
Methylene Chloride	ND		0.44	1.0
m,p-Xylene	ND		0.66	2.0
Naphthalene	ND		0.43	1.0
n-Butylbenzene	ND		0.64	1.0
N-Propylbenzene	ND		0.69	1.0
o-Xylene	ND		0.76	1.0

Client: Stantec Consulting Services Inc | Job Number: 480-100525-2

Client Sample ID: **TRIP BLANK**

Lab Sample ID: 480-100525-7 | Date Sampled: 05/20/2016 1000
Client Matrix: Water | Date Received: 05/21/2016 0900

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-303740	Instrument ID:	HP5973S
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	S2104.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	05/26/2016 1901			Final Weight/Volume:	5 mL
Prep Date:	05/26/2016 1901				

Analyte	Result (ug/L)	Qualifier	MDL	RL
sec-Butylbenzene	ND		0.75	1.0
Tetrachloroethene	ND		0.36	1.0
Toluene	ND		0.51	1.0
trans-1,2-Dichloroethene	ND		0.90	1.0
trans-1,3-Dichloropropene	ND		0.37	1.0
Trichloroethene	ND		0.46	1.0
Trichlorofluoromethane	ND		0.88	1.0
Vinyl chloride	ND		0.90	1.0
Xylenes, Total	ND		0.66	2.0
cis-1,3-Dichloropropene	ND		0.36	1.0
Styrene	ND		0.73	1.0
tert-Butylbenzene	ND		0.81	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	92		66 - 137
4-Bromofluorobenzene (Surr)	91		73 - 120
Toluene-d8 (Surr)	96		71 - 126
Dibromofluoromethane (Surr)	98		60 - 140

Client: Stantec Consulting Services Inc

Job Number: 480-100525-2

Client Sample ID: **TRIP BLANK**

Lab Sample ID: 480-100525-7
Client Matrix: Water

Date Sampled: 05/20/2016 1000
Date Received: 05/21/2016 0900

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-303740	Instrument ID:	HP5973S
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	S2104.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	05/26/2016 1901			Final Weight/Volume:	5 mL
Prep Date:	05/26/2016 1901				

Tentatively Identified Compounds **Number TIC's Found:** **0**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Tentatively Identified Compound		None	

Client: Stantec Consulting Services Inc

Job Number: 480-100525-2

Client Sample ID: **VO-SUMP1-W**

Lab Sample ID: 480-100525-3
Client Matrix: Water

Date Sampled: 05/20/2016 1510
Date Received: 05/21/2016 0900

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	480-303536	Instrument ID:	HP5973Y
Prep Method:	3510C	Prep Batch:	480-303303	Lab File ID:	Y0125902.D
Dilution:	5.0			Initial Weight/Volume:	256.8 mL
Analysis Date:	05/25/2016 1243			Final Weight/Volume:	1 mL
Prep Date:	05/24/2016 0818			Injection Volume:	2 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Biphenyl	ND		3.2	24
bis (2-chloroisopropyl) ether	ND		2.5	24
2,4,5-Trichlorophenol	ND	F1	2.3	24
2,4,6-Trichlorophenol	ND	F1	3.0	24
2,4-Dichlorophenol	ND	F1	2.5	24
2,4-Dimethylphenol	ND		2.4	24
2,4-Dinitrophenol	ND	F1	11	49
2,4-Dinitrotoluene	ND	F2	2.2	24
2,6-Dinitrotoluene	ND	F2	1.9	24
2-Chloronaphthalene	ND		2.2	24
2-Chlorophenol	ND	F1	2.6	24
2-Methylnaphthalene	ND		2.9	24
2-Methylphenol	ND	F2	1.9	24
2-Nitroaniline	ND	F1 F2	2.0	49
2-Nitrophenol	ND	F1	2.3	24
3,3'-Dichlorobenzidine	ND	F1 F2	1.9	24
3-Nitroaniline	ND		2.3	49
4,6-Dinitro-2-methylphenol	ND	F1	11	49
4-Bromophenyl phenyl ether	ND		2.2	24
4-Chloro-3-methylphenol	ND	F1	2.2	24
4-Chloroaniline	ND		2.9	24
4-Chlorophenyl phenyl ether	ND		1.7	24
4-Methylphenol	ND	F1 F2	1.8	49
4-Nitroaniline	ND	F1 F2	1.2	49
4-Nitrophenol	ND	F1	7.4	49
Acenaphthene	ND		2.0	24
Acenaphthylene	ND		1.8	24
Acetophenone	ND		2.6	24
Anthracene	ND		1.4	24
Atrazine	ND	F2	2.2	24
Benzaldehyde	ND	* F1	1.3	24
Benzo(a)anthracene	ND		1.8	24
Benzo(a)pyrene	ND		2.3	24
Benzo(b)fluoranthene	ND		1.7	24
Benzo(g,h,i)perylene	ND		1.7	24
Benzo(k)fluoranthene	ND		3.6	24
Bis(2-chloroethoxy)methane	ND		1.7	24
Bis(2-chloroethyl)ether	ND		1.9	24
Bis(2-ethylhexyl) phthalate	ND	F2	11	24
Butyl benzyl phthalate	ND	F2	4.9	24
Caprolactam	ND		11	24
Carbazole	ND		1.5	24
Chrysene	ND		1.6	24
Di-n-butyl phthalate	ND		1.5	24
Di-n-octyl phthalate	ND		2.3	24
Dibenz(a,h)anthracene	ND		2.0	24

Client: Stantec Consulting Services Inc | Job Number: 480-100525-2

Client Sample ID: **VO-SUMP1-W**

Lab Sample ID: 480-100525-3 | Date Sampled: 05/20/2016 1510
Client Matrix: Water | Date Received: 05/21/2016 0900

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	480-303536	Instrument ID:	HP5973Y
Prep Method:	3510C	Prep Batch:	480-303303	Lab File ID:	Y0125902.D
Dilution:	5.0			Initial Weight/Volume:	256.8 mL
Analysis Date:	05/25/2016 1243			Final Weight/Volume:	1 mL
Prep Date:	05/24/2016 0818			Injection Volume:	2 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Dibenzofuran	ND		2.5	49
Diethyl phthalate	ND		1.1	24
Dimethyl phthalate	ND		1.8	24
Fluoranthene	ND		1.9	24
Fluorene	ND		1.8	24
Hexachlorobenzene	ND		2.5	24
Hexachlorobutadiene	ND		3.3	24
Hexachlorocyclopentadiene	ND	F2	2.9	24
Hexachloroethane	ND		2.9	24
Indeno(1,2,3-cd)pyrene	ND		2.3	24
Isophorone	ND		2.1	24
N-Nitrosodi-n-propylamine	ND		2.6	24
N-Nitrosodiphenylamine	ND		2.5	24
Naphthalene	ND		3.7	24
Nitrobenzene	ND		1.4	24
Pentachlorophenol	ND	F1 F2	11	49
Phenanthrene	ND		2.1	24
Phenol	ND	F2	1.9	24
Pyrene	ND		1.7	24

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol	120		52 - 132
2-Fluorobiphenyl	96		48 - 120
2-Fluorophenol	53		20 - 120
Nitrobenzene-d5	86		46 - 120
p-Terphenyl-d14	75		67 - 150
Phenol-d5	38		16 - 120

Client: Stantec Consulting Services Inc | Job Number: 480-100525-2

Client Sample ID: **VO-SUMP1-W**

Lab Sample ID: 480-100525-3 | Date Sampled: 05/20/2016 1510
Client Matrix: Water | Date Received: 05/21/2016 0900

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	480-303536	Instrument ID:	HP5973Y
Prep Method:	3510C	Prep Batch:	480-303303	Lab File ID:	Y0125902.D
Dilution:	5.0			Initial Weight/Volume:	256.8 mL
Analysis Date:	05/25/2016 1243			Final Weight/Volume:	1 mL
Prep Date:	05/24/2016 0818			Injection Volume:	2 uL

Tentatively Identified Compounds **Number TIC's Found:** **4**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Unknown	2.22	180	T J
108-38-3	Benzene, 1,3-dimethyl-	4.54	12	T J N
	Unknown	5.13	10	T J
57-10-3	n-Hexadecanoic acid	10.03	8.0	T J N

Client: Stantec Consulting Services Inc

Job Number: 480-100525-2

Client Sample ID: **VO-SUMP2-W**

Lab Sample ID: 480-100525-4
Client Matrix: Water

Date Sampled: 05/20/2016 1440
Date Received: 05/21/2016 0900

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	480-303749	Instrument ID:	HP5973Y
Prep Method:	3510C	Prep Batch:	480-303303	Lab File ID:	Y0125935.D
Dilution:	5.0			Initial Weight/Volume:	266 mL
Analysis Date:	05/26/2016 1538			Final Weight/Volume:	1 mL
Prep Date:	05/24/2016 0818			Injection Volume:	2 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Biphenyl	ND		3.1	23
bis (2-chloroisopropyl) ether	ND		2.4	23
2,4,5-Trichlorophenol	ND		2.3	23
2,4,6-Trichlorophenol	ND		2.9	23
2,4-Dichlorophenol	ND		2.4	23
2,4-Dimethylphenol	ND		2.3	23
2,4-Dinitrophenol	ND		10	47
2,4-Dinitrotoluene	ND		2.1	23
2,6-Dinitrotoluene	ND		1.9	23
2-Chloronaphthalene	ND		2.2	23
2-Chlorophenol	ND		2.5	23
2-Methylnaphthalene	ND		2.8	23
2-Methylphenol	ND		1.9	23
2-Nitroaniline	ND		2.0	47
2-Nitrophenol	ND		2.3	23
3,3'-Dichlorobenzidine	ND		1.9	23
3-Nitroaniline	ND		2.3	47
4,6-Dinitro-2-methylphenol	ND		10	47
4-Bromophenyl phenyl ether	ND		2.1	23
4-Chloro-3-methylphenol	ND		2.1	23
4-Chloroaniline	ND		2.8	23
4-Chlorophenyl phenyl ether	ND		1.6	23
4-Methylphenol	ND		1.7	47
4-Nitroaniline	ND		1.2	47
4-Nitrophenol	ND		7.1	47
Acenaphthene	ND		1.9	23
Acenaphthylene	ND		1.8	23
Acetophenone	ND		2.5	23
Anthracene	1.9	J	1.3	23
Atrazine	ND		2.2	23
Benzaldehyde	ND	*	1.3	23
Benzo(a)anthracene	3.6	J	1.7	23
Benzo(a)pyrene	3.0	J	2.2	23
Benzo(b)fluoranthene	4.4	J	1.6	23
Benzo(g,h,i)perylene	2.3	J	1.6	23
Benzo(k)fluoranthene	ND		3.4	23
Bis(2-chloroethoxy)methane	ND		1.6	23
Bis(2-chloroethyl)ether	ND		1.9	23
Bis(2-ethylhexyl) phthalate	ND		10	23
Butyl benzyl phthalate	ND		4.7	23
Caprolactam	ND		10	23
Carbazole	ND		1.4	23
Chrysene	4.1	J	1.6	23
Di-n-butyl phthalate	ND		1.5	23
Di-n-octyl phthalate	ND		2.2	23
Dibenz(a,h)anthracene	ND		2.0	23

Client: Stantec Consulting Services Inc | Job Number: 480-100525-2

Client Sample ID: **VO-SUMP2-W**

Lab Sample ID: 480-100525-4 | Date Sampled: 05/20/2016 1440
Client Matrix: Water | Date Received: 05/21/2016 0900

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	480-303749	Instrument ID:	HP5973Y
Prep Method:	3510C	Prep Batch:	480-303303	Lab File ID:	Y0125935.D
Dilution:	5.0			Initial Weight/Volume:	266 mL
Analysis Date:	05/26/2016 1538			Final Weight/Volume:	1 mL
Prep Date:	05/24/2016 0818			Injection Volume:	2 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Dibenzofuran	ND		2.4	47
Diethyl phthalate	ND		1.0	23
Dimethyl phthalate	ND		1.7	23
Fluoranthene	8.7	J	1.9	23
Fluorene	ND		1.7	23
Hexachlorobenzene	ND		2.4	23
Hexachlorobutadiene	ND		3.2	23
Hexachlorocyclopentadiene	ND		2.8	23
Hexachloroethane	ND		2.8	23
Indeno(1,2,3-cd)pyrene	ND		2.2	23
Isophorone	ND		2.0	23
N-Nitrosodi-n-propylamine	ND		2.5	23
N-Nitrosodiphenylamine	ND		2.4	23
Naphthalene	ND		3.6	23
Nitrobenzene	ND		1.4	23
Pentachlorophenol	ND		10	47
Phenanthrene	6.2	J	2.1	23
Phenol	ND		1.8	23
Pyrene	6.2	J	1.6	23

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol	126		52 - 132
2-Fluorobiphenyl	86		48 - 120
2-Fluorophenol	46		20 - 120
Nitrobenzene-d5	75		46 - 120
p-Terphenyl-d14	74		67 - 150
Phenol-d5	33		16 - 120

Client: Stantec Consulting Services Inc | Job Number: 480-100525-2

Client Sample ID: **VO-SUMP2-W**

Lab Sample ID: 480-100525-4 | Date Sampled: 05/20/2016 1440
Client Matrix: Water | Date Received: 05/21/2016 0900

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	480-303749	Instrument ID:	HP5973Y
Prep Method:	3510C	Prep Batch:	480-303303	Lab File ID:	Y0125935.D
Dilution:	5.0			Initial Weight/Volume:	266 mL
Analysis Date:	05/26/2016 1538			Final Weight/Volume:	1 mL
Prep Date:	05/24/2016 0818			Injection Volume:	2 uL

Tentatively Identified Compounds **Number TIC's Found: 6**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Unknown	2.20	140	T J
109-09-1	Pyridine, 2-chloro-	5.12	14	T J N
	Unknown	8.65	13	T J
	Unknown	11.58	7.8	T J
	Unknown	12.02	9.8	T J
	Unknown	12.50	12	T J

Client: Stantec Consulting Services Inc

Job Number: 480-100525-2

Client Sample ID: **VO-SUMP3-W**

Lab Sample ID: 480-100525-5
Client Matrix: Water

Date Sampled: 05/20/2016 1525
Date Received: 05/21/2016 0900

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	480-303536	Instrument ID:	HP5973Y
Prep Method:	3510C	Prep Batch:	480-303303	Lab File ID:	Y0125904.D
Dilution:	100			Initial Weight/Volume:	263.5 mL
Analysis Date:	05/25/2016 1342			Final Weight/Volume:	1 mL
Prep Date:	05/24/2016 0818			Injection Volume:	2 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Biphenyl	ND		62	470
bis (2-chloroisopropyl) ether	ND		49	470
2,4,5-Trichlorophenol	ND		46	470
2,4,6-Trichlorophenol	ND		58	470
2,4-Dichlorophenol	ND		48	470
2,4-Dimethylphenol	ND		47	470
2,4-Dinitrophenol	ND		210	950
2,4-Dinitrotoluene	ND		42	470
2,6-Dinitrotoluene	ND		38	470
2-Chloronaphthalene	ND		44	470
2-Chlorophenol	ND		50	470
2-Methylnaphthalene	ND		57	470
2-Methylphenol	ND		38	470
2-Nitroaniline	ND		40	950
2-Nitrophenol	ND		46	470
3,3'-Dichlorobenzidine	ND		38	470
3-Nitroaniline	ND		46	950
4,6-Dinitro-2-methylphenol	ND		210	950
4-Bromophenyl phenyl ether	ND		43	470
4-Chloro-3-methylphenol	ND		43	470
4-Chloroaniline	ND		56	470
4-Chlorophenyl phenyl ether	ND		33	470
4-Methylphenol	ND		34	950
4-Nitroaniline	ND		24	950
4-Nitrophenol	ND		140	950
Acenaphthene	86	J	39	470
Acenaphthylene	ND		36	470
Acetophenone	ND		51	470
Anthracene	210	J	27	470
Atrazine	ND		44	470
Benzaldehyde	ND	*	25	470
Benzo(a)anthracene	570		34	470
Benzo(a)pyrene	520		45	470
Benzo(b)fluoranthene	710		32	470
Benzo(g,h,i)perylene	370	J	33	470
Benzo(k)fluoranthene	340	J	69	470
Bis(2-chloroethoxy)methane	ND		33	470
Bis(2-chloroethyl)ether	ND		38	470
Bis(2-ethylhexyl) phthalate	ND		210	470
Butyl benzyl phthalate	ND		95	470
Caprolactam	ND		210	470
Carbazole	180	J	28	470
Chrysene	610		31	470
Di-n-butyl phthalate	ND		29	470
Di-n-octyl phthalate	ND		45	470
Dibenz(a,h)anthracene	100	J	40	470

Client: Stantec Consulting Services Inc | Job Number: 480-100525-2

Client Sample ID: **VO-SUMP3-W**

Lab Sample ID: 480-100525-5 | Date Sampled: 05/20/2016 1525
Client Matrix: Water | Date Received: 05/21/2016 0900

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	480-303536	Instrument ID:	HP5973Y
Prep Method:	3510C	Prep Batch:	480-303303	Lab File ID:	Y0125904.D
Dilution:	100			Initial Weight/Volume:	263.5 mL
Analysis Date:	05/25/2016 1342			Final Weight/Volume:	1 mL
Prep Date:	05/24/2016 0818			Injection Volume:	2 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Dibenzofuran	54	J	48	950
Diethyl phthalate	ND		21	470
Dimethyl phthalate	ND		34	470
Fluoranthene	1800		38	470
Fluorene	70	J	34	470
Hexachlorobenzene	ND		48	470
Hexachlorobutadiene	ND		65	470
Hexachlorocyclopentadiene	ND		56	470
Hexachloroethane	ND		56	470
Indeno(1,2,3-cd)pyrene	340	J	45	470
Isophorone	ND		41	470
N-Nitrosodi-n-propylamine	ND		51	470
N-Nitrosodiphenylamine	ND		48	470
Naphthalene	ND		72	470
Nitrobenzene	ND		28	470
Pentachlorophenol	ND		210	950
Phenanthrene	1200		42	470
Phenol	ND		37	470
Pyrene	1100		32	470

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol	187	X	52 - 132
2-Fluorobiphenyl	99		48 - 120
2-Fluorophenol	49		20 - 120
Nitrobenzene-d5	88		46 - 120
p-Terphenyl-d14	97		67 - 150
Phenol-d5	31		16 - 120

Client: Stantec Consulting Services Inc | Job Number: 480-100525-2

Client Sample ID: **VO-SUMP3-W**

Lab Sample ID: 480-100525-5 | Date Sampled: 05/20/2016 1525
Client Matrix: Water | Date Received: 05/21/2016 0900

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	480-303536	Instrument ID:	HP5973Y
Prep Method:	3510C	Prep Batch:	480-303303	Lab File ID:	Y0125904.D
Dilution:	100			Initial Weight/Volume:	263.5 mL
Analysis Date:	05/25/2016 1342			Final Weight/Volume:	1 mL
Prep Date:	05/24/2016 0818			Injection Volume:	2 uL

Tentatively Identified Compounds **Number TIC's Found:** **3**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Unknown	2.21	410	T J
192-97-2	Benzo[e]pyrene	13.43	360	T J N
192-65-4	1,2:4,5-Dibenzopyrene	16.91	200	T J N

Client: Stantec Consulting Services Inc

Job Number: 480-100525-2

Client Sample ID: **VO-VAULT3-W**

Lab Sample ID: 480-100525-6
Client Matrix: Water

Date Sampled: 05/20/2016 1455
Date Received: 05/21/2016 0900

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	480-303749	Instrument ID:	HP5973Y
Prep Method:	3510C	Prep Batch:	480-303303	Lab File ID:	Y0125936.D
Dilution:	5.0			Initial Weight/Volume:	258.8 mL
Analysis Date:	05/26/2016 1608			Final Weight/Volume:	1 mL
Prep Date:	05/24/2016 0818			Injection Volume:	2 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Biphenyl	ND		3.2	24
bis (2-chloroisopropyl) ether	ND		2.5	24
2,4,5-Trichlorophenol	ND		2.3	24
2,4,6-Trichlorophenol	ND		2.9	24
2,4-Dichlorophenol	ND		2.5	24
2,4-Dimethylphenol	ND		2.4	24
2,4-Dinitrophenol	ND		11	48
2,4-Dinitrotoluene	ND		2.2	24
2,6-Dinitrotoluene	ND		1.9	24
2-Chloronaphthalene	ND		2.2	24
2-Chlorophenol	ND		2.6	24
2-Methylnaphthalene	ND		2.9	24
2-Methylphenol	ND		1.9	24
2-Nitroaniline	ND		2.0	48
2-Nitrophenol	ND		2.3	24
3,3'-Dichlorobenzidine	ND		1.9	24
3-Nitroaniline	ND		2.3	48
4,6-Dinitro-2-methylphenol	ND		11	48
4-Bromophenyl phenyl ether	ND		2.2	24
4-Chloro-3-methylphenol	ND		2.2	24
4-Chloroaniline	ND		2.8	24
4-Chlorophenyl phenyl ether	ND		1.7	24
4-Methylphenol	ND		1.7	48
4-Nitroaniline	ND		1.2	48
4-Nitrophenol	ND		7.3	48
Acenaphthene	ND		2.0	24
Acenaphthylene	ND		1.8	24
Acetophenone	ND		2.6	24
Anthracene	ND		1.4	24
Atrazine	ND		2.2	24
Benzaldehyde	ND	*	1.3	24
Benzo(a)anthracene	ND		1.7	24
Benzo(a)pyrene	ND		2.3	24
Benzo(b)fluoranthene	ND		1.6	24
Benzo(g,h,i)perylene	ND		1.7	24
Benzo(k)fluoranthene	ND		3.5	24
Bis(2-chloroethoxy)methane	ND		1.7	24
Bis(2-chloroethyl)ether	ND		1.9	24
Bis(2-ethylhexyl) phthalate	ND		11	24
Butyl benzyl phthalate	ND		4.8	24
Caprolactam	ND		11	24
Carbazole	ND		1.4	24
Chrysene	ND		1.6	24
Di-n-butyl phthalate	ND		1.5	24
Di-n-octyl phthalate	ND		2.3	24
Dibenz(a,h)anthracene	ND		2.0	24

Client: Stantec Consulting Services Inc | Job Number: 480-100525-2

Client Sample ID: **VO-VAULT3-W**

Lab Sample ID: 480-100525-6 | Date Sampled: 05/20/2016 1455
Client Matrix: Water | Date Received: 05/21/2016 0900

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	480-303749	Instrument ID:	HP5973Y
Prep Method:	3510C	Prep Batch:	480-303303	Lab File ID:	Y0125936.D
Dilution:	5.0			Initial Weight/Volume:	258.8 mL
Analysis Date:	05/26/2016 1608			Final Weight/Volume:	1 mL
Prep Date:	05/24/2016 0818			Injection Volume:	2 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Dibenzofuran	ND		2.5	48
Diethyl phthalate	ND		1.1	24
Dimethyl phthalate	ND		1.7	24
Fluoranthene	ND		1.9	24
Fluorene	ND		1.7	24
Hexachlorobenzene	ND		2.5	24
Hexachlorobutadiene	ND		3.3	24
Hexachlorocyclopentadiene	ND		2.8	24
Hexachloroethane	ND		2.8	24
Indeno(1,2,3-cd)pyrene	ND		2.3	24
Isophorone	ND		2.1	24
N-Nitrosodi-n-propylamine	ND		2.6	24
N-Nitrosodiphenylamine	ND		2.5	24
Naphthalene	ND		3.7	24
Nitrobenzene	ND		1.4	24
Pentachlorophenol	ND		11	48
Phenanthrene	ND		2.1	24
Phenol	ND		1.9	24
Pyrene	ND		1.6	24

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol	132		52 - 132
2-Fluorobiphenyl	94		48 - 120
2-Fluorophenol	50		20 - 120
Nitrobenzene-d5	86		46 - 120
p-Terphenyl-d14	79		67 - 150
Phenol-d5	36		16 - 120

Client: Stantec Consulting Services Inc

Job Number: 480-100525-2

Client Sample ID: **VO-VAULT3-W**

Lab Sample ID: 480-100525-6

Client Matrix: Water

Date Sampled: 05/20/2016 1455

Date Received: 05/21/2016 0900

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	480-303749	Instrument ID:	HP5973Y
Prep Method:	3510C	Prep Batch:	480-303303	Lab File ID:	Y0125936.D
Dilution:	5.0			Initial Weight/Volume:	258.8 mL
Analysis Date:	05/26/2016 1608			Final Weight/Volume:	1 mL
Prep Date:	05/24/2016 0818			Injection Volume:	2 uL

Tentatively Identified Compounds **Number TIC's Found:** **5**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Unknown	2.21	160	T J
	Unknown	11.58	9.5	T J
	Unknown	12.02	12	T J
	Unknown	12.50	15	T J
	Unknown	13.01	14	T J

DATA REPORTING QUALIFIERS

Client: Stantec Consulting Services Inc Job Number: 480-100525-2

Lab Section	Qualifier	Description
GC/MS Semi VOA		
	J	Indicates an Estimated Value for TICs
	*	LCS or LCSD is outside acceptance limits.
	F1	MS and/or MSD Recovery is outside acceptance limits.
	F2	MS/MSD RPD exceeds control limits
	N	Presumptive evidence of material.
	E	Result exceeded calibration range.
	T	Result is a tentatively identified compound (TIC) and an estimated value.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
	X	Surrogate is outside control limits

QUALITY CONTROL RESULTS

Client: Stantec Consulting Services Inc

Job Number: 480-100525-2

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Analysis Batch:480-303740					
LCS 480-303740/5	Lab Control Sample	T	Water	8260C	
MB 480-303740/7	Method Blank	T	Water	8260C	
480-100525-3	VO-SUMP1-W	T	Water	8260C	
480-100525-4	VO-SUMP2-W	T	Water	8260C	
480-100525-5	VO-SUMP3-W	T	Water	8260C	
480-100525-6	VO-VAULT3-W	T	Water	8260C	
480-100525-7	TRIP BLANK	T	Water	8260C	

Report Basis
T = Total

GC/MS Semi VOA					
Prep Batch: 480-303303					
LCS 480-303303/2-A	Lab Control Sample	T	Water	3510C	
MB 480-303303/1-A	Method Blank	T	Water	3510C	
480-100525-3	VO-SUMP1-W	T	Water	3510C	
480-100525-3MS	Matrix Spike	T	Water	3510C	
480-100525-3MSD	Matrix Spike Duplicate	T	Water	3510C	
480-100525-4	VO-SUMP2-W	T	Water	3510C	
480-100525-5	VO-SUMP3-W	T	Water	3510C	
480-100525-6	VO-VAULT3-W	T	Water	3510C	
Analysis Batch:480-303536					
LCS 480-303303/2-A	Lab Control Sample	T	Water	8270D	480-303303
MB 480-303303/1-A	Method Blank	T	Water	8270D	480-303303
480-100525-3	VO-SUMP1-W	T	Water	8270D	480-303303
480-100525-3MS	Matrix Spike	T	Water	8270D	480-303303
480-100525-3MSD	Matrix Spike Duplicate	T	Water	8270D	480-303303
480-100525-5	VO-SUMP3-W	T	Water	8270D	480-303303
Analysis Batch:480-303749					
480-100525-4	VO-SUMP2-W	T	Water	8270D	480-303303
480-100525-6	VO-VAULT3-W	T	Water	8270D	480-303303

Report Basis
T = Total

Client: Stantec Consulting Services Inc

Job Number: 480-100525-2

Surrogate Recovery Report

8260C Volatile Organic Compounds by GC/MS

Client Matrix: Water

Lab Sample ID	Client Sample ID	DCA %Rec	BFB %Rec	TOL %Rec	DBFM %Rec
480-100525-3	VO-SUMP1-W	91	94	99	95
480-100525-4	VO-SUMP2-W	88	93	98	94
480-100525-5	VO-SUMP3-W	94	93	98	99
480-100525-6	VO-VAULT3-W	90	91	96	96
480-100525-7	TRIP BLANK	92	91	96	98
MB 480-303740/7		82	90	97	89
LCS 480-303740/5		79	94	99	87

Surrogate	Acceptance Limits
DCA = 1,2-Dichloroethane-d4 (Surr)	66-137
BFB = 4-Bromofluorobenzene (Surr)	73-120
TOL = Toluene-d8 (Surr)	71-126
DBFM = Dibromofluoromethane (Surr)	60-140

Client: Stantec Consulting Services Inc

Job Number: 480-100525-2

Surrogate Recovery Report

8270D Semivolatile Organic Compounds (GC/MS)

Client Matrix: Water

Lab Sample ID	Client Sample ID	TBP %Rec	FBP %Rec	2FP %Rec	NBZ %Rec	TPH %Rec	PHL %Rec
480-100525-3	VO-SUMP1-W	120	96	53	86	75	38
480-100525-4	VO-SUMP2-W	126	86	46	75	74	33
480-100525-5	VO-SUMP3-W	187X	99	49	88	97	31
480-100525-6	VO-VAULT3-W	132	94	50	86	79	36
MB 480-303303/1-A		108	87	57	85	95	42
LCS 480-303303/2-A		119	86	64	83	95	48
480-100525-3 MS	VO-SUMP1-W MS	119	91	73	84	92	63
480-100525-3 MSD	VO-SUMP1-W MSD	18X	87	5X	75	93	13X

Surrogate	Acceptance Limits
TBP = 2,4,6-Tribromophenol	52-132
FBP = 2-Fluorobiphenyl	48-120
2FP = 2-Fluorophenol	20-120
NBZ = Nitrobenzene-d5	46-120
TPH = p-Terphenyl-d14	67-150
PHL = Phenol-d5	16-120

Method Blank - Batch: 480-303740

Method: 8260C
Preparation: 5030C

Lab Sample ID:	MB 480-303740/7	Analysis Batch:	480-303740	Instrument ID:	HP5973S
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	S2084.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	05/26/2016 1111	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	05/26/2016 1111				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
1,1,1-Trichloroethane	ND		0.82	1.0
1,1,2,2-Tetrachloroethane	ND		0.21	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.31	1.0
1,1,2-Trichloroethane	ND		0.23	1.0
1,1-Dichloroethane	ND		0.38	1.0
1,1-Dichloroethene	ND		0.29	1.0
1,2,4-Trichlorobenzene	ND		0.41	1.0
1,2,4-Trimethylbenzene	ND		0.75	1.0
1,2-Dibromo-3-Chloropropane	ND		0.39	1.0
1,2-Dichlorobenzene	ND		0.79	1.0
1,2-Dichloroethane	ND		0.21	1.0
1,2-Dichloropropane	ND		0.72	1.0
1,3,5-Trimethylbenzene	ND		0.77	1.0
1,3-Dichlorobenzene	ND		0.78	1.0
1,4-Dichlorobenzene	ND		0.84	1.0
2-Butanone (MEK)	ND		1.3	10
2-Hexanone	ND		1.2	5.0
4-Isopropyltoluene	ND		0.31	1.0
4-Methyl-2-pentanone (MIBK)	ND		2.1	5.0
Acetone	ND		3.0	10
Benzene	ND		0.41	1.0
Bromoform	ND		0.26	1.0
Bromomethane	ND		0.69	1.0
Carbon disulfide	ND		0.19	1.0
Carbon tetrachloride	ND		0.27	1.0
Chlorobenzene	ND		0.75	1.0
Dibromochloromethane	ND		0.32	1.0
Chloroethane	ND		0.32	1.0
Chloroform	ND		0.34	1.0
Chloromethane	ND		0.35	1.0
cis-1,2-Dichloroethene	ND		0.81	1.0
Cyclohexane	ND		0.18	1.0
Bromodichloromethane	ND		0.39	1.0
Dichlorodifluoromethane	ND		0.68	1.0
Ethylbenzene	ND		0.74	1.0
1,2-Dibromoethane	ND		0.73	1.0
Isopropylbenzene	ND		0.79	1.0
Methyl acetate	ND		1.3	2.5
Methyl tert-butyl ether	ND		0.16	1.0
Methylcyclohexane	ND		0.16	1.0
Methylene Chloride	ND		0.44	1.0
m,p-Xylene	ND		0.66	2.0
Naphthalene	ND		0.43	1.0
n-Butylbenzene	ND		0.64	1.0
N-Propylbenzene	ND		0.69	1.0

Client: Stantec Consulting Services Inc

Job Number: 480-100525-2

Method Blank - Batch: 480-303740

Method: 8260C
Preparation: 5030C

Lab Sample ID:	MB 480-303740/7	Analysis Batch:	480-303740	Instrument ID:	HP5973S
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	S2084.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	05/26/2016 1111	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	05/26/2016 1111				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
o-Xylene	ND		0.76	1.0
sec-Butylbenzene	ND		0.75	1.0
Tetrachloroethene	ND		0.36	1.0
Toluene	ND		0.51	1.0
trans-1,2-Dichloroethene	ND		0.90	1.0
trans-1,3-Dichloropropene	ND		0.37	1.0
Trichloroethene	ND		0.46	1.0
Trichlorofluoromethane	ND		0.88	1.0
Vinyl chloride	ND		0.90	1.0
Xylenes, Total	ND		0.66	2.0
cis-1,3-Dichloropropene	ND		0.36	1.0
Styrene	ND		0.73	1.0
tert-Butylbenzene	ND		0.81	1.0

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	82	66 - 137
4-Bromofluorobenzene (Surr)	90	73 - 120
Toluene-d8 (Surr)	97	71 - 126
Dibromofluoromethane (Surr)	89	60 - 140

Method Blank TICs- Batch: 480-303740

Cas Number	Analyte	RT	Est. Result (ug/L	Qual
	Tentatively Identified Compound		None	

Client: Stantec Consulting Services Inc

Job Number: 480-100525-2

Lab Control Sample - Batch: 480-303740

Method: 8260C
Preparation: 5030C

Lab Sample ID:	LCS 480-303740/5	Analysis Batch:	480-303740	Instrument ID:	HP5973S
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	S2082.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	05/26/2016 1026	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	05/26/2016 1026				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
1,1,1-Trichloroethane	25.0	27.0	108	73 - 126	
1,1,2,2-Tetrachloroethane	25.0	23.0	92	70 - 126	
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	27.3	109	52 - 148	
1,1,2-Trichloroethane	25.0	23.6	95	76 - 122	
1,1-Dichloroethane	25.0	23.9	96	71 - 129	
1,1-Dichloroethene	25.0	24.9	100	58 - 121	
1,2,4-Trichlorobenzene	25.0	23.2	93	70 - 122	
1,2,4-Trimethylbenzene	25.0	26.0	104	76 - 121	
1,2-Dibromo-3-Chloropropane	25.0	22.9	92	56 - 134	
1,2-Dichlorobenzene	25.0	24.2	97	80 - 124	
1,2-Dichloroethane	25.0	19.8	79	75 - 127	
1,2-Dichloropropane	25.0	21.7	87	76 - 120	
1,3,5-Trimethylbenzene	25.0	26.0	104	77 - 121	
1,3-Dichlorobenzene	25.0	24.7	99	77 - 120	
1,4-Dichlorobenzene	25.0	24.1	96	75 - 120	
2-Butanone (MEK)	125	120	96	57 - 140	
2-Hexanone	125	124	99	65 - 127	
4-Isopropyltoluene	25.0	27.8	111	73 - 120	
4-Methyl-2-pentanone (MIBK)	125	119	95	71 - 125	
Acetone	125	137	109	56 - 142	
Benzene	25.0	24.3	97	71 - 124	
Bromoform	25.0	24.5	98	52 - 132	
Bromomethane	25.0	21.5	86	55 - 144	
Carbon disulfide	25.0	25.5	102	59 - 134	
Carbon tetrachloride	25.0	26.4	106	72 - 134	
Chlorobenzene	25.0	24.3	97	72 - 120	
Dibromochloromethane	25.0	23.5	94	75 - 125	
Chloroethane	25.0	24.2	97	69 - 136	
Chloroform	25.0	22.5	90	73 - 127	
Chloromethane	25.0	19.3	77	68 - 124	
cis-1,2-Dichloroethene	25.0	23.1	92	74 - 124	
Cyclohexane	25.0	27.6	110	59 - 135	
Bromodichloromethane	25.0	21.2	85	80 - 122	
Dichlorodifluoromethane	25.0	16.8	67	59 - 135	
Ethylbenzene	25.0	25.0	100	77 - 123	
1,2-Dibromoethane	25.0	23.8	95	77 - 120	
Isopropylbenzene	25.0	25.8	103	77 - 122	
Methyl acetate	125	121	97	74 - 133	
Methyl tert-butyl ether	25.0	20.5	82	64 - 127	
Methylcyclohexane	25.0	28.1	112	61 - 138	
Methylene Chloride	25.0	22.5	90	57 - 132	

Client: Stantec Consulting Services Inc

Job Number: 480-100525-2

Lab Control Sample - Batch: 480-303740

Method: 8260C
Preparation: 5030C

Lab Sample ID:	LCS 480-303740/5	Analysis Batch:	480-303740	Instrument ID:	HP5973S
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	S2082.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	05/26/2016 1026	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	05/26/2016 1026				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
m,p-Xylene	25.0	25.0	100	76 - 122	
Naphthalene	25.0	24.3	97	66 - 125	
n-Butylbenzene	25.0	27.7	111	71 - 128	
N-Propylbenzene	25.0	26.5	106	75 - 127	
o-Xylene	25.0	23.8	95	76 - 122	
sec-Butylbenzene	25.0	27.7	111	74 - 127	
Tetrachloroethene	25.0	27.7	111	74 - 122	
Toluene	25.0	25.7	103	80 - 122	
trans-1,2-Dichloroethene	25.0	25.2	101	73 - 127	
trans-1,3-Dichloropropene	25.0	23.0	92	72 - 123	
Trichloroethene	25.0	23.9	96	74 - 123	
Trichlorofluoromethane	25.0	25.9	104	62 - 152	
Vinyl chloride	25.0	23.6	95	65 - 133	
cis-1,3-Dichloropropene	25.0	21.1	84	74 - 124	
Styrene	25.0	24.1	96	70 - 130	
tert-Butylbenzene	25.0	25.8	103	75 - 123	

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	79	66 - 137
4-Bromofluorobenzene (Surr)	94	73 - 120
Toluene-d8 (Surr)	99	71 - 126
Dibromofluoromethane (Surr)	87	60 - 140

Method Blank - Batch: 480-303303

Method: 8270D
Preparation: 3510C

Lab Sample ID:	MB 480-303303/1-A	Analysis Batch:	480-303536	Instrument ID:	HP5973Y
Client Matrix:	Water	Prep Batch:	480-303303	Lab File ID:	Y0125898.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	250 mL
Analysis Date:	05/25/2016 1044	Units:	ug/L	Final Weight/Volume:	1 mL
Prep Date:	05/24/2016 0818			Injection Volume:	2 uL
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Biphenyl	ND		0.65	5.0
bis (2-chloroisopropyl) ether	ND		0.52	5.0
2,4,5-Trichlorophenol	ND		0.48	5.0
2,4,6-Trichlorophenol	ND		0.61	5.0
2,4-Dichlorophenol	ND		0.51	5.0
2,4-Dimethylphenol	ND		0.50	5.0
2,4-Dinitrophenol	ND		2.2	10
2,4-Dinitrotoluene	ND		0.45	5.0
2,6-Dinitrotoluene	ND		0.40	5.0
2-Chloronaphthalene	ND		0.46	5.0
2-Chlorophenol	ND		0.53	5.0
2-Methylnaphthalene	ND		0.60	5.0
2-Methylphenol	ND		0.40	5.0
2-Nitroaniline	ND		0.42	10
2-Nitrophenol	ND		0.48	5.0
3,3'-Dichlorobenzidine	ND		0.40	5.0
3-Nitroaniline	ND		0.48	10
4,6-Dinitro-2-methylphenol	ND		2.2	10
4-Bromophenyl phenyl ether	ND		0.45	5.0
4-Chloro-3-methylphenol	ND		0.45	5.0
4-Chloroaniline	ND		0.59	5.0
4-Chlorophenyl phenyl ether	ND		0.35	5.0
4-Methylphenol	ND		0.36	10
4-Nitroaniline	ND		0.25	10
4-Nitrophenol	ND		1.5	10
Acenaphthene	ND		0.41	5.0
Acenaphthylene	ND		0.38	5.0
Acetophenone	ND		0.54	5.0
Anthracene	ND		0.28	5.0
Atrazine	ND		0.46	5.0
Benzaldehyde	0.325	J	0.27	5.0
Benzo(a)anthracene	ND		0.36	5.0
Benzo(a)pyrene	ND		0.47	5.0
Benzo(b)fluoranthene	ND		0.34	5.0
Benzo(g,h,i)perylene	ND		0.35	5.0
Benzo(k)fluoranthene	ND		0.73	5.0
Bis(2-chloroethoxy)methane	ND		0.35	5.0
Bis(2-chloroethyl)ether	ND		0.40	5.0
Bis(2-ethylhexyl) phthalate	ND		2.2	5.0
Butyl benzyl phthalate	ND		1.0	5.0
Caprolactam	ND		2.2	5.0
Carbazole	ND		0.30	5.0
Chrysene	ND		0.33	5.0
Di-n-butyl phthalate	ND		0.31	5.0
Di-n-octyl phthalate	ND		0.47	5.0

Method Blank - Batch: 480-303303

Method: 8270D
Preparation: 3510C

Lab Sample ID:	MB 480-303303/1-A	Analysis Batch:	480-303536	Instrument ID:	HP5973Y
Client Matrix:	Water	Prep Batch:	480-303303	Lab File ID:	Y0125898.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	250 mL
Analysis Date:	05/25/2016 1044	Units:	ug/L	Final Weight/Volume:	1 mL
Prep Date:	05/24/2016 0818			Injection Volume:	2 uL
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Dibenz(a,h)anthracene	ND		0.42	5.0
Dibenzofuran	ND		0.51	10
Diethyl phthalate	ND		0.22	5.0
Dimethyl phthalate	ND		0.36	5.0
Fluoranthene	ND		0.40	5.0
Fluorene	ND		0.36	5.0
Hexachlorobenzene	ND		0.51	5.0
Hexachlorobutadiene	ND		0.68	5.0
Hexachlorocyclopentadiene	ND		0.59	5.0
Hexachloroethane	ND		0.59	5.0
Indeno(1,2,3-cd)pyrene	ND		0.47	5.0
Isophorone	ND		0.43	5.0
N-Nitrosodi-n-propylamine	ND		0.54	5.0
N-Nitrosodiphenylamine	ND		0.51	5.0
Naphthalene	ND		0.76	5.0
Nitrobenzene	ND		0.29	5.0
Pentachlorophenol	ND		2.2	10
Phenanthrene	ND		0.44	5.0
Phenol	ND		0.39	5.0
Pyrene	ND		0.34	5.0

Surrogate	% Rec	Acceptance Limits
2,4,6-Tribromophenol	108	52 - 132
2-Fluorobiphenyl	87	48 - 120
2-Fluorophenol	57	20 - 120
Nitrobenzene-d5	85	46 - 120
p-Terphenyl-d14	95	67 - 150
Phenol-d5	42	16 - 120

Method Blank TICs- Batch: 480-303303

Cas Number	Analyte	RT	Est. Result (ug/L	Qual
872-50-4	2-Pyrrolidinone, 1-methyl-	5.92	5.47	T J N
106-42-3	p-Xylene	4.55	16.1	T J N
	Unknown	2.24	115	T J
	Unknown	10.64	2.05	T J
	Unknown	14.20	2.30	T J
	Unknown	12.35	3.10	T J
	Unknown	11.98	3.52	T J
	Unknown	15.59	4.55	T J
	Unknown	13.01	4.68	T J
	Unknown	11.45	9.78	T J

Client: Stantec Consulting Services Inc

Job Number: 480-100525-2

Lab Control Sample - Batch: 480-303303

Method: 8270D
Preparation: 3510C

Lab Sample ID:	LCS 480-303303/2-A	Analysis Batch:	480-303536	Instrument ID:	HP5973Y
Client Matrix:	Water	Prep Batch:	480-303303	Lab File ID:	Y0125899.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	250 mL
Analysis Date:	05/25/2016 1114	Units:	ug/L	Final Weight/Volume:	1 mL
Prep Date:	05/24/2016 0818			Injection Volume:	2 uL
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Biphenyl	16.0	13.9	87	30 - 140	
bis (2-chloroisopropyl) ether	16.0	11.9	74	28 - 136	
2,4,5-Trichlorophenol	16.0	15.9	99	65 - 126	
2,4,6-Trichlorophenol	16.0	16.1	100	64 - 120	
2,4-Dichlorophenol	16.0	16.6	104	64 - 120	
2,4-Dimethylphenol	16.0	14.1	88	57 - 120	
2,4-Dinitrophenol	32.0	37.9	118	42 - 153	
2,4-Dinitrotoluene	16.0	17.0	106	65 - 154	
2,6-Dinitrotoluene	16.0	16.5	103	74 - 134	
2-Chloronaphthalene	16.0	14.1	88	41 - 124	
2-Chlorophenol	16.0	13.1	82	48 - 120	
2-Methylnaphthalene	16.0	15.0	94	34 - 122	
2-Methylphenol	16.0	12.9	80	39 - 120	
2-Nitroaniline	16.0	14.5	91	67 - 136	
2-Nitrophenol	16.0	16.1	101	59 - 120	
3,3'-Dichlorobenzidine	32.0	37.2	116	33 - 140	
3-Nitroaniline	16.0	14.1	88	28 - 130	
4,6-Dinitro-2-methylphenol	32.0	37.3	117	64 - 159	
4-Bromophenyl phenyl ether	16.0	16.3	102	71 - 126	
4-Chloro-3-methylphenol	16.0	15.9	100	64 - 120	
4-Chloroaniline	16.0	12.1	76	10 - 130	
4-Chlorophenyl phenyl ether	16.0	15.9	100	71 - 122	
4-Methylphenol	16.0	12.8	80	39 - 120	
4-Nitroaniline	16.0	15.8	99	47 - 130	
4-Nitrophenol	32.0	28.2	88	16 - 120	
Acenaphthene	16.0	14.5	91	60 - 120	
Acenaphthylene	16.0	14.4	90	63 - 120	
Acetophenone	16.0	14.8	93	45 - 120	
Anthracene	16.0	14.4	90	58 - 148	
Atrazine	32.0	37.8	118	56 - 179	
Benzaldehyde	32.0	61.0	190	30 - 140	E *
Benzo(a)anthracene	16.0	14.9	93	55 - 151	
Benzo(a)pyrene	16.0	15.4	96	60 - 145	
Benzo(b)fluoranthene	16.0	16.4	103	54 - 140	
Benzo(g,h,i)perylene	16.0	16.8	105	66 - 152	
Benzo(k)fluoranthene	16.0	15.1	94	51 - 153	
Bis(2-chloroethoxy)methane	16.0	13.9	87	50 - 128	
Bis(2-chloroethyl)ether	16.0	12.4	78	51 - 120	
Bis(2-ethylhexyl) phthalate	16.0	14.5	91	53 - 158	
Butyl benzyl phthalate	16.0	14.2	89	58 - 163	
Caprolactam	32.0	12.1	38	14 - 130	

Client: Stantec Consulting Services Inc

Job Number: 480-100525-2

Lab Control Sample - Batch: 480-303303

Method: 8270D
Preparation: 3510C

Lab Sample ID:	LCS 480-303303/2-A	Analysis Batch:	480-303536	Instrument ID:	HP5973Y
Client Matrix:	Water	Prep Batch:	480-303303	Lab File ID:	Y0125899.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	250 mL
Analysis Date:	05/25/2016 1114	Units:	ug/L	Final Weight/Volume:	1 mL
Prep Date:	05/24/2016 0818			Injection Volume:	2 uL
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Carbazole	16.0	15.2	95	59 - 148	
Chrysene	16.0	15.1	94	69 - 140	
Di-n-butyl phthalate	16.0	15.9	99	58 - 149	
Di-n-octyl phthalate	16.0	14.5	91	55 - 167	
Dibenz(a,h)anthracene	16.0	16.0	100	57 - 148	
Dibenzofuran	16.0	15.1	95	49 - 137	
Diethyl phthalate	16.0	16.4	102	59 - 146	
Dimethyl phthalate	16.0	17.7	110	59 - 141	
Fluoranthene	16.0	16.3	102	55 - 147	
Fluorene	16.0	15.2	95	55 - 143	
Hexachlorobenzene	16.0	16.4	102	14 - 130	
Hexachlorobutadiene	16.0	15.5	97	14 - 130	
Hexachlorocyclopentadiene	16.0	12.6	79	13 - 130	
Hexachloroethane	16.0	12.5	78	14 - 130	
Indeno(1,2,3-cd)pyrene	16.0	16.7	105	69 - 146	
Isophorone	16.0	13.7	86	48 - 133	
N-Nitrosodi-n-propylamine	16.0	13.6	85	56 - 120	
N-Nitrosodiphenylamine	16.0	13.9	87	25 - 125	
Naphthalene	16.0	14.2	89	35 - 130	
Nitrobenzene	16.0	14.0	87	45 - 123	
Pentachlorophenol	32.0	33.1	104	39 - 136	
Phenanthrene	16.0	14.7	92	57 - 147	
Phenol	16.0	8.64	54	17 - 120	
Pyrene	16.0	14.5	91	58 - 136	

Surrogate	% Rec	Acceptance Limits
2,4,6-Tribromophenol	119	52 - 132
2-Fluorobiphenyl	86	48 - 120
2-Fluorophenol	64	20 - 120
Nitrobenzene-d5	83	46 - 120
p-Terphenyl-d14	95	67 - 150
Phenol-d5	48	16 - 120

Client: Stantec Consulting Services Inc

Job Number: 480-100525-2

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 480-303303

Method: 8270D
Preparation: 3510C

MS Lab Sample ID:	480-100525-3	Analysis Batch:	480-303536	Instrument ID:	HP5973Y
Client Matrix:	Water	Prep Batch:	480-303303	Lab File ID:	Y0125908.D
Dilution:	5.0	Leach Batch:	N/A	Initial Weight/Volume:	125 mL
Analysis Date:	05/25/2016 1541			Final Weight/Volume:	1 mL
Prep Date:	05/24/2016 0818			Injection Volume:	2 uL
Leach Date:	N/A				

MSD Lab Sample ID:	480-100525-3	Analysis Batch:	480-303536	Instrument ID:	HP5973Y
Client Matrix:	Water	Prep Batch:	480-303303	Lab File ID:	Y0125909.D
Dilution:	5.0	Leach Batch:	N/A	Initial Weight/Volume:	125 mL
Analysis Date:	05/25/2016 1611			Final Weight/Volume:	1 mL
Prep Date:	05/24/2016 0818			Injection Volume:	2 uL
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Biphenyl	90	88	30 - 140	3	20	J	J
bis (2-chloroisopropyl) ether	39	32	28 - 136	21	24	J	J
2,4,5-Trichlorophenol	90	0	65 - 126	NC	18	J	F1
2,4,6-Trichlorophenol	97	0	64 - 120	NC	19	J	F1
2,4-Dichlorophenol	96	0	64 - 120	NC	19	J	F1
2,4-Dimethylphenol	92	66	57 - 120	34	42	J	J
2,4-Dinitrophenol	145	0	42 - 153	NC	22	J	F1
2,4-Dinitrotoluene	110	62	62 - 148	56	20	J	J F2
2,6-Dinitrotoluene	111	85	65 - 154	27	15	J	J F2
2-Chloronaphthalene	91	85	41 - 124	7	21	J	J
2-Chlorophenol	83	0	48 - 120	NC	25	J	F1
2-Methylnaphthalene	93	87	34 - 122	7	21	J	J
2-Methylphenol	83	49	39 - 120	52	27	J	J F2
2-Nitroaniline	82	62	67 - 136	27	15	J	J F1 F2
2-Nitrophenol	102	0	59 - 120	NC	18	J	F1
3,3'-Dichlorobenzidine	7	119	33 - 140	179	25	J F1	F2
3-Nitroaniline	89	79	69 - 129	12	19	J	J
4,6-Dinitro-2-methylphenol	125	0	64 - 159	NC	15	J	F1
4-Bromophenyl phenyl ether	101	103	71 - 126	1	15	J	J
4-Chloro-3-methylphenol	92	0	64 - 120	NC	27	J	F1
4-Chloroaniline	69	85	60 - 124	21	22	J	J
4-Chlorophenyl phenyl ether	103	98	48 - 145	6	16	J	J
4-Methylphenol	83	33	36 - 120	87	24	J	J F1 F2
4-Nitroaniline	94	56	64 - 135	50	24	J	J F1 F2
4-Nitrophenol	95	0	16 - 120	NC	48	J	F1
Acenaphthene	95	90	60 - 120	5	24	J	J
Acenaphthylene	88	87	63 - 120	1	18	J	J
Acetophenone	87	83	45 - 120	5	20	J	J
Anthracene	96	98	58 - 148	2	15	J	J
Atrazine	116	80	56 - 179	36	20		F2
Benzaldehyde	184	157	30 - 140	16	20	F1	F1
Benzo(a)anthracene	88	90	55 - 151	3	15	J	J

Client: Stantec Consulting Services Inc

Job Number: 480-100525-2

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 480-303303

Method: 8270D
Preparation: 3510C

MS Lab Sample ID:	480-100525-3	Analysis Batch:	480-303536	Instrument ID:	HP5973Y
Client Matrix:	Water	Prep Batch:	480-303303	Lab File ID:	Y0125908.D
Dilution:	5.0	Leach Batch:	N/A	Initial Weight/Volume:	125 mL
Analysis Date:	05/25/2016 1541			Final Weight/Volume:	1 mL
Prep Date:	05/24/2016 0818			Injection Volume:	2 uL
Leach Date:	N/A				

MSD Lab Sample ID:	480-100525-3	Analysis Batch:	480-303536	Instrument ID:	HP5973Y
Client Matrix:	Water	Prep Batch:	480-303303	Lab File ID:	Y0125909.D
Dilution:	5.0	Leach Batch:	N/A	Initial Weight/Volume:	125 mL
Analysis Date:	05/25/2016 1611			Final Weight/Volume:	1 mL
Prep Date:	05/24/2016 0818			Injection Volume:	2 uL
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Benzo(a)pyrene	86	90	60 - 145	4	15	J	J
Benzo(b)fluoranthene	85	91	54 - 140	7	15	J	J
Benzo(g,h,i)perylene	93	96	66 - 152	3	15	J	J
Benzo(k)fluoranthene	89	89	51 - 153	0	22	J	J
Bis(2-chloroethoxy)methane	82	79	50 - 128	3	17	J	J
Bis(2-chloroethyl)ether	77	70	51 - 120	9	21	J	J
Bis(2-ethylhexyl) phthalate	95	81	53 - 158	16	15	J	J F2
Butyl benzyl phthalate	91	76	58 - 163	18	16	J	J F2
Caprolactam	57	57	30 - 140	1	20	J	J
Carbazole	102	99	59 - 148	3	20	J	J
Chrysene	93	93	69 - 140	0	15	J	J
Di-n-butyl phthalate	92	88	58 - 149	5	15	J	J
Di-n-octyl phthalate	89	76	55 - 167	16	16	J	J
Dibenz(a,h)anthracene	89	94	57 - 158	5	15	J	J
Dibenzofuran	97	93	49 - 137	3	15	J	J
Diethyl phthalate	98	94	59 - 146	4	15	J	J
Dimethyl phthalate	101	89	59 - 141	12	15	J	J
Fluoranthene	102	101	55 - 147	1	15	J	J
Fluorene	98	94	55 - 143	4	15	J	J
Hexachlorobenzene	107	103	38 - 131	4	15	J	J
Hexachlorobutadiene	98	92	14 - 130	6	44	J	J
Hexachlorocyclopentadiene	74	34	13 - 130	73	49	J	J F2
Hexachloroethane	80	74	14 - 130	8	46	J	J
Indeno(1,2,3-cd)pyrene	95	97	69 - 146	2	15	J	J
Isophorone	83	78	48 - 133	6	17	J	J
N-Nitrosodi-n-propylamine	84	77	56 - 120	9	31	J	J
N-Nitrosodiphenylamine	92	90	25 - 125	2	15	J	J
Naphthalene	89	85	35 - 130	5	29	J	J
Nitrobenzene	90	76	45 - 123	17	24	J	J
Pentachlorophenol	155	86	39 - 136	57	37	J F1	J F2
Phenanthrene	93	94	57 - 147	2	15	J	J
Phenol	69	17	17 - 120	120	34	J	J F2

Client: Stantec Consulting Services Inc

Job Number: 480-100525-2

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 480-303303

Method: 8270D
Preparation: 3510C

MS Lab Sample ID:	480-100525-3	Analysis Batch:	480-303536	Instrument ID:	HP5973Y
Client Matrix:	Water	Prep Batch:	480-303303	Lab File ID:	Y0125908.D
Dilution:	5.0	Leach Batch:	N/A	Initial Weight/Volume:	125 mL
Analysis Date:	05/25/2016 1541			Final Weight/Volume:	1 mL
Prep Date:	05/24/2016 0818			Injection Volume:	2 uL
Leach Date:	N/A				

MSD Lab Sample ID:	480-100525-3	Analysis Batch:	480-303536	Instrument ID:	HP5973Y
Client Matrix:	Water	Prep Batch:	480-303303	Lab File ID:	Y0125909.D
Dilution:	5.0	Leach Batch:	N/A	Initial Weight/Volume:	125 mL
Analysis Date:	05/25/2016 1611			Final Weight/Volume:	1 mL
Prep Date:	05/24/2016 0818			Injection Volume:	2 uL
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Pyrene	91	87	58 - 136	4	19	J	J

Surrogate	MS % Rec	MSD % Rec		Acceptance Limits
2,4,6-Tribromophenol	119	18	X	52 - 132
2-Fluorobiphenyl	91	87		48 - 120
2-Fluorophenol	73	5	X	20 - 120
Nitrobenzene-d5	84	75		46 - 120
p-Terphenyl-d14	92	93		67 - 150
Phenol-d5	63	13	X	16 - 120

Chain of Custody Record

Temperature on Receipt ______

Drinking Water? Yes☐ No☐

TestAme[rica]
THE LEADER IN ENVIRONM[ENTAL TESTING]

480-100525 Chain of Custody

TAL-4124 (1007)

Client: Stantec	Project Manager: Tom Wells	Date: 5/20/16	289089
Address: 61 Commercial St., Suite 100	Telephone Number (Area Code)/Fax Number: (585) 413-5271	Lab Number	Page 1 of 1
City: Rochester / State: NY / Zip Code: 14614	Site Contact: Laura Best (585) 301-0166 / Lab Contact: Ryan VanDette	Analysis (Attach list if more space is needed)	
Project Name and Location (State): Former Vacuum Oil Works, 920 Exchange St, Rochester, NY	Carrier/Waybill Number: 8099 5002 9578		Special Instructions/ Conditions of Receipt
Contract/Purchase Order/Quote No.: Quote # 48013836			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Concrete dust	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	TCL+CP-51 VOCs + up to 10 TICs 8260	TCL+CP-51 SVOCs + up to 20 TICs 8270	TCL Pesticides 8081	TCL PCBs 8082	TAL Metals 6010/7471	Total & Amenable Cyanide 9012	Special Instructions/ Conditions of Receipt
VO-DRA1-C	5/20/16	11:55					X	Xs						X	X	X	X	X	X	
VO-DRA2-C	5/20/16	12:15					X	Xs						X	X	X	X	X	X	
VO-SUMP1-W	5/20/16	15:10		X				2			3			X	X					
VO-SUMP2-W	5/20/16	14:40		X				2			3			X	X					
VO-SUMP3-W	5/20/16	15:25		X				2			3			X	X					
VO-VAULT3-W	5/20/16	14:55		X				2			3			X	X					
TRIPBLANK	5/20/16	10:00		X							1			X						

Laura Best 5/20/16

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☒ Disposal By Lab ☐ Archive For ______ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☒ 14 Days ☐ 21 Days ☐ Other std 10d TAT

QC Requirements (Specify): Category A (NYSDEC ASP) deliverables; NYSDEC EQuIS EDD

1. Relinquished By: Laura Best	Date: 5/20/16	Time: 1720	1. Received By: FEDEX	Date: 5/20/16	Time: 1720
2. Relinquished By	Date	Time	2. Received By: [signature] TA	Date: 05/21/16	Time: 0906
3. Relinquished By	Date	Time	3. Received By	Date	Time

Comments: Temp 3.7 #1

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

Login Sample Receipt Checklist

Client: Stantec Consulting Services Inc

Job Number: 480-100525-2

Login Number: 100525

List Source: TestAmerica Buffalo

List Number: 1

Creator: Conway, Curtis R

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	STANTEC
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

ANALYTICAL REPORT

Job Number: 480-100576-1

Job Description: Former Vacuum Oil Works - Soils

For:
Stantec Consulting Services Inc
61 Commercial Street
Rochester, NY 14614

Attention: Mr. Thomas D Wells

Approved for release.
Rebecca M Jones
Project Management Assistant I
6/8/2016 1:53 PM

Designee for
Ryan T VanDette, Project Manager II
10 Hazelwood Drive, Amherst, NY, 14228-2298
(716)504-9830
ryan.vandette@testamericainc.com
06/08/2016

The test results in this report meet all NELAP requirements for analytes for which accreditation is required or available. Any exceptions to the NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. All questions regarding this test report should be directed to the TestAmerica Project Manager who has signed this report.

TestAmerica Buffalo NELAC Certifications: CADPH 01169CA, FLDOH E87672, ILEPA 200003, KSDOH E-10187, LADEQ 30708, MDH 036-999-337, NHELAP 2973, NJDEP NY455, NHDOH 10026, ORELAP NY200003, PADEP 68-00281, TXCEQ T-104704412-10-1

Job Narrative
480-100576-1

Comments
No additional comments.

Receipt
The samples were received on 5/24/2016 9:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.5º C.

GC/MS VOA
Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 480-303905 recovered above the upper control limit for Trichlorofluoromethane. The samples associated with this CCV were non-detect for the affected analyte; therefore, the data have been reported. The following sample is impacted: VO-B12-S (480-100576-5).

Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 480-303905 recovered outside acceptance criteria, low biased, for 1,2,4-Trichlorobenzene. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Since the associated samples were non-detect for this analyte, the data have been reported. The following samples are impacted: VO-B10-S (480-100576-3) and VO-B12-S (480-100576-5).

Method(s) 8260C: The continuing calibration verification (CCV) analyzed in 480-303905 was outside the method criteria for the following analyte: Cyclohexane. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte is considered estimated. The following sample is impacted: VO-B12-S (480-100576-5).

Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 480-303905 recovered above the upper control limit for Cyclohexane and Trichlorofluoromethane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following sample is impacted: VO-B10-S (480-100576-3).

Method(s) 8260C: The following sample was analyzed using medium level soil analysis to bring the concentration of target analytes within the calibration range: VO-B12-S (480-100576-5). Elevated reporting limits (RLs) are provided.

Method(s) 8260C: The following samples were diluted and analyzed using medium level soil analysis due to the nature of the sample matrix: VO-B10-S (480-100576-3). Elevated reporting limits (RLs) are provided.

Method(s) 8260C: Internal standard responses were outside of acceptance limits for the following sample: VO-B9-S (480-100576-2). The sample shows evidence of matrix interference.

Method(s) 8260C: Surrogate recovery for the following sample was outside control limits: VO-B9-S (480-100576-2). Evidence of matrix interference is present; therefore, re-analysis was not performed.

Method(s) 8260C: The method blank for preparation batch 480-303913 and analytical batch 480-303910 contained Methylene Chloride above the reporting limit (RL). This compound is considered a common laboratory contaminant. The associated samples were not re-analyzed because the concentration of the common lab contaminant in the method blank was less than 5 times the RL: VO-B9-S (480-100576-2).

Method(s) 8260C: The following sample was diluted to bring the concentration of target analytes within the calibration range: VO-B12-S (480-100576-5). Elevated reporting limits (RLs) are provided.

Method(s) 8260C: The following volatiles sample was diluted due to foaming at the time of purging during the original sample analysis: VO-B11c-S (480-100576-4). Elevated reporting limits (RLs) are provided.

Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 480-304122 recovered above the upper control limit for Carbon tetrachloride, 2-Hexanone, Vinyl chloride and Trichlorofluoromethane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: VO-B8a-S (480-100576-1) and VO-B11c-S (480-100576-4).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA
Method(s) 8270D: The continuing calibration verification (CCV) associated with batch 480-303744 recovered outside acceptance criteria, low biased, for Benzaldehyde. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Since the associated samples were non-detect for this analyte, the data have been reported.

Method(s) 8270D: The following samples were diluted due to appearance and viscosity: VO-B8a-S (480-100576-1), VO-B9-S (480-100576-2), VO-B10-S (480-100576-3), VO-B11c-S (480-100576-4), VO-B12-S (480-100576-5), (480-100576-A-2-A MS) and (480-100576-A-2-B MSD). Elevated reporting limits (RL) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC Semi VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Metals
Method(s) 6010C: The low level continuing calibration verification (CCVL 480-303864/30) for analytical batch 480-303864 recovered above the upper control limit for Total Barium, Calcium, Iron and Magnesium. The samples associated with this CCVL were either ND for this analyte or contained this analyte at a concentration greater than 10X the value found in the CCVL; therefore, re-analysis of samples VO-B10-S (480-100576-3), (LCDSRM 480-303360/3-) and (LCSSRM 480-303360/2-) was not performed.

Method(s) 6010C: The continuing calibration blank (CCB 480-303864/41) for analytical batch 480-303864 contained Total Iron above the reporting limit (RL). All reported samples associated with this CCB were either ND for this analyte or contained this analyte at a concentration greater than 10X the value found in the CCB; therefore, re-analysis of samples, VO-B10-S (480-100576-3), was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep
Method(s) 3550C: The following samples required a Florisil clean-up, via EPA Method 3620C, to reduce matrix interferences: VO-B10-S (480-100576-3).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

EXECUTIVE SUMMARY - Detections

Client: Stantec Consulting Services Inc Job Number: 480-100576-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
480-100576-1	**VO-B8A-S**					
Cyclohexane		460		48	ug/Kg	8260C
Methyl acetate		110		48	ug/Kg	8260C
Methylcyclohexane		1900		48	ug/Kg	8260C
o-Xylene		10	J	48	ug/Kg	8260C
tert-Butylbenzene		48		48	ug/Kg	8260C
Fluoranthene		210	J	1800	ug/Kg	8270D
Percent Moisture		9.9		0.1	%	Moisture
Percent Solids		90.1		0.1	%	Moisture
480-100576-2	**VO-B9-S**					
2-Hexanone		500	*	19	ug/Kg	8260C
Methylcyclohexane		31	*	3.8	ug/Kg	8260C
tert-Butylbenzene		7.1	*	3.8	ug/Kg	8260C
Percent Moisture		14.3		0.1	%	Moisture
Percent Solids		85.7		0.1	%	Moisture
480-100576-3	**VO-B10-S**					
Benzo[a]anthracene		520	J	1000	ug/Kg	8270D
Benzo[a]pyrene		450	J	1000	ug/Kg	8270D
Benzo[b]fluoranthene		650	J	1000	ug/Kg	8270D
Benzo[g,h,i]perylene		330	J	1000	ug/Kg	8270D
Benzo[k]fluoranthene		240	J	1000	ug/Kg	8270D
Carbazole		130	J	1000	ug/Kg	8270D
Chrysene		560	J	1000	ug/Kg	8270D
Fluoranthene		1300		1000	ug/Kg	8270D
Indeno[1,2,3-cd]pyrene		290	J	1000	ug/Kg	8270D
Phenanthrene		790	J	1000	ug/Kg	8270D
Pyrene		980	J	1000	ug/Kg	8270D
Aluminum		6410		12.5	mg/Kg	6010C
Arsenic		4.6		2.5	mg/Kg	6010C
Barium		27.3	^	0.62	mg/Kg	6010C
Beryllium		0.25		0.25	mg/Kg	6010C
Cadmium		0.40		0.25	mg/Kg	6010C
Calcium		47500	^ B	62.3	mg/Kg	6010C
Chromium		8.8		0.62	mg/Kg	6010C
Cobalt		3.2		0.62	mg/Kg	6010C
Copper		8.8		1.2	mg/Kg	6010C
Iron		11300	^	12.5	mg/Kg	6010C
Lead		12.4		1.2	mg/Kg	6010C
Magnesium		31200	^ B	24.9	mg/Kg	6010C
Manganese		489		0.25	mg/Kg	6010C
Nickel		8.4		6.2	mg/Kg	6010C
Potassium		1440		37.4	mg/Kg	6010C
Sodium		189		174	mg/Kg	6010C

EXECUTIVE SUMMARY - Detections

Client: Stantec Consulting Services Inc Job Number: 480-100576-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
Vanadium		16.9		0.62	mg/Kg	6010C
Zinc		131		2.5	mg/Kg	6010C
Mercury		0.015	J	0.025	mg/Kg	7471B
Percent Moisture		18.1		0.1	%	Moisture
Percent Solids		81.9		0.1	%	Moisture
480-100576-4	**VO-B11C-S**					
Methylcyclohexane		360		230	ug/Kg	8260C
Chrysene		1400	J	2000	ug/Kg	8270D
Pyrene		520	J	2000	ug/Kg	8270D
Percent Moisture		17.9		0.1	%	Moisture
Percent Solids		82.1		0.1	%	Moisture
480-100576-5	**VO-B12-S**					
1,2,4-Trimethylbenzene		41	J	59	ug/Kg	8260C
1,2-Dichlorobenzene		36	J	59	ug/Kg	8260C
1,4-Dichlorobenzene		1000		59	ug/Kg	8260C
Benzene		66		59	ug/Kg	8260C
Chlorobenzene		8600		230	ug/Kg	8260C
Cyclohexane		2500		59	ug/Kg	8260C
Methylcyclohexane		4900		59	ug/Kg	8260C
Naphthalene		76		59	ug/Kg	8260C
n-Butylbenzene		56	J	59	ug/Kg	8260C
Toluene		31	J	59	ug/Kg	8260C
tert-Butylbenzene		75		59	ug/Kg	8260C
Acenaphthene		500	J	1000	ug/Kg	8270D
Anthracene		1000		1000	ug/Kg	8270D
Benzo[a]anthracene		2400		1000	ug/Kg	8270D
Benzo[a]pyrene		1900		1000	ug/Kg	8270D
Benzo[b]fluoranthene		2400		1000	ug/Kg	8270D
Benzo[g,h,i]perylene		1500		1000	ug/Kg	8270D
Benzo[k]fluoranthene		1100		1000	ug/Kg	8270D
Carbazole		750	J	1000	ug/Kg	8270D
Chrysene		2500		1000	ug/Kg	8270D
Dibenzofuran		280	J	1000	ug/Kg	8270D
Fluoranthene		5400		1000	ug/Kg	8270D
Fluorene		480	J	1000	ug/Kg	8270D
Indeno[1,2,3-cd]pyrene		1300		1000	ug/Kg	8270D
Naphthalene		260	J	1000	ug/Kg	8270D
Phenanthrene		3800		1000	ug/Kg	8270D
Pyrene		4400		1000	ug/Kg	8270D
Percent Moisture		21.2		0.1	%	Moisture
Percent Solids		78.8		0.1	%	Moisture

METHOD SUMMARY

Client: Stantec Consulting Services Inc Job Number: 480-100576-1

Description	Lab Location	Method	Preparation Method
Matrix: Solid			
Volatile Organic Compounds by GC/MS	TAL BUF	SW846 8260C	
Closed System Purge & Trap	TAL BUF		SW846 5035A
Volatile Organic Compounds by GC/MS	TAL BUF	SW846 8260C	
Closed System Purge and Trap	TAL BUF		SW846 5035A
Semivolatile Organic Compounds (GC/MS)	TAL BUF	SW846 8270D	
Ultrasonic Extraction	TAL BUF		SW846 3550C
Organochlorine Pesticides (GC)	TAL BUF	SW846 8081B	
Ultrasonic Extraction	TAL BUF		SW846 3550C
Polychlorinated Biphenyls (PCBs) by Gas Chromatography	TAL BUF	SW846 8082A	
Ultrasonic Extraction	TAL BUF		SW846 3550C
Metals (ICP)	TAL BUF	SW846 6010C	
Preparation, Metals	TAL BUF		SW846 3050B
Mercury (CVAA)	TAL BUF	SW846 7471B	
Preparation, Mercury	TAL BUF		SW846 7471B
Cyanide, Total andor Amenable	TAL BUF	SW846 9012B	
Cyanide, Total and/or Amenable, Distillation	TAL BUF		SW846 9012B
Percent Moisture	TAL BUF	EPA Moisture	
Cyanide, Amenable	TAL BUF	SM SM 4500 CN G	

Lab References:

TAL BUF = TestAmerica Buffalo

Method References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: Stantec Consulting Services Inc Job Number: 480-100576-1

Method	Analyst	Analyst ID
SW846 8260C	Gentile, Joseph W	JWG
SW846 8260C	O'Brien, Shaun W	SWO
SW846 8270D	Wolf, Leah M	LMW
SW846 8081B	Neary, Mary A	MAN
SW846 8082A	Owen, Joshua M	JMO
SW846 6010C	Brandt, Todd R	TRB
SW846 7471B	Kacalski, Jason R	JRK
SW846 9012B	Ferguson, Katelyn M	KMF
EPA Moisture	Williams, Christopher S	CSW
SM SM 4500 CN G	Ferguson, Katelyn M	KMF

SAMPLE SUMMARY

Client: Stantec Consulting Services Inc

Job Number: 480-100576-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
480-100576-1	VO-B8a-S	Solid	05/23/2016 0935	05/24/2016 0930
480-100576-2	VO-B9-S	Solid	05/23/2016 1045	05/24/2016 0930
480-100576-3	VO-B10-S	Solid	05/23/2016 1135	05/24/2016 0930
480-100576-4	VO-B11c-S	Solid	05/23/2016 1500	05/24/2016 0930
480-100576-5	VO-B12-S	Solid	05/23/2016 1320	05/24/2016 0930

SAMPLE RESULTS

Client: Stantec Consulting Services Inc | Job Number: 480-100576-1

Client Sample ID: **VO-B8a-S**

Lab Sample ID: 480-100576-1 | Date Sampled: 05/23/2016 0935
Client Matrix: Solid | % Moisture: 9.9 | Date Received: 05/24/2016 0930

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-304122	Instrument ID:	HP5973N
Prep Method:	5035A	Prep Batch:	480-304148	Lab File ID:	N3952.D
Dilution:	1.0			Initial Weight/Volume:	6.553 g
Analysis Date:	05/27/2016 2345			Final Weight/Volume:	5 mL
Prep Date:	05/27/2016 1939				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1,1-Trichloroethane		ND		13	48
1,1,2,2-Tetrachloroethane		ND		7.8	48
1,1,2-Trichloro-1,2,2-trifluoroethane		ND		24	48
1,1,2-Trichloroethane		ND		10	48
1,1-Dichloroethane		ND		15	48
1,1-Dichloroethene		ND		17	48
1,2,4-Trichlorobenzene		ND		18	48
1,2,4-Trimethylbenzene		ND		13	48
1,2-Dibromo-3-Chloropropane		ND		24	48
1,2-Dichlorobenzene		ND		12	48
1,2-Dichloroethane		ND		20	48
1,2-Dichloropropane		ND		7.7	48
1,3,5-Trimethylbenzene		ND		14	48
1,3-Dichlorobenzene		ND		13	48
1,4-Dichlorobenzene		ND		6.7	48
2-Butanone (MEK)		ND		140	240
2-Hexanone		ND		98	240
4-Isopropyltoluene		ND		16	48
4-Methyl-2-pentanone (MIBK)		ND		15	240
Acetone		ND		200	240
Benzene		ND		9.1	48
Bromoform		ND		24	48
Bromomethane		ND		11	48
Carbon disulfide		ND		22	48
Carbon tetrachloride		ND		12	48
Chlorobenzene		ND		6.3	48
Dibromochloromethane		ND		23	48
Chloroethane		ND		9.9	48
Chloroform		ND		33	48
Chloromethane		ND		11	48
cis-1,2-Dichloroethene		ND		13	48
Cyclohexane		460		11	48
Bromodichloromethane		ND		9.6	48
Dichlorodifluoromethane		ND		21	48
Ethylbenzene		ND		14	48
1,2-Dibromoethane		ND		8.4	48
Isopropylbenzene		ND		7.2	48
Methyl acetate		110		23	48
Methyl tert-butyl ether		ND		18	48
Methylcyclohexane		1900		22	48
Methylene Chloride		ND		9.5	48
m,p-Xylene		ND		26	96
Naphthalene		ND		16	48
n-Butylbenzene		ND		14	48
N-Propylbenzene		ND		13	48
o-Xylene		10	J	6.2	48

Client: Stantec Consulting Services Inc Job Number: 480-100576-1

Client Sample ID: VO-B8a-S

Lab Sample ID: 480-100576-1 Date Sampled: 05/23/2016 0935
Client Matrix: Solid % Moisture: 9.9 Date Received: 05/24/2016 0930

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-304122	Instrument ID:	HP5973N
Prep Method:	5035A	Prep Batch:	480-304148	Lab File ID:	N3952.D
Dilution:	1.0			Initial Weight/Volume:	6.553 g
Analysis Date:	05/27/2016 2345			Final Weight/Volume:	5 mL
Prep Date:	05/27/2016 1939				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
sec-Butylbenzene		ND		18	48
Tetrachloroethene		ND		6.4	48
Toluene		ND		13	48
trans-1,2-Dichloroethene		ND		11	48
trans-1,3-Dichloropropene		ND		4.7	48
Trichloroethene		ND		13	48
Trichlorofluoromethane		ND		22	48
Vinyl chloride		ND		16	48
Xylenes, Total		ND		26	96
cis-1,3-Dichloropropene		ND		11	48
Styrene		ND		12	48
tert-Butylbenzene		48		13	48

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	94		53 - 146
4-Bromofluorobenzene (Surr)	112		49 - 148
Toluene-d8 (Surr)	99		50 - 149
Dibromofluoromethane (Surr)	95		60 - 140

Client: Stantec Consulting Services Inc | Job Number: 480-100576-1

Client Sample ID: **VO-B8a-S**

Lab Sample ID: 480-100576-1 | Date Sampled: 05/23/2016 0935
Client Matrix: Solid | % Moisture: 9.9 | Date Received: 05/24/2016 0930

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-304122	Instrument ID:	HP5973N
Prep Method:	5035A	Prep Batch:	480-304148	Lab File ID:	N3952.D
Dilution:	1.0			Initial Weight/Volume:	6.553 g
Analysis Date:	05/27/2016 2345			Final Weight/Volume:	5 mL
Prep Date:	05/27/2016 1939				

Tentatively Identified Compounds **Number TIC's Found: 10**

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
638-04-0	Cyclohexane, 1,3-dimethyl-, cis-	6.99	4900	T H J N
6876-23-9	Cyclohexane, 1,2-dimethyl-, trans-	7.36	2000	T H J N
	Unknown	7.82	1700	T H J
1678-91-7	Cyclohexane, ethyl-	7.95	1700	T H J N
	Unknown	8.00	1700	T H J
	Unknown	8.23	2500	T H J
3728-55-0	1-Ethyl-3-methylcyclohexane (c,t)	8.80	1800	T H J N
2051-30-1	Octane, 2,6-dimethyl-	9.32	1700	T H J N
1678-92-8	Cyclohexane, propyl-	9.46	2500	T H J N
	Unknown	9.64	1800	T H J

Client: Stantec Consulting Services Inc | Job Number: 480-100576-1

Client Sample ID: **VO-B9-S**

Lab Sample ID: 480-100576-2 | Date Sampled: 05/23/2016 1045
Client Matrix: Solid | % Moisture: 14.3 | Date Received: 05/24/2016 0930

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-303910	Instrument ID:	HP5973F
Prep Method:	5035A	Prep Batch:	480-303913	Lab File ID:	F6722.D
Dilution:	1.0			Initial Weight/Volume:	7.674 g
Analysis Date:	05/27/2016 0122			Final Weight/Volume:	5 mL
Prep Date:	05/24/2016 1230				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1,1-Trichloroethane		ND	*	0.28	3.8
1,1,2,2-Tetrachloroethane		ND	*	0.62	3.8
1,1,2-Trichloro-1,2,2-trifluoroethane		ND	*	0.87	3.8
1,1,2-Trichloroethane		ND	*	0.49	3.8
1,1-Dichloroethane		ND	*	0.46	3.8
1,1-Dichloroethene		ND	*	0.47	3.8
1,2,4-Trichlorobenzene		ND	*	0.23	3.8
1,2,4-Trimethylbenzene		ND	*	0.73	3.8
1,2-Dibromo-3-Chloropropane		ND	*	1.9	3.8
1,2-Dichlorobenzene		ND	*	0.30	3.8
1,2-Dichloroethane		ND	*	0.19	3.8
1,2-Dichloropropane		ND	*	1.9	3.8
1,3,5-Trimethylbenzene		ND	*	0.24	3.8
1,3-Dichlorobenzene		ND	*	0.20	3.8
1,4-Dichlorobenzene		ND	*	0.53	3.8
2-Butanone (MEK)		ND	*	1.4	19
2-Hexanone		500	*	1.9	19
4-Isopropyltoluene		ND	*	0.30	3.8
4-Methyl-2-pentanone (MIBK)		ND	*	1.2	19
Acetone		ND	*	3.2	19
Benzene		ND	*	0.19	3.8
Bromoform		ND	*	1.9	3.8
Bromomethane		ND	*	0.34	3.8
Carbon disulfide		ND	*	1.9	3.8
Carbon tetrachloride		ND	*	0.37	3.8
Chlorobenzene		ND	*	0.50	3.8
Dibromochloromethane		ND	*	0.49	3.8
Chloroethane		ND	*	0.86	3.8
Chloroform		ND	*	0.23	3.8
Chloromethane		ND	*	0.23	3.8
cis-1,2-Dichloroethene		ND	*	0.49	3.8
Cyclohexane		ND	*	0.53	3.8
Bromodichloromethane		ND	*	0.51	3.8
Dichlorodifluoromethane		ND	*	0.31	3.8
Ethylbenzene		ND	*	0.26	3.8
1,2-Dibromoethane		ND	*	0.49	3.8
Isopropylbenzene		ND	*	0.57	3.8
Methyl acetate		ND	*	2.3	3.8
Methyl tert-butyl ether		ND	*	0.37	3.8
Methylcyclohexane		31	*	0.58	3.8
Methylene Chloride		ND	*	1.7	3.8
m,p-Xylene		ND	*	0.64	7.6
Naphthalene		ND	*	0.51	3.8
n-Butylbenzene		ND	*	0.33	3.8
N-Propylbenzene		ND	*	0.30	3.8
o-Xylene		ND	*	0.50	3.8

Client: Stantec Consulting Services Inc | Job Number: 480-100576-1

Client Sample ID: **VO-B9-S**

Lab Sample ID: 480-100576-2 | Date Sampled: 05/23/2016 1045
Client Matrix: Solid | % Moisture: 14.3 | Date Received: 05/24/2016 0930

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-303910	Instrument ID:	HP5973F
Prep Method:	5035A	Prep Batch:	480-303913	Lab File ID:	F6722.D
Dilution:	1.0			Initial Weight/Volume:	7.674 g
Analysis Date:	05/27/2016 0122			Final Weight/Volume:	5 mL
Prep Date:	05/24/2016 1230				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
sec-Butylbenzene		ND	*	0.33	3.8
Tetrachloroethene		ND	*	0.51	3.8
Toluene		ND	*	0.29	3.8
trans-1,2-Dichloroethene		ND	*	0.39	3.8
trans-1,3-Dichloropropene		ND	*	1.7	3.8
Trichloroethene		ND	*	0.84	3.8
Trichlorofluoromethane		ND	*	0.36	3.8
Vinyl chloride		ND	*	0.46	3.8
Xylenes, Total		ND		0.64	7.6
cis-1,3-Dichloropropene		ND	*	0.55	3.8
Styrene		ND	*	0.19	3.8
tert-Butylbenzene		7.1	*	0.40	3.8

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	86	*	64 - 126
4-Bromofluorobenzene (Surr)	119	*	72 - 126
Toluene-d8 (Surr)	121	*	71 - 125
Dibromofluoromethane (Surr)	77	*	60 - 140

Client: Stantec Consulting Services Inc | Job Number: 480-100576-1

Client Sample ID: **VO-B9-S**

Lab Sample ID: 480-100576-2 | Date Sampled: 05/23/2016 1045
Client Matrix: Solid | % Moisture: 14.3 | Date Received: 05/24/2016 0930

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-303910	Instrument ID:	HP5973F
Prep Method:	5035A	Prep Batch:	480-303913	Lab File ID:	F6722.D
Dilution:	1.0			Initial Weight/Volume:	7.674 g
Analysis Date:	05/27/2016 0122			Final Weight/Volume:	5 mL
Prep Date:	05/24/2016 1230				

Tentatively Identified Compounds **Number TIC's Found: 10**

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
6876-23-9	Cyclohexane, 1,2-dimethyl-, trans-	6.91	320	T J N
3073-66-3	Cyclohexane, 1,1,3-trimethyl-	7.51	660	T J N
7667-60-9	Cyclohexane, 1,2,4-trimethyl-, (1.alpha.	7.74	410	T J N
1678-81-5	Cyclohexane, 1,2,3-trimethyl-, (1.alpha.	8.14	230	T J N
3728-56-1	1-Ethyl-4-methylcyclohexane	8.27	550	T J N
	Unknown	8.49	230	T J
	Unknown	8.59	720	T J
5911-04-6	Nonane, 3-methyl-	8.72	330	T J N
	Unknown	8.89	420	T J
	Unknown	9.06	280	T J

Client: Stantec Consulting Services Inc | Job Number: 480-100576-1

Client Sample ID: **VO-B10-S**

Lab Sample ID: 480-100576-3 | Date Sampled: 05/23/2016 1135
Client Matrix: Solid | % Moisture: 18.1 | Date Received: 05/24/2016 0930

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-303905	Instrument ID:	HP5973N
Prep Method:	5035A	Prep Batch:	480-303812	Lab File ID:	N3896.D
Dilution:	4.0			Initial Weight/Volume:	7.024 g
Analysis Date:	05/27/2016 0137			Final Weight/Volume:	5 mL
Prep Date:	05/26/2016 1023				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1,1-Trichloroethane		ND		60	220
1,1,2,2-Tetrachloroethane		ND		35	220
1,1,2-Trichloro-1,2,2-trifluoroethane		ND		110	220
1,1,2-Trichloroethane		ND		46	220
1,1-Dichloroethane		ND		67	220
1,1-Dichloroethene		ND		75	220
1,2,4-Trichlorobenzene		ND		83	220
1,2,4-Trimethylbenzene		ND		61	220
1,2-Dibromo-3-Chloropropane		ND		110	220
1,2-Dichlorobenzene		ND		56	220
1,2-Dichloroethane		ND		89	220
1,2-Dichloropropane		ND		35	220
1,3,5-Trimethylbenzene		ND		66	220
1,3-Dichlorobenzene		ND		58	220
1,4-Dichlorobenzene		ND		31	220
2-Butanone (MEK)		ND		650	1100
2-Hexanone		ND		450	1100
4-Isopropyltoluene		ND		73	220
4-Methyl-2-pentanone (MIBK)		ND		70	1100
Acetone		ND		900	1100
Benzene		ND		41	220
Bromoform		ND		110	220
Bromomethane		ND		48	220
Carbon disulfide		ND		99	220
Carbon tetrachloride		ND		56	220
Chlorobenzene		ND		29	220
Dibromochloromethane		ND		110	220
Chloroethane		ND		45	220
Chloroform		ND		150	220
Chloromethane		ND		52	220
cis-1,2-Dichloroethene		ND		60	220
Cyclohexane		ND		48	220
Bromodichloromethane		ND		44	220
Dichlorodifluoromethane		ND		95	220
Ethylbenzene		ND		63	220
1,2-Dibromoethane		ND		38	220
Isopropylbenzene		ND		33	220
Methyl acetate		ND		100	220
Methyl tert-butyl ether		ND		82	220
Methylcyclohexane		ND		100	220
Methylene Chloride		ND		43	220
m,p-Xylene		ND		120	440
Naphthalene		ND		73	220
n-Butylbenzene		ND		64	220
N-Propylbenzene		ND		57	220
o-Xylene		ND		28	220

Client: Stantec Consulting Services Inc | Job Number: 480-100576-1

Client Sample ID: **VO-B10-S**

Lab Sample ID: 480-100576-3 | Date Sampled: 05/23/2016 1135
Client Matrix: Solid | % Moisture: 18.1 | Date Received: 05/24/2016 0930

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-303905	Instrument ID:	HP5973N
Prep Method:	5035A	Prep Batch:	480-303812	Lab File ID:	N3896.D
Dilution:	4.0			Initial Weight/Volume:	7.024 g
Analysis Date:	05/27/2016 0137			Final Weight/Volume:	5 mL
Prep Date:	05/26/2016 1023				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
sec-Butylbenzene		ND		80	220
Tetrachloroethene		ND		29	220
Toluene		ND		58	220
trans-1,2-Dichloroethene		ND		51	220
trans-1,3-Dichloropropene		ND		21	220
Trichloroethene		ND		61	220
Trichlorofluoromethane		ND		100	220
Vinyl chloride		ND		73	220
Xylenes, Total		ND		120	440
cis-1,3-Dichloropropene		ND		52	220
Styrene		ND		53	220
tert-Butylbenzene		ND		61	220

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	99		53 - 146
4-Bromofluorobenzene (Surr)	111		49 - 148
Toluene-d8 (Surr)	100		50 - 149
Dibromofluoromethane (Surr)	101		60 - 140

Client: Stantec Consulting Services Inc | Job Number: 480-100576-1

Client Sample ID: **VO-B10-S**

Lab Sample ID: 480-100576-3 | Date Sampled: 05/23/2016 1135
Client Matrix: Solid | % Moisture: 18.1 | Date Received: 05/24/2016 0930

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-303905	Instrument ID:	HP5973N
Prep Method:	5035A	Prep Batch:	480-303812	Lab File ID:	N3896.D
Dilution:	4.0			Initial Weight/Volume:	7.024 g
Analysis Date:	05/27/2016 0137			Final Weight/Volume:	5 mL
Prep Date:	05/26/2016 1023				

Tentatively Identified Compounds **Number TIC's Found: 10**

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
	Unknown	6.05	8400	T H J
6876-23-9	Cyclohexane, 1,2-dimethyl-, trans-	7.36	12000	T H J N
2216-30-0	Heptane, 2,5-dimethyl-	7.82	13000	T H J N
	Unknown	7.86	10000	T H J
3073-66-3	Cyclohexane, 1,1,3-trimethyl-	8.00	12000	T H J N
	Unknown	8.24	13000	T H J
3728-56-1	1-Ethyl-4-methylcyclohexane	8.80	11000	T H J N
	Unknown	9.48	12000	T H J
	Unknown	9.64	10000	T H J
	Unknown	9.91	9500	T H J

Client: Stantec Consulting Services Inc | Job Number: 480-100576-1

Client Sample ID: **VO-B11c-S**

Lab Sample ID: 480-100576-4 | Date Sampled: 05/23/2016 1500
Client Matrix: Solid | % Moisture: 17.9 | Date Received: 05/24/2016 0930

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-304122	Instrument ID:	HP5973N
Prep Method:	5035A	Prep Batch:	480-304148	Lab File ID:	N3953.D
Dilution:	4.0			Initial Weight/Volume:	6.427 g
Analysis Date:	05/28/2016 0012			Final Weight/Volume:	5 mL
Prep Date:	05/27/2016 1939				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1,1-Trichloroethane		ND		65	230
1,1,2,2-Tetrachloroethane		ND		38	230
1,1,2-Trichloro-1,2,2-trifluoroethane		ND		120	230
1,1,2-Trichloroethane		ND		49	230
1,1-Dichloroethane		ND		72	230
1,1-Dichloroethene		ND		81	230
1,2,4-Trichlorobenzene		ND		88	230
1,2,4-Trimethylbenzene		ND		65	230
1,2-Dibromo-3-Chloropropane		ND		120	230
1,2-Dichlorobenzene		ND		59	230
1,2-Dichloroethane		ND		95	230
1,2-Dichloropropane		ND		38	230
1,3,5-Trimethylbenzene		ND		70	230
1,3-Dichlorobenzene		ND		62	230
1,4-Dichlorobenzene		ND		33	230
2-Butanone (MEK)		ND		690	1200
2-Hexanone		ND		480	1200
4-Isopropyltoluene		ND		79	230
4-Methyl-2-pentanone (MIBK)		ND		75	1200
Acetone		ND		960	1200
Benzene		ND		44	230
Bromoform		ND		120	230
Bromomethane		ND		51	230
Carbon disulfide		ND		110	230
Carbon tetrachloride		ND		59	230
Chlorobenzene		ND		31	230
Dibromochloromethane		ND		110	230
Chloroethane		ND		49	230
Chloroform		ND		160	230
Chloromethane		ND		55	230
cis-1,2-Dichloroethene		ND		64	230
Cyclohexane		ND		52	230
Bromodichloromethane		ND		47	230
Dichlorodifluoromethane		ND		100	230
Ethylbenzene		ND		68	230
1,2-Dibromoethane		ND		41	230
Isopropylbenzene		ND		35	230
Methyl acetate		ND		110	230
Methyl tert-butyl ether		ND		88	230
Methylcyclohexane		360		110	230
Methylene Chloride		ND		46	230
m,p-Xylene		ND		130	470
Naphthalene		ND		79	230
n-Butylbenzene		ND		68	230
N-Propylbenzene		ND		61	230
o-Xylene		ND		30	230

Client: Stantec Consulting Services Inc | Job Number: 480-100576-1

Client Sample ID: **VO-B11c-S**

Lab Sample ID: 480-100576-4 | Date Sampled: 05/23/2016 1500
Client Matrix: Solid | % Moisture: 17.9 | Date Received: 05/24/2016 0930

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-304122	Instrument ID:	HP5973N
Prep Method:	5035A	Prep Batch:	480-304148	Lab File ID:	N3953.D
Dilution:	4.0			Initial Weight/Volume:	6.427 g
Analysis Date:	05/28/2016 0012			Final Weight/Volume:	5 mL
Prep Date:	05/27/2016 1939				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
sec-Butylbenzene		ND		86	230
Tetrachloroethene		ND		31	230
Toluene		ND		62	230
trans-1,2-Dichloroethene		ND		55	230
trans-1,3-Dichloropropene		ND		23	230
Trichloroethene		ND		65	230
Trichlorofluoromethane		ND		110	230
Vinyl chloride		ND		78	230
Xylenes, Total		ND		130	470
cis-1,3-Dichloropropene		ND		56	230
Styrene		ND		56	230
tert-Butylbenzene		ND		65	230

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	97		53 - 146
4-Bromofluorobenzene (Surr)	110		49 - 148
Toluene-d8 (Surr)	99		50 - 149
Dibromofluoromethane (Surr)	96		60 - 140

Client: Stantec Consulting Services Inc | Job Number: 480-100576-1

Client Sample ID: **VO-B11c-S**

Lab Sample ID: 480-100576-4 | Date Sampled: 05/23/2016 1500
Client Matrix: Solid | % Moisture: 17.9 | Date Received: 05/24/2016 0930

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-304122	Instrument ID:	HP5973N
Prep Method:	5035A	Prep Batch:	480-304148	Lab File ID:	N3953.D
Dilution:	4.0			Initial Weight/Volume:	6.427 g
Analysis Date:	05/28/2016 0012			Final Weight/Volume:	5 mL
Prep Date:	05/27/2016 1939				

Tentatively Identified Compounds **Number TIC's Found: 1**

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
13395-76-1	Cyclohexanone, 2,3-dimethyl-	9.46	680	T H J N

Client: Stantec Consulting Services Inc | Job Number: 480-100576-1

Client Sample ID: **VO-B12-S**

Lab Sample ID: 480-100576-5 | Date Sampled: 05/23/2016 1320
Client Matrix: Solid | % Moisture: 21.2 | Date Received: 05/24/2016 0930

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-303905	Instrument ID:	HP5973N
Prep Method:	5035A	Prep Batch:	480-303638	Lab File ID:	N3895.D
Dilution:	1.0			Initial Weight/Volume:	7.015 g
Analysis Date:	05/27/2016 0110			Final Weight/Volume:	5 mL
Prep Date:	05/24/2016 1230				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1,1-Trichloroethane		ND		16	59
1,1,2,2-Tetrachloroethane		ND		9.5	59
1,1,2-Trichloro-1,2,2-trifluoroethane		ND		29	59
1,1,2-Trichloroethane		ND		12	59
1,1-Dichloroethane		ND		18	59
1,1-Dichloroethene		ND		20	59
1,2,4-Trichlorobenzene		ND		22	59
1,2,4-Trimethylbenzene		41	J	16	59
1,2-Dibromo-3-Chloropropane		ND		29	59
1,2-Dichlorobenzene		36	J	15	59
1,2-Dichloroethane		ND		24	59
1,2-Dichloropropane		ND		9.5	59
1,3,5-Trimethylbenzene		ND		18	59
1,3-Dichlorobenzene		ND		16	59
1,4-Dichlorobenzene		1000		8.2	59
2-Butanone (MEK)		ND		170	290
2-Hexanone		ND		120	290
4-Isopropyltoluene		ND		20	59
4-Methyl-2-pentanone (MIBK)		ND		19	290
Acetone		ND		240	290
Benzene		66		11	59
Bromoform		ND		29	59
Bromomethane		ND		13	59
Carbon disulfide		ND		27	59
Carbon tetrachloride		ND		15	59
Dibromochloromethane		ND		28	59
Chloroethane		ND		12	59
Chloroform		ND		40	59
Chloromethane		ND		14	59
cis-1,2-Dichloroethene		ND		16	59
Cyclohexane		2500		13	59
Bromodichloromethane		ND		12	59
Dichlorodifluoromethane		ND		26	59
Ethylbenzene		ND		17	59
1,2-Dibromoethane		ND		10	59
Isopropylbenzene		ND		8.8	59
Methyl acetate		ND		28	59
Methyl tert-butyl ether		ND		22	59
Methylcyclohexane		4900		27	59
Methylene Chloride		ND		12	59
m,p-Xylene		ND		32	120
Naphthalene		76		20	59
n-Butylbenzene		56	J	17	59
N-Propylbenzene		ND		15	59
o-Xylene		ND		7.6	59
sec-Butylbenzene		ND		22	59

Client: Stantec Consulting Services Inc | Job Number: 480-100576-1

Client Sample ID: **VO-B12-S**

Lab Sample ID: 480-100576-5 | Date Sampled: 05/23/2016 1320
Client Matrix: Solid | % Moisture: 21.2 | Date Received: 05/24/2016 0930

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-303905	Instrument ID:	HP5973N
Prep Method:	5035A	Prep Batch:	480-303638	Lab File ID:	N3895.D
Dilution:	1.0			Initial Weight/Volume:	7.015 g
Analysis Date:	05/27/2016 0110			Final Weight/Volume:	5 mL
Prep Date:	05/24/2016 1230				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Tetrachloroethene		ND		7.9	59
Toluene		31	J	16	59
trans-1,2-Dichloroethene		ND		14	59
trans-1,3-Dichloropropene		ND		5.8	59
Trichloroethene		ND		16	59
Trichlorofluoromethane		ND		28	59
Vinyl chloride		ND		20	59
Xylenes, Total		ND		32	120
cis-1,3-Dichloropropene		ND		14	59
Styrene		ND		14	59
tert-Butylbenzene		75		16	59

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	99		53 - 146
4-Bromofluorobenzene (Surr)	110		49 - 148
Toluene-d8 (Surr)	100		50 - 149
Dibromofluoromethane (Surr)	93		60 - 140

Client: Stantec Consulting Services Inc | Job Number: 480-100576-1

Client Sample ID: **VO-B12-S**

Lab Sample ID: 480-100576-5 | Date Sampled: 05/23/2016 1320
Client Matrix: Solid | % Moisture: 21.2 | Date Received: 05/24/2016 0930

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-303905	Instrument ID:	HP5973N
Prep Method:	5035A	Prep Batch:	480-303638	Lab File ID:	N3895.D
Dilution:	1.0			Initial Weight/Volume:	7.015 g
Analysis Date:	05/27/2016 0110			Final Weight/Volume:	5 mL
Prep Date:	05/24/2016 1230				

Tentatively Identified Compounds **Number TIC's Found: 10**

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
589-43-5	Hexane, 2,4-dimethyl-	6.10	1800	T J N
2815-58-9	Cyclopentane, 1,2,4-trimethyl-	6.29	2400	T J N
638-04-0	Cyclohexane, 1,3-dimethyl-, cis-	6.99	8000	T J N
624-29-3	Cyclohexane, 1,4-dimethyl-, cis-	7.36	5000	T J N
2207-03-6	Cyclohexane, 1,3-dimethyl-, trans-	7.48	4000	T J N
	Unknown	7.82	1800	T J
3073-66-3	Cyclohexane, 1,1,3-trimethyl-	8.00	2400	T J N
7094-26-0	Cyclohexane, 1,1,2-trimethyl-	8.24	2900	T J N
	Unknown	8.80	2200	T J
	Unknown	9.46	2000	T J

Client: Stantec Consulting Services Inc | Job Number: 480-100576-1

Client Sample ID: **VO-B12-S**

Lab Sample ID: 480-100576-5 | Date Sampled: 05/23/2016 1320
Client Matrix: Solid | % Moisture: 21.2 | Date Received: 05/24/2016 0930

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-303981	Instrument ID:	HP5973N
Prep Method:	5035A	Prep Batch:	480-303638	Lab File ID:	N3927.D
Dilution:	4.0			Initial Weight/Volume:	7.015 g
Analysis Date:	05/27/2016 1336	Run Type:	DL	Final Weight/Volume:	5 mL
Prep Date:	05/24/2016 1230				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Chlorobenzene		8600		31	230

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	98		53 - 146
4-Bromofluorobenzene (Surr)	111		49 - 148
Toluene-d8 (Surr)	100		50 - 149
Dibromofluoromethane (Surr)	98		60 - 140

Client: Stantec Consulting Services Inc | Job Number: 480-100576-1

Client Sample ID: **VO-B12-S**

Lab Sample ID: 480-100576-5 | Date Sampled: 05/23/2016 1320
Client Matrix: Solid | % Moisture: 21.2 | Date Received: 05/24/2016 0930

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-303981	Instrument ID:	HP5973N
Prep Method:	5035A	Prep Batch:	480-303638	Lab File ID:	N3927.D
Dilution:	4.0			Initial Weight/Volume:	7.015 g
Analysis Date:	05/27/2016 1336	Run Type:	DL	Final Weight/Volume:	5 mL
Prep Date:	05/24/2016 1230				

Tentatively Identified Compounds **Number TIC's Found: 10**

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
589-43-5	Hexane, 2,4-dimethyl-	6.09	2400	T J N
2815-58-9	Cyclopentane, 1,2,4-trimethyl-	6.29	3400	T J N
609-26-7	Pentane, 3-ethyl-2-methyl-	6.59	1700	T J N
	Unknown	6.76	1800	T J
638-04-0	Cyclohexane, 1,3-dimethyl-, cis-	6.99	11000	T J N
583-57-3	Cyclohexane, 1,2-dimethyl-	7.36	2800	T J N
2207-03-6	Cyclohexane, 1,3-dimethyl-, trans-	7.48	1900	T J N
3073-66-3	Cyclohexane, 1,1,3-trimethyl-	8.00	1700	T J N
	Unknown	8.80	1700	T J
6783-92-2	Cyclohexane, 1,1,2,3-tetramethyl-	9.91	2100	T J N

Client Sample ID: **VO-B8a-S**

Lab Sample ID: 480-100576-1 Date Sampled: 05/23/2016 0935
Client Matrix: Solid % Moisture: 9.9 Date Received: 05/24/2016 0930

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	480-303744	Instrument ID:	HP5973X
Prep Method:	3550C	Prep Batch:	480-303495	Lab File ID:	X00905300.D
Dilution:	10			Initial Weight/Volume:	30.86 g
Analysis Date:	05/26/2016 1348			Final Weight/Volume:	1 mL
Prep Date:	05/25/2016 0654			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Biphenyl		ND		270	1800
bis (2-chloroisopropyl) ether		ND		370	1800
2,4,5-Trichlorophenol		ND		500	1800
2,4,6-Trichlorophenol		ND		370	1800
2,4-Dichlorophenol		ND		190	1800
2,4-Dimethylphenol		ND		440	1800
2,4-Dinitrophenol		ND		8500	18000
2,4-Dinitrotoluene		ND		380	1800
2,6-Dinitrotoluene		ND		220	1800
2-Chloronaphthalene		ND		300	1800
2-Chlorophenol		ND		330	1800
2-Methylnaphthalene		ND		370	1800
2-Methylphenol		ND		220	1800
2-Nitroaniline		ND		270	3600
2-Nitrophenol		ND		520	1800
3,3'-Dichlorobenzidine		ND		2200	3600
3-Nitroaniline		ND		510	3600
4,6-Dinitro-2-methylphenol		ND		1800	3600
4-Bromophenyl phenyl ether		ND		260	1800
4-Chloro-3-methylphenol		ND		450	1800
4-Chloroaniline		ND		450	1800
4-Chlorophenyl phenyl ether		ND		230	1800
4-Methylphenol		ND		220	3600
4-Nitroaniline		ND		960	3600
4-Nitrophenol		ND		1300	3600
Acenaphthene		ND		270	1800
Acenaphthylene		ND		240	1800
Acetophenone		ND		250	1800
Anthracene		ND		450	1800
Atrazine		ND		640	1800
Benzaldehyde		ND		1500	1800
Benzo[a]anthracene		ND		180	1800
Benzo[a]pyrene		ND		270	1800
Benzo[b]fluoranthene		ND		290	1800
Benzo[g,h,i]perylene		ND		190	1800
Benzo[k]fluoranthene		ND		240	1800
Bis(2-chloroethoxy)methane		ND		390	1800
Bis(2-chloroethyl)ether		ND		240	1800
Bis(2-ethylhexyl) phthalate		ND		630	1800
Butyl benzyl phthalate		ND		300	1800
Caprolactam		ND		550	1800
Carbazole		ND		220	1800
Chrysene		ND		410	1800
Di-n-butyl phthalate		ND		310	1800
Di-n-octyl phthalate		ND		220	1800
Dibenz(a,h)anthracene		ND		320	1800

Client: Stantec Consulting Services Inc | Job Number: 480-100576-1

Client Sample ID: **VO-B8a-S**

Lab Sample ID: 480-100576-1 | Date Sampled: 05/23/2016 0935
Client Matrix: Solid | % Moisture: 9.9 | Date Received: 05/24/2016 0930

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	480-303744	Instrument ID:	HP5973X
Prep Method:	3550C	Prep Batch:	480-303495	Lab File ID:	X00905300.D
Dilution:	10			Initial Weight/Volume:	30.86 g
Analysis Date:	05/26/2016 1348			Final Weight/Volume:	1 mL
Prep Date:	05/25/2016 0654			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Dibenzofuran		ND		220	1800
Diethyl phthalate		ND		240	1800
Dimethyl phthalate		ND		220	1800
Fluoranthene		210	J	190	1800
Fluorene		ND		220	1800
Hexachlorobenzene		ND		250	1800
Hexachlorobutadiene		ND		270	1800
Hexachlorocyclopentadiene		ND		250	1800
Hexachloroethane		ND		240	1800
Indeno[1,2,3-cd]pyrene		ND		230	1800
Isophorone		ND		390	1800
N-Nitrosodi-n-propylamine		ND		310	1800
N-Nitrosodiphenylamine		ND		1500	1800
Naphthalene		ND		240	1800
Nitrobenzene		ND		200	1800
Pentachlorophenol		ND		1800	3600
Phenanthrene		ND		270	1800
Phenol		ND		280	1800
Pyrene		ND		220	1800

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol	102		39 - 146
2-Fluorobiphenyl	79		37 - 120
2-Fluorophenol	63		18 - 120
Nitrobenzene-d5	68		34 - 132
p-Terphenyl-d14	72		65 - 153
Phenol-d5	68		11 - 120

Client: Stantec Consulting Services Inc | Job Number: 480-100576-1

Client Sample ID: **VO-B8a-S**

Lab Sample ID: 480-100576-1 | Date Sampled: 05/23/2016 0935
Client Matrix: Solid | % Moisture: 9.9 | Date Received: 05/24/2016 0930

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	480-303744	Instrument ID:	HP5973X
Prep Method:	3550C	Prep Batch:	480-303495	Lab File ID:	X00905300.D
Dilution:	10			Initial Weight/Volume:	30.86 g
Analysis Date:	05/26/2016 1348			Final Weight/Volume:	1 mL
Prep Date:	05/25/2016 0654			Injection Volume:	1 uL

Tentatively Identified Compounds **Number TIC's Found: 6**

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
	Unknown	1.89	5800	T J
	Unknown	2.00	3000	T J
3892-00-0	Pentadecane, 2,6,10-trimethyl-	10.90	2500	T J N
638-36-8	Hexadecane, 2,6,10,14-tetramethyl-	11.63	3300	T J N
	Unknown	12.42	2100	T J
	Unknown	12.61	2300	T J

Client Sample ID: **VO-B9-S**

Lab Sample ID: 480-100576-2 Date Sampled: 05/23/2016 1045
Client Matrix: Solid % Moisture: 14.3 Date Received: 05/24/2016 0930

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	480-303744	Instrument ID:	HP5973X
Prep Method:	3550C	Prep Batch:	480-303495	Lab File ID:	X00905299.D
Dilution:	5.0			Initial Weight/Volume:	30.42 g
Analysis Date:	05/26/2016 1322			Final Weight/Volume:	1 mL
Prep Date:	05/25/2016 0654			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Biphenyl		ND		140	980
bis (2-chloroisopropyl) ether		ND		200	980
2,4,5-Trichlorophenol		ND		260	980
2,4,6-Trichlorophenol		ND		200	980
2,4-Dichlorophenol		ND		100	980
2,4-Dimethylphenol		ND		240	980
2,4-Dinitrophenol		ND		4500	9600
2,4-Dinitrotoluene		ND		200	980
2,6-Dinitrotoluene		ND		120	980
2-Chloronaphthalene		ND		160	980
2-Chlorophenol		ND		180	980
2-Methylnaphthalene		ND		200	980
2-Methylphenol		ND		120	980
2-Nitroaniline		ND		140	1900
2-Nitrophenol		ND		280	980
3,3'-Dichlorobenzidine		ND		1200	1900
3-Nitroaniline		ND		270	1900
4,6-Dinitro-2-methylphenol		ND		980	1900
4-Bromophenyl phenyl ether		ND		140	980
4-Chloro-3-methylphenol		ND		240	980
4-Chloroaniline		ND		240	980
4-Chlorophenyl phenyl ether		ND		120	980
4-Methylphenol		ND		120	1900
4-Nitroaniline		ND		510	1900
4-Nitrophenol		ND		680	1900
Acenaphthene		ND		140	980
Acenaphthylene		ND		130	980
Acetophenone		ND		130	980
Anthracene		ND		240	980
Atrazine		ND		340	980
Benzaldehyde		ND		780	980
Benzo[a]anthracene		ND		98	980
Benzo[a]pyrene		ND		140	980
Benzo[b]fluoranthene		ND		160	980
Benzo[g,h,i]perylene		ND		100	980
Benzo[k]fluoranthene		ND		130	980
Bis(2-chloroethoxy)methane		ND		210	980
Bis(2-chloroethyl)ether		ND		130	980
Bis(2-ethylhexyl) phthalate		ND		330	980
Butyl benzyl phthalate		ND		160	980
Caprolactam		ND		290	980
Carbazole		ND		120	980
Chrysene		ND		220	980
Di-n-butyl phthalate		ND		170	980
Di-n-octyl phthalate		ND		120	980
Dibenz(a,h)anthracene		ND		170	980

Client: Stantec Consulting Services Inc | Job Number: 480-100576-1

Client Sample ID: **VO-B9-S**

Lab Sample ID: 480-100576-2 | Date Sampled: 05/23/2016 1045
Client Matrix: Solid | % Moisture: 14.3 | Date Received: 05/24/2016 0930

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	480-303744	Instrument ID:	HP5973X
Prep Method:	3550C	Prep Batch:	480-303495	Lab File ID:	X00905299.D
Dilution:	5.0			Initial Weight/Volume:	30.42 g
Analysis Date:	05/26/2016 1322			Final Weight/Volume:	1 mL
Prep Date:	05/25/2016 0654			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Dibenzofuran		ND		120	980
Diethyl phthalate		ND		130	980
Dimethyl phthalate		ND		120	980
Fluoranthene		ND		100	980
Fluorene		ND		120	980
Hexachlorobenzene		ND		130	980
Hexachlorobutadiene		ND		140	980
Hexachlorocyclopentadiene		ND		130	980
Hexachloroethane		ND		130	980
Indeno[1,2,3-cd]pyrene		ND		120	980
Isophorone		ND		210	980
N-Nitrosodi-n-propylamine		ND		170	980
N-Nitrosodiphenylamine		ND		790	980
Naphthalene		ND		130	980
Nitrobenzene		ND		110	980
Pentachlorophenol		ND		980	1900
Phenanthrene		ND		140	980
Phenol		ND		150	980
Pyrene		ND		120	980

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol	90		39 - 146
2-Fluorobiphenyl	80		37 - 120
2-Fluorophenol	69		18 - 120
Nitrobenzene-d5	74		34 - 132
p-Terphenyl-d14	79		65 - 153
Phenol-d5	72		11 - 120

Client: Stantec Consulting Services Inc | Job Number: 480-100576-1

Client Sample ID: VO-B9-S

Lab Sample ID: 480-100576-2 | Date Sampled: 05/23/2016 1045
Client Matrix: Solid | % Moisture: 14.3 | Date Received: 05/24/2016 0930

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	480-303744	Instrument ID:	HP5973X
Prep Method:	3550C	Prep Batch:	480-303495	Lab File ID:	X00905299.D
Dilution:	5.0			Initial Weight/Volume:	30.42 g
Analysis Date:	05/26/2016 1322			Final Weight/Volume:	1 mL
Prep Date:	05/25/2016 0654			Injection Volume:	1 uL

Tentatively Identified Compounds **Number TIC's Found: 20**

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
	Unknown	1.88	1700	T J
	Unknown	1.99	7100	T J
2216-30-0	Heptane, 2,5-dimethyl-	4.46	1700	T J N
3073-66-3	Cyclohexane, 1,1,3-trimethyl-	4.57	1000	T J N
7094-26-0	Cyclohexane, 1,1,2-trimethyl-	4.79	1900	T J N
	Unknown	5.27	770	T J
3728-54-9	Cyclohexane, 1-ethyl-2-methyl-	5.47	3100	T J N
79-34-5	Ethane, 1,1,2,2-tetrachloro-	5.56	1600	T J N
15869-89-3	Octane, 2,5-dimethyl-	5.58	1600	T J N
	Unknown	5.64	1800	T J
	Unknown	5.70	860	T J
	Unknown	5.73	1700	T J
	Unknown	5.77	1800	T J
	Unknown	5.82	780	T J
	Unknown	5.92	2000	T J
	Unknown	6.06	1600	T J
4291-80-9	Cyclohexane, 1-methyl-3-propyl-	6.29	1300	T J N
	Unknown	6.56	880	T J
	Unknown	6.72	790	T J
	Unknown	6.76	950	T J

Client: Stantec Consulting Services Inc Job Number: 480-100576-1

Client Sample ID: VO-B10-S

Lab Sample ID: 480-100576-3 Date Sampled: 05/23/2016 1135
Client Matrix: Solid % Moisture: 18.1 Date Received: 05/24/2016 0930

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	480-303744	Instrument ID:	HP5973X
Prep Method:	3550C	Prep Batch:	480-303495	Lab File ID:	X00905301.D
Dilution:	5.0			Initial Weight/Volume:	30.14 g
Analysis Date:	05/26/2016 1415			Final Weight/Volume:	1 mL
Prep Date:	05/25/2016 0654			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Biphenyl		ND		150	1000
bis (2-chloroisopropyl) ether		ND		210	1000
2,4,5-Trichlorophenol		ND		280	1000
2,4,6-Trichlorophenol		ND		210	1000
2,4-Dichlorophenol		ND		110	1000
2,4-Dimethylphenol		ND		250	1000
2,4-Dinitrophenol		ND		4800	10000
2,4-Dinitrotoluene		ND		210	1000
2,6-Dinitrotoluene		ND		120	1000
2-Chloronaphthalene		ND		170	1000
2-Chlorophenol		ND		190	1000
2-Methylnaphthalene		ND		210	1000
2-Methylphenol		ND		120	1000
2-Nitroaniline		ND		150	2000
2-Nitrophenol		ND		290	1000
3,3'-Dichlorobenzidine		ND		1200	2000
3-Nitroaniline		ND		290	2000
4,6-Dinitro-2-methylphenol		ND		1000	2000
4-Bromophenyl phenyl ether		ND		150	1000
4-Chloro-3-methylphenol		ND		260	1000
4-Chloroaniline		ND		260	1000
4-Chlorophenyl phenyl ether		ND		130	1000
4-Methylphenol		ND		120	2000
4-Nitroaniline		ND		540	2000
4-Nitrophenol		ND		720	2000
Acenaphthene		ND		150	1000
Acenaphthylene		ND		130	1000
Acetophenone		ND		140	1000
Anthracene		ND		260	1000
Atrazine		ND		360	1000
Benzaldehyde		ND		820	1000
Benzo[a]anthracene		520	J	100	1000
Benzo[a]pyrene		450	J	150	1000
Benzo[b]fluoranthene		650	J	160	1000
Benzo[g,h,i]perylene		330	J	110	1000
Benzo[k]fluoranthene		240	J	130	1000
Bis(2-chloroethoxy)methane		ND		220	1000
Bis(2-chloroethyl)ether		ND		130	1000
Bis(2-ethylhexyl) phthalate		ND		350	1000
Butyl benzyl phthalate		ND		170	1000
Caprolactam		ND		310	1000
Carbazole		130	J	120	1000
Chrysene		560	J	230	1000
Di-n-butyl phthalate		ND		180	1000
Di-n-octyl phthalate		ND		120	1000
Dibenz(a,h)anthracene		ND		180	1000

Client: Stantec Consulting Services Inc | Job Number: 480-100576-1

Client Sample ID: **VO-B10-S**

Lab Sample ID: 480-100576-3 | Date Sampled: 05/23/2016 1135
Client Matrix: Solid | % Moisture: 18.1 | Date Received: 05/24/2016 0930

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	480-303744	Instrument ID:	HP5973X
Prep Method:	3550C	Prep Batch:	480-303495	Lab File ID:	X00905301.D
Dilution:	5.0			Initial Weight/Volume:	30.14 g
Analysis Date:	05/26/2016 1415			Final Weight/Volume:	1 mL
Prep Date:	05/25/2016 0654			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Dibenzofuran		ND		120	1000
Diethyl phthalate		ND		130	1000
Dimethyl phthalate		ND		120	1000
Fluoranthene		1300		110	1000
Fluorene		ND		120	1000
Hexachlorobenzene		ND		140	1000
Hexachlorobutadiene		ND		150	1000
Hexachlorocyclopentadiene		ND		140	1000
Hexachloroethane		ND		130	1000
Indeno[1,2,3-cd]pyrene		290	J	130	1000
Isophorone		ND		220	1000
N-Nitrosodi-n-propylamine		ND		180	1000
N-Nitrosodiphenylamine		ND		840	1000
Naphthalene		ND		130	1000
Nitrobenzene		ND		120	1000
Pentachlorophenol		ND		1000	2000
Phenanthrene		790	J	150	1000
Phenol		ND		160	1000
Pyrene		980	J	120	1000

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol	100		39 - 146
2-Fluorobiphenyl	86		37 - 120
2-Fluorophenol	73		18 - 120
Nitrobenzene-d5	79		34 - 132
p-Terphenyl-d14	83		65 - 153
Phenol-d5	76		11 - 120

Client: Stantec Consulting Services Inc | Job Number: 480-100576-1

Client Sample ID: **VO-B10-S**

Lab Sample ID: 480-100576-3 | Date Sampled: 05/23/2016 1135
Client Matrix: Solid | % Moisture: 18.1 | Date Received: 05/24/2016 0930

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	480-303744	Instrument ID:	HP5973X
Prep Method:	3550C	Prep Batch:	480-303495	Lab File ID:	X00905301.D
Dilution:	5.0			Initial Weight/Volume:	30.14 g
Analysis Date:	05/26/2016 1415			Final Weight/Volume:	1 mL
Prep Date:	05/25/2016 0654			Injection Volume:	1 uL

Tentatively Identified Compounds **Number TIC's Found: 20**

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
	Unknown	1.99	4000	T J
2216-30-0	Heptane, 2,5-dimethyl-	4.45	3800	T J N
3073-66-3	Cyclohexane, 1,1,3-trimethyl-	4.57	1900	T J N
	Unknown	4.79	3900	T J
3728-56-1	1-Ethyl-4-methylcyclohexane	5.23	3000	T J N
	Unknown	5.27	1900	T J
	Unknown	5.47	4700	T J
15869-89-3	Octane, 2,5-dimethyl-	5.58	3300	T J N
	Unknown	5.64	4100	T J
	Unknown	5.72	4100	T J
	Unknown	5.77	4000	T J
	Unknown	5.81	1700	T J
	Unknown	5.85	1600	T J
15869-86-0	Octane, 4-ethyl-	5.92	3600	T J N
	Unknown	6.06	3500	T J
	Unknown	6.29	3100	T J
	Unknown	6.34	1800	T J
	Unknown	6.55	1800	T J
	Unknown	6.72	2200	T J
	Unknown	6.76	2300	T J

Client Sample ID: VO-B11c-S

Lab Sample ID: 480-100576-4 Date Sampled: 05/23/2016 1500
Client Matrix: Solid % Moisture: 17.9 Date Received: 05/24/2016 0930

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	480-303744	Instrument ID:	HP5973X
Prep Method:	3550C	Prep Batch:	480-303495	Lab File ID:	X00905302.D
Dilution:	10			Initial Weight/Volume:	30.39 g
Analysis Date:	05/26/2016 1442			Final Weight/Volume:	1 mL
Prep Date:	05/25/2016 0654			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Biphenyl		ND		300	2000
bis (2-chloroisopropyl) ether		ND		410	2000
2,4,5-Trichlorophenol		ND		550	2000
2,4,6-Trichlorophenol		ND		410	2000
2,4-Dichlorophenol		ND		220	2000
2,4-Dimethylphenol		ND		490	2000
2,4-Dinitrophenol		ND		9400	20000
2,4-Dinitrotoluene		ND		420	2000
2,6-Dinitrotoluene		ND		240	2000
2-Chloronaphthalene		ND		340	2000
2-Chlorophenol		ND		370	2000
2-Methylnaphthalene		ND		410	2000
2-Methylphenol		ND		240	2000
2-Nitroaniline		ND		300	4000
2-Nitrophenol		ND		580	2000
3,3'-Dichlorobenzidine		ND		2400	4000
3-Nitroaniline		ND		570	4000
4,6-Dinitro-2-methylphenol		ND		2000	4000
4-Bromophenyl phenyl ether		ND		290	2000
4-Chloro-3-methylphenol		ND		510	2000
4-Chloroaniline		ND		510	2000
4-Chlorophenyl phenyl ether		ND		250	2000
4-Methylphenol		ND		240	4000
4-Nitroaniline		ND		1100	4000
4-Nitrophenol		ND		1400	4000
Acenaphthene		ND		300	2000
Acenaphthylene		ND		260	2000
Acetophenone		ND		280	2000
Anthracene		ND		510	2000
Atrazine		ND		710	2000
Benzaldehyde		ND		1600	2000
Benzo[a]anthracene		ND		200	2000
Benzo[a]pyrene		ND		300	2000
Benzo[b]fluoranthene		ND		320	2000
Benzo[g,h,i]perylene		ND		220	2000
Benzo[k]fluoranthene		ND		260	2000
Bis(2-chloroethoxy)methane		ND		430	2000
Bis(2-chloroethyl)ether		ND		260	2000
Bis(2-ethylhexyl) phthalate		ND		700	2000
Butyl benzyl phthalate		ND		340	2000
Caprolactam		ND		610	2000
Carbazole		ND		240	2000
Chrysene		1400	J	460	2000
Di-n-butyl phthalate		ND		350	2000
Di-n-octyl phthalate		ND		240	2000
Dibenz(a,h)anthracene		ND		360	2000

Client: Stantec Consulting Services Inc | Job Number: 480-100576-1

Client Sample ID: **VO-B11c-S**

Lab Sample ID: 480-100576-4 | Date Sampled: 05/23/2016 1500
Client Matrix: Solid | % Moisture: 17.9 | Date Received: 05/24/2016 0930

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	480-303744	Instrument ID:	HP5973X
Prep Method:	3550C	Prep Batch:	480-303495	Lab File ID:	X00905302.D
Dilution:	10			Initial Weight/Volume:	30.39 g
Analysis Date:	05/26/2016 1442			Final Weight/Volume:	1 mL
Prep Date:	05/25/2016 0654			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Dibenzofuran		ND		240	2000
Diethyl phthalate		ND		260	2000
Dimethyl phthalate		ND		240	2000
Fluoranthene		ND		220	2000
Fluorene		ND		240	2000
Hexachlorobenzene		ND		280	2000
Hexachlorobutadiene		ND		300	2000
Hexachlorocyclopentadiene		ND		280	2000
Hexachloroethane		ND		260	2000
Indeno[1,2,3-cd]pyrene		ND		250	2000
Isophorone		ND		430	2000
N-Nitrosodi-n-propylamine		ND		350	2000
N-Nitrosodiphenylamine		ND		1700	2000
Naphthalene		ND		260	2000
Nitrobenzene		ND		230	2000
Pentachlorophenol		ND		2000	4000
Phenanthrene		ND		300	2000
Phenol		ND		310	2000
Pyrene		520	J	240	2000

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol	104		39 - 146
2-Fluorobiphenyl	72		37 - 120
2-Fluorophenol	49		18 - 120
Nitrobenzene-d5	55		34 - 132
p-Terphenyl-d14	73		65 - 153
Phenol-d5	57		11 - 120

Client: Stantec Consulting Services Inc | Job Number: 480-100576-1

Client Sample ID: **VO-B11c-S**

Lab Sample ID: 480-100576-4 | Date Sampled: 05/23/2016 1500
Client Matrix: Solid | % Moisture: 17.9 | Date Received: 05/24/2016 0930

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	480-303744	Instrument ID:	HP5973X
Prep Method:	3550C	Prep Batch:	480-303495	Lab File ID:	X00905302.D
Dilution:	10			Initial Weight/Volume:	30.39 g
Analysis Date:	05/26/2016 1442			Final Weight/Volume:	1 mL
Prep Date:	05/25/2016 0654			Injection Volume:	1 uL

Tentatively Identified Compounds **Number TIC's Found: 12**

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
	Unknown	1.89	5300	T J
	Unknown	9.52	1600	T J
1795-15-9	Cyclohexane, octyl-	10.50	3600	T J N
	Unknown	10.62	2200	T J
	Unknown	10.71	1800	T J
	Unknown	10.74	2000	T J
3892-00-0	Pentadecane, 2,6,10-trimethyl-	10.90	11000	T J N
1921-70-6	Pentadecane, 2,6,10,14-tetramethyl-	11.18	21000	T J N
55045-11-9	Tridecane, 5-propyl-	11.35	1600	T J N
	Unknown	11.39	3300	T J
	Unknown	11.51	4000	T J
638-36-8	Hexadecane, 2,6,10,14-tetramethyl-	11.63	19000	T J N

Client Sample ID: **VO-B12-S**

Lab Sample ID: 480-100576-5 Date Sampled: 05/23/2016 1320
Client Matrix: Solid % Moisture: 21.2 Date Received: 05/24/2016 0930

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	480-303744	Instrument ID:	HP5973X
Prep Method:	3550C	Prep Batch:	480-303495	Lab File ID:	X00905303.D
Dilution:	5.0			Initial Weight/Volume:	30.88 g
Analysis Date:	05/26/2016 1509			Final Weight/Volume:	1 mL
Prep Date:	05/25/2016 0654			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Biphenyl		ND		150	1000
bis (2-chloroisopropyl) ether		ND		210	1000
2,4,5-Trichlorophenol		ND		280	1000
2,4,6-Trichlorophenol		ND		210	1000
2,4-Dichlorophenol		ND		110	1000
2,4-Dimethylphenol		ND		250	1000
2,4-Dinitrophenol		ND		4800	10000
2,4-Dinitrotoluene		ND		220	1000
2,6-Dinitrotoluene		ND		120	1000
2-Chloronaphthalene		ND		170	1000
2-Chlorophenol		ND		190	1000
2-Methylnaphthalene		ND		210	1000
2-Methylphenol		ND		120	1000
2-Nitroaniline		ND		150	2000
2-Nitrophenol		ND		300	1000
3,3'-Dichlorobenzidine		ND		1200	2000
3-Nitroaniline		ND		290	2000
4,6-Dinitro-2-methylphenol		ND		1000	2000
4-Bromophenyl phenyl ether		ND		150	1000
4-Chloro-3-methylphenol		ND		260	1000
4-Chloroaniline		ND		260	1000
4-Chlorophenyl phenyl ether		ND		130	1000
4-Methylphenol		ND		120	2000
4-Nitroaniline		ND		550	2000
4-Nitrophenol		ND		730	2000
Acenaphthene		500	J	150	1000
Acenaphthylene		ND		140	1000
Acetophenone		ND		140	1000
Anthracene		1000		260	1000
Atrazine		ND		360	1000
Benzaldehyde		ND		830	1000
Benzo[a]anthracene		2400		100	1000
Benzo[a]pyrene		1900		150	1000
Benzo[b]fluoranthene		2400		170	1000
Benzo[g,h,i]perylene		1500		110	1000
Benzo[k]fluoranthene		1100		140	1000
Bis(2-chloroethoxy)methane		ND		220	1000
Bis(2-chloroethyl)ether		ND		140	1000
Bis(2-ethylhexyl) phthalate		ND		360	1000
Butyl benzyl phthalate		ND		170	1000
Caprolactam		ND		310	1000
Carbazole		750	J	120	1000
Chrysene		2500		230	1000
Di-n-butyl phthalate		ND		180	1000
Di-n-octyl phthalate		ND		120	1000
Dibenz(a,h)anthracene		ND		180	1000

Client: Stantec Consulting Services Inc | Job Number: 480-100576-1

Client Sample ID: **VO-B12-S**

Lab Sample ID: 480-100576-5 | Date Sampled: 05/23/2016 1320
Client Matrix: Solid | % Moisture: 21.2 | Date Received: 05/24/2016 0930

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	480-303744	Instrument ID:	HP5973X
Prep Method:	3550C	Prep Batch:	480-303495	Lab File ID:	X00905303.D
Dilution:	5.0			Initial Weight/Volume:	30.88 g
Analysis Date:	05/26/2016 1509			Final Weight/Volume:	1 mL
Prep Date:	05/25/2016 0654			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Dibenzofuran		280	J	120	1000
Diethyl phthalate		ND		140	1000
Dimethyl phthalate		ND		120	1000
Fluoranthene		5400		110	1000
Fluorene		480	J	120	1000
Hexachlorobenzene		ND		140	1000
Hexachlorobutadiene		ND		150	1000
Hexachlorocyclopentadiene		ND		140	1000
Hexachloroethane		ND		140	1000
Indeno[1,2,3-cd]pyrene		1300		130	1000
Isophorone		ND		220	1000
N-Nitrosodi-n-propylamine		ND		180	1000
N-Nitrosodiphenylamine		ND		850	1000
Naphthalene		260	J	140	1000
Nitrobenzene		ND		120	1000
Pentachlorophenol		ND		1000	2000
Phenanthrene		3800		150	1000
Phenol		ND		160	1000
Pyrene		4400		120	1000

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol	118		39 - 146
2-Fluorobiphenyl	94		37 - 120
2-Fluorophenol	90		18 - 120
Nitrobenzene-d5	101		34 - 132
p-Terphenyl-d14	88		65 - 153
Phenol-d5	91		11 - 120

Client: Stantec Consulting Services Inc | Job Number: 480-100576-1

Client Sample ID: **VO-B12-S**

Lab Sample ID: 480-100576-5 | Date Sampled: 05/23/2016 1320
Client Matrix: Solid | % Moisture: 21.2 | Date Received: 05/24/2016 0930

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	480-303744	Instrument ID:	HP5973X
Prep Method:	3550C	Prep Batch:	480-303495	Lab File ID:	X00905303.D
Dilution:	5.0			Initial Weight/Volume:	30.88 g
Analysis Date:	05/26/2016 1509			Final Weight/Volume:	1 mL
Prep Date:	05/25/2016 0654			Injection Volume:	1 uL

Tentatively Identified Compounds **Number TIC's Found: 20**

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
	Unknown	2.00	3400	T J
	Unknown	6.77	3700	T J
	Unknown	7.37	3600	T J
	Unknown	8.48	3600	T J
	Unknown	8.63	6900	T J
	Unknown	8.94	5100	T J
5617-41-4	Heptylcyclohexane	9.22	9800	T J N
	Unknown	9.52	5000	T J
	Unknown	9.74	4300	T J
	Unknown	9.79	6100	T J
544-76-3	Hexadecane	9.89	20000	T J N
	Unknown	10.11	6400	T J
	Unknown	10.49	9600	T J
	Unknown	10.57	3500	T J
	Unknown	10.62	4000	T J
	Unknown	10.67	3500	T J
3892-00-0	Pentadecane, 2,6,10-trimethyl-	10.91	14000	T J N
1921-70-6	Pentadecane, 2,6,10,14-tetramethyl-	11.18	22000	T J N
	Unknown	11.26	5400	T J
638-36-8	Hexadecane, 2,6,10,14-tetramethyl-	11.64	11000	T J N

Client: Stantec Consulting Services Inc | Job Number: 480-100576-1

Client Sample ID: **VO-B10-S**

Lab Sample ID: 480-100576-3 | Date Sampled: 05/23/2016 1135
Client Matrix: Solid | % Moisture: 18.1 | Date Received: 05/24/2016 0930

8081B Organochlorine Pesticides (GC)

Analysis Method:	8081B	Analysis Batch:	480-304913	Instrument ID:	HP6890-25
Prep Method:	3550C	Prep Batch:	480-304674	Initial Weight/Volume:	30.18 g
Dilution:	1.0			Final Weight/Volume:	10 mL
Analysis Date:	06/03/2016 1324			Injection Volume:	1 uL
Prep Date:	06/02/2016 0725			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
4,4'-DDD		ND		0.39	2.0
4,4'-DDE		ND		0.42	2.0
4,4'-DDT		ND		0.47	2.0
Aldrin		ND		0.50	2.0
alpha-BHC		ND		0.36	2.0
alpha-Chlordane		ND		1.0	2.0
beta-BHC		ND		0.36	2.0
delta-BHC		ND		0.38	2.0
Dieldrin		ND		0.49	2.0
Endosulfan I		ND		0.39	2.0
Endosulfan II		ND		0.36	2.0
Endosulfan sulfate		ND		0.38	2.0
Endrin		ND		0.40	2.0
Endrin aldehyde		ND		0.52	2.0
gamma-BHC (Lindane)		ND		0.37	2.0
Endrin ketone		ND		0.50	2.0
gamma-Chlordane		ND		0.64	2.0
Heptachlor		ND		0.44	2.0
Heptachlor epoxide		ND		0.52	2.0
Methoxychlor		ND		0.41	2.0
Toxaphene		ND		12	20

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	92		32 - 136
Tetrachloro-m-xylene	63		30 - 124

Client: Stantec Consulting Services Inc Job Number: 480-100576-1

Client Sample ID: VO-B10-S

Lab Sample ID: 480-100576-3 Date Sampled: 05/23/2016 1135
Client Matrix: Solid % Moisture: 18.1 Date Received: 05/24/2016 0930

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082A	Analysis Batch:	480-303462	Instrument ID:	HP6890-7
Prep Method:	3550C	Prep Batch:	480-303293	Initial Weight/Volume:	2.38 g
Dilution:	1.0			Final Weight/Volume:	10 mL
Analysis Date:	05/25/2016 0327			Injection Volume:	1 uL
Prep Date:	05/24/2016 1215			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
PCB-1016		ND		0.050	0.26
PCB-1221		ND		0.050	0.26
PCB-1232		ND		0.050	0.26
PCB-1242		ND		0.050	0.26
PCB-1248		ND		0.050	0.26
PCB-1254		ND		0.12	0.26
PCB-1260		ND		0.12	0.26

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	97		60 - 154
DCB Decachlorobiphenyl	108		65 - 174

Client: Stantec Consulting Services Inc | Job Number: 480-100576-1

Client Sample ID: **VO-B10-S**

Lab Sample ID: 480-100576-3 | Date Sampled: 05/23/2016 1135
Client Matrix: Solid | % Moisture: 18.1 | Date Received: 05/24/2016 0930

6010C Metals (ICP)

Analysis Method:	6010C	Analysis Batch:	480-303864	Instrument ID:	ICAP2
Prep Method:	3050B	Prep Batch:	480-303360	Lab File ID:	I2052616A-1.asc
Dilution:	1.0			Initial Weight/Volume:	+0.4901 g
Analysis Date:	05/26/2016 1419			Final Weight/Volume:	50 mL
Prep Date:	05/25/2016 1445				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		6410		5.5	12.5
Antimony		ND		0.50	18.7
Arsenic		4.6		0.50	2.5
Barium		27.3	^	0.14	0.62
Beryllium		0.25		0.035	0.25
Cadmium		0.40		0.037	0.25
Calcium		47500	^ B	4.1	62.3
Chromium		8.8		0.25	0.62
Cobalt		3.2		0.062	0.62
Copper		8.8		0.26	1.2
Iron		11300	^	4.4	12.5
Lead		12.4		0.30	1.2
Magnesium		31200	^ B	1.2	24.9
Nickel		8.4		0.29	6.2
Potassium		1440		24.9	37.4
Selenium		ND		0.50	5.0
Silver		ND		0.25	0.75
Sodium		189		16.2	174
Thallium		ND		0.37	7.5
Vanadium		16.9		0.14	0.62
Zinc		131		0.80	2.5

Analysis Method:	6010C	Analysis Batch:	480-304266	Instrument ID:	ICAP2
Prep Method:	3050B	Prep Batch:	480-303360	Lab File ID:	I2052816A-7.asc
Dilution:	1.0			Initial Weight/Volume:	+0.4901 g
Analysis Date:	05/28/2016 2128			Final Weight/Volume:	50 mL
Prep Date:	05/25/2016 1445				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Manganese		489		0.040	0.25

7471B Mercury (CVAA)

Analysis Method:	7471B	Analysis Batch:	480-303628	Instrument ID:	LEEMAN3
Prep Method:	7471B	Prep Batch:	480-303493	Lab File ID:	J05256S2.PRN
Dilution:	1.0			Initial Weight/Volume:	+0.5862 g
Analysis Date:	05/25/2016 1202			Final Weight/Volume:	50 mL
Prep Date:	05/25/2016 0730				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.015	J	0.010	0.025

General Chemistry

Client Sample ID: **VO-B8a-S**

Lab Sample ID: 480-100576-1 Date Sampled: 05/23/2016 0935
Client Matrix: Solid Date Received: 05/24/2016 0930

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	9.9		%	0.1	0.1	1.0	Moisture
Analysis Batch: 480-303485	Analysis Date: 05/25/2016 0215						DryWt Corrected: N
Percent Solids	90.1		%	0.1	0.1	1.0	Moisture
Analysis Batch: 480-303485	Analysis Date: 05/25/2016 0215						DryWt Corrected: N

General Chemistry

Client Sample ID: **VO-B9-S**

Lab Sample ID: 480-100576-2 Date Sampled: 05/23/2016 1045
Client Matrix: Solid Date Received: 05/24/2016 0930

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	14.3		%	0.1	0.1	1.0	Moisture
Analysis Batch: 480-303485	Analysis Date: 05/25/2016 0215						DryWt Corrected: N
Percent Solids	85.7		%	0.1	0.1	1.0	Moisture
Analysis Batch: 480-303485	Analysis Date: 05/25/2016 0215						DryWt Corrected: N

General Chemistry

Client Sample ID: VO-B10-S

Lab Sample ID: 480-100576-3 Date Sampled: 05/23/2016 1135
Client Matrix: Solid % Moisture: 18.1 Date Received: 05/24/2016 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Cyanide, Total	ND		mg/Kg	0.58	1.2	1.0	9012B
Analysis Batch: 480-304742	Analysis Date: 06/02/2016 1138						DryWt Corrected: Y
Prep Batch: 480-304591	Prep Date: 06/01/2016 1455						
Cyanide, Amenable	ND		mg/Kg	0.59	1.2	1.0	SM 4500 CN G
Analysis Batch: 480-305296	Analysis Date: 06/06/2016 1640						DryWt Corrected: Y

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	18.1		%	0.1	0.1	1.0	Moisture
Analysis Batch: 480-303485	Analysis Date: 05/25/2016 0215						DryWt Corrected: N
Percent Solids	81.9		%	0.1	0.1	1.0	Moisture
Analysis Batch: 480-303485	Analysis Date: 05/25/2016 0215						DryWt Corrected: N

General Chemistry

Client Sample ID: **VO-B11c-S**

Lab Sample ID: 480-100576-4 Date Sampled: 05/23/2016 1500
Client Matrix: Solid Date Received: 05/24/2016 0930

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	17.9		%	0.1	0.1	1.0	Moisture
Analysis Batch: 480-303485	Analysis Date: 05/25/2016 0215						DryWt Corrected: N
Percent Solids	82.1		%	0.1	0.1	1.0	Moisture
Analysis Batch: 480-303485	Analysis Date: 05/25/2016 0215						DryWt Corrected: N

General Chemistry

Client Sample ID: **VO-B12-S**

Lab Sample ID: 480-100576-5 Date Sampled: 05/23/2016 1320
Client Matrix: Solid Date Received: 05/24/2016 0930

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	21.2		%	0.1	0.1	1.0	Moisture
Analysis Batch: 480-303485	Analysis Date: 05/25/2016 0215						DryWt Corrected: N
Percent Solids	78.8		%	0.1	0.1	1.0	Moisture
Analysis Batch: 480-303485	Analysis Date: 05/25/2016 0215						DryWt Corrected: N

DATA REPORTING QUALIFIERS

Client: Stantec Consulting Services Inc Job Number: 480-100576-1

Lab Section	Qualifier	Description
GC/MS VOA		
	J	Indicates an Estimated Value for TICs
	*	ISTD response or retention time outside acceptable limits
	N	Presumptive evidence of material.
	T	Result is a tentatively identified compound (TIC) and an estimated value.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
	H	Sample was prepped or analyzed beyond the specified holding time
GC/MS Semi VOA		
	J	Indicates an Estimated Value for TICs
	N	Presumptive evidence of material.
	T	Result is a tentatively identified compound (TIC) and an estimated value.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
Metals		
	B	Compound was found in the blank and sample.
	^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

QUALITY CONTROL RESULTS

Client: Stantec Consulting Services Inc Job Number: 480-100576-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Prep Batch: 480-303638					
LCS 480-303638/1-A	Lab Control Sample	T	Solid	5035A	
MB 480-303638/2-A	Method Blank	T	Solid	5035A	
480-100576-5	VO-B12-S	T	Solid	5035A	
480-100576-5DL	VO-B12-S	T	Solid	5035A	
Analysis Batch:480-303774					
LCS 480-303638/1-A	Lab Control Sample	T	Solid	8260C	480-303638
MB 480-303638/2-A	Method Blank	T	Solid	8260C	480-303638
LCS 480-303812/1-A	Lab Control Sample	T	Solid	8260C	480-303812
MB 480-303812/2-A	Method Blank	T	Solid	8260C	480-303812
Prep Batch: 480-303812					
LCS 480-303812/1-A	Lab Control Sample	T	Solid	5035A	
MB 480-303812/2-A	Method Blank	T	Solid	5035A	
480-100576-3	VO-B10-S	T	Solid	5035A	
Analysis Batch:480-303905					
480-100576-3	VO-B10-S	T	Solid	8260C	480-303812
480-100576-5	VO-B12-S	T	Solid	8260C	480-303638
Analysis Batch:480-303910					
LCS 480-303913/1-A	Lab Control Sample	T	Solid	8260C	480-303913
MB 480-303913/2-A	Method Blank	T	Solid	8260C	480-303913
480-100576-2	VO-B9-S	T	Solid	8260C	480-303913
Prep Batch: 480-303913					
LCS 480-303913/1-A	Lab Control Sample	T	Solid	5035A	
MB 480-303913/2-A	Method Blank	T	Solid	5035A	
480-100576-2	VO-B9-S	T	Solid	5035A	
Analysis Batch:480-303981					
480-100576-5DL	VO-B12-S	T	Solid	8260C	480-303638
Analysis Batch:480-304122					
LCS 480-304148/2-A	Lab Control Sample	T	Solid	8260C	480-304148
LCSD 480-304148/3-A	Lab Control Sample Duplicate	T	Solid	8260C	480-304148
MB 480-304148/1-A	Method Blank	T	Solid	8260C	480-304148
480-100576-1	VO-B8a-S	T	Solid	8260C	480-304148
480-100576-4	VO-B11c-S	T	Solid	8260C	480-304148

Client: Stantec Consulting Services Inc Job Number: 480-100576-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Prep Batch: 480-304148					
LCS 480-304148/2-A	Lab Control Sample	T	Solid	5035A	
LCSD 480-304148/3-A	Lab Control Sample Duplicate	T	Solid	5035A	
MB 480-304148/1-A	Method Blank	T	Solid	5035A	
480-100576-1	VO-B8a-S	T	Solid	5035A	
480-100576-4	VO-B11c-S	T	Solid	5035A	

Report Basis
T = Total

GC/MS Semi VOA					
Prep Batch: 480-303495					
LCS 480-303495/2-A	Lab Control Sample	T	Solid	3550C	
MB 480-303495/1-A	Method Blank	T	Solid	3550C	
480-100576-1	VO-B8a-S	T	Solid	3550C	
480-100576-2	VO-B9-S	T	Solid	3550C	
480-100576-2MS	Matrix Spike	T	Solid	3550C	
480-100576-2MSD	Matrix Spike Duplicate	T	Solid	3550C	
480-100576-3	VO-B10-S	T	Solid	3550C	
480-100576-4	VO-B11c-S	T	Solid	3550C	
480-100576-5	VO-B12-S	T	Solid	3550C	
Analysis Batch:480-303744					
LCS 480-303495/2-A	Lab Control Sample	T	Solid	8270D	480-303495
MB 480-303495/1-A	Method Blank	T	Solid	8270D	480-303495
480-100576-1	VO-B8a-S	T	Solid	8270D	480-303495
480-100576-2	VO-B9-S	T	Solid	8270D	480-303495
480-100576-2MS	Matrix Spike	T	Solid	8270D	480-303495
480-100576-2MSD	Matrix Spike Duplicate	T	Solid	8270D	480-303495
480-100576-3	VO-B10-S	T	Solid	8270D	480-303495
480-100576-4	VO-B11c-S	T	Solid	8270D	480-303495
480-100576-5	VO-B12-S	T	Solid	8270D	480-303495

Report Basis
T = Total

Client: Stantec Consulting Services Inc

Job Number: 480-100576-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC Semi VOA					
Prep Batch: 480-303293					
LCS 480-303293/2-A	Lab Control Sample	T	Solid	3550C	
MB 480-303293/1-A	Method Blank	T	Solid	3550C	
480-100576-3	VO-B10-S	T	Solid	3550C	
Analysis Batch:480-303462					
LCS 480-303293/2-A	Lab Control Sample	T	Solid	8082A	480-303293
MB 480-303293/1-A	Method Blank	T	Solid	8082A	480-303293
480-100576-3	VO-B10-S	T	Solid	8082A	480-303293
Prep Batch: 480-304674					
LCS 480-304674/2-A	Lab Control Sample	T	Solid	3550C	
MB 480-304674/1-A	Method Blank	T	Solid	3550C	
480-100576-3	VO-B10-S	T	Solid	3550C	
Analysis Batch:480-304913					
LCS 480-304674/2-A	Lab Control Sample	T	Solid	8081B	480-304674
MB 480-304674/1-A	Method Blank	T	Solid	8081B	480-304674
480-100576-3	VO-B10-S	T	Solid	8081B	480-304674

Report Basis
T = Total

Client: Stantec Consulting Services Inc Job Number: 480-100576-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 480-303360					
LCSSRM 480-303360/2-A	LCS-Certified Reference Material	T	Solid	3050B	
LCDSRM 480-303360/3-A	LCSD - Certified Reference Material	T	Solid	3050B	
MB 480-303360/1-A	Method Blank	T	Solid	3050B	
480-100576-3	VO-B10-S	T	Solid	3050B	
Prep Batch: 480-303493					
LCSSRM 480-303493/2-A ^5	LCS-Certified Reference Material	T	Solid	7471B	
LCDSRM 480-303493/20-A ^5	LCSD - Certified Reference Material	T	Solid	7471B	
MB 480-303493/1-A	Method Blank	T	Solid	7471B	
480-100576-3	VO-B10-S	T	Solid	7471B	
Analysis Batch:480-303628					
LCSSRM 480-303493/2-A ^5	LCS-Certified Reference Material	T	Solid	7471B	480-303493
LCDSRM 480-303493/20-A ^5	LCSD - Certified Reference Material	T	Solid	7471B	480-303493
MB 480-303493/1-A	Method Blank	T	Solid	7471B	480-303493
480-100576-3	VO-B10-S	T	Solid	7471B	480-303493
Analysis Batch:480-303864					
LCSSRM 480-303360/2-A	LCS-Certified Reference Material	T	Solid	6010C	480-303360
LCDSRM 480-303360/3-A	LCSD - Certified Reference Material	T	Solid	6010C	480-303360
MB 480-303360/1-A	Method Blank	T	Solid	6010C	480-303360
480-100576-3	VO-B10-S	T	Solid	6010C	480-303360
Analysis Batch:480-304266					
LCSSRM 480-303360/2-A	LCS-Certified Reference Material	T	Solid	6010C	480-303360
LCDSRM 480-303360/3-A	LCSD - Certified Reference Material	T	Solid	6010C	480-303360
MB 480-303360/1-A	Method Blank	T	Solid	6010C	480-303360
480-100576-3	VO-B10-S	T	Solid	6010C	480-303360

Report Basis
T = Total

Client: Stantec Consulting Services Inc Job Number: 480-100576-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:480-303485					
480-100576-1	VO-B8a-S	T	Solid	Moisture	
480-100576-2	VO-B9-S	T	Solid	Moisture	
480-100576-3	VO-B10-S	T	Solid	Moisture	
480-100576-4	VO-B11c-S	T	Solid	Moisture	
480-100576-5	VO-B12-S	T	Solid	Moisture	
Prep Batch: 480-304591					
LCSSRM 480-304591/2-A ^2	LCS-Certified Reference Material	T	Solid	9012B	
MB 480-304591/1-A	Method Blank	T	Solid	9012B	
480-100576-3	VO-B10-S	T	Solid	9012B	
Analysis Batch:480-304742					
LCSSRM 480-304591/2-A ^2	LCS-Certified Reference Material	T	Solid	9012B	480-304591
MB 480-304591/1-A	Method Blank	T	Solid	9012B	480-304591
480-100576-3	VO-B10-S	T	Solid	9012B	480-304591
Analysis Batch:480-305296					
480-100576-3	VO-B10-S	T	Solid	SM 4500 CN G	

Report Basis
T = Total

Client: Stantec Consulting Services Inc

Job Number: 480-100576-1

Surrogate Recovery Report

8260C Volatile Organic Compounds by GC/MS

Client Matrix: Solid

Lab Sample ID	Client Sample ID	DCA %Rec	BFB %Rec	TOL %Rec	DBFM %Rec
480-100576-2	VO-B9-S	86*	119*	121*	77*
MB 480-303913/2-A		99	112	96	100
LCS 480-303913/1-A		99	112	96	103

Surrogate	Acceptance Limits
DCA = 1,2-Dichloroethane-d4 (Surr)	64-126
BFB = 4-Bromofluorobenzene (Surr)	72-126
TOL = Toluene-d8 (Surr)	71-125
DBFM = Dibromofluoromethane (Surr)	60-140

Client: Stantec Consulting Services Inc

Job Number: 480-100576-1

Surrogate Recovery Report

8260C Volatile Organic Compounds by GC/MS

Client Matrix: Solid

Lab Sample ID	Client Sample ID	DCA %Rec	BFB %Rec	TOL %Rec	DBFM %Rec
480-100576-1	VO-B8a-S	94	112	99	95
480-100576-3	VO-B10-S	99	111	100	101
480-100576-4	VO-B11c-S	97	110	99	96
480-100576-5	VO-B12-S	99	110	100	93
480-100576-5 DL	VO-B12-S DL	98	111	100	98
MB 480-303638/2-A		98	110	102	95
MB 480-303812/2-A		96	108	99	96
MB 480-304148/1-A		94	112	99	95
LCS 480-303638/1-A		95	109	100	99
LCS 480-303812/1-A		96	108	98	95
LCS 480-304148/2-A		93	107	98	96
LCSD 480-304148/3-A		92	112	97	93

Surrogate	Acceptance Limits
DCA = 1,2-Dichloroethane-d4 (Surr)	53-146
BFB = 4-Bromofluorobenzene (Surr)	49-148
TOL = Toluene-d8 (Surr)	50-149
DBFM = Dibromofluoromethane (Surr)	60-140

Client: Stantec Consulting Services Inc

Job Number: 480-100576-1

Surrogate Recovery Report

8270D Semivolatile Organic Compounds (GC/MS)

Client Matrix: Solid

Lab Sample ID	Client Sample ID	TBP %Rec	FBP %Rec	2FP %Rec	NBZ %Rec	TPH %Rec	PHL %Rec
480-100576-1	VO-B8a-S	102	79	63	68	72	68
480-100576-2	VO-B9-S	90	80	69	74	79	72
480-100576-3	VO-B10-S	100	86	73	79	83	76
480-100576-4	VO-B11c-S	104	72	49	55	73	57
480-100576-5	VO-B12-S	118	94	90	101	88	91
MB 480-303495/1-A		81	82	70	74	82	70
LCS 480-303495/2-A		94	79	70	74	81	73
480-100576-2 MS	VO-B9-S MS	109	83	70	75	82	74
480-100576-2 MSD	VO-B9-S MSD	103	80	71	76	78	71

Surrogate	Acceptance Limits
TBP = 2,4,6-Tribromophenol	39-146
FBP = 2-Fluorobiphenyl	37-120
2FP = 2-Fluorophenol	18-120
NBZ = Nitrobenzene-d5	34-132
TPH = p-Terphenyl-d14	65-153
PHL = Phenol-d5	11-120

Client: Stantec Consulting Services Inc

Job Number: 480-100576-1

Surrogate Recovery Report

8081B Organochlorine Pesticides (GC)

Client Matrix: Solid

Lab Sample ID	Client Sample ID	DCB2 %Rec	TCX2 %Rec
480-100576-3	VO-B10-S	92	63
MB 480-304674/1-A		73	57
LCS 480-304674/2-A		74	88

Surrogate	Acceptance Limits
DCB = DCB Decachlorobiphenyl	32-136
TCX = Tetrachloro-m-xylene	30-124

Client: Stantec Consulting Services Inc

Job Number: 480-100576-1

Surrogate Recovery Report

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Matrix: Solid

Lab Sample ID	Client Sample ID	TCX1 %Rec	DCB1 %Rec
480-100576-3	VO-B10-S	97	108
MB 480-303293/1-A		111	127
LCS 480-303293/2-A		130	146

Surrogate	Acceptance Limits
TCX = Tetrachloro-m-xylene	60-154
DCB = DCB Decachlorobiphenyl	65-174

Client: Stantec Consulting Services Inc

Job Number: 480-100576-1

Method Blank - Batch: 480-303638

Method: 8260C
Preparation: 5035A

Lab Sample ID:	MB 480-303638/2-A	Analysis Batch:	480-303774	Instrument ID:	HP5973N
Client Matrix:	Solid	Prep Batch:	480-303638	Lab File ID:	N3867.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5.01 g
Analysis Date:	05/26/2016 1301	Units:	ug/Kg	Final Weight/Volume:	10 mL
Prep Date:	05/25/2016 1446				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
1,1,1-Trichloroethane	ND		28	100
1,1,2,2-Tetrachloroethane	ND		16	100
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		50	100
1,1,2-Trichloroethane	ND		21	100
1,1-Dichloroethane	ND		31	100
1,1-Dichloroethene	ND		35	100
1,2,4-Trichlorobenzene	ND		38	100
1,2,4-Trimethylbenzene	ND		28	100
1,2-Dibromo-3-Chloropropane	ND		50	100
1,2-Dichlorobenzene	ND		25	100
1,2-Dichloroethane	ND		41	100
1,2-Dichloropropane	ND		16	100
1,3,5-Trimethylbenzene	ND		30	100
1,3-Dichlorobenzene	ND		27	100
1,4-Dichlorobenzene	ND		14	100
2-Butanone (MEK)	ND		300	500
2-Hexanone	ND		200	500
4-Isopropyltoluene	ND		34	100
4-Methyl-2-pentanone (MIBK)	ND		32	500
Acetone	ND		410	500
Benzene	ND		19	100
Bromoform	ND		50	100
Bromomethane	ND		22	100
Carbon disulfide	ND		45	100
Carbon tetrachloride	ND		25	100
Chlorobenzene	ND		13	100
Dibromochloromethane	ND		48	100
Chloroethane	ND		21	100
Chloroform	ND		68	100
Chloromethane	ND		24	100
cis-1,2-Dichloroethene	ND		28	100
Cyclohexane	ND		22	100
Bromodichloromethane	ND		20	100
Dichlorodifluoromethane	ND		44	100
Ethylbenzene	ND		29	100
1,2-Dibromoethane	ND		17	100
Isopropylbenzene	ND		15	100
Methyl acetate	ND		48	100
Methyl tert-butyl ether	ND		38	100
Methylcyclohexane	ND		47	100
Methylene Chloride	ND		20	100
m,p-Xylene	ND		55	200
Naphthalene	ND		34	100
n-Butylbenzene	ND		29	100
N-Propylbenzene	ND		26	100

Client: Stantec Consulting Services Inc

Job Number: 480-100576-1

Method Blank - Batch: 480-303638

Method: 8260C
Preparation: 5035A

Lab Sample ID:	MB 480-303638/2-A	Analysis Batch:	480-303774	Instrument ID:	HP5973N
Client Matrix:	Solid	Prep Batch:	480-303638	Lab File ID:	N3867.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5.01 g
Analysis Date:	05/26/2016 1301	Units:	ug/Kg	Final Weight/Volume:	10 mL
Prep Date:	05/25/2016 1446				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
o-Xylene	ND		13	100
sec-Butylbenzene	ND		37	100
Tetrachloroethene	ND		13	100
Toluene	ND		27	100
trans-1,2-Dichloroethene	ND		24	100
trans-1,3-Dichloropropene	ND		9.8	100
Trichloroethene	ND		28	100
Trichlorofluoromethane	ND		47	100
Vinyl chloride	ND		33	100
Xylenes, Total	ND		55	200
cis-1,3-Dichloropropene	ND		24	100
Styrene	ND		24	100
tert-Butylbenzene	ND		28	100

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	98	53 - 146
4-Bromofluorobenzene (Surr)	110	49 - 148
Toluene-d8 (Surr)	102	50 - 149
Dibromofluoromethane (Surr)	95	60 - 140

Method Blank TICs- Batch: 480-303638

Cas Number	Analyte	RT	Est. Result (ug/	Qual
	Tentatively Identified Compound		None	

Lab Control Sample - Batch: 480-303638

Method: 8260C
Preparation: 5035A

Lab Sample ID:	LCS 480-303638/1-A	Analysis Batch:	480-303774	Instrument ID:	HP5973N
Client Matrix:	Solid	Prep Batch:	480-303638	Lab File ID:	N3861.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 g
Analysis Date:	05/26/2016 1022	Units:	ug/Kg	Final Weight/Volume:	10 mL
Prep Date:	05/25/2016 1446				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
1,1,1-Trichloroethane	2500	2760	110	68 - 130	
1,1,2,2-Tetrachloroethane	2500	2130	85	73 - 119	
1,1,2-Trichloro-1,2,2-trifluoroethane	2500	3170	127	10 - 179	
1,1,2-Trichloroethane	2500	2340	93	81 - 115	
1,1-Dichloroethane	2500	2590	104	78 - 121	
1,1-Dichloroethene	2500	2730	109	48 - 133	
1,2,4-Trichlorobenzene	2500	2050	82	70 - 140	
1,2,4-Trimethylbenzene	2500	2320	93	77 - 127	
1,2-Dibromo-3-Chloropropane	2500	1870	75	56 - 122	
1,2-Dichlorobenzene	2500	2230	89	78 - 125	
1,2-Dichloroethane	2500	2400	96	74 - 127	
1,2-Dichloropropane	2500	2430	97	81 - 115	
1,3,5-Trimethylbenzene	2500	2380	95	79 - 119	
1,3-Dichlorobenzene	2500	2220	89	82 - 114	
1,4-Dichlorobenzene	2500	2280	91	81 - 113	
2-Butanone (MEK)	12500	9880	79	54 - 149	
2-Hexanone	12500	10900	87	59 - 127	
4-Isopropyltoluene	2500	2320	93	82 - 119	
4-Methyl-2-pentanone (MIBK)	12500	11100	89	74 - 120	
Acetone	12500	9330	75	47 - 141	
Benzene	2500	2500	100	77 - 125	
Bromoform	2500	2510	100	48 - 125	
Bromomethane	2500	1930	77	39 - 149	
Carbon disulfide	2500	2700	108	40 - 136	
Carbon tetrachloride	2500	2880	115	54 - 135	
Chlorobenzene	2500	2510	100	76 - 126	
Dibromochloromethane	2500	2420	97	64 - 118	
Chloroethane	2500	2270	91	23 - 164	
Chloroform	2500	2510	101	78 - 118	
Chloromethane	2500	2490	100	61 - 124	
cis-1,2-Dichloroethene	2500	2420	97	79 - 124	
Cyclohexane	2500	3010	120	49 - 129	
Bromodichloromethane	2500	2420	97	71 - 121	
Dichlorodifluoromethane	2500	2540	101	10 - 150	
Ethylbenzene	2500	2400	96	78 - 124	
1,2-Dibromoethane	2500	2420	97	81 - 119	
Isopropylbenzene	2500	2480	99	76 - 119	
Methyl acetate	12500	12100	97	71 - 123	
Methyl tert-butyl ether	2500	2360	94	67 - 137	
Methylcyclohexane	2500	2830	113	50 - 130	
Methylene Chloride	2500	2610	104	75 - 118	

Client: Stantec Consulting Services Inc

Job Number: 480-100576-1

Lab Control Sample - Batch: 480-303638

Method: 8260C
Preparation: 5035A

Lab Sample ID:	LCS 480-303638/1-A	Analysis Batch:	480-303774	Instrument ID:	HP5973N
Client Matrix:	Solid	Prep Batch:	480-303638	Lab File ID:	N3861.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 g
Analysis Date:	05/26/2016 1022	Units:	ug/Kg	Final Weight/Volume:	10 mL
Prep Date:	05/25/2016 1446				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
m,p-Xylene	2500	2510	100	77 - 125	
Naphthalene	2500	1850	74	65 - 142	
n-Butylbenzene	2500	2360	95	81 - 119	
N-Propylbenzene	2500	2440	98	76 - 118	
o-Xylene	2500	2370	95	80 - 124	
sec-Butylbenzene	2500	2420	97	79 - 118	
Tetrachloroethene	2500	2710	108	73 - 133	
Toluene	2500	2450	98	75 - 124	
trans-1,2-Dichloroethene	2500	2640	105	74 - 129	
trans-1,3-Dichloropropene	2500	2290	92	73 - 118	
Trichloroethene	2500	2630	105	75 - 131	
Trichlorofluoromethane	2500	2770	111	29 - 158	
Vinyl chloride	2500	2610	104	59 - 124	
cis-1,3-Dichloropropene	2500	2350	94	75 - 121	
Styrene	2500	2520	101	84 - 119	
tert-Butylbenzene	2500	2390	96	78 - 118	

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	95	53 - 146
4-Bromofluorobenzene (Surr)	109	49 - 148
Toluene-d8 (Surr)	100	50 - 149
Dibromofluoromethane (Surr)	99	60 - 140

Method Blank - Batch: 480-303812

Method: 8260C
Preparation: 5035A

Lab Sample ID:	MB 480-303812/2-A	Analysis Batch:	480-303774	Instrument ID:	HP5973N
Client Matrix:	Solid	Prep Batch:	480-303812	Lab File ID:	N3864.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 g
Analysis Date:	05/26/2016 1141	Units:	ug/Kg	Final Weight/Volume:	10 mL
Prep Date:	05/26/2016 1023				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
1,1,1-Trichloroethane	ND		28	100
1,1,2,2-Tetrachloroethane	ND		16	100
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		50	100
1,1,2-Trichloroethane	ND		21	100
1,1-Dichloroethane	ND		31	100
1,1-Dichloroethene	ND		35	100
1,2,4-Trichlorobenzene	ND		38	100
1,2,4-Trimethylbenzene	ND		28	100
1,2-Dibromo-3-Chloropropane	ND		50	100
1,2-Dichlorobenzene	ND		26	100
1,2-Dichloroethane	ND		41	100
1,2-Dichloropropane	ND		16	100
1,3,5-Trimethylbenzene	ND		30	100
1,3-Dichlorobenzene	ND		27	100
1,4-Dichlorobenzene	ND		14	100
2-Butanone (MEK)	ND		300	500
2-Hexanone	ND		210	500
4-Isopropyltoluene	ND		34	100
4-Methyl-2-pentanone (MIBK)	ND		32	500
Acetone	ND		410	500
Benzene	ND		19	100
Bromoform	ND		50	100
Bromomethane	ND		22	100
Carbon disulfide	ND		46	100
Carbon tetrachloride	ND		26	100
Chlorobenzene	ND		13	100
Dibromochloromethane	ND		48	100
Chloroethane	ND		21	100
Chloroform	ND		69	100
Chloromethane	ND		24	100
cis-1,2-Dichloroethene	ND		28	100
Cyclohexane	ND		22	100
Bromodichloromethane	ND		20	100
Dichlorodifluoromethane	ND		44	100
Ethylbenzene	ND		29	100
1,2-Dibromoethane	ND		18	100
Isopropylbenzene	ND		15	100
Methyl acetate	ND		48	100
Methyl tert-butyl ether	ND		38	100
Methylcyclohexane	ND		47	100
Methylene Chloride	ND		20	100
m,p-Xylene	ND		55	200
Naphthalene	ND		34	100
n-Butylbenzene	ND		29	100
N-Propylbenzene	ND		26	100

Client: Stantec Consulting Services Inc

Job Number: 480-100576-1

Method Blank - Batch: 480-303812

Method: 8260C
Preparation: 5035A

Lab Sample ID:	MB 480-303812/2-A	Analysis Batch:	480-303774	Instrument ID:	HP5973N
Client Matrix:	Solid	Prep Batch:	480-303812	Lab File ID:	N3864.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 g
Analysis Date:	05/26/2016 1141	Units:	ug/Kg	Final Weight/Volume:	10 mL
Prep Date:	05/26/2016 1023				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
o-Xylene	ND		13	100
sec-Butylbenzene	ND		37	100
Tetrachloroethene	ND		13	100
Toluene	ND		27	100
trans-1,2-Dichloroethene	ND		24	100
trans-1,3-Dichloropropene	ND		9.8	100
Trichloroethene	ND		28	100
Trichlorofluoromethane	ND		47	100
Vinyl chloride	ND		34	100
Xylenes, Total	ND		55	200
cis-1,3-Dichloropropene	ND		24	100
Styrene	ND		24	100
tert-Butylbenzene	ND		28	100

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	96	53 - 146
4-Bromofluorobenzene (Surr)	108	49 - 148
Toluene-d8 (Surr)	99	50 - 149
Dibromofluoromethane (Surr)	96	60 - 140

Method Blank TICs- Batch: 480-303812

Cas Number	Analyte	RT	Est. Result (ug/	Qual
	Tentatively Identified Compound		None	

Client: Stantec Consulting Services Inc

Job Number: 480-100576-1

Lab Control Sample - Batch: 480-303812

Method: 8260C
Preparation: 5035A

Lab Sample ID:	LCS 480-303812/1-A	Analysis Batch:	480-303774	Instrument ID:	HP5973N
Client Matrix:	Solid	Prep Batch:	480-303812	Lab File ID:	N3862.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 g
Analysis Date:	05/26/2016 1048	Units:	ug/Kg	Final Weight/Volume:	10 mL
Prep Date:	05/26/2016 1023				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
1,1,1-Trichloroethane	2500	2840	114	68 - 130	
1,1,2,2-Tetrachloroethane	2500	2220	89	73 - 119	
1,1,2-Trichloro-1,2,2-trifluoroethane	2500	3100	124	10 - 179	
1,1,2-Trichloroethane	2500	2550	102	81 - 115	
1,1-Dichloroethane	2500	2550	102	78 - 121	
1,1-Dichloroethene	2500	2730	109	48 - 133	
1,2,4-Trichlorobenzene	2500	2080	83	70 - 140	
1,2,4-Trimethylbenzene	2500	2370	95	77 - 127	
1,2-Dibromo-3-Chloropropane	2500	1920	77	56 - 122	
1,2-Dichlorobenzene	2500	2260	90	78 - 125	
1,2-Dichloroethane	2500	2450	98	74 - 127	
1,2-Dichloropropane	2500	2670	107	81 - 115	
1,3,5-Trimethylbenzene	2500	2450	98	79 - 119	
1,3-Dichlorobenzene	2500	2330	93	82 - 114	
1,4-Dichlorobenzene	2500	2320	93	81 - 113	
2-Butanone (MEK)	12500	11100	89	54 - 149	
2-Hexanone	12500	11700	93	59 - 127	
4-Isopropyltoluene	2500	2410	96	82 - 119	
4-Methyl-2-pentanone (MIBK)	12500	11500	92	74 - 120	
Acetone	12500	9990	80	47 - 141	
Benzene	2500	2660	107	77 - 125	
Bromoform	2500	2600	104	48 - 125	
Bromomethane	2500	2020	81	39 - 149	
Carbon disulfide	2500	2670	107	40 - 136	
Carbon tetrachloride	2500	2940	118	54 - 135	
Chlorobenzene	2500	2590	104	76 - 126	
Dibromochloromethane	2500	2540	102	64 - 118	
Chloroethane	2500	1820	73	23 - 164	
Chloroform	2500	2540	102	78 - 118	
Chloromethane	2500	2730	109	61 - 124	
cis-1,2-Dichloroethene	2500	2540	101	79 - 124	
Cyclohexane	2500	3120	125	49 - 129	
Bromodichloromethane	2500	2620	105	71 - 121	
Dichlorodifluoromethane	2500	3140	126	10 - 150	
Ethylbenzene	2500	2490	100	78 - 124	
1,2-Dibromoethane	2500	2550	102	81 - 119	
Isopropylbenzene	2500	2520	101	76 - 119	
Methyl acetate	12500	12500	100	71 - 123	
Methyl tert-butyl ether	2500	2440	98	67 - 137	
Methylcyclohexane	2500	3020	121	50 - 130	
Methylene Chloride	2500	2620	105	75 - 118	

Client: Stantec Consulting Services Inc

Job Number: 480-100576-1

Lab Control Sample - Batch: 480-303812

Method: 8260C
Preparation: 5035A

Lab Sample ID:	LCS 480-303812/1-A	Analysis Batch:	480-303774	Instrument ID:	HP5973N
Client Matrix:	Solid	Prep Batch:	480-303812	Lab File ID:	N3862.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 g
Analysis Date:	05/26/2016 1048	Units:	ug/Kg	Final Weight/Volume:	10 mL
Prep Date:	05/26/2016 1023				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
m,p-Xylene	2500	2640	106	77 - 125	
Naphthalene	2500	1840	73	65 - 142	
n-Butylbenzene	2500	2420	97	81 - 119	
N-Propylbenzene	2500	2550	102	76 - 118	
o-Xylene	2500	2400	96	80 - 124	
sec-Butylbenzene	2500	2440	97	79 - 118	
Tetrachloroethene	2500	2770	111	73 - 133	
Toluene	2500	2600	104	75 - 124	
trans-1,2-Dichloroethene	2500	2740	109	74 - 129	
trans-1,3-Dichloropropene	2500	2480	99	73 - 118	
Trichloroethene	2500	2730	109	75 - 131	
Trichlorofluoromethane	2500	2860	114	29 - 158	
Vinyl chloride	2500	2810	112	59 - 124	
cis-1,3-Dichloropropene	2500	2560	102	75 - 121	
Styrene	2500	2590	103	84 - 119	
tert-Butylbenzene	2500	2360	94	78 - 118	

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	96	53 - 146
4-Bromofluorobenzene (Surr)	108	49 - 148
Toluene-d8 (Surr)	98	50 - 149
Dibromofluoromethane (Surr)	95	60 - 140

Method Blank - Batch: 480-303913

Method: 8260C
Preparation: 5035A

Lab Sample ID:	MB 480-303913/2-A	Analysis Batch:	480-303910	Instrument ID:	HP5973F
Client Matrix:	Solid	Prep Batch:	480-303913	Lab File ID:	F6712.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5.04 g
Analysis Date:	05/26/2016 2107	Units:	ug/Kg	Final Weight/Volume:	5 mL
Prep Date:	05/26/2016 1707				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
1,1,1-Trichloroethane	ND		0.36	5.0
1,1,2,2-Tetrachloroethane	ND		0.80	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.1	5.0
1,1,2-Trichloroethane	ND		0.64	5.0
1,1-Dichloroethane	ND		0.61	5.0
1,1-Dichloroethene	ND		0.61	5.0
1,2,4-Trichlorobenzene	ND		0.30	5.0
1,2,4-Trimethylbenzene	ND		0.95	5.0
1,2-Dibromo-3-Chloropropane	ND		2.5	5.0
1,2-Dichlorobenzene	ND		0.39	5.0
1,2-Dichloroethane	ND		0.25	5.0
1,2-Dichloropropane	ND		2.5	5.0
1,3,5-Trimethylbenzene	ND		0.32	5.0
1,3-Dichlorobenzene	ND		0.25	5.0
1,4-Dichlorobenzene	ND		0.69	5.0
2-Butanone (MEK)	ND		1.8	25
2-Hexanone	ND		2.5	25
4-Isopropyltoluene	ND		0.40	5.0
4-Methyl-2-pentanone (MIBK)	ND		1.6	25
Acetone	10.6	J	4.2	25
Benzene	ND		0.24	5.0
Bromoform	ND		2.5	5.0
Bromomethane	ND		0.45	5.0
Carbon disulfide	ND		2.5	5.0
Carbon tetrachloride	ND		0.48	5.0
Chlorobenzene	ND		0.65	5.0
Dibromochloromethane	ND		0.63	5.0
Chloroethane	ND		1.1	5.0
Chloroform	ND		0.31	5.0
Chloromethane	ND		0.30	5.0
cis-1,2-Dichloroethene	ND		0.63	5.0
Cyclohexane	ND		0.69	5.0
Bromodichloromethane	ND		0.66	5.0
Dichlorodifluoromethane	ND		0.41	5.0
Ethylbenzene	ND		0.34	5.0
1,2-Dibromoethane	ND		0.64	5.0
Isopropylbenzene	ND		0.75	5.0
Methyl acetate	ND		3.0	5.0
Methyl tert-butyl ether	ND		0.49	5.0
Methylcyclohexane	ND		0.75	5.0
Methylene Chloride	5.83		2.3	5.0
m,p-Xylene	ND		0.83	9.9
Naphthalene	ND		0.66	5.0
n-Butylbenzene	ND		0.43	5.0
N-Propylbenzene	ND		0.40	5.0

Client: Stantec Consulting Services Inc

Job Number: 480-100576-1

Method Blank - Batch: 480-303913

Method: 8260C
Preparation: 5035A

Lab Sample ID:	MB 480-303913/2-A	Analysis Batch:	480-303910	Instrument ID:	HP5973F
Client Matrix:	Solid	Prep Batch:	480-303913	Lab File ID:	F6712.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5.04 g
Analysis Date:	05/26/2016 2107	Units:	ug/Kg	Final Weight/Volume:	5 mL
Prep Date:	05/26/2016 1707				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
o-Xylene	ND		0.65	5.0
sec-Butylbenzene	ND		0.43	5.0
Tetrachloroethene	ND		0.67	5.0
Toluene	ND		0.38	5.0
trans-1,2-Dichloroethene	ND		0.51	5.0
trans-1,3-Dichloropropene	ND		2.2	5.0
Trichloroethene	ND		1.1	5.0
Trichlorofluoromethane	ND		0.47	5.0
Vinyl chloride	ND		0.61	5.0
Xylenes, Total	ND		0.83	9.9
cis-1,3-Dichloropropene	ND		0.71	5.0
Styrene	ND		0.25	5.0
tert-Butylbenzene	ND		0.52	5.0

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	99	64 - 126
4-Bromofluorobenzene (Surr)	112	72 - 126
Toluene-d8 (Surr)	96	71 - 125
Dibromofluoromethane (Surr)	100	60 - 140

Method Blank TICs- Batch: 480-303913

Cas Number	Analyte	RT	Est. Result (ug/	Qual
	Tentatively Identified Compound		None	

Lab Control Sample - Batch: 480-303913

Method: 8260C
Preparation: 5035A

Lab Sample ID:	LCS 480-303913/1-A	Analysis Batch:	480-303910	Instrument ID:	HP5973F
Client Matrix:	Solid	Prep Batch:	480-303913	Lab File ID:	F6710.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5.14 g
Analysis Date:	05/26/2016 2015	Units:	ug/Kg	Final Weight/Volume:	5 mL
Prep Date:	05/26/2016 1707				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
1,1,1-Trichloroethane	48.6	52.1	107	77 - 121	
1,1,2,2-Tetrachloroethane	48.6	44.0	91	80 - 120	
1,1,2-Trichloro-1,2,2-trifluoroethane	48.6	46.4	95	60 - 140	
1,1,2-Trichloroethane	48.6	45.7	94	78 - 122	
1,1-Dichloroethane	48.6	45.9	94	73 - 126	
1,1-Dichloroethene	48.6	44.7	92	59 - 125	
1,2,4-Trichlorobenzene	48.6	45.9	94	64 - 120	
1,2,4-Trimethylbenzene	48.6	44.3	91	74 - 120	
1,2-Dibromo-3-Chloropropane	48.6	50.3	103	63 - 124	
1,2-Dichlorobenzene	48.6	44.5	92	75 - 120	
1,2-Dichloroethane	48.6	49.4	101	77 - 122	
1,2-Dichloropropane	48.6	43.5	90	75 - 124	
1,3,5-Trimethylbenzene	48.6	44.9	92	74 - 120	
1,3-Dichlorobenzene	48.6	45.3	93	74 - 120	
1,4-Dichlorobenzene	48.6	45.1	93	73 - 120	
2-Butanone (MEK)	243	295	121	70 - 134	
2-Hexanone	243	265	109	59 - 130	
4-Isopropyltoluene	48.6	46.1	95	74 - 120	
4-Methyl-2-pentanone (MIBK)	243	240	99	65 - 133	
Acetone	243	327	135	61 - 137	
Benzene	48.6	45.9	94	79 - 127	
Bromoform	48.6	49.6	102	68 - 126	
Bromomethane	48.6	56.2	116	37 - 149	
Carbon disulfide	48.6	43.6	90	64 - 131	
Carbon tetrachloride	48.6	55.4	114	75 - 135	
Chlorobenzene	48.6	46.2	95	76 - 124	
Dibromochloromethane	48.6	52.5	108	76 - 125	
Chloroethane	48.6	51.3	105	69 - 135	
Chloroform	48.6	47.8	98	80 - 118	
Chloromethane	48.6	42.8	88	63 - 127	
cis-1,2-Dichloroethene	48.6	47.0	97	81 - 117	
Cyclohexane	48.6	44.1	91	65 - 106	
Bromodichloromethane	48.6	51.2	105	80 - 122	
Dichlorodifluoromethane	48.6	47.6	98	57 - 142	
Ethylbenzene	48.6	46.6	96	80 - 120	
1,2-Dibromoethane	48.6	49.2	101	78 - 120	
Isopropylbenzene	48.6	45.1	93	72 - 120	
Methyl acetate	243	241	99	55 - 136	
Methyl tert-butyl ether	48.6	47.5	98	63 - 125	
Methylcyclohexane	48.6	46.6	96	60 - 140	
Methylene Chloride	48.6	52.4	108	61 - 127	

Client: Stantec Consulting Services Inc

Job Number: 480-100576-1

Lab Control Sample - Batch: 480-303913

Method: 8260C
Preparation: 5035A

Lab Sample ID:	LCS 480-303913/1-A	Analysis Batch:	480-303910	Instrument ID:	HP5973F
Client Matrix:	Solid	Prep Batch:	480-303913	Lab File ID:	F6710.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5.14 g
Analysis Date:	05/26/2016 2015	Units:	ug/Kg	Final Weight/Volume:	5 mL
Prep Date:	05/26/2016 1707				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
m,p-Xylene	48.6	45.7	94	70 - 130	
Naphthalene	48.6	47.0	97	38 - 137	
n-Butylbenzene	48.6	44.6	92	70 - 120	
N-Propylbenzene	48.6	44.1	91	70 - 130	
o-Xylene	48.6	45.0	93	70 - 130	
sec-Butylbenzene	48.6	45.1	93	74 - 120	
Tetrachloroethene	48.6	50.5	104	74 - 122	
Toluene	48.6	42.8	88	74 - 128	
trans-1,2-Dichloroethene	48.6	47.1	97	78 - 126	
trans-1,3-Dichloropropene	48.6	49.2	101	73 - 123	
Trichloroethene	48.6	48.2	99	77 - 129	
Trichlorofluoromethane	48.6	56.3	116	65 - 146	
Vinyl chloride	48.6	47.8	98	61 - 133	
cis-1,3-Dichloropropene	48.6	49.0	101	82 - 120	
Styrene	48.6	45.5	94	80 - 120	
tert-Butylbenzene	48.6	44.5	92	73 - 120	

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	99	64 - 126
4-Bromofluorobenzene (Surr)	112	72 - 126
Toluene-d8 (Surr)	96	71 - 125
Dibromofluoromethane (Surr)	103	60 - 140

Method Blank - Batch: 480-304148

Method: 8260C
Preparation: 5035A

Lab Sample ID:	MB 480-304148/1-A	Analysis Batch:	480-304122	Instrument ID:	HP5973N
Client Matrix:	Solid	Prep Batch:	480-304148	Lab File ID:	N3951.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5.08 g
Analysis Date:	05/27/2016 2318	Units:	ug/Kg	Final Weight/Volume:	10 mL
Prep Date:	05/27/2016 1939				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
1,1,1-Trichloroethane	ND		27	98
1,1,2,2-Tetrachloroethane	ND		16	98
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		49	98
1,1,2-Trichloroethane	ND		21	98
1,1-Dichloroethane	ND		30	98
1,1-Dichloroethene	ND		34	98
1,2,4-Trichlorobenzene	ND		37	98
1,2,4-Trimethylbenzene	ND		27	98
1,2-Dibromo-3-Chloropropane	ND		49	98
1,2-Dichlorobenzene	ND		25	98
1,2-Dichloroethane	ND		40	98
1,2-Dichloropropane	ND		16	98
1,3,5-Trimethylbenzene	ND		30	98
1,3-Dichlorobenzene	ND		26	98
1,4-Dichlorobenzene	ND		14	98
2-Butanone (MEK)	ND		290	490
2-Hexanone	ND		200	490
4-Isopropyltoluene	ND		33	98
4-Methyl-2-pentanone (MIBK)	ND		31	490
Acetone	ND		400	490
Benzene	ND		19	98
Bromoform	ND		49	98
Bromomethane	ND		22	98
Carbon disulfide	ND		45	98
Carbon tetrachloride	ND		25	98
Chlorobenzene	ND		13	98
Dibromochloromethane	ND		48	98
Chloroethane	ND		20	98
Chloroform	ND		68	98
Chloromethane	ND		23	98
cis-1,2-Dichloroethene	ND		27	98
Cyclohexane	ND		22	98
Bromodichloromethane	ND		20	98
Dichlorodifluoromethane	ND		43	98
Ethylbenzene	ND		29	98
1,2-Dibromoethane	ND		17	98
Isopropylbenzene	ND		15	98
Methyl acetate	ND		47	98
Methyl tert-butyl ether	ND		37	98
Methylcyclohexane	ND		46	98
Methylene Chloride	ND		19	98
m,p-Xylene	ND		55	200
Naphthalene	ND		33	98
n-Butylbenzene	ND		29	98
N-Propylbenzene	ND		26	98

Client: Stantec Consulting Services Inc

Job Number: 480-100576-1

Method Blank - Batch: 480-304148

Method: 8260C
Preparation: 5035A

Lab Sample ID:	MB 480-304148/1-A	Analysis Batch:	480-304122	Instrument ID:	HP5973N
Client Matrix:	Solid	Prep Batch:	480-304148	Lab File ID:	N3951.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5.08 g
Analysis Date:	05/27/2016 2318	Units:	ug/Kg	Final Weight/Volume:	10 mL
Prep Date:	05/27/2016 1939				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
o-Xylene	ND		13	98
sec-Butylbenzene	ND		36	98
Tetrachloroethene	ND		13	98
Toluene	ND		26	98
trans-1,2-Dichloroethene	ND		23	98
trans-1,3-Dichloropropene	ND		9.7	98
Trichloroethene	ND		27	98
Trichlorofluoromethane	ND		46	98
Vinyl chloride	ND		33	98
Xylenes, Total	ND		55	200
cis-1,3-Dichloropropene	ND		24	98
Styrene	ND		24	98
tert-Butylbenzene	ND		27	98

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	94	53 - 146
4-Bromofluorobenzene (Surr)	112	49 - 148
Toluene-d8 (Surr)	99	50 - 149
Dibromofluoromethane (Surr)	95	60 - 140

Method Blank TICs- Batch: 480-304148

Cas Number	Analyte	RT	Est. Result (ug/	Qual
	Tentatively Identified Compound		None	

Client: Stantec Consulting Services Inc

Job Number: 480-100576-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 480-304148

Method: 8260C
Preparation: 5035A

LCS Lab Sample ID:	LCS 480-304148/2-A	Analysis Batch:	480-304122	Instrument ID:	HP5973N
Client Matrix:	Solid	Prep Batch:	480-304148	Lab File ID:	N3948.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5.09 g
Analysis Date:	05/27/2016 2157	Units:	ug/Kg	Final Weight/Volume:	10 mL
Prep Date:	05/27/2016 1939				5 mL
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 480-304148/3-A	Analysis Batch:	480-304122	Instrument ID:	HP5973N
Client Matrix:	Solid	Prep Batch:	480-304148	Lab File ID:	N3949.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5.25 g
Analysis Date:	05/27/2016 2224	Units:	ug/Kg	Final Weight/Volume:	10 mL
Prep Date:	05/27/2016 1939				5 mL
Leach Date:	N/A				

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
1,1,1-Trichloroethane	119	115	68 - 130	7	20		
1,1,2,2-Tetrachloroethane	101	102	73 - 119	3	20		
1,1,2-Trichloro-1,2,2-trifluoroethane	129	124	10 - 179	8	20		
1,1,2-Trichloroethane	110	114	81 - 115	1	20		
1,1-Dichloroethane	111	105	78 - 121	8	20		
1,1-Dichloroethene	110	109	48 - 133	4	20		
1,2,4-Trichlorobenzene	87	95	70 - 140	5	20		
1,2,4-Trimethylbenzene	98	100	77 - 127	0	20		
1,2-Dibromo-3-Chloropropane	79	81	56 - 122	1	20		
1,2-Dichlorobenzene	95	95	78 - 125	3	20		
1,2-Dichloroethane	102	98	74 - 127	7	20		
1,2-Dichloropropane	106	110	81 - 115	1	20		
1,3,5-Trimethylbenzene	101	103	79 - 119	0	20		
1,3-Dichlorobenzene	97	98	82 - 114	2	20		
1,4-Dichlorobenzene	98	100	81 - 113	2	20		
2-Butanone (MEK)	81	86	54 - 149	2	20		
2-Hexanone	97	103	59 - 127	2	20		
4-Isopropyltoluene	98	103	82 - 119	2	20		
4-Methyl-2-pentanone (MIBK)	98	101	74 - 120	1	20		
Acetone	65	70	47 - 141	4	20		
Benzene	110	107	77 - 125	6	20		
Bromoform	117	121	48 - 125	0	20		
Bromomethane	97	96	39 - 149	5	20		
Carbon disulfide	109	108	40 - 136	4	20		
Carbon tetrachloride	125	121	54 - 135	6	20		
Chlorobenzene	111	109	76 - 126	6	20		
Dibromochloromethane	113	110	64 - 118	6	20		
Chloroethane	107	105	23 - 164	5	20		
Chloroform	105	103	78 - 118	6	20		
Chloromethane	97	94	61 - 124	6	20		
cis-1,2-Dichloroethene	104	100	79 - 124	7	20		
Cyclohexane	128	125	49 - 129	6	20		
Bromodichloromethane	107	107	71 - 121	3	20		
Dichlorodifluoromethane	97	98	10 - 150	3	20		
Ethylbenzene	105	103	78 - 124	5	20		

Client: Stantec Consulting Services Inc Job Number: 480-100576-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 480-304148

Method: 8260C
Preparation: 5035A

LCS Lab Sample ID:	LCS 480-304148/2-A	Analysis Batch:	480-304122	Instrument ID:	HP5973N
Client Matrix:	Solid	Prep Batch:	480-304148	Lab File ID:	N3948.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5.09 g
Analysis Date:	05/27/2016 2157	Units:	ug/Kg	Final Weight/Volume:	10 mL
Prep Date:	05/27/2016 1939				5 mL
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 480-304148/3-A	Analysis Batch:	480-304122	Instrument ID:	HP5973N
Client Matrix:	Solid	Prep Batch:	480-304148	Lab File ID:	N3949.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5.25 g
Analysis Date:	05/27/2016 2224	Units:	ug/Kg	Final Weight/Volume:	10 mL
Prep Date:	05/27/2016 1939				5 mL
Leach Date:	N/A				

Analyte	% Rec. LCS	% Rec. LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
1,2-Dibromoethane	108	111	81 - 119	1	20		
Isopropylbenzene	107	109	76 - 119	1	20		
Methyl acetate	102	100	71 - 123	5	20		
Methyl tert-butyl ether	103	99	67 - 137	6	20		
Methylcyclohexane	122	119	50 - 130	5	20		
Methylene Chloride	108	105	75 - 118	6	20		
m,p-Xylene	110	106	77 - 125	6	20		
Naphthalene	76	82	65 - 142	5	20		
n-Butylbenzene	97	102	81 - 119	3	20		
N-Propylbenzene	108	110	76 - 118	1	20		
o-Xylene	103	100	80 - 124	6	20		
sec-Butylbenzene	99	104	79 - 118	2	20		
Tetrachloroethene	118	114	73 - 133	7	20		
Toluene	112	109	75 - 124	6	20		
trans-1,2-Dichloroethene	110	109	74 - 129	4	20		
trans-1,3-Dichloropropene	109	107	73 - 118	5	20		
Trichloroethene	118	113	75 - 131	7	20		
Trichlorofluoromethane	126	115	29 - 158	12	20		
Vinyl chloride	115	110	59 - 124	7	20		
cis-1,3-Dichloropropene	104	105	75 - 121	2	20		
Styrene	110	109	84 - 119	4	20		
tert-Butylbenzene	95	100	78 - 118	1	20		

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	93	92	53 - 146
4-Bromofluorobenzene (Surr)	107	112	49 - 148
Toluene-d8 (Surr)	98	97	50 - 149
Dibromofluoromethane (Surr)	96	93	60 - 140

Method Blank - Batch: 480-303495

Method: 8270D
Preparation: 3550C

Lab Sample ID:	MB 480-303495/1-A	Analysis Batch:	480-303744	Instrument ID:	HP5973X
Client Matrix:	Solid	Prep Batch:	480-303495	Lab File ID:	X00905295.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.17 g
Analysis Date:	05/26/2016 1136	Units:	ug/Kg	Final Weight/Volume:	1 mL
Prep Date:	05/25/2016 0654			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Biphenyl	ND		25	170
bis (2-chloroisopropyl) ether	ND		34	170
2,4,5-Trichlorophenol	ND		46	170
2,4,6-Trichlorophenol	ND		34	170
2,4-Dichlorophenol	ND		18	170
2,4-Dimethylphenol	ND		41	170
2,4-Dinitrophenol	ND		780	1700
2,4-Dinitrotoluene	ND		35	170
2,6-Dinitrotoluene	ND		20	170
2-Chloronaphthalene	ND		28	170
2-Chlorophenol	ND		31	170
2-Methylnaphthalene	ND		34	170
2-Methylphenol	ND		20	170
2-Nitroaniline	ND		25	330
2-Nitrophenol	ND		48	170
3,3'-Dichlorobenzidine	ND		200	330
3-Nitroaniline	ND		47	330
4,6-Dinitro-2-methylphenol	ND		170	330
4-Bromophenyl phenyl ether	ND		24	170
4-Chloro-3-methylphenol	ND		42	170
4-Chloroaniline	ND		42	170
4-Chlorophenyl phenyl ether	ND		21	170
4-Methylphenol	ND		20	330
4-Nitroaniline	ND		88	330
4-Nitrophenol	ND		120	330
Acenaphthene	ND		25	170
Acenaphthylene	ND		22	170
Acetophenone	ND		23	170
Anthracene	ND		42	170
Atrazine	ND		59	170
Benzaldehyde	ND		130	170
Benzo[a]anthracene	ND		17	170
Benzo[a]pyrene	ND		25	170
Benzo[b]fluoranthene	ND		27	170
Benzo[g,h,i]perylene	ND		18	170
Benzo[k]fluoranthene	ND		22	170
Bis(2-chloroethoxy)methane	ND		36	170
Bis(2-chloroethyl)ether	ND		22	170
Bis(2-ethylhexyl) phthalate	ND		58	170
Butyl benzyl phthalate	ND		28	170
Caprolactam	ND		51	170
Carbazole	ND		20	170
Chrysene	ND		38	170
Di-n-butyl phthalate	ND		29	170
Di-n-octyl phthalate	ND		20	170

Client: Stantec Consulting Services Inc

Job Number: 480-100576-1

Method Blank - Batch: 480-303495

Method: 8270D
Preparation: 3550C

Lab Sample ID:	MB 480-303495/1-A	Analysis Batch:	480-303744	Instrument ID:	HP5973X
Client Matrix:	Solid	Prep Batch:	480-303495	Lab File ID:	X00905295.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.17 g
Analysis Date:	05/26/2016 1136	Units:	ug/Kg	Final Weight/Volume:	1 mL
Prep Date:	05/25/2016 0654			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Dibenz(a,h)anthracene	ND		30	170
Dibenzofuran	ND		20	170
Diethyl phthalate	ND		22	170
Dimethyl phthalate	ND		20	170
Fluoranthene	ND		18	170
Fluorene	ND		20	170
Hexachlorobenzene	ND		23	170
Hexachlorobutadiene	ND		25	170
Hexachlorocyclopentadiene	ND		23	170
Hexachloroethane	ND		22	170
Indeno[1,2,3-cd]pyrene	ND		21	170
Isophorone	ND		36	170
N-Nitrosodi-n-propylamine	ND		29	170
N-Nitrosodiphenylamine	ND		140	170
Naphthalene	ND		22	170
Nitrobenzene	ND		19	170
Pentachlorophenol	ND		170	330
Phenanthrene	ND		25	170
Phenol	ND		26	170
Pyrene	ND		20	170

Surrogate	% Rec	Acceptance Limits
2,4,6-Tribromophenol	81	39 - 146
2-Fluorobiphenyl	82	37 - 120
2-Fluorophenol	70	18 - 120
Nitrobenzene-d5	74	34 - 132
p-Terphenyl-d14	82	65 - 153
Phenol-d5	70	11 - 120

Method Blank TICs- Batch: 480-303495

Cas Number	Analyte	RT	Est. Result (ug/	Qual
79-34-5	Ethane, 1,1,2,2-tetrachloro-	5.55	230	T J N
	Unknown	1.95	1170	T J
	Unknown	1.73	1450	T J
	Unknown	2.00	2780	T J
	Unknown	4.50	379	T J
	Unknown	1.87	385	T J

Client: Stantec Consulting Services Inc

Job Number: 480-100576-1

Lab Control Sample - Batch: 480-303495

Method: 8270D
Preparation: 3550C

Lab Sample ID:	LCS 480-303495/2-A	Analysis Batch:	480-303744	Instrument ID:	HP5973X
Client Matrix:	Solid	Prep Batch:	480-303495	Lab File ID:	X00905296.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.44 g
Analysis Date:	05/26/2016 1203	Units:	ug/Kg	Final Weight/Volume:	1 mL
Prep Date:	05/25/2016 0654			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Biphenyl	1640	1270	77	71 - 120	
bis (2-chloroisopropyl) ether	1640	1040	64	44 - 120	
2,4,5-Trichlorophenol	1640	1350	82	59 - 126	
2,4,6-Trichlorophenol	1640	1380	84	59 - 123	
2,4-Dichlorophenol	1640	1380	84	52 - 120	
2,4-Dimethylphenol	1640	1320	81	36 - 120	
2,4-Dinitrophenol	3290	3060	93	35 - 146	
2,4-Dinitrotoluene	1640	1430	87	55 - 125	
2,6-Dinitrotoluene	1640	1380	84	66 - 128	
2-Chloronaphthalene	1640	1270	77	57 - 120	
2-Chlorophenol	1640	1240	75	38 - 120	
2-Methylnaphthalene	1640	1300	79	47 - 120	
2-Methylphenol	1640	1200	73	48 - 120	
2-Nitroaniline	1640	1300	79	61 - 130	
2-Nitrophenol	1640	1350	82	50 - 120	
3,3'-Dichlorobenzidine	3290	2520	77	48 - 126	
3-Nitroaniline	1640	1270	77	61 - 127	
4,6-Dinitro-2-methylphenol	3290	3000	91	49 - 155	
4-Bromophenyl phenyl ether	1640	1400	85	58 - 131	
4-Chloro-3-methylphenol	1640	1400	85	49 - 125	
4-Chloroaniline	1640	1120	68	49 - 120	
4-Chlorophenyl phenyl ether	1640	1370	84	63 - 124	
4-Methylphenol	1640	1280	78	50 - 119	
4-Nitroaniline	1640	1330	81	63 - 128	
4-Nitrophenol	3290	3080	94	43 - 137	
Acenaphthene	1640	1310	80	53 - 120	
Acenaphthylene	1640	1320	81	58 - 121	
Acetophenone	1640	1230	75	66 - 120	
Anthracene	1640	1390	84	62 - 129	
Atrazine	3290	3110	95	60 - 164	
Benzaldehyde	3290	2110	64	21 - 120	
Benzo[a]anthracene	1640	1330	81	65 - 133	
Benzo[a]pyrene	1640	1420	86	64 - 127	
Benzo[b]fluoranthene	1640	1440	87	64 - 135	
Benzo[g,h,i]perylene	1640	1400	85	50 - 152	
Benzo[k]fluoranthene	1640	1320	80	58 - 138	
Bis(2-chloroethoxy)methane	1640	1180	72	61 - 133	
Bis(2-chloroethyl)ether	1640	1100	67	45 - 120	
Bis(2-ethylhexyl) phthalate	1640	1350	82	61 - 133	
Butyl benzyl phthalate	1640	1300	79	61 - 129	
Caprolactam	3290	2610	80	54 - 133	

Client: Stantec Consulting Services Inc

Job Number: 480-100576-1

Lab Control Sample - Batch: 480-303495

Method: 8270D
Preparation: 3550C

Lab Sample ID:	LCS 480-303495/2-A	Analysis Batch:	480-303744	Instrument ID:	HP5973X
Client Matrix:	Solid	Prep Batch:	480-303495	Lab File ID:	X00905296.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.44 g
Analysis Date:	05/26/2016 1203	Units:	ug/Kg	Final Weight/Volume:	1 mL
Prep Date:	05/25/2016 0654			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Carbazole	1640	1410	86	59 - 129	
Chrysene	1640	1360	83	64 - 131	
Di-n-butyl phthalate	1640	1390	85	58 - 130	
Di-n-octyl phthalate	1640	1320	80	62 - 133	
Dibenz(a,h)anthracene	1640	1400	86	54 - 148	
Dibenzofuran	1640	1340	82	56 - 120	
Diethyl phthalate	1640	1420	86	66 - 126	
Dimethyl phthalate	1640	1380	84	65 - 124	
Fluoranthene	1640	1460	89	62 - 131	
Fluorene	1640	1360	83	63 - 126	
Hexachlorobenzene	1640	1400	85	60 - 132	
Hexachlorobutadiene	1640	1330	81	45 - 120	
Hexachlorocyclopentadiene	1640	1090	66	31 - 120	
Hexachloroethane	1640	1150	70	41 - 120	
Indeno[1,2,3-cd]pyrene	1640	1410	86	56 - 149	
Isophorone	1640	1220	74	56 - 120	
N-Nitrosodi-n-propylamine	1640	1190	72	46 - 120	
N-Nitrosodiphenylamine	1640	1350	82	20 - 119	
Naphthalene	1640	1220	75	46 - 120	
Nitrobenzene	1640	1190	73	49 - 120	
Pentachlorophenol	3290	2630	80	33 - 136	
Phenanthrene	1640	1370	84	60 - 130	
Phenol	1640	1180	72	36 - 120	
Pyrene	1640	1370	84	51 - 133	

Surrogate	% Rec	Acceptance Limits
2,4,6-Tribromophenol	94	39 - 146
2-Fluorobiphenyl	79	37 - 120
2-Fluorophenol	70	18 - 120
Nitrobenzene-d5	74	34 - 132
p-Terphenyl-d14	81	65 - 153
Phenol-d5	73	11 - 120

Client: Stantec Consulting Services Inc

Job Number: 480-100576-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 480-303495

Method: 8270D
Preparation: 3550C

MS Lab Sample ID:	480-100576-2	Analysis Batch:	480-303744	Instrument ID:	HP5973X
Client Matrix:	Solid	Prep Batch:	480-303495	Lab File ID:	X00905297.D
Dilution:	5.0	Leach Batch:	N/A	Initial Weight/Volume:	30.24 g
Analysis Date:	05/26/2016 1229			Final Weight/Volume:	1 mL
Prep Date:	05/25/2016 0654			Injection Volume:	1 uL
Leach Date:	N/A				

MSD Lab Sample ID:	480-100576-2	Analysis Batch:	480-303744	Instrument ID:	HP5973X
Client Matrix:	Solid	Prep Batch:	480-303495	Lab File ID:	X00905298.D
Dilution:	5.0	Leach Batch:	N/A	Initial Weight/Volume:	30.72 g
Analysis Date:	05/26/2016 1256			Final Weight/Volume:	1 mL
Prep Date:	05/25/2016 0654			Injection Volume:	1 uL
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Biphenyl	82	77	71 - 120	8	20		
bis (2-chloroisopropyl) ether	50	47	44 - 120	7	24	J	J
2,4,5-Trichlorophenol	85	86	59 - 126	1	18		
2,4,6-Trichlorophenol	90	86	59 - 123	6	19		
2,4-Dichlorophenol	81	84	52 - 120	2	19		
2,4-Dimethylphenol	79	78	36 - 120	2	42		
2,4-Dinitrophenol	NC	NC	35 - 146	NC	22		
2,4-Dinitrotoluene	94	91	55 - 125	4	20		
2,6-Dinitrotoluene	88	90	66 - 128	0	15		
2-Chloronaphthalene	79	80	57 - 120	0	21		
2-Chlorophenol	73	72	38 - 120	3	25		
2-Methylnaphthalene	82	80	47 - 120	4	21		
2-Methylphenol	74	72	48 - 120	3	27		
2-Nitroaniline	83	85	61 - 130	1	15	J	J
2-Nitrophenol	93	91	50 - 120	4	18		
3,3'-Dichlorobenzidine	82	79	48 - 126	5	25		
3-Nitroaniline	80	85	61 - 127	4	19	J	J
4,6-Dinitro-2-methylphenol	100	99	49 - 155	2	15		
4-Bromophenyl phenyl ether	83	81	58 - 131	4	15		
4-Chloro-3-methylphenol	85	79	49 - 125	8	27		
4-Chloroaniline	66	66	49 - 120	1	22		
4-Chlorophenyl phenyl ether	85	83	63 - 124	3	16		
4-Methylphenol	75	72	50 - 119	5	24	J	J
4-Nitroaniline	85	85	63 - 128	2	24	J	J
4-Nitrophenol	99	100	43 - 137	1	25		
Acenaphthene	80	79	53 - 120	4	35		
Acenaphthylene	78	77	58 - 121	3	18		
Acetophenone	73	74	66 - 120	0	20		
Anthracene	84	83	62 - 129	3	15		
Atrazine	87	90	60 - 164	3	20		
Benzaldehyde	64	63	21 - 120	3	20		
Benzo[a]anthracene	83	81	65 - 133	4	15		

Client: Stantec Consulting Services Inc

Job Number: 480-100576-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 480-303495

Method: 8270D
Preparation: 3550C

MS Lab Sample ID:	480-100576-2	Analysis Batch:	480-303744	Instrument ID:	HP5973X
Client Matrix:	Solid	Prep Batch:	480-303495	Lab File ID:	X00905297.D
Dilution:	5.0	Leach Batch:	N/A	Initial Weight/Volume:	30.24 g
Analysis Date:	05/26/2016 1229			Final Weight/Volume:	1 mL
Prep Date:	05/25/2016 0654			Injection Volume:	1 uL
Leach Date:	N/A				

MSD Lab Sample ID:	480-100576-2	Analysis Batch:	480-303744	Instrument ID:	HP5973X
Client Matrix:	Solid	Prep Batch:	480-303495	Lab File ID:	X00905298.D
Dilution:	5.0	Leach Batch:	N/A	Initial Weight/Volume:	30.72 g
Analysis Date:	05/26/2016 1256			Final Weight/Volume:	1 mL
Prep Date:	05/25/2016 0654			Injection Volume:	1 uL
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Benzo[a]pyrene	87	82	64 - 127	7	15		
Benzo[b]fluoranthene	83	84	64 - 135	0	15		
Benzo[g,h,i]perylene	91	85	50 - 152	8	15		
Benzo[k]fluoranthene	83	77	58 - 138	10	22		
Bis(2-chloroethoxy)methane	74	73	61 - 133	3	17		
Bis(2-chloroethyl)ether	66	66	45 - 120	1	21		
Bis(2-ethylhexyl) phthalate	80	82	61 - 133	1	15		
Butyl benzyl phthalate	83	85	61 - 129	1	16		
Caprolactam	80	75	54 - 133	8	20		
Carbazole	85	86	59 - 129	0	20		
Chrysene	87	81	64 - 131	8	15		
Di-n-butyl phthalate	79	84	58 - 130	4	15		
Di-n-octyl phthalate	81	84	62 - 133	2	16		
Dibenz(a,h)anthracene	87	82	54 - 148	7	15		
Dibenzofuran	85	80	56 - 120	8	15		
Diethyl phthalate	82	83	66 - 126	0	15		
Dimethyl phthalate	83	82	65 - 124	3	15		
Fluoranthene	90	90	62 - 131	1	15		
Fluorene	84	82	63 - 126	4	15		
Hexachlorobenzene	86	82	60 - 132	6	15		
Hexachlorobutadiene	82	85	45 - 120	1	44		
Hexachlorocyclopentadiene	62	59	31 - 120	6	49		
Hexachloroethane	66	67	41 - 120	1	46		
Indeno[1,2,3-cd]pyrene	88	85	56 - 149	6	15		
Isophorone	72	75	56 - 120	2	17		
N-Nitrosodi-n-propylamine	70	74	46 - 120	4	31		
N-Nitrosodiphenylamine	80	82	20 - 119	1	15		
Naphthalene	79	77	46 - 120	4	29		
Nitrobenzene	74	73	49 - 120	2	24		
Pentachlorophenol	77	79	33 - 136	0	35		
Phenanthrene	85	86	60 - 130	1	15		
Phenol	72	72	36 - 120	2	35		

Client: Stantec Consulting Services Inc

Job Number: 480-100576-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 480-303495

Method: 8270D
Preparation: 3550C

MS Lab Sample ID:	480-100576-2	Analysis Batch:	480-303744	Instrument ID:	HP5973X
Client Matrix:	Solid	Prep Batch:	480-303495	Lab File ID:	X00905297.D
Dilution:	5.0	Leach Batch:	N/A	Initial Weight/Volume:	30.24 g
Analysis Date:	05/26/2016 1229			Final Weight/Volume:	1 mL
Prep Date:	05/25/2016 0654			Injection Volume:	1 uL
Leach Date:	N/A				

MSD Lab Sample ID:	480-100576-2	Analysis Batch:	480-303744	Instrument ID:	HP5973X
Client Matrix:	Solid	Prep Batch:	480-303495	Lab File ID:	X00905298.D
Dilution:	5.0	Leach Batch:	N/A	Initial Weight/Volume:	30.72 g
Analysis Date:	05/26/2016 1256			Final Weight/Volume:	1 mL
Prep Date:	05/25/2016 0654			Injection Volume:	1 uL
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Pyrene	86	84	51 - 133	4	35		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
2,4,6-Tribromophenol	109	103	39 - 146
2-Fluorobiphenyl	83	80	37 - 120
2-Fluorophenol	70	71	18 - 120
Nitrobenzene-d5	75	76	34 - 132
p-Terphenyl-d14	82	78	65 - 153
Phenol-d5	74	71	11 - 120

Client: Stantec Consulting Services Inc

Job Number: 480-100576-1

Method Blank - Batch: 480-304674

Method: 8081B
Preparation: 3550C

Lab Sample ID:	MB 480-304674/1-A	Analysis Batch:	480-304913	Instrument ID:	HP6890-25
Client Matrix:	Solid	Prep Batch:	480-304674	Lab File ID:	25_03-122.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.47 g
Analysis Date:	06/03/2016 0948	Units:	ug/Kg	Final Weight/Volume:	10 mL
Prep Date:	06/02/2016 0725			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Result	Qual	MDL	RL
4,4'-DDD	ND		0.32	1.6
4,4'-DDE	ND		0.34	1.6
4,4'-DDT	ND		0.38	1.6
Aldrin	ND		0.40	1.6
alpha-BHC	ND		0.30	1.6
alpha-Chlordane	ND		0.82	1.6
beta-BHC	ND		0.30	1.6
delta-BHC	ND		0.31	1.6
Dieldrin	ND		0.39	1.6
Endosulfan I	ND		0.32	1.6
Endosulfan II	ND		0.30	1.6
Endosulfan sulfate	ND		0.31	1.6
Endrin	ND		0.32	1.6
Endrin aldehyde	ND		0.42	1.6
gamma-BHC (Lindane)	ND		0.30	1.6
Endrin ketone	ND		0.40	1.6
gamma-Chlordane	ND		0.52	1.6
Heptachlor	ND		0.36	1.6
Heptachlor epoxide	ND		0.42	1.6
Methoxychlor	ND		0.33	1.6
Toxaphene	ND		9.6	16

Surrogate	% Rec	Acceptance Limits
DCB Decachlorobiphenyl	73	32 - 136
Tetrachloro-m-xylene	57	30 - 124

Client: Stantec Consulting Services Inc

Job Number: 480-100576-1

Lab Control Sample - Batch: 480-304674

Method: 8081B
Preparation: 3550C

Lab Sample ID:	LCS 480-304674/2-A	Analysis Batch:	480-304913	Instrument ID:	HP6890-25
Client Matrix:	Solid	Prep Batch:	480-304674	Lab File ID:	25_03-123.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.07 g
Analysis Date:	06/03/2016 1008	Units:	ug/Kg	Final Weight/Volume:	10 mL
Prep Date:	06/02/2016 0725			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
4,4'-DDD	16.6	12.8	77	52 - 138	
4,4'-DDE	16.6	11.3	68	52 - 131	
4,4'-DDT	16.6	14.7	88	50 - 131	
Aldrin	16.6	9.45	57	35 - 120	
alpha-BHC	16.6	9.46	57	49 - 120	
alpha-Chlordane	16.6	11.2	67	40 - 133	
beta-BHC	16.6	9.99	60	52 - 127	
delta-BHC	16.6	10.2	61	45 - 123	
Dieldrin	16.6	12.7	77	50 - 131	
Endosulfan I	16.6	11.6	70	43 - 121	
Endosulfan II	16.6	12.8	77	48 - 134	
Endosulfan sulfate	16.6	11.9	72	46 - 144	
Endrin	16.6	13.3	80	46 - 134	
Endrin aldehyde	16.6	12.1	73	31 - 137	
gamma-BHC (Lindane)	16.6	10.6	64	50 - 120	
Endrin ketone	16.6	13.9	83	44 - 140	
gamma-Chlordane	16.6	10.9	66	52 - 129	
Heptachlor	16.6	12.1	73	51 - 121	
Heptachlor epoxide	16.6	10.7	65	52 - 129	
Methoxychlor	16.6	18.0	108	50 - 149	

Surrogate	% Rec	Acceptance Limits
DCB Decachlorobiphenyl	74	32 - 136
Tetrachloro-m-xylene	88	30 - 124

Method Blank - Batch: 480-303293

Method: 8082A
Preparation: 3550C

Lab Sample ID:	MB 480-303293/1-A	Analysis Batch:	480-303462	Instrument ID:	HP6890-7
Client Matrix:	Solid	Prep Batch:	480-303293	Lab File ID:	7_05-348.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	2.15 g
Analysis Date:	05/24/2016 2157	Units:	mg/Kg	Final Weight/Volume:	10 mL
Prep Date:	05/24/2016 0810			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Result	Qual	MDL	RL
PCB-1016	ND		0.045	0.23
PCB-1221	ND		0.045	0.23
PCB-1232	ND		0.045	0.23
PCB-1242	ND		0.045	0.23
PCB-1248	ND		0.045	0.23
PCB-1254	ND		0.11	0.23
PCB-1260	ND		0.11	0.23

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	111	60 - 154
DCB Decachlorobiphenyl	127	65 - 174

Lab Control Sample - Batch: 480-303293

Method: 8082A
Preparation: 3550C

Lab Sample ID:	LCS 480-303293/2-A	Analysis Batch:	480-303462	Instrument ID:	HP6890-7
Client Matrix:	Solid	Prep Batch:	480-303293	Lab File ID:	7_05-349.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	2.17 g
Analysis Date:	05/24/2016 2215	Units:	mg/Kg	Final Weight/Volume:	10 mL
Prep Date:	05/24/2016 0810			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
PCB-1016	2.30	2.81	122	51 - 185	
PCB-1260	2.30	2.96	128	61 - 184	

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	130	60 - 154
DCB Decachlorobiphenyl	146	65 - 174

Client: Stantec Consulting Services Inc Job Number: 480-100576-1

Method Blank - Batch: 480-303360 **Method: 6010C**
Preparation: 3050B

Lab Sample ID:	MB 480-303360/1-A	Analysis Batch:	480-303864	Instrument ID:	ICAP2
Client Matrix:	Solid	Prep Batch:	480-303360	Lab File ID:	I2052616A-1.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	+0.5167 g
Analysis Date:	05/26/2016 1258	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	05/25/2016 1445				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Aluminum	ND		4.3	9.7
Antimony	ND		0.39	14.5
Arsenic	ND		0.39	1.9
Barium	ND		0.11	0.48
Beryllium	ND		0.027	0.19
Cadmium	ND		0.029	0.19
Calcium	4.39	J	3.2	48.4
Chromium	ND		0.19	0.48
Cobalt	ND		0.048	0.48
Copper	ND		0.20	0.97
Iron	ND		3.4	9.7
Lead	ND		0.23	0.97
Magnesium	0.943	J	0.90	19.4
Nickel	ND		0.22	4.8
Potassium	ND		19.4	29.0
Selenium	ND		0.39	3.9
Silver	ND		0.19	0.58
Sodium	ND		12.6	135
Thallium	ND		0.29	5.8
Vanadium	ND		0.11	0.48
Zinc	ND		0.62	1.9

Method Blank - Batch: 480-303360 **Method: 6010C**
Preparation: 3050B

Lab Sample ID:	MB 480-303360/1-A	Analysis Batch:	480-304266	Instrument ID:	ICAP2
Client Matrix:	Solid	Prep Batch:	480-303360	Lab File ID:	I2052816A-7.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	+0.5167 g
Analysis Date:	05/28/2016 2017	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	05/25/2016 1445				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Manganese	ND		0.031	0.19

Client: Stantec Consulting Services Inc

Job Number: 480-100576-1

LCS-Certified Reference Material/ LCSD - Certified Reference Material Recovery Report - Batch: 480-303360

Method: 6010C
Preparation: 3050B

LCS Lab Sample ID:	LCSSRM 480-303360/2-A	Analysis Batch:	480-303864	Instrument ID:	ICAP2
Client Matrix:	Solid	Prep Batch:	480-303360	Lab File ID:	I2052616A-1.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	+0.5031 g
Analysis Date:	05/26/2016 1311	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	05/25/2016 1445				
Leach Date:	N/A				

LCSD Lab Sample ID:	LCDSRM 480-303360/3-A	Analysis Batch:	480-303864	Instrument ID:	ICAP2
Client Matrix:	Solid	Prep Batch:	480-303360	Lab File ID:	I2052616A-1.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	+0.4974 g
Analysis Date:	05/26/2016 1314	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	05/25/2016 1445				
Leach Date:	N/A				

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Aluminum	112.2	113.6	39.0 - 161.4	1	20		
Antimony	70.4	72.9	20.4 - 254.3	3	20		
Arsenic	89.0	90.5	69.3 - 145.2	2	20		
Barium	86.8	88.4	74.0 - 126.0	2	20	^	^
Beryllium	88.2	89.1	73.6 - 126.4	1	20		
Cadmium	90.0	90.4	73.3 - 126.7	0	20		
Calcium	85.5	85.7	74.1 - 125.9	0	20	^	^
Chromium	87.9	89.1	70.9 - 129.7	1	20		
Cobalt	100.3	101.4	74.1 - 125.3	1	20		
Copper	90.1	87.0	74.5 - 125.5	4	20		
Iron	98.5	105.7	35.6 - 163.9	7	20	^	^
Lead	96.8	100.0	72.5 - 126.9	3	20		
Magnesium	91.6	93.7	64.4 - 136.0	2	20	^	^
Nickel	102.9	103.3	73.2 - 126.8	0	20		
Potassium	103.0	104.6	60.8 - 138.8	2	20		
Selenium	89.0	90.2	67.5 - 132.5	1	20		
Silver	84.1	84.4	66.0 - 133.7	0	20		
Sodium	90.7	96.3	65.3 - 134.3	6	20		
Thallium	99.4	105.0	68.6 - 130.9	5	20		
Vanadium	94.6	98.1	64.4 - 135.5	4	20		
Zinc	84.6	85.8	69.6 - 130.4	1	20		

Client: Stantec Consulting Services Inc

Job Number: 480-100576-1

LCS-Certified Reference Material/ LCSD - Certified Reference Material Recovery Report - Batch: 480-303360

Method: 6010C
Preparation: 3050B

LCS Lab Sample ID:	LCSSRM 480-303360/2-A	Analysis Batch:	480-304266	Instrument ID:	ICAP2
Client Matrix:	Solid	Prep Batch:	480-303360	Lab File ID:	I2052816A-7.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	+0.5031 g
Analysis Date:	05/28/2016 2020	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	05/25/2016 1445				
Leach Date:	N/A				

LCSD Lab Sample ID:	LCDSRM 480-303360/3-A	Analysis Batch:	480-304266	Instrument ID:	ICAP2
Client Matrix:	Solid	Prep Batch:	480-303360	Lab File ID:	I2052816A-7.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	+0.4974 g
Analysis Date:	05/28/2016 2023	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	05/25/2016 1445				
Leach Date:	N/A				

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Manganese	87.6	89.5	76.3 - 123.9	2	20		

Method Blank - Batch: 480-303493

Method: 7471B
Preparation: 7471B

Lab Sample ID:	MB 480-303493/1-A	Analysis Batch:	480-303628	Instrument ID:	LEEMAN3
Client Matrix:	Solid	Prep Batch:	480-303493	Lab File ID:	J05256S2.PRN
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	+0.5923 g
Analysis Date:	05/25/2016 1142	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	05/25/2016 0730				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Mercury	ND		0.0082	0.020

LCS-Certified Reference Material/ LCSD - Certified Reference Material Recovery Report - Batch: 480-303493

Method: 7471B
Preparation: 7471B

LCS Lab Sample ID:	LCSSRM 480-303493/2-A	Analysis Batch:	480-303628	Instrument ID:	LEEMAN3
Client Matrix:	Solid	Prep Batch:	480-303493	Lab File ID:	J05256S2.PRN
Dilution:	5.0	Leach Batch:	N/A	Initial Weight/Volume:	+0.1400 g
Analysis Date:	05/25/2016 1143	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	05/25/2016 0730				
Leach Date:	N/A				

LCSD Lab Sample ID:	LCDSRM 480-303493/20-A	Analysis Batch:	480-303628	Instrument ID:	LEEMAN3
Client Matrix:	Solid	Prep Batch:	480-303493	Lab File ID:	J05256S2.PRN
Dilution:	5.0	Leach Batch:	N/A	Initial Weight/Volume:	.1400 g
Analysis Date:	05/25/2016 1237	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	05/25/2016 0730				
Leach Date:	N/A				

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Mercury	77.5	90.3	51.3 - 149.3	15	20		

Client: Stantec Consulting Services Inc

Job Number: 480-100576-1

Method Blank - Batch: 480-304591

Method: 9012B
Preparation: 9012B

Lab Sample ID:	MB 480-304591/1-A	Analysis Batch:	480-304742	Instrument ID:	LACHAT2
Client Matrix:	Solid	Prep Batch:	480-304591	Lab File ID:	OM_6-2-2016_11-25-13
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.5393 g
Analysis Date:	06/02/2016 1128	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	06/01/2016 1455				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Cyanide, Total	ND		0.45	0.93

LCS-Certified Reference Material - Batch: 480-304591

Method: 9012B
Preparation: 9012B

Lab Sample ID:	LCSSRM 480-304591/2-A	Analysis Batch:	480-304742	Instrument ID:	LACHAT2
Client Matrix:	Solid	Prep Batch:	480-304591	Lab File ID:	OM_6-2-2016_11-25-13
Dilution:	2.0	Leach Batch:	N/A	Initial Weight/Volume:	0.5054 g
Analysis Date:	06/02/2016 1156	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	06/01/2016 1455				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Cyanide, Total	39.6	50.46	127.4	33.3 - 195.2	

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

480-100576 Chain of Custody

Client Information	Sampler: Laura Best	Lab PM: VanDette, Ryan T	Carrier Tracking No: 809950029507	Page: Page 1 of 2 (LB)
Client Contact: Mr. Thomas Wells	Phone: (585)301-0166	E-Mail: ryan.vandette@testamericainc.com		
Company: Stantec Consulting Services Inc				Job #:
Address: 61 Commercial Street	Due Date Requested:			
City: Rochester	TAT Requested (days): 10d			
State, Zip: NY, 14614				
Phone: 585-413-5625(Tel) 585-424-5951(Fax)	PO #: Purchase Order not required			
Email: tom.wells@stantec.com	WO #: 10137			
Project Name: Former Vacuum Oil Works	Project #: 48014042			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8270D, Moisture	8260C - Volatiles - Terracore	6010C, 7471B, 8081B, 8082A	9012B - Total and Amenable	Total Number of containers	Special Instructions/Note:
Preservation Code:							N	N	N	N		
VO-B8-S	5/23/16	09:35	G	Solid			X	X			6	
VO-B9-S	5/23/16	10:45	G	Solid			X	X			6	
VO-B10-S	5/23/16	11:35	G	Solid			X	X	X	X	7	Prioritize SVOCs + Cyanide if not enough Sample vol for all.
VO-B11-S	5/23/16	15:00	G	Solid			X	X			6	may contain product PID=815 ppm
VO-B12-S	5/23/16	13:20	G	Solid			X	X			6	may product all analyses collected PID=540 ppm; may contain (Petro) product
				Solid								
				Solid								
				Solid								
				Solid								
				Solid								
				Solid								

Laura Best 5/23/16

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements: NYSDEC ASP Cat A Deliverables; NYSDEC EQuIS EDD

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	Laura Best	5/23/16 17:15	Stantec	FEDEX	5/23/16 17:15	
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
					5/24/16 0930	
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:
		2.5 #1

06/08/2016

Login Sample Receipt Checklist

Client: Stantec Consulting Services Inc

Job Number: 480-100576-1

Login Number: 100576

List Source: TestAmerica Buffalo

List Number: 1

Creator: Wallace, Cameron

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	5/24/16 12:30
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	STANTEC
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	

ANALYTICAL REPORT

Job Number: 480-100656-1

Job Description: Former Vacuum Oil Works - Soils

For:
Stantec Consulting Services Inc
61 Commercial Street
Rochester, NY 14614

Attention: Mr. Thomas D Wells

Approved for release.
Rebecca M Jones
Project Management Assistant I
6/9/2016 6:47 PM

Designee for
Ryan T VanDette, Project Manager II
10 Hazelwood Drive, Amherst, NY, 14228-2298
(716)504-9830
ryan.vandette@testamericainc.com
06/09/2016

The test results in this report meet all NELAP requirements for analytes for which accreditation is required or available. Any exceptions to the NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. All questions regarding this test report should be directed to the TestAmerica Project Manager who has signed this report.

TestAmerica Buffalo NELAC Certifications: CADPH 01169CA, FLDOH E87672, ILEPA 200003, KSDOH E-10187, LADEQ 30708, MDH 036-999-337, NHELAP 2973, NJDEP NY455, NHDOH 10026, ORELAP NY200003, PADEP 68-00281, TXCEQ T-104704412-10-1

Job Narrative
480-100656-1

Receipt
The samples were received on 5/25/2016 9:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.0º C.

GC/MS VOA
Method(s) 8260C: The method blank for preparation batch 480-303913 and analytical batch 480-303910 contained Methylene Chloride above the reporting limit (RL). This compound is considered a common laboratory contaminant. The associated samples were not re-analyzed because the concentration of the common lab contaminant in the method blank was less than 5 times the RL. VO-B4-S (480-100656-1)

Method(s) 8260C: The following samples were diluted to bring the concentration of target analytes within the calibration range: VO-B6-S (480-100656-3) and VO-B1-S (480-100656-5). Elevated reporting limits (RLs) are provided.

Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 480-303981 recovered outside acceptance criteria, low biased, for 1,2,4-Trichlorobenzene. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Since the associated samples were non-detect for this analyte, the data have been reported. The following samples are impacted: VO-B6-S (480-100656-3) and VO-B1-S (480-100656-5) .

Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 480-303981 recovered above the upper control limit for 1,1,2-Trichloro-1,2,2-trifluoroethane and Trichlorofluoromethane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: VO-B6-S (480-100656-3) and VO-B1-S (480-100656-5).

Method(s) 8260C: The continuing calibration verification (CCV) analyzed in batch 480-303981 was outside the method criteria for the following analyte: Naphthalene. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte is considered estimated. The following samples are impacted: VO-B6-S (480-100656-3) and VO-B1-S (480-100656-5) .

Method(s) 8260C: Internal standard (ISTD) response for the following sample was outside control limits: VO-B3-S (480-100656-7). The sample was re-analyzed with concurring results, and the re-analysis set of data has been reported.

Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 480-303905 recovered above the upper control limit for Cyclohexane and Trichlorofluoromethane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: VO-B5-S (480-100656-2), VO-B1-S (480-100656-5) and VO-B2-S (480-100656-6).

Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 480-303905 recovered outside acceptance criteria, low biased, for 1,2,4-Trichlorobenzene. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Since the associated samples were non-detect for this analyte, the data have been reported.

Method(s) 8260C: The following samples were analyzed using medium level soil analysis to bring the concentration of target analytes within the calibration range: VO-B5-S (480-100656-2), VO-B1-S (480-100656-5) and VO-B2-S (480-100656-6). Elevated reporting limits (RLs) are provided.

Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 480-304122 recovered above the upper control limit for Carbon tetrachloride, 2-Hexanone, Vinyl chloride and Trichlorofluoromethane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following sample is impacted: VO-B4-S (480-100656-1).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA
Method(s) 8270D: The following samples were diluted due to the nature of the sample matrix : VO-B4-S (480-100656-1), VO-B6-S (480-100656-3) and VO-B7-S (480-100656-4). As such, surrogate recoveries are below the calibration range, and elevated reporting limits (RLs) are provided.

Method(s) 8270D: The following samples were diluted due to the nature of the sample matrix: VO-B5-S (480-100656-2), VO-B6-S (480-100656-3), VO-B1-S (480-100656-5) and VO-B2-S (480-100656-6). Elevated reporting limits (RLs) are provided.

Method(s) 8270D: The continuing calibration verification (CCV) associated with batch 480-303993 recovered outside acceptance criteria, low biased, for Benzaldehyde. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Since the associated samples were non-detect for this analyte, the data have been reported. VO-B4-S (480-100656-1), VO-B5-S (480-100656-2), VO-B6-S (480-100656-3), VO-B7-S (480-100656-4), VO-B1-S (480-100656-5), VO-B2-S (480-100656-6) and VO-B3-S (480-100656-7).

Method(s) 8270D: The following samples were diluted due to the nature of the sample matrix: VO-B4-S (480-100656-1), VO-B5-S (480-100656-2), VO-B6-S (480-100656-3), VO-B7-S (480-100656-4), VO-B2-S (480-100656-6) and VO-B3-S (480-100656-7). Elevated reporting limits (RLs) are provided.

Method(s) 8270D: The initial calibration curve analyzed in batch 480-299919 was outside method criteria for the following analyte: 2,4-Dinitrophenol. As indicated in the reference method, sample analysis may proceed; however, any detection or non-detection for the affected analyte(s) is considered an estimated concentration.

Method(s) 8270D: The following samples were re-extracted and re-analyzed due to low recovery of Acetophenone in the laboratory control sample (LCS): VO-B4-S (480-100656-1), VO-B5-S (480-100656-2), VO-B6-S (480-100656-3), VO-B7-S (480-100656-4), VO-B1-S (480-100656-5), VO-B2-S (480-100656-6) and VO-B3-S (480-100656-7). The second analysis has been reported for this compound only.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC Semi VOA
Method(s) 8081B: The following samples were diluted due to the nature of the sample matrix and extract dark color: VO-B1-S (480-100656-5). As such, surrogate recoveries are below the calibration range or are not reported, and elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals
Method(s) 6010C: The Method Blank for preparation batch 480-303850 and analytical batch 480-304476 contained Total Aluminum, Calcium, Iron, Magnesium, and Manganese above the reporting limits (RLs). Associated sample VO-B1-S (480-100656-5) was not re-extracted and/or re-analyzed because results were greater than 10X the values found in the Method Blank.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep
Method(s) 3550C: The following samples required a Florisil clean-up, via EPA Method 3620C, to reduce matrix interferences: VO-B1-S (480-100656-5).

Method(s) 3550C: Due to the matrix, the following sample could not be concentrated to the final method required volume: VO-B6-S (480-100656-3). The reporting limits (RLs) are elevated proportionately.

Method(s) 3550C: The following samples: VO-B1-S (480-100656-5) and VO-B2-S (480-100656-6) was decanted prior to preparation.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

EXECUTIVE SUMMARY - Detections

Client: Stantec Consulting Services Inc Job Number: 480-100656-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
480-100656-1	**VO-B4-S**					
2-Butanone (MEK)		7.6	J	20	ug/Kg	8260C
Acetone		31	B	20	ug/Kg	8260C
Benzene		0.89	J	4.0	ug/Kg	8260C
Cyclohexane		0.96	J	4.0	ug/Kg	8260C
Methylcyclohexane		2.6	J	4.0	ug/Kg	8260C
m,p-Xylene		0.74	J	7.9	ug/Kg	8260C
Naphthalene		8000		84	ug/Kg	8260C
N-Propylbenzene		0.33	J	4.0	ug/Kg	8260C
o-Xylene		1.4	J	4.0	ug/Kg	8260C
Toluene		0.36	J	4.0	ug/Kg	8260C
Xylenes, Total		2.1	J	7.9	ug/Kg	8260C
2-Methylnaphthalene		2100		2000	ug/Kg	8270D
Acenaphthene		3200		2000	ug/Kg	8270D
Acenaphthylene		320	J	2000	ug/Kg	8270D
Anthracene		6100		2000	ug/Kg	8270D
Benzo[a]anthracene		8200		2000	ug/Kg	8270D
Benzo[a]pyrene		7000		2000	ug/Kg	8270D
Benzo[b]fluoranthene		8300		2000	ug/Kg	8270D
Benzo[g,h,i]perylene		4300		2000	ug/Kg	8270D
Benzo[k]fluoranthene		3800		2000	ug/Kg	8270D
Carbazole		1800	J	2000	ug/Kg	8270D
Chrysene		8400		2000	ug/Kg	8270D
Dibenzofuran		3100		2000	ug/Kg	8270D
Fluoranthene		22000		2000	ug/Kg	8270D
Fluorene		4800		2000	ug/Kg	8270D
Indeno[1,2,3-cd]pyrene		3700		2000	ug/Kg	8270D
Naphthalene		3900		2000	ug/Kg	8270D
Phenanthrene		24000		2000	ug/Kg	8270D
Pyrene		17000		2000	ug/Kg	8270D
Percent Moisture		16.7		0.1	%	Moisture
Percent Solids		83.3		0.1	%	Moisture

EXECUTIVE SUMMARY - Detections

Client: Stantec Consulting Services Inc Job Number: 480-100656-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
480-100656-2	**VO-B5-S**					
1,2,4-Trimethylbenzene		24	J	62	ug/Kg	8260C
Methyl acetate		61	J	62	ug/Kg	8260C
Methylcyclohexane		30	J	62	ug/Kg	8260C
Naphthalene		91		62	ug/Kg	8260C
Benzo[a]anthracene		530	J	1000	ug/Kg	8270D
Chrysene		1200		1000	ug/Kg	8270D
Fluoranthene		550	J	1000	ug/Kg	8270D
Fluorene		260	J	1000	ug/Kg	8270D
Phenanthrene		1400		1000	ug/Kg	8270D
Pyrene		990	J	1000	ug/Kg	8270D
Percent Moisture		18.5		0.1	%	Moisture
Percent Solids		81.5		0.1	%	Moisture
480-100656-3	**VO-B6-S**					
1,2,4-Trimethylbenzene		11000		530	ug/Kg	8260C
1,3,5-Trimethylbenzene		6900		530	ug/Kg	8260C
4-Isopropyltoluene		380	J	530	ug/Kg	8260C
Cyclohexane		1800		530	ug/Kg	8260C
Ethylbenzene		1100		530	ug/Kg	8260C
Isopropylbenzene		1300		530	ug/Kg	8260C
Methylcyclohexane		14000		530	ug/Kg	8260C
m,p-Xylene		14000		1100	ug/Kg	8260C
Naphthalene		980		530	ug/Kg	8260C
n-Butylbenzene		510	J	530	ug/Kg	8260C
N-Propylbenzene		1600		530	ug/Kg	8260C
o-Xylene		4200		530	ug/Kg	8260C
Toluene		510	J	530	ug/Kg	8260C
Xylenes, Total		18000		1100	ug/Kg	8260C
Benzo[a]anthracene		910	J	2000	ug/Kg	8270D
Benzo[b]fluoranthene		380	J	2000	ug/Kg	8270D
Benzo[g,h,i]perylene		230	J	2000	ug/Kg	8270D
Chrysene		1400	J	2000	ug/Kg	8270D
Dibenzofuran		230	J	2000	ug/Kg	8270D
Fluoranthene		920	J	2000	ug/Kg	8270D
Fluorene		410	J	2000	ug/Kg	8270D
Naphthalene		460	J	2000	ug/Kg	8270D
Phenanthrene		1600	J	2000	ug/Kg	8270D
Pyrene		1300	J	2000	ug/Kg	8270D
Percent Moisture		15.4		0.1	%	Moisture
Percent Solids		84.6		0.1	%	Moisture

EXECUTIVE SUMMARY - Detections

Client: Stantec Consulting Services Inc Job Number: 480-100656-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
480-100656-4	**VO-B7-S**					
1,3,5-Trimethylbenzene		0.37	J	3.3	ug/Kg	8260C
4-Isopropyltoluene		0.27	J	3.3	ug/Kg	8260C
Acetone		29	B	17	ug/Kg	8260C
Methylcyclohexane		1.7	J	3.3	ug/Kg	8260C
Naphthalene		0.50	J	3.3	ug/Kg	8260C
N-Propylbenzene		0.27	J	3.3	ug/Kg	8260C
2-Methylnaphthalene		450	J	1800	ug/Kg	8270D
Acenaphthene		1200	J	1800	ug/Kg	8270D
Acenaphthylene		240	J	1800	ug/Kg	8270D
Anthracene		3800		1800	ug/Kg	8270D
Benzo[a]anthracene		7000		1800	ug/Kg	8270D
Benzo[a]pyrene		5800		1800	ug/Kg	8270D
Benzo[b]fluoranthene		7100		1800	ug/Kg	8270D
Benzo[g,h,i]perylene		3800		1800	ug/Kg	8270D
Carbazole		2000		1800	ug/Kg	8270D
Chrysene		7800		1800	ug/Kg	8270D
Dibenzofuran		840	J	1800	ug/Kg	8270D
Fluoranthene		18000		1800	ug/Kg	8270D
Fluorene		1500	J	1800	ug/Kg	8270D
Indeno[1,2,3-cd]pyrene		3300		1800	ug/Kg	8270D
Naphthalene		560	J	1800	ug/Kg	8270D
Phenanthrene		15000		1800	ug/Kg	8270D
Pyrene		14000		1800	ug/Kg	8270D
Percent Moisture		8.4		0.1	%	Moisture
Percent Solids		91.6		0.1	%	Moisture

EXECUTIVE SUMMARY - Detections

Client: Stantec Consulting Services Inc Job Number: 480-100656-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
480-100656-5	**VO-B1-S**					
1,2,4-Trimethylbenzene		1800		48	ug/Kg	8260C
Cyclohexane		3400		48	ug/Kg	8260C
Isopropylbenzene		740		48	ug/Kg	8260C
Methylcyclohexane		35000		390	ug/Kg	8260C
Naphthalene		950		48	ug/Kg	8260C
n-Butylbenzene		170		48	ug/Kg	8260C
N-Propylbenzene		920		48	ug/Kg	8260C
o-Xylene		48		48	ug/Kg	8260C
sec-Butylbenzene		490		48	ug/Kg	8260C
Toluene		26	J	48	ug/Kg	8260C
Xylenes, Total		48	J	96	ug/Kg	8260C
tert-Butylbenzene		160		48	ug/Kg	8260C
Biphenyl		380	J	980	ug/Kg	8270D
2-Methylnaphthalene		1300		980	ug/Kg	8270D
Acenaphthylene		170	J	980	ug/Kg	8270D
Benzo[a]anthracene		510	J	980	ug/Kg	8270D
Benzo[a]pyrene		190	J	980	ug/Kg	8270D
Chrysene		930	J	980	ug/Kg	8270D
Dibenzofuran		130	J	980	ug/Kg	8270D
Fluoranthene		540	J	980	ug/Kg	8270D
Fluorene		380	J	980	ug/Kg	8270D
Naphthalene		540	J	980	ug/Kg	8270D
Phenanthrene		1500		980	ug/Kg	8270D
Pyrene		780	J	980	ug/Kg	8270D
Aluminum		4540	B	12.0	mg/Kg	6010C
Arsenic		1.5	J	2.4	mg/Kg	6010C
Barium		21.6		0.60	mg/Kg	6010C
Beryllium		0.18	J	0.24	mg/Kg	6010C
Cadmium		0.094	J	0.24	mg/Kg	6010C
Calcium		35500	B	60.1	mg/Kg	6010C
Chromium		7.8		0.60	mg/Kg	6010C
Cobalt		3.3		0.60	mg/Kg	6010C
Copper		7.3		1.2	mg/Kg	6010C
Iron		8680	B	12.0	mg/Kg	6010C
Lead		5.3		1.2	mg/Kg	6010C
Magnesium		10900	B	24.1	mg/Kg	6010C
Manganese		298	B	0.24	mg/Kg	6010C
Nickel		7.4		6.0	mg/Kg	6010C
Potassium		1390		36.1	mg/Kg	6010C
Sodium		234		168	mg/Kg	6010C
Vanadium		13.2		0.60	mg/Kg	6010C
Zinc		25.5		2.4	mg/Kg	6010C
Cyanide, Total		1.5		1.1	mg/Kg	9012B
Percent Moisture		13.1		0.1	%	Moisture
Percent Solids		86.9		0.1	%	Moisture

EXECUTIVE SUMMARY - Detections

Client: Stantec Consulting Services Inc Job Number: 480-100656-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
480-100656-6	**VO-B2-S**					
Cyclohexane		72	J	120	ug/Kg	8260C
Methylcyclohexane		180		120	ug/Kg	8260C
Naphthalene		50	J	120	ug/Kg	8260C
Benzo[a]anthracene		450	J	1200	ug/Kg	8270D
Chrysene		930	J	1200	ug/Kg	8270D
Fluoranthene		340	J	1200	ug/Kg	8270D
Fluorene		160	J	1200	ug/Kg	8270D
Pyrene		720	J	1200	ug/Kg	8270D
Percent Moisture		31.1		0.1	%	Moisture
Percent Solids		68.9		0.1	%	Moisture
480-100656-7	**VO-B3-S**					
1,2,4-Trimethylbenzene		3.9	*	3.9	ug/Kg	8260C
2-Butanone (MEK)		8.7	J	20	ug/Kg	8260C
Acetone		64	B	20	ug/Kg	8260C
Benzene		1.8	J	3.9	ug/Kg	8260C
Cyclohexane		39		3.9	ug/Kg	8260C
Methylcyclohexane		88		3.9	ug/Kg	8260C
Methylene Chloride		1.9	J	3.9	ug/Kg	8260C
Toluene		1.5	J	3.9	ug/Kg	8260C
tert-Butylbenzene		18	*	3.9	ug/Kg	8260C
Chrysene		210	J	900	ug/Kg	8270D
Fluoranthene		98	J	900	ug/Kg	8270D
Pyrene		130	J	900	ug/Kg	8270D
Percent Moisture		6.7		0.1	%	Moisture
Percent Solids		93.3		0.1	%	Moisture

METHOD SUMMARY

Client: Stantec Consulting Services Inc | Job Number: 480-100656-1

Description	Lab Location	Method	Preparation Method
Matrix: Solid			
Volatile Organic Compounds by GC/MS	TAL BUF	SW846 8260C	
Closed System Purge & Trap	TAL BUF		SW846 5035A
Volatile Organic Compounds by GC/MS	TAL BUF	SW846 8260C	
Closed System Purge and Trap	TAL BUF		SW846 5035A
Semivolatile Organic Compounds (GC/MS)	TAL BUF	SW846 8270D	
Ultrasonic Extraction	TAL BUF		SW846 3550C
Organochlorine Pesticides (GC)	TAL BUF	SW846 8081B	
Ultrasonic Extraction	TAL BUF		SW846 3550C
Polychlorinated Biphenyls (PCBs) by Gas Chromatography	TAL BUF	SW846 8082A	
Ultrasonic Extraction	TAL BUF		SW846 3550C
Metals (ICP)	TAL BUF	SW846 6010C	
Preparation, Metals	TAL BUF		SW846 3050B
Mercury (CVAA)	TAL BUF	SW846 7471B	
Preparation, Mercury	TAL BUF		SW846 7471B
Cyanide, Total andor Amenable	TAL BUF	SW846 9012B	
Cyanide, Total and/or Amenable, Distillation	TAL BUF		SW846 9012B
Percent Moisture	TAL BUF	EPA Moisture	
Cyanide, Amenable	TAL BUF	SM SM 4500 CN G	

Lab References:

TAL BUF = TestAmerica Buffalo

Method References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: Stantec Consulting Services Inc

Job Number: 480-100656-1

Method	Analyst	Analyst ID
SW846 8260C	Cwiklinski, Charles D	CDC
SW846 8260C	Gentile, Joseph W	JWG
SW846 8260C	O'Brien, Shaun W	SWO
SW846 8270D	Vennard, Courtney A	CAV
SW846 8270D	Wolf, Leah M	LMW
SW846 8081B	Neary, Mary A	MAN
SW846 8082A	Sobol, Kevin	KS
SW846 6010C	Hanks, Lisa M	LMH
SW846 7471B	Kacalski, Jason R	JRK
SW846 9012B	Ferguson, Katelyn M	KMF
EPA Moisture	Kolb, Chris M	CMK
SM SM 4500 CN G	Ferguson, Katelyn M	KMF

SAMPLE SUMMARY

Client: Stantec Consulting Services Inc

Job Number: 480-100656-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
480-100656-1	VO-B4-S	Solid	05/24/2016 0900	05/25/2016 0900
480-100656-2	VO-B5-S	Solid	05/24/2016 1015	05/25/2016 0900
480-100656-3	VO-B6-S	Solid	05/24/2016 1115	05/25/2016 0900
480-100656-4	VO-B7-S	Solid	05/24/2016 1150	05/25/2016 0900
480-100656-5	VO-B1-S	Solid	05/24/2016 1530	05/25/2016 0900
480-100656-6	VO-B2-S	Solid	05/24/2016 1445	05/25/2016 0900
480-100656-7	VO-B3-S	Solid	05/24/2016 1400	05/25/2016 0900

SAMPLE RESULTS

Client: Stantec Consulting Services Inc | Job Number: 480-100656-1

Client Sample ID: **VO-B4-S**

Lab Sample ID: 480-100656-1 | Date Sampled: 05/24/2016 0900
Client Matrix: Solid | % Moisture: 16.7 | Date Received: 05/25/2016 0900

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-303910	Instrument ID:	HP5973F
Prep Method:	5035A	Prep Batch:	480-303913	Lab File ID:	F6714.D
Dilution:	1.0			Initial Weight/Volume:	7.571 g
Analysis Date:	05/26/2016 2157			Final Weight/Volume:	5 mL
Prep Date:	05/25/2016 1500				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1,1-Trichloroethane		ND		0.29	4.0
1,1,2,2-Tetrachloroethane		ND		0.64	4.0
1,1,2-Trichloro-1,2,2-trifluoroethane		ND		0.90	4.0
1,1,2-Trichloroethane		ND		0.52	4.0
1,1-Dichloroethane		ND		0.48	4.0
1,1-Dichloroethene		ND		0.49	4.0
1,2,4-Trichlorobenzene		ND		0.24	4.0
1,2,4-Trimethylbenzene		ND		0.76	4.0
1,2-Dibromo-3-Chloropropane		ND		2.0	4.0
1,2-Dichlorobenzene		ND		0.31	4.0
1,2-Dichloroethane		ND		0.20	4.0
1,2-Dichloropropane		ND		2.0	4.0
1,3,5-Trimethylbenzene		ND		0.26	4.0
1,3-Dichlorobenzene		ND		0.20	4.0
1,4-Dichlorobenzene		ND		0.55	4.0
2-Butanone (MEK)		7.6	J	1.5	20
2-Hexanone		ND		2.0	20
4-Isopropyltoluene		ND		0.32	4.0
4-Methyl-2-pentanone (MIBK)		ND		1.3	20
Acetone		31	B	3.3	20
Benzene		0.89	J	0.19	4.0
Bromoform		ND		2.0	4.0
Bromomethane		ND		0.36	4.0
Carbon disulfide		ND		2.0	4.0
Carbon tetrachloride		ND		0.38	4.0
Chlorobenzene		ND		0.52	4.0
Dibromochloromethane		ND		0.51	4.0
Chloroethane		ND		0.90	4.0
Chloroform		ND		0.24	4.0
Chloromethane		ND		0.24	4.0
cis-1,2-Dichloroethene		ND		0.51	4.0
Cyclohexane		0.96	J	0.55	4.0
Bromodichloromethane		ND		0.53	4.0
Dichlorodifluoromethane		ND		0.33	4.0
Ethylbenzene		ND		0.27	4.0
1,2-Dibromoethane		ND		0.51	4.0
Isopropylbenzene		ND		0.60	4.0
Methyl acetate		ND		2.4	4.0
Methyl tert-butyl ether		ND		0.39	4.0
Methylcyclohexane		2.6	J	0.60	4.0
Methylene Chloride		ND		1.8	4.0
m,p-Xylene		0.74	J	0.67	7.9
n-Butylbenzene		ND		0.34	4.0
N-Propylbenzene		0.33	J	0.32	4.0
o-Xylene		1.4	J	0.52	4.0
sec-Butylbenzene		ND		0.34	4.0

Client: Stantec Consulting Services Inc | Job Number: 480-100656-1

Client Sample ID: VO-B4-S

Lab Sample ID: 480-100656-1 | Date Sampled: 05/24/2016 0900
Client Matrix: Solid | % Moisture: 16.7 | Date Received: 05/25/2016 0900

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-303910	Instrument ID:	HP5973F
Prep Method:	5035A	Prep Batch:	480-303913	Lab File ID:	F6714.D
Dilution:	1.0			Initial Weight/Volume:	7.571 g
Analysis Date:	05/26/2016 2157			Final Weight/Volume:	5 mL
Prep Date:	05/25/2016 1500				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Tetrachloroethene		ND		0.53	4.0
Toluene		0.36	J	0.30	4.0
trans-1,2-Dichloroethene		ND		0.41	4.0
trans-1,3-Dichloropropene		ND		1.7	4.0
Trichloroethene		ND		0.87	4.0
Trichlorofluoromethane		ND		0.37	4.0
Vinyl chloride		ND		0.48	4.0
Xylenes, Total		2.1	J	0.67	7.9
cis-1,3-Dichloropropene		ND		0.57	4.0
Styrene		ND		0.20	4.0
tert-Butylbenzene		ND		0.41	4.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	100		64 - 126
4-Bromofluorobenzene (Surr)	105		72 - 126
Toluene-d8 (Surr)	94		71 - 125
Dibromofluoromethane (Surr)	101		60 - 140

Client: Stantec Consulting Services Inc | Job Number: 480-100656-1

Client Sample ID: **VO-B4-S**

Lab Sample ID: 480-100656-1 | Date Sampled: 05/24/2016 0900
Client Matrix: Solid | % Moisture: 16.7 | Date Received: 05/25/2016 0900

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-303910	Instrument ID:	HP5973F
Prep Method:	5035A	Prep Batch:	480-303913	Lab File ID:	F6714.D
Dilution:	1.0			Initial Weight/Volume:	7.571 g
Analysis Date:	05/26/2016 2157			Final Weight/Volume:	5 mL
Prep Date:	05/25/2016 1500				

Tentatively Identified Compounds **Number TIC's Found: 10**

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
124-18-5	Decane	9.62	7.7	T J N
109-09-1	Pyridine, 2-chloro-	9.85	28	T J N
496-11-7	Indane	10.68	14	T J N
	Unknown	11.76	14	T J
	Unknown	12.07	9.1	T J
	Unknown	12.23	7.3	T J
	Unknown	12.62	7.5	T J
3891-98-3	Dodecane, 2,6,10-trimethyl-	13.11	7.2	T J N
91-57-6	Naphthalene, 2-methyl-	13.38	52	T J N
4453-90-1	1,4-Methanonaphthalene, 1,4-dihydro-	13.59	34	T J N

Client: Stantec Consulting Services Inc | Job Number: 480-100656-1

Client Sample ID: **VO-B4-S**

Lab Sample ID: 480-100656-1 | Date Sampled: 05/24/2016 0900
Client Matrix: Solid | % Moisture: 16.7 | Date Received: 05/25/2016 0900

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-304122	Instrument ID:	HP5973N
Prep Method:	5035A	Prep Batch:	480-304148	Lab File ID:	N3954.D
Dilution:	1.0			Initial Weight/Volume:	4.038 g
Analysis Date:	05/28/2016 0038	Run Type:	DL	Final Weight/Volume:	5 mL
Prep Date:	05/27/2016 1939				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Naphthalene		8000		28	84

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	100		53 - 146
4-Bromofluorobenzene (Surr)	113		49 - 148
Toluene-d8 (Surr)	100		50 - 149
Dibromofluoromethane (Surr)	101		60 - 140

Client: Stantec Consulting Services Inc | Job Number: 480-100656-1

Client Sample ID: **VO-B4-S**

Lab Sample ID: 480-100656-1 | Date Sampled: 05/24/2016 0900
Client Matrix: Solid | % Moisture: 16.7 | Date Received: 05/25/2016 0900

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-304122	Instrument ID:	HP5973N
Prep Method:	5035A	Prep Batch:	480-304148	Lab File ID:	N3954.D
Dilution:	1.0			Initial Weight/Volume:	4.038 g
Analysis Date:	05/28/2016 0038	Run Type:	DL	Final Weight/Volume:	5 mL
Prep Date:	05/27/2016 1939				

Tentatively Identified Compounds **Number TIC's Found: 7**

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
109-09-1	Pyridine, 2-chloro-	10.32	250	T J N
	Unknown	11.18	290	T J
	Unknown	12.37	230	T J
91-57-6	Naphthalene, 2-methyl-	13.84	1900	T J N
90-12-0	Naphthalene, 1-methyl-	13.99	1200	T J N
	Unknown	14.57	260	T J
575-43-9	Naphthalene, 1,6-dimethyl-	14.67	220	T J N

Client: Stantec Consulting Services Inc | Job Number: 480-100656-1

Client Sample ID: **VO-B5-S**

Lab Sample ID: 480-100656-2 | Date Sampled: 05/24/2016 1015
Client Matrix: Solid | % Moisture: 18.5 | Date Received: 05/25/2016 0900

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-303905	Instrument ID:	HP5973N
Prep Method:	5035A	Prep Batch:	480-303931	Lab File ID:	N3905.D
Dilution:	1.0			Initial Weight/Volume:	6.072 g
Analysis Date:	05/27/2016 0537			Final Weight/Volume:	5 mL
Prep Date:	05/26/2016 2103				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1,1-Trichloroethane		ND		17	62
1,1,2,2-Tetrachloroethane		ND		10	62
1,1,2-Trichloro-1,2,2-trifluoroethane		ND		31	62
1,1,2-Trichloroethane		ND		13	62
1,1-Dichloroethane		ND		19	62
1,1-Dichloroethene		ND		21	62
1,2,4-Trichlorobenzene		ND		23	62
1,2,4-Trimethylbenzene		24	J	17	62
1,2-Dibromo-3-Chloropropane		ND		31	62
1,2-Dichlorobenzene		ND		16	62
1,2-Dichloroethane		ND		25	62
1,2-Dichloropropane		ND		10	62
1,3,5-Trimethylbenzene		ND		19	62
1,3-Dichlorobenzene		ND		17	62
1,4-Dichlorobenzene		ND		8.7	62
2-Butanone (MEK)		ND		180	310
2-Hexanone		ND		130	310
4-Isopropyltoluene		ND		21	62
4-Methyl-2-pentanone (MIBK)		ND		20	310
Acetone		ND		250	310
Benzene		ND		12	62
Bromoform		ND		31	62
Bromomethane		ND		14	62
Carbon disulfide		ND		28	62
Carbon tetrachloride		ND		16	62
Chlorobenzene		ND		8.2	62
Dibromochloromethane		ND		30	62
Chloroethane		ND		13	62
Chloroform		ND		42	62
Chloromethane		ND		15	62
cis-1,2-Dichloroethene		ND		17	62
Cyclohexane		ND		14	62
Bromodichloromethane		ND		12	62
Dichlorodifluoromethane		ND		27	62
Ethylbenzene		ND		18	62
1,2-Dibromoethane		ND		11	62
Isopropylbenzene		ND		9.3	62
Methyl acetate		61	J	29	62
Methyl tert-butyl ether		ND		23	62
Methylcyclohexane		30	J	29	62
Methylene Chloride		ND		12	62
m,p-Xylene		ND		34	120
Naphthalene		91		21	62
n-Butylbenzene		ND		18	62
N-Propylbenzene		ND		16	62
o-Xylene		ND		8.0	62

Client: Stantec Consulting Services Inc | Job Number: 480-100656-1

Client Sample ID: **VO-B5-S**

Lab Sample ID: 480-100656-2 | Date Sampled: 05/24/2016 1015
Client Matrix: Solid | % Moisture: 18.5 | Date Received: 05/25/2016 0900

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-303905	Instrument ID:	HP5973N
Prep Method:	5035A	Prep Batch:	480-303931	Lab File ID:	N3905.D
Dilution:	1.0			Initial Weight/Volume:	6.072 g
Analysis Date:	05/27/2016 0537			Final Weight/Volume:	5 mL
Prep Date:	05/26/2016 2103				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
sec-Butylbenzene		ND		23	62
Tetrachloroethene		ND		8.3	62
Toluene		ND		17	62
trans-1,2-Dichloroethene		ND		15	62
trans-1,3-Dichloropropene		ND		6.1	62
Trichloroethene		ND		17	62
Trichlorofluoromethane		ND		29	62
Vinyl chloride		ND		21	62
Xylenes, Total		ND		34	120
cis-1,3-Dichloropropene		ND		15	62
Styrene		ND		15	62
tert-Butylbenzene		ND		17	62

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	97		53 - 146
4-Bromofluorobenzene (Surr)	110		49 - 148
Toluene-d8 (Surr)	96		50 - 149
Dibromofluoromethane (Surr)	98		60 - 140

Client: Stantec Consulting Services Inc | Job Number: 480-100656-1

Client Sample ID: **VO-B5-S**

Lab Sample ID: 480-100656-2 | Date Sampled: 05/24/2016 1015
Client Matrix: Solid | % Moisture: 18.5 | Date Received: 05/25/2016 0900

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-303905	Instrument ID:	HP5973N
Prep Method:	5035A	Prep Batch:	480-303931	Lab File ID:	N3905.D
Dilution:	1.0			Initial Weight/Volume:	6.072 g
Analysis Date:	05/27/2016 0537			Final Weight/Volume:	5 mL
Prep Date:	05/26/2016 2103				

Tentatively Identified Compounds **Number TIC's Found: 1**

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
581-42-0	Naphthalene, 2,6-dimethyl-	14.80	210	T H J N

Client: Stantec Consulting Services Inc | Job Number: 480-100656-1

Client Sample ID: **VO-B6-S**

Lab Sample ID: 480-100656-3 | Date Sampled: 05/24/2016 1115
Client Matrix: Solid | % Moisture: 15.4 | Date Received: 05/25/2016 0900

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-303981	Instrument ID:	HP5973N
Prep Method:	5035A	Prep Batch:	480-303931	Lab File ID:	N3929.D
Dilution:	10			Initial Weight/Volume:	6.691 g
Analysis Date:	05/27/2016 1430			Final Weight/Volume:	5 mL
Prep Date:	05/26/2016 2103				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1,1-Trichloroethane		ND		150	530
1,1,2,2-Tetrachloroethane		ND		87	530
1,1,2-Trichloro-1,2,2-trifluoroethane		ND		270	530
1,1,2-Trichloroethane		ND		110	530
1,1-Dichloroethane		ND		160	530
1,1-Dichloroethene		ND		180	530
1,2,4-Trichlorobenzene		ND		200	530
1,2,4-Trimethylbenzene		11000		150	530
1,2-Dibromo-3-Chloropropane		ND		270	530
1,2-Dichlorobenzene		ND		140	530
1,2-Dichloroethane		ND		220	530
1,2-Dichloropropane		ND		86	530
1,3,5-Trimethylbenzene		6900		160	530
1,3-Dichlorobenzene		ND		140	530
1,4-Dichlorobenzene		ND		75	530
2-Butanone (MEK)		ND		1600	2700
2-Hexanone		ND		1100	2700
4-Isopropyltoluene		380	J	180	530
4-Methyl-2-pentanone (MIBK)		ND		170	2700
Acetone		ND		2200	2700
Benzene		ND		100	530
Bromoform		ND		270	530
Bromomethane		ND		120	530
Carbon disulfide		ND		240	530
Carbon tetrachloride		ND		140	530
Chlorobenzene		ND		70	530
Dibromochloromethane		ND		260	530
Chloroethane		ND		110	530
Chloroform		ND		370	530
Chloromethane		ND		130	530
cis-1,2-Dichloroethene		ND		150	530
Cyclohexane		1800		120	530
Bromodichloromethane		ND		110	530
Dichlorodifluoromethane		ND		230	530
Ethylbenzene		1100		160	530
1,2-Dibromoethane		ND		93	530
Isopropylbenzene		1300		80	530
Methyl acetate		ND		250	530
Methyl tert-butyl ether		ND		200	530
Methylcyclohexane		14000		250	530
Methylene Chloride		ND		110	530
m,p-Xylene		14000		300	1100
Naphthalene		980		180	530
n-Butylbenzene		510	J	160	530
N-Propylbenzene		1600		140	530
o-Xylene		4200		69	530

Client: Stantec Consulting Services Inc | Job Number: 480-100656-1

Client Sample ID: **VO-B6-S**

Lab Sample ID: 480-100656-3 | Date Sampled: 05/24/2016 1115
Client Matrix: Solid | % Moisture: 15.4 | Date Received: 05/25/2016 0900

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-303981	Instrument ID:	HP5973N
Prep Method:	5035A	Prep Batch:	480-303931	Lab File ID:	N3929.D
Dilution:	10			Initial Weight/Volume:	6.691 g
Analysis Date:	05/27/2016 1430			Final Weight/Volume:	5 mL
Prep Date:	05/26/2016 2103				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
sec-Butylbenzene		ND		200	530
Tetrachloroethene		ND		72	530
Toluene		510	J	140	530
trans-1,2-Dichloroethene		ND		130	530
trans-1,3-Dichloropropene		ND		52	530
Trichloroethene		ND		150	530
Trichlorofluoromethane		ND		250	530
Vinyl chloride		ND		180	530
Xylenes, Total		18000		300	1100
cis-1,3-Dichloropropene		ND		130	530
Styrene		ND		130	530
tert-Butylbenzene		ND		150	530

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	97		53 - 146
4-Bromofluorobenzene (Surr)	114		49 - 148
Toluene-d8 (Surr)	100		50 - 149
Dibromofluoromethane (Surr)	99		60 - 140

Client: Stantec Consulting Services Inc Job Number: 480-100656-1

Client Sample ID: VO-B6-S

Lab Sample ID: 480-100656-3 Date Sampled: 05/24/2016 1115
Client Matrix: Solid % Moisture: 15.4 Date Received: 05/25/2016 0900

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-303981	Instrument ID:	HP5973N
Prep Method:	5035A	Prep Batch:	480-303931	Lab File ID:	N3929.D
Dilution:	10			Initial Weight/Volume:	6.691 g
Analysis Date:	05/27/2016 1430			Final Weight/Volume:	5 mL
Prep Date:	05/26/2016 2103				

Tentatively Identified Compounds **Number TIC's Found: 10**

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
638-04-0	Cyclohexane, 1,3-dimethyl-, cis-	6.99	12000	T H J N
624-29-3	Cyclohexane, 1,4-dimethyl-, cis-	7.36	4600	T H J N
589-90-2	Cyclohexane, 1,4-dimethyl-	7.48	4000	T H J N
	Unknown	7.82	3500	T H J
	Unknown	7.90	3900	T H J
1678-91-7	Cyclohexane, ethyl-	7.96	7600	T H J N
3073-66-3	Cyclohexane, 1,1,3-trimethyl-	8.00	4200	T H J N
	Unknown	8.24	5500	T H J
1678-92-8	Cyclohexane, propyl-	9.46	5600	T H J N
611-14-3	Benzene, 1-ethyl-2-methyl-	10.13	9900	T H J N

Client: Stantec Consulting Services Inc | Job Number: 480-100656-1

Client Sample ID: **VO-B7-S**

Lab Sample ID: 480-100656-4 | Date Sampled: 05/24/2016 1150
Client Matrix: Solid | % Moisture: 8.4 | Date Received: 05/25/2016 0900

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-304224	Instrument ID:	HP5973F
Prep Method:	5035A	Prep Batch:	480-304227	Lab File ID:	F6737.D
Dilution:	1.0			Initial Weight/Volume:	8.246 g
Analysis Date:	05/29/2016 1700			Final Weight/Volume:	5 mL
Prep Date:	05/25/2016 1500				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1,1-Trichloroethane		ND		0.24	3.3
1,1,2,2-Tetrachloroethane		ND		0.54	3.3
1,1,2-Trichloro-1,2,2-trifluoroethane		ND		0.76	3.3
1,1,2-Trichloroethane		ND		0.43	3.3
1,1-Dichloroethane		ND		0.40	3.3
1,1-Dichloroethene		ND		0.41	3.3
1,2,4-Trichlorobenzene		ND		0.20	3.3
1,2,4-Trimethylbenzene		ND		0.64	3.3
1,2-Dibromo-3-Chloropropane		ND		1.7	3.3
1,2-Dichlorobenzene		ND		0.26	3.3
1,2-Dichloroethane		ND		0.17	3.3
1,2-Dichloropropane		ND		1.7	3.3
1,3,5-Trimethylbenzene		0.37	J	0.21	3.3
1,3-Dichlorobenzene		ND		0.17	3.3
1,4-Dichlorobenzene		ND		0.46	3.3
2-Butanone (MEK)		ND		1.2	17
2-Hexanone		ND		1.7	17
4-Isopropyltoluene		0.27	J	0.27	3.3
4-Methyl-2-pentanone (MIBK)		ND		1.1	17
Acetone		29	B	2.8	17
Benzene		ND		0.16	3.3
Bromoform		ND		1.7	3.3
Bromomethane		ND		0.30	3.3
Carbon disulfide		ND		1.7	3.3
Carbon tetrachloride		ND		0.32	3.3
Chlorobenzene		ND		0.44	3.3
Dibromochloromethane		ND		0.42	3.3
Chloroethane		ND		0.75	3.3
Chloroform		ND		0.20	3.3
Chloromethane		ND		0.20	3.3
cis-1,2-Dichloroethene		ND		0.42	3.3
Cyclohexane		ND		0.46	3.3
Bromodichloromethane		ND		0.44	3.3
Dichlorodifluoromethane		ND		0.27	3.3
Ethylbenzene		ND		0.23	3.3
1,2-Dibromoethane		ND		0.43	3.3
Isopropylbenzene		ND		0.50	3.3
Methyl acetate		ND		2.0	3.3
Methyl tert-butyl ether		ND		0.33	3.3
Methylcyclohexane		1.7	J	0.50	3.3
Methylene Chloride		ND		1.5	3.3
m,p-Xylene		ND		0.56	6.6
Naphthalene		0.50	J	0.44	3.3
n-Butylbenzene		ND		0.29	3.3
N-Propylbenzene		0.27	J	0.26	3.3
o-Xylene		ND		0.43	3.3

Client: Stantec Consulting Services Inc | Job Number: 480-100656-1

Client Sample ID: **VO-B7-S**

Lab Sample ID: 480-100656-4 | Date Sampled: 05/24/2016 1150
Client Matrix: Solid | % Moisture: 8.4 | Date Received: 05/25/2016 0900

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-304224	Instrument ID:	HP5973F
Prep Method:	5035A	Prep Batch:	480-304227	Lab File ID:	F6737.D
Dilution:	1.0			Initial Weight/Volume:	8.246 g
Analysis Date:	05/29/2016 1700			Final Weight/Volume:	5 mL
Prep Date:	05/25/2016 1500				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
sec-Butylbenzene		ND		0.29	3.3
Tetrachloroethene		ND		0.44	3.3
Toluene		ND		0.25	3.3
trans-1,2-Dichloroethene		ND		0.34	3.3
trans-1,3-Dichloropropene		ND		1.5	3.3
Trichloroethene		ND		0.73	3.3
Trichlorofluoromethane		ND		0.31	3.3
Vinyl chloride		ND		0.40	3.3
Xylenes, Total		ND		0.56	6.6
cis-1,3-Dichloropropene		ND		0.48	3.3
Styrene		ND		0.17	3.3
tert-Butylbenzene		ND		0.34	3.3

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	90		64 - 126
4-Bromofluorobenzene (Surr)	111		72 - 126
Toluene-d8 (Surr)	86		71 - 125
Dibromofluoromethane (Surr)	93		60 - 140

Client: Stantec Consulting Services Inc | Job Number: 480-100656-1

Client Sample ID: **VO-B7-S**

Lab Sample ID: 480-100656-4 | Date Sampled: 05/24/2016 1150
Client Matrix: Solid | % Moisture: 8.4 | Date Received: 05/25/2016 0900

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-304224	Instrument ID:	HP5973F
Prep Method:	5035A	Prep Batch:	480-304227	Lab File ID:	F6737.D
Dilution:	1.0			Initial Weight/Volume:	8.246 g
Analysis Date:	05/29/2016 1700			Final Weight/Volume:	5 mL
Prep Date:	05/25/2016 1500				

Tentatively Identified Compounds **Number TIC's Found: 10**

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
2207-03-6	Cyclohexane, 1,3-dimethyl-, trans-	6.57	7.5	T J N
6876-23-9	Cyclohexane, 1,2-dimethyl-, trans-	6.92	8.7	T J N
	Unknown	7.01	12	T J
	Unknown	7.15	9.0	T J
	Unknown	7.27	13	T J
3073-66-3	Cyclohexane, 1,1,3-trimethyl-	7.51	13	T J N
	Unknown	7.74	12	T J
	Unknown	8.60	21	T J
	Unknown	8.73	14	T J
	Unknown	8.89	8.2	T J

Client: Stantec Consulting Services Inc | Job Number: 480-100656-1

Client Sample ID: **VO-B1-S**

Lab Sample ID: 480-100656-5 | Date Sampled: 05/24/2016 1530
Client Matrix: Solid | % Moisture: 13.1 | Date Received: 05/25/2016 0900

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-303905	Instrument ID:	HP5973N
Prep Method:	5035A	Prep Batch:	480-303931	Lab File ID:	N3907.D
Dilution:	1.0			Initial Weight/Volume:	7.072 g
Analysis Date:	05/27/2016 0630			Final Weight/Volume:	5 mL
Prep Date:	05/26/2016 2103				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1,1-Trichloroethane		ND		13	48
1,1,2,2-Tetrachloroethane		ND		7.8	48
1,1,2-Trichloro-1,2,2-trifluoroethane		ND		24	48
1,1,2-Trichloroethane		ND		10	48
1,1-Dichloroethane		ND		15	48
1,1-Dichloroethene		ND		17	48
1,2,4-Trichlorobenzene		ND		18	48
1,2,4-Trimethylbenzene		1800		13	48
1,2-Dibromo-3-Chloropropane		ND		24	48
1,2-Dichlorobenzene		ND		12	48
1,2-Dichloroethane		ND		20	48
1,2-Dichloropropane		ND		7.8	48
1,3,5-Trimethylbenzene		ND		15	48
1,3-Dichlorobenzene		ND		13	48
1,4-Dichlorobenzene		ND		6.8	48
2-Butanone (MEK)		ND		140	240
2-Hexanone		ND		99	240
4-Isopropyltoluene		ND		16	48
4-Methyl-2-pentanone (MIBK)		ND		15	240
Acetone		ND		200	240
Benzene		ND		9.2	48
Bromoform		ND		24	48
Bromomethane		ND		11	48
Carbon disulfide		ND		22	48
Carbon tetrachloride		ND		12	48
Chlorobenzene		ND		6.4	48
Dibromochloromethane		ND		23	48
Chloroethane		ND		10	48
Chloroform		ND		33	48
Chloromethane		ND		11	48
cis-1,2-Dichloroethene		ND		13	48
Cyclohexane		3400		11	48
Bromodichloromethane		ND		9.6	48
Dichlorodifluoromethane		ND		21	48
Ethylbenzene		ND		14	48
1,2-Dibromoethane		ND		8.4	48
Isopropylbenzene		740		7.2	48
Methyl acetate		ND		23	48
Methyl tert-butyl ether		ND		18	48
Methylene Chloride		ND		9.6	48
m,p-Xylene		ND		27	96
Naphthalene		950		16	48
n-Butylbenzene		170		14	48
N-Propylbenzene		920		13	48
o-Xylene		48		6.3	48
sec-Butylbenzene		490		18	48

Client: Stantec Consulting Services Inc | Job Number: 480-100656-1

Client Sample ID: **VO-B1-S**

Lab Sample ID: 480-100656-5 | Date Sampled: 05/24/2016 1530
Client Matrix: Solid | % Moisture: 13.1 | Date Received: 05/25/2016 0900

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-303905	Instrument ID:	HP5973N
Prep Method:	5035A	Prep Batch:	480-303931	Lab File ID:	N3907.D
Dilution:	1.0			Initial Weight/Volume:	7.072 g
Analysis Date:	05/27/2016 0630			Final Weight/Volume:	5 mL
Prep Date:	05/26/2016 2103				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Tetrachloroethene		ND		6.5	48
Toluene		26	J	13	48
trans-1,2-Dichloroethene		ND		11	48
trans-1,3-Dichloropropene		ND		4.7	48
Trichloroethene		ND		13	48
Trichlorofluoromethane		ND		23	48
Vinyl chloride		ND		16	48
Xylenes, Total		48	J	27	96
cis-1,3-Dichloropropene		ND		12	48
Styrene		ND		12	48
tert-Butylbenzene		160		13	48

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	102		53 - 146
4-Bromofluorobenzene (Surr)	109		49 - 148
Toluene-d8 (Surr)	99		50 - 149
Dibromofluoromethane (Surr)	96		60 - 140

Client: Stantec Consulting Services Inc | Job Number: 480-100656-1

Client Sample ID: **VO-B1-S**

Lab Sample ID: 480-100656-5 | Date Sampled: 05/24/2016 1530
Client Matrix: Solid | % Moisture: 13.1 | Date Received: 05/25/2016 0900

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-303905	Instrument ID:	HP5973N
Prep Method:	5035A	Prep Batch:	480-303931	Lab File ID:	N3907.D
Dilution:	1.0			Initial Weight/Volume:	7.072 g
Analysis Date:	05/27/2016 0630			Final Weight/Volume:	5 mL
Prep Date:	05/26/2016 2103				

Tentatively Identified Compounds **Number TIC's Found: 10**

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
589-43-5	Hexane, 2,4-dimethyl-	6.10	3300	T H J N
2815-58-9	Cyclopentane, 1,2,4-trimethyl-	6.29	4300	T H J N
638-04-0	Cyclohexane, 1,3-dimethyl-, cis-	7.00	18000	T H J N
6876-23-9	Cyclohexane, 1,2-dimethyl-, trans-	7.36	5800	T H J N
2207-03-6	Cyclohexane, 1,3-dimethyl-, trans-	7.48	4000	T H J N
2216-30-0	Heptane, 2,5-dimethyl-	7.82	3300	T H J N
	Unknown	8.24	4000	T H J
3728-54-9	Cyclohexane, 1-ethyl-2-methyl-	8.80	4600	T H J N
	Unknown	9.46	4800	T H J
488-23-3	Benzene, 1,2,3,4-tetramethyl-	12.00	3500	T H J N

Client: Stantec Consulting Services Inc | Job Number: 480-100656-1

Client Sample ID: **VO-B1-S**

Lab Sample ID: 480-100656-5 | Date Sampled: 05/24/2016 1530
Client Matrix: Solid | % Moisture: 13.1 | Date Received: 05/25/2016 0900

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-303981	Instrument ID:	HP5973N
Prep Method:	5035A	Prep Batch:	480-303931	Lab File ID:	N3930.D
Dilution:	8.0			Initial Weight/Volume:	7.072 g
Analysis Date:	05/27/2016 1457	Run Type:	DL	Final Weight/Volume:	5 mL
Prep Date:	05/26/2016 2103				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Methylcyclohexane		35000		180	390

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	101		53 - 146
4-Bromofluorobenzene (Surr)	118		49 - 148
Toluene-d8 (Surr)	100		50 - 149
Dibromofluoromethane (Surr)	104		60 - 140

Client: Stantec Consulting Services Inc | Job Number: 480-100656-1

Client Sample ID: **VO-B1-S**

Lab Sample ID: 480-100656-5 | Date Sampled: 05/24/2016 1530
Client Matrix: Solid | % Moisture: 13.1 | Date Received: 05/25/2016 0900

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-303981	Instrument ID:	HP5973N
Prep Method:	5035A	Prep Batch:	480-303931	Lab File ID:	N3930.D
Dilution:	8.0			Initial Weight/Volume:	7.072 g
Analysis Date:	05/27/2016 1457	Run Type:	DL	Final Weight/Volume:	5 mL
Prep Date:	05/26/2016 2103				

Tentatively Identified Compounds **Number TIC's Found: 10**

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
4850-28-6	Cyclopentane, 1,2,4-trimethyl-, (1.alpha	6.30	9700	T H J N
638-04-0	Cyclohexane, 1,3-dimethyl-, cis-	6.99	36000	T H J N
	Unknown	7.17	10000	T H J
6876-23-9	Cyclohexane, 1,2-dimethyl-, trans-	7.36	15000	T H J N
589-90-2	Cyclohexane, 1,4-dimethyl-	7.48	11000	T H J N
1678-91-7	Cyclohexane, ethyl-	7.96	8800	T H J N
3073-66-3	Cyclohexane, 1,1,3-trimethyl-	8.00	13000	T H J N
67078-75-5	2,2-Dimethyl-1-oxa-2-silacyclo-3,5-hexad	8.23	8600	T H J N
3728-56-1	1-Ethyl-4-methylcyclohexane	8.80	10000	T H J N
1678-92-8	Cyclohexane, propyl-	9.46	11000	T H J N

Client: Stantec Consulting Services Inc | Job Number: 480-100656-1

Client Sample ID: **VO-B2-S**

Lab Sample ID: 480-100656-6 | Date Sampled: 05/24/2016 1445
Client Matrix: Solid | % Moisture: 31.1 | Date Received: 05/25/2016 0900

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-303905	Instrument ID:	HP5973N
Prep Method:	5035A	Prep Batch:	480-303931	Lab File ID:	N3908.D
Dilution:	1.0			Initial Weight/Volume:	3.63 g
Analysis Date:	05/27/2016 0657			Final Weight/Volume:	5 mL
Prep Date:	05/26/2016 2103				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1,1-Trichloroethane		ND		34	120
1,1,2,2-Tetrachloroethane		ND		20	120
1,1,2-Trichloro-1,2,2-trifluoroethane		ND		61	120
1,1,2-Trichloroethane		ND		26	120
1,1-Dichloroethane		ND		38	120
1,1-Dichloroethene		ND		42	120
1,2,4-Trichlorobenzene		ND		46	120
1,2,4-Trimethylbenzene		ND		34	120
1,2-Dibromo-3-Chloropropane		ND		61	120
1,2-Dichlorobenzene		ND		31	120
1,2-Dichloroethane		ND		50	120
1,2-Dichloropropane		ND		20	120
1,3,5-Trimethylbenzene		ND		37	120
1,3-Dichlorobenzene		ND		33	120
1,4-Dichlorobenzene		ND		17	120
2-Butanone (MEK)		ND		360	610
2-Hexanone		ND		250	610
4-Isopropyltoluene		ND		41	120
4-Methyl-2-pentanone (MIBK)		ND		39	610
Acetone		ND		500	610
Benzene		ND		23	120
Bromoform		ND		61	120
Bromomethane		ND		27	120
Carbon disulfide		ND		56	120
Carbon tetrachloride		ND		31	120
Chlorobenzene		ND		16	120
Dibromochloromethane		ND		59	120
Chloroethane		ND		25	120
Chloroform		ND		84	120
Chloromethane		ND		29	120
cis-1,2-Dichloroethene		ND		34	120
Cyclohexane		72	J	27	120
Bromodichloromethane		ND		24	120
Dichlorodifluoromethane		ND		53	120
Ethylbenzene		ND		36	120
1,2-Dibromoethane		ND		21	120
Isopropylbenzene		ND		18	120
Methyl acetate		ND		58	120
Methyl tert-butyl ether		ND		46	120
Methylcyclohexane		180		57	120
Methylene Chloride		ND		24	120
m,p-Xylene		ND		68	240
Naphthalene		50	J	41	120
n-Butylbenzene		ND		36	120
N-Propylbenzene		ND		32	120
o-Xylene		ND		16	120

Client: Stantec Consulting Services Inc Job Number: 480-100656-1

Client Sample ID: VO-B2-S

Lab Sample ID: 480-100656-6 Date Sampled: 05/24/2016 1445
Client Matrix: Solid % Moisture: 31.1 Date Received: 05/25/2016 0900

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-303905	Instrument ID:	HP5973N
Prep Method:	5035A	Prep Batch:	480-303931	Lab File ID:	N3908.D
Dilution:	1.0			Initial Weight/Volume:	3.63 g
Analysis Date:	05/27/2016 0657			Final Weight/Volume:	5 mL
Prep Date:	05/26/2016 2103				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
sec-Butylbenzene		ND		45	120
Tetrachloroethene		ND		16	120
Toluene		ND		33	120
trans-1,2-Dichloroethene		ND		29	120
trans-1,3-Dichloropropene		ND		12	120
Trichloroethene		ND		34	120
Trichlorofluoromethane		ND		57	120
Vinyl chloride		ND		41	120
Xylenes, Total		ND		68	240
cis-1,3-Dichloropropene		ND		29	120
Styrene		ND		30	120
tert-Butylbenzene		ND		34	120

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	99		53 - 146
4-Bromofluorobenzene (Surr)	109		49 - 148
Toluene-d8 (Surr)	99		50 - 149
Dibromofluoromethane (Surr)	100		60 - 140

Client: Stantec Consulting Services Inc | Job Number: 480-100656-1

Client Sample ID: **VO-B2-S**

Lab Sample ID: 480-100656-6 | Date Sampled: 05/24/2016 1445
Client Matrix: Solid | % Moisture: 31.1 | Date Received: 05/25/2016 0900

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-303905	Instrument ID:	HP5973N
Prep Method:	5035A	Prep Batch:	480-303931	Lab File ID:	N3908.D
Dilution:	1.0			Initial Weight/Volume:	3.63 g
Analysis Date:	05/27/2016 0657			Final Weight/Volume:	5 mL
Prep Date:	05/26/2016 2103				

Tentatively Identified Compounds **Number TIC's Found: 5**

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
	Unknown	13.66	330	T H J
	Unknown	14.23	430	T H J
	Unknown	14.56	330	T H J
581-42-0	Naphthalene, 2,6-dimethyl-	14.66	760	T H J N
569-41-5	Naphthalene, 1,8-dimethyl-	14.80	1100	T H J N

Client: Stantec Consulting Services Inc | Job Number: 480-100656-1

Client Sample ID: **VO-B3-S**

Lab Sample ID: 480-100656-7 | Date Sampled: 05/24/2016 1400
Client Matrix: Solid | % Moisture: 6.7 | Date Received: 05/25/2016 0900

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-304224	Instrument ID:	HP5973F
Prep Method:	5035A	Prep Batch:	480-304227	Lab File ID:	F6738.D
Dilution:	1.0			Initial Weight/Volume:	6.871 g
Analysis Date:	05/29/2016 1725			Final Weight/Volume:	5 mL
Prep Date:	05/25/2016 1500				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1,1-Trichloroethane		ND		0.28	3.9
1,1,2,2-Tetrachloroethane		ND	*	0.63	3.9
1,1,2-Trichloro-1,2,2-trifluoroethane		ND		0.89	3.9
1,1,2-Trichloroethane		ND		0.51	3.9
1,1-Dichloroethane		ND		0.48	3.9
1,1-Dichloroethene		ND		0.48	3.9
1,2,4-Trichlorobenzene		ND	*	0.24	3.9
1,2,4-Trimethylbenzene		3.9	*	0.75	3.9
1,2-Dibromo-3-Chloropropane		ND	*	2.0	3.9
1,2-Dichlorobenzene		ND	*	0.31	3.9
1,2-Dichloroethane		ND		0.20	3.9
1,2-Dichloropropane		ND		2.0	3.9
1,3,5-Trimethylbenzene		ND	*	0.25	3.9
1,3-Dichlorobenzene		ND	*	0.20	3.9
1,4-Dichlorobenzene		ND	*	0.55	3.9
2-Butanone (MEK)		8.7	J	1.4	20
2-Hexanone		ND		2.0	20
4-Isopropyltoluene		ND	*	0.31	3.9
4-Methyl-2-pentanone (MIBK)		ND		1.3	20
Acetone		64	B	3.3	20
Benzene		1.8	J	0.19	3.9
Bromoform		ND		2.0	3.9
Bromomethane		ND		0.35	3.9
Carbon disulfide		ND		2.0	3.9
Carbon tetrachloride		ND		0.38	3.9
Chlorobenzene		ND		0.51	3.9
Dibromochloromethane		ND		0.50	3.9
Chloroethane		ND		0.88	3.9
Chloroform		ND		0.24	3.9
Chloromethane		ND		0.24	3.9
cis-1,2-Dichloroethene		ND		0.50	3.9
Cyclohexane		39		0.55	3.9
Bromodichloromethane		ND		0.52	3.9
Dichlorodifluoromethane		ND		0.32	3.9
Ethylbenzene		ND		0.27	3.9
1,2-Dibromoethane		ND		0.50	3.9
Isopropylbenzene		ND	*	0.59	3.9
Methyl acetate		ND		2.4	3.9
Methyl tert-butyl ether		ND		0.38	3.9
Methylcyclohexane		88		0.59	3.9
Methylene Chloride		1.9	J	1.8	3.9
m,p-Xylene		ND		0.66	7.8
Naphthalene		ND	*	0.52	3.9
n-Butylbenzene		ND	*	0.34	3.9
N-Propylbenzene		ND	*	0.31	3.9
o-Xylene		ND		0.51	3.9

Client: Stantec Consulting Services Inc | Job Number: 480-100656-1

Client Sample ID: **VO-B3-S**

Lab Sample ID: 480-100656-7 | Date Sampled: 05/24/2016 1400
Client Matrix: Solid | % Moisture: 6.7 | Date Received: 05/25/2016 0900

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-304224	Instrument ID:	HP5973F
Prep Method:	5035A	Prep Batch:	480-304227	Lab File ID:	F6738.D
Dilution:	1.0			Initial Weight/Volume:	6.871 g
Analysis Date:	05/29/2016 1725			Final Weight/Volume:	5 mL
Prep Date:	05/25/2016 1500				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
sec-Butylbenzene		ND	*	0.34	3.9
Tetrachloroethene		ND		0.52	3.9
Toluene		1.5	J	0.29	3.9
trans-1,2-Dichloroethene		ND		0.40	3.9
trans-1,3-Dichloropropene		ND		1.7	3.9
Trichloroethene		ND		0.86	3.9
Trichlorofluoromethane		ND		0.37	3.9
Vinyl chloride		ND		0.48	3.9
Xylenes, Total		ND		0.66	7.8
cis-1,3-Dichloropropene		ND		0.56	3.9
Styrene		ND		0.20	3.9
tert-Butylbenzene		18	*	0.41	3.9

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	88		64 - 126
4-Bromofluorobenzene (Surr)	79		72 - 126
Toluene-d8 (Surr)	102		71 - 125
Dibromofluoromethane (Surr)	87		60 - 140

Client: Stantec Consulting Services Inc | Job Number: 480-100656-1

Client Sample ID: **VO-B3-S**

Lab Sample ID: 480-100656-7 | Date Sampled: 05/24/2016 1400
Client Matrix: Solid | % Moisture: 6.7 | Date Received: 05/25/2016 0900

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-304224	Instrument ID:	HP5973F
Prep Method:	5035A	Prep Batch:	480-304227	Lab File ID:	F6738.D
Dilution:	1.0			Initial Weight/Volume:	6.871 g
Analysis Date:	05/29/2016 1725			Final Weight/Volume:	5 mL
Prep Date:	05/25/2016 1500				

Tentatively Identified Compounds **Number TIC's Found: 10**

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
3073-66-3	Cyclohexane, 1,1,3-trimethyl-	7.51	320	T J N
7667-55-2	Cyclohexane, 1,2,3-trimethyl-, (1.alpha.	8.30	140	T J N
	Unknown	8.57	140	T J
	Unknown	8.72	160	T J
	Unknown	9.10	130	T J
	Unknown	9.42	210	T J
	Unknown	9.54	170	T J
109-09-1	Pyridine, 2-chloro-	9.85	820	T J N
	Unknown	10.23	110	T J
91-17-8	Naphthalene, decahydro-	10.73	260	T J N

Client Sample ID: **VO-B4-S**

Lab Sample ID: 480-100656-1 Date Sampled: 05/24/2016 0900
Client Matrix: Solid % Moisture: 16.7 Date Received: 05/25/2016 0900

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	480-303993	Instrument ID:	HP5973X
Prep Method:	3550C	Prep Batch:	480-303732	Lab File ID:	X00905316.D
Dilution:	10			Initial Weight/Volume:	30.44 g
Analysis Date:	05/27/2016 1111			Final Weight/Volume:	1 mL
Prep Date:	05/26/2016 0738			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Biphenyl		ND		300	2000
bis (2-chloroisopropyl) ether		ND		400	2000
2,4,5-Trichlorophenol		ND		540	2000
2,4,6-Trichlorophenol		ND		400	2000
2,4-Dichlorophenol		ND		210	2000
2,4-Dimethylphenol		ND		480	2000
2,4-Dinitrophenol		ND		9300	20000
2,4-Dinitrotoluene		ND		410	2000
2,6-Dinitrotoluene		ND		240	2000
2-Chloronaphthalene		ND		330	2000
2-Chlorophenol		ND		370	2000
2-Methylnaphthalene		2100		400	2000
2-Methylphenol		ND		240	2000
2-Nitroaniline		ND		300	3900
2-Nitrophenol		ND		570	2000
3,3'-Dichlorobenzidine		ND		2400	3900
3-Nitroaniline		ND		560	3900
4,6-Dinitro-2-methylphenol		ND		2000	3900
4-Bromophenyl phenyl ether		ND		280	2000
4-Chloro-3-methylphenol		ND		500	2000
4-Chloroaniline		ND		500	2000
4-Chlorophenyl phenyl ether		ND		250	2000
4-Methylphenol		ND		240	3900
4-Nitroaniline		ND		1100	3900
4-Nitrophenol		ND		1400	3900
Acenaphthene		3200		300	2000
Acenaphthylene		320	J	260	2000
Anthracene		6100		500	2000
Atrazine		ND		700	2000
Benzaldehyde		ND		1600	2000
Benzo[a]anthracene		8200		200	2000
Benzo[a]pyrene		7000		300	2000
Benzo[b]fluoranthene		8300		320	2000
Benzo[g,h,i]perylene		4300		210	2000
Benzo[k]fluoranthene		3800		260	2000
Bis(2-chloroethoxy)methane		ND		430	2000
Bis(2-chloroethyl)ether		ND		260	2000
Bis(2-ethylhexyl) phthalate		ND		690	2000
Butyl benzyl phthalate		ND		330	2000
Caprolactam		ND		600	2000
Carbazole		1800	J	240	2000
Chrysene		8400		450	2000
Di-n-butyl phthalate		ND		340	2000
Di-n-octyl phthalate		ND		240	2000
Dibenz(a,h)anthracene		ND		350	2000
Dibenzofuran		3100		240	2000

Client: Stantec Consulting Services Inc Job Number: 480-100656-1

Client Sample ID: VO-B4-S

Lab Sample ID: 480-100656-1 Date Sampled: 05/24/2016 0900
Client Matrix: Solid % Moisture: 16.7 Date Received: 05/25/2016 0900

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	480-303993	Instrument ID:	HP5973X
Prep Method:	3550C	Prep Batch:	480-303732	Lab File ID:	X00905316.D
Dilution:	10			Initial Weight/Volume:	30.44 g
Analysis Date:	05/27/2016 1111			Final Weight/Volume:	1 mL
Prep Date:	05/26/2016 0738			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Diethyl phthalate		ND		260	2000
Dimethyl phthalate		ND		240	2000
Fluoranthene		22000		210	2000
Fluorene		4800		240	2000
Hexachlorobenzene		ND		270	2000
Hexachlorobutadiene		ND		300	2000
Hexachlorocyclopentadiene		ND		270	2000
Hexachloroethane		ND		260	2000
Indeno[1,2,3-cd]pyrene		3700		250	2000
Isophorone		ND		430	2000
N-Nitrosodi-n-propylamine		ND		340	2000
N-Nitrosodiphenylamine		ND		1600	2000
Naphthalene		3900		260	2000
Nitrobenzene		ND		220	2000
Pentachlorophenol		ND		2000	3900
Phenanthrene		24000		300	2000
Phenol		ND		310	2000
Pyrene		17000		240	2000

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol	99		39 - 146
2-Fluorobiphenyl	81		37 - 120
2-Fluorophenol	66		18 - 120
Nitrobenzene-d5	65		34 - 132
p-Terphenyl-d14	80		65 - 153
Phenol-d5	66		11 - 120

Client: Stantec Consulting Services Inc | Job Number: 480-100656-1

Client Sample ID: **VO-B4-S**

Lab Sample ID: 480-100656-1 | Date Sampled: 05/24/2016 0900
Client Matrix: Solid | % Moisture: 16.7 | Date Received: 05/25/2016 0900

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	480-303993	Instrument ID:	HP5973X
Prep Method:	3550C	Prep Batch:	480-303732	Lab File ID:	X00905316.D
Dilution:	10			Initial Weight/Volume:	30.44 g
Analysis Date:	05/27/2016 1111			Final Weight/Volume:	1 mL
Prep Date:	05/26/2016 0738			Injection Volume:	1 uL

Tentatively Identified Compounds **Number TIC's Found: 14**

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
	Unknown	1.97	2900	T J
	Unknown	9.87	1900	T J
829-26-5	Naphthalene, 2,3,6-trimethyl-	10.47	2100	T J N
	Unknown	10.65	2100	T J
3892-00-0	Pentadecane, 2,6,10-trimethyl-	10.89	6400	T J N
1921-70-6	Pentadecane, 2,6,10,14-tetramethyl-	11.16	9700	T J N
	Unknown	11.25	1900	T J
	Unknown	11.37	2000	T J
	Unknown	11.49	1900	T J
132-65-0	Dibenzothiophene	11.65	2600	T J N
610-48-0	Anthracene, 1-methyl-	12.29	3600	T J N
	Unknown	12.33	8200	T J
	Unknown	12.49	1600	T J
	Unknown	12.60	4600	T J

Client: Stantec Consulting Services Inc | Job Number: 480-100656-1

Client Sample ID: VO-B4-S

Lab Sample ID: 480-100656-1 | Date Sampled: 05/24/2016 0900
Client Matrix: Solid | % Moisture: 16.7 | Date Received: 05/25/2016 0900

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	480-304626	Instrument ID:	HP5973X
Prep Method:	3550C	Prep Batch:	480-304485	Lab File ID:	X00905355.D
Dilution:	20			Initial Weight/Volume:	30.27 g
Analysis Date:	06/02/2016 0219	Run Type:	RE	Final Weight/Volume:	1 mL
Prep Date:	06/01/2016 0731			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acetophenone		ND		550	4000

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol	142		39 - 146
2-Fluorobiphenyl	73		37 - 120
2-Fluorophenol	50		18 - 120
Nitrobenzene-d5	53		34 - 132
p-Terphenyl-d14	81		65 - 153
Phenol-d5	56		11 - 120

Client: Stantec Consulting Services Inc | Job Number: 480-100656-1

Client Sample ID: **VO-B4-S**

Lab Sample ID: 480-100656-1 | Date Sampled: 05/24/2016 0900
Client Matrix: Solid | % Moisture: 16.7 | Date Received: 05/25/2016 0900

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	480-304626	Instrument ID:	HP5973X
Prep Method:	3550C	Prep Batch:	480-304485	Lab File ID:	X00905355.D
Dilution:	20			Initial Weight/Volume:	30.27 g
Analysis Date:	06/02/2016 0219	Run Type:	RE	Final Weight/Volume:	1 mL
Prep Date:	06/01/2016 0731			Injection Volume:	1 uL

Tentatively Identified Compounds **Number TIC's Found: 12**

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
	Unknown	1.81	5700	T J
	Unknown	1.92	4500	T J
	Unknown	10.63	3600	T J
	Unknown	10.87	11000	T J
1921-70-6	Pentadecane, 2,6,10,14-tetramethyl-	11.14	18000	T J N
	Unknown	11.49	8400	T J
638-36-8	Hexadecane, 2,6,10,14-tetramethyl-	11.59	13000	T J N
132-65-0	Dibenzothiophene	11.63	5800	T J N
	Unknown	12.20	4400	T J
	Unknown	12.31	18000	T J
6561-44-0	Octadecane, 3-methyl-	12.58	8700	T J N
3674-66-6	Phenanthrene, 2,5-dimethyl-	12.70	3900	T J N

Client: Stantec Consulting Services Inc | Job Number: 480-100656-1

Client Sample ID: **VO-B5-S**

Lab Sample ID: 480-100656-2 | Date Sampled: 05/24/2016 1015
Client Matrix: Solid | % Moisture: 18.5 | Date Received: 05/25/2016 0900

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	480-303993	Instrument ID:	HP5973X
Prep Method:	3550C	Prep Batch:	480-303732	Lab File ID:	X00905317.D
Dilution:	5.0			Initial Weight/Volume:	30.58 g
Analysis Date:	05/27/2016 1138			Final Weight/Volume:	1 mL
Prep Date:	05/26/2016 0738			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Biphenyl		ND		150	1000
bis (2-chloroisopropyl) ether		ND		200	1000
2,4,5-Trichlorophenol		ND		280	1000
2,4,6-Trichlorophenol		ND		200	1000
2,4-Dichlorophenol		ND		110	1000
2,4-Dimethylphenol		ND		250	1000
2,4-Dinitrophenol		ND		4700	10000
2,4-Dinitrotoluene		ND		210	1000
2,6-Dinitrotoluene		ND		120	1000
2-Chloronaphthalene		ND		170	1000
2-Chlorophenol		ND		190	1000
2-Methylnaphthalene		ND		200	1000
2-Methylphenol		ND		120	1000
2-Nitroaniline		ND		150	2000
2-Nitrophenol		ND		290	1000
3,3'-Dichlorobenzidine		ND		1200	2000
3-Nitroaniline		ND		280	2000
4,6-Dinitro-2-methylphenol		ND		1000	2000
4-Bromophenyl phenyl ether		ND		140	1000
4-Chloro-3-methylphenol		ND		250	1000
4-Chloroaniline		ND		250	1000
4-Chlorophenyl phenyl ether		ND		130	1000
4-Methylphenol		ND		120	2000
4-Nitroaniline		ND		540	2000
4-Nitrophenol		ND		720	2000
Acenaphthene		ND		150	1000
Acenaphthylene		ND		130	1000
Anthracene		ND		250	1000
Atrazine		ND		360	1000
Benzaldehyde		ND		810	1000
Benzo[a]anthracene		530	J	100	1000
Benzo[a]pyrene		ND		150	1000
Benzo[b]fluoranthene		ND		160	1000
Benzo[g,h,i]perylene		ND		110	1000
Benzo[k]fluoranthene		ND		130	1000
Bis(2-chloroethoxy)methane		ND		220	1000
Bis(2-chloroethyl)ether		ND		130	1000
Bis(2-ethylhexyl) phthalate		ND		350	1000
Butyl benzyl phthalate		ND		170	1000
Caprolactam		ND		310	1000
Carbazole		ND		120	1000
Chrysene		1200		230	1000
Di-n-butyl phthalate		ND		170	1000
Di-n-octyl phthalate		ND		120	1000
Dibenz(a,h)anthracene		ND		180	1000
Dibenzofuran		ND		120	1000

Client: Stantec Consulting Services Inc | Job Number: 480-100656-1

Client Sample ID: **VO-B5-S**

Lab Sample ID: 480-100656-2 | Date Sampled: 05/24/2016 1015
Client Matrix: Solid | % Moisture: 18.5 | Date Received: 05/25/2016 0900

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	480-303993	Instrument ID:	HP5973X
Prep Method:	3550C	Prep Batch:	480-303732	Lab File ID:	X00905317.D
Dilution:	5.0			Initial Weight/Volume:	30.58 g
Analysis Date:	05/27/2016 1138			Final Weight/Volume:	1 mL
Prep Date:	05/26/2016 0738			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Diethyl phthalate		ND		130	1000
Dimethyl phthalate		ND		120	1000
Fluoranthene		550	J	110	1000
Fluorene		260	J	120	1000
Hexachlorobenzene		ND		140	1000
Hexachlorobutadiene		ND		150	1000
Hexachlorocyclopentadiene		ND		140	1000
Hexachloroethane		ND		130	1000
Indeno[1,2,3-cd]pyrene		ND		130	1000
Isophorone		ND		220	1000
N-Nitrosodi-n-propylamine		ND		170	1000
N-Nitrosodiphenylamine		ND		830	1000
Naphthalene		ND		130	1000
Nitrobenzene		ND		110	1000
Pentachlorophenol		ND		1000	2000
Phenanthrene		1400		150	1000
Phenol		ND		160	1000
Pyrene		990	J	120	1000

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol	111		39 - 146
2-Fluorobiphenyl	85		37 - 120
2-Fluorophenol	73		18 - 120
Nitrobenzene-d5	80		34 - 132
p-Terphenyl-d14	80		65 - 153
Phenol-d5	74		11 - 120

Client: Stantec Consulting Services Inc | Job Number: 480-100656-1

Client Sample ID: VO-B5-S

Lab Sample ID: 480-100656-2 | Date Sampled: 05/24/2016 1015
Client Matrix: Solid | % Moisture: 18.5 | Date Received: 05/25/2016 0900

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	480-303993	Instrument ID:	HP5973X
Prep Method:	3550C	Prep Batch:	480-303732	Lab File ID:	X00905317.D
Dilution:	5.0			Initial Weight/Volume:	30.58 g
Analysis Date:	05/27/2016 1138			Final Weight/Volume:	1 mL
Prep Date:	05/26/2016 0738			Injection Volume:	1 uL

Tentatively Identified Compounds **Number TIC's Found: 20**

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
	Unknown	1.83	2100	T J
	Unknown	1.95	3200	T J
3891-98-3	Dodecane, 2,6,10-trimethyl-	9.32	1200	T J N
	Unknown	9.50	850	T J
	Unknown	9.80	1900	T J
	Unknown	9.87	2900	T J
	Unknown	10.31	1200	T J
112-40-3	Dodecane	10.37	1700	T J N
	Unknown	10.40	1100	T J
	Unknown	10.60	2000	T J
	Unknown	10.66	2000	T J
3892-00-0	Pentadecane, 2,6,10-trimethyl-	10.89	12000	T J N
1795-16-0	Cyclohexane, decyl-	11.02	1600	T J N
	Unknown	11.23	1300	T J
	Unknown	11.34	1100	T J
	Unknown	11.38	2300	T J
	Unknown	11.50	3300	T J
638-36-8	Hexadecane, 2,6,10,14-tetramethyl-	11.62	17000	T J N
630-07-9	Pentatriacontane	11.95	8200	T J N
13287-23-5	Heptadecane, 8-methyl-	12.61	10000	T J N

Client: Stantec Consulting Services Inc | Job Number: 480-100656-1

Client Sample ID: **VO-B5-S**

Lab Sample ID: 480-100656-2 | Date Sampled: 05/24/2016 1015
Client Matrix: Solid | % Moisture: 18.5 | Date Received: 05/25/2016 0900

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	480-304626	Instrument ID:	HP5973X
Prep Method:	3550C	Prep Batch:	480-304485	Lab File ID:	X00905356.D
Dilution:	5.0			Initial Weight/Volume:	30.14 g
Analysis Date:	06/02/2016 0245	Run Type:	RE	Final Weight/Volume:	1 mL
Prep Date:	06/01/2016 0731			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acetophenone		ND		140	1000

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol	102		39 - 146
2-Fluorobiphenyl	71		37 - 120
2-Fluorophenol	38		18 - 120
Nitrobenzene-d5	51		34 - 132
p-Terphenyl-d14	68		65 - 153
Phenol-d5	42		11 - 120

Client: Stantec Consulting Services Inc | Job Number: 480-100656-1

Client Sample ID: **VO-B5-S**

Lab Sample ID: 480-100656-2 | Date Sampled: 05/24/2016 1015
Client Matrix: Solid | % Moisture: 18.5 | Date Received: 05/25/2016 0900

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	480-304626	Instrument ID:	HP5973X
Prep Method:	3550C	Prep Batch:	480-304485	Lab File ID:	X00905356.D
Dilution:	5.0			Initial Weight/Volume:	30.14 g
Analysis Date:	06/02/2016 0245	Run Type:	RE	Final Weight/Volume:	1 mL
Prep Date:	06/01/2016 0731			Injection Volume:	1 uL

Tentatively Identified Compounds **Number TIC's Found: 20**

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
	Unknown	1.93	2100	T J
3891-98-3	Dodecane, 2,6,10-trimethyl-	9.30	1900	T J N
	Unknown	9.48	3000	T J
	Unknown	9.78	3700	T J
	Unknown	9.85	5300	T J
	Unknown	10.30	2300	T J
	Unknown	10.36	3100	T J
	Unknown	10.38	2000	T J
2131-42-2	Naphthalene, 1,4,6-trimethyl-	10.41	2000	T J N
	Unknown	10.58	4100	T J
829-26-5	Naphthalene, 2,3,6-trimethyl-	10.64	4900	T J N
6765-39-5	1-Heptadecene	10.67	2600	T J N
	Unknown	10.71	2700	T J
3892-00-0	Pentadecane, 2,6,10-trimethyl-	10.88	21000	T J N
1795-16-0	Cyclohexane, decyl-	11.00	4100	T J N
1921-70-6	Pentadecane, 2,6,10,14-tetramethyl-	11.15	43000	T J N
	Unknown	11.23	9400	T J
	Unknown	11.36	6600	T J
1795-15-9	Cyclohexane, octyl-	11.48	21000	T J N
638-36-8	Hexadecane, 2,6,10,14-tetramethyl-	11.60	48000	T J N

Client Sample ID: **VO-B6-S**

Lab Sample ID: 480-100656-3 Date Sampled: 05/24/2016 1115
Client Matrix: Solid % Moisture: 15.4 Date Received: 05/25/2016 0900

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	480-303993	Instrument ID:	HP5973X
Prep Method:	3550C	Prep Batch:	480-303732	Lab File ID:	X00905318.D
Dilution:	10			Initial Weight/Volume:	30.25 g
Analysis Date:	05/27/2016 1204			Final Weight/Volume:	1 mL
Prep Date:	05/26/2016 0738			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Biphenyl		ND		290	2000
bis (2-chloroisopropyl) ether		ND		400	2000
2,4,5-Trichlorophenol		ND		540	2000
2,4,6-Trichlorophenol		ND		400	2000
2,4-Dichlorophenol		ND		210	2000
2,4-Dimethylphenol		ND		480	2000
2,4-Dinitrophenol		ND		9200	19000
2,4-Dinitrotoluene		ND		410	2000
2,6-Dinitrotoluene		ND		230	2000
2-Chloronaphthalene		ND		330	2000
2-Chlorophenol		ND		360	2000
2-Methylnaphthalene		ND		400	2000
2-Methylphenol		ND		230	2000
2-Nitroaniline		ND		290	3900
2-Nitrophenol		ND		560	2000
3,3'-Dichlorobenzidine		ND		2300	3900
3-Nitroaniline		ND		550	3900
4,6-Dinitro-2-methylphenol		ND		2000	3900
4-Bromophenyl phenyl ether		ND		280	2000
4-Chloro-3-methylphenol		ND		490	2000
4-Chloroaniline		ND		490	2000
4-Chlorophenyl phenyl ether		ND		250	2000
4-Methylphenol		ND		230	3900
4-Nitroaniline		ND		1000	3900
4-Nitrophenol		ND		1400	3900
Acenaphthene		ND		290	2000
Acenaphthylene		ND		260	2000
Anthracene		ND		490	2000
Atrazine		ND		690	2000
Benzaldehyde		ND		1600	2000
Benzo[a]anthracene		910	J	200	2000
Benzo[a]pyrene		ND		290	2000
Benzo[b]fluoranthene		380	J	320	2000
Benzo[g,h,i]perylene		230	J	210	2000
Benzo[k]fluoranthene		ND		260	2000
Bis(2-chloroethoxy)methane		ND		420	2000
Bis(2-chloroethyl)ether		ND		260	2000
Bis(2-ethylhexyl) phthalate		ND		680	2000
Butyl benzyl phthalate		ND		330	2000
Caprolactam		ND		600	2000
Carbazole		ND		230	2000
Chrysene		1400	J	450	2000
Di-n-butyl phthalate		ND		340	2000
Di-n-octyl phthalate		ND		230	2000
Dibenz(a,h)anthracene		ND		350	2000
Dibenzofuran		230	J	230	2000

Client: Stantec Consulting Services Inc | Job Number: 480-100656-1

Client Sample ID: **VO-B6-S**

Lab Sample ID: 480-100656-3 | Date Sampled: 05/24/2016 1115
Client Matrix: Solid | % Moisture: 15.4 | Date Received: 05/25/2016 0900

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	480-303993	Instrument ID:	HP5973X
Prep Method:	3550C	Prep Batch:	480-303732	Lab File ID:	X00905318.D
Dilution:	10			Initial Weight/Volume:	30.25 g
Analysis Date:	05/27/2016 1204			Final Weight/Volume:	1 mL
Prep Date:	05/26/2016 0738			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Diethyl phthalate		ND		260	2000
Dimethyl phthalate		ND		230	2000
Fluoranthene		920	J	210	2000
Fluorene		410	J	230	2000
Hexachlorobenzene		ND		270	2000
Hexachlorobutadiene		ND		290	2000
Hexachlorocyclopentadiene		ND		270	2000
Hexachloroethane		ND		260	2000
Indeno[1,2,3-cd]pyrene		ND		250	2000
Isophorone		ND		420	2000
N-Nitrosodi-n-propylamine		ND		340	2000
N-Nitrosodiphenylamine		ND		1600	2000
Naphthalene		460	J	260	2000
Nitrobenzene		ND		220	2000
Pentachlorophenol		ND		2000	3900
Phenanthrene		1600	J	290	2000
Phenol		ND		300	2000
Pyrene		1300	J	230	2000

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol	112		39 - 146
2-Fluorobiphenyl	68		37 - 120
2-Fluorophenol	52		18 - 120
Nitrobenzene-d5	59		34 - 132
p-Terphenyl-d14	66		65 - 153
Phenol-d5	53		11 - 120

Client: Stantec Consulting Services Inc | Job Number: 480-100656-1

Client Sample ID: **VO-B6-S**

Lab Sample ID: 480-100656-3 | Date Sampled: 05/24/2016 1115
Client Matrix: Solid | % Moisture: 15.4 | Date Received: 05/25/2016 0900

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	480-303993	Instrument ID:	HP5973X
Prep Method:	3550C	Prep Batch:	480-303732	Lab File ID:	X00905318.D
Dilution:	10			Initial Weight/Volume:	30.25 g
Analysis Date:	05/27/2016 1204			Final Weight/Volume:	1 mL
Prep Date:	05/26/2016 0738			Injection Volume:	1 uL

Tentatively Identified Compounds **Number TIC's Found: 20**

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
111-84-2	Nonane	5.25	3700	T J N
	Unknown	5.60	3900	T J
1678-92-8	Cyclohexane, propyl-	5.69	5700	T J N
	Unknown	5.88	5100	T J
17301-94-9	Nonane, 4-methyl-	5.95	4900	T J N
	Unknown	5.99	6600	T J
	Unknown	6.88	3500	T J
	Unknown	6.95	4500	T J
1120-21-4	Undecane	7.26	3900	T J N
	Unknown	9.87	5800	T J
	Unknown	10.37	3500	T J
	Unknown	10.47	4700	T J
	Unknown	10.60	3400	T J
	Unknown	10.66	3800	T J
3892-00-0	Pentadecane, 2,6,10-trimethyl-	10.89	19000	T J N
1921-70-6	Pentadecane, 2,6,10,14-tetramethyl-	11.17	16000	T J N
638-36-8	Hexadecane, 2,6,10,14-tetramethyl-	11.62	13000	T J N
	Unknown	12.15	7000	T J
112-95-8	Eicosane	12.28	3500	T J N
	Unknown	12.31	8600	T J

Client: Stantec Consulting Services Inc | Job Number: 480-100656-1

Client Sample ID: **VO-B6-S**

Lab Sample ID: 480-100656-3 | Date Sampled: 05/24/2016 1115
Client Matrix: Solid | % Moisture: 15.4 | Date Received: 05/25/2016 0900

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	480-304626	Instrument ID:	HP5973X
Prep Method:	3550C	Prep Batch:	480-304485	Lab File ID:	X00905357.D
Dilution:	10			Initial Weight/Volume:	30.32 g
Analysis Date:	06/02/2016 0312	Run Type:	RE	Final Weight/Volume:	4 mL
Prep Date:	06/01/2016 0731			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acetophenone		ND		1100	8000

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol	242	X	39 - 146
2-Fluorobiphenyl	82		37 - 120
2-Fluorophenol	51		18 - 120
Nitrobenzene-d5	91		34 - 132
p-Terphenyl-d14	87		65 - 153
Phenol-d5	57		11 - 120

Client: Stantec Consulting Services Inc | Job Number: 480-100656-1

Client Sample ID: **VO-B6-S**

Lab Sample ID: 480-100656-3 | Date Sampled: 05/24/2016 1115
Client Matrix: Solid | % Moisture: 15.4 | Date Received: 05/25/2016 0900

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	480-304626	Instrument ID:	HP5973X
Prep Method:	3550C	Prep Batch:	480-304485	Lab File ID:	X00905357.D
Dilution:	10			Initial Weight/Volume:	30.32 g
Analysis Date:	06/02/2016 0312	Run Type:	RE	Final Weight/Volume:	4 mL
Prep Date:	06/01/2016 0731			Injection Volume:	1 uL

Tentatively Identified Compounds **Number TIC's Found: 20**

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
	Unknown	1.81	12000	T J
1678-92-8	Cyclohexane, propyl-	5.65	13000	T J N
	Unknown	5.85	11000	T J
17301-94-9	Nonane, 4-methyl-	5.92	16000	T J N
	Unknown	5.96	14000	T J
	Unknown	6.92	11000	T J
	Unknown	9.77	9800	T J
2245-38-7	Naphthalene, 1,6,7-trimethyl-	10.45	14000	T J N
3892-00-0	Pentadecane, 2,6,10-trimethyl-	10.87	42000	T J N
1921-70-6	Pentadecane, 2,6,10,14-tetramethyl-	11.14	50000	T J N
	Unknown	11.20	10000	T J
629-59-4	Tetradecane	11.32	13000	T J N
	Unknown	11.35	10000	T J
	Unknown	11.47	7200	T J
638-36-8	Hexadecane, 2,6,10,14-tetramethyl-	11.59	48000	T J N
	Unknown	11.70	7700	T J
	Unknown	11.87	9300	T J
41977-41-7	Cyclopropane, 1-methyl-1-(2-methylpropyl)-2-nonyl-	12.03	6800	T J N
	Unknown	12.12	23000	T J
6006-33-3	n-Tridecylcyclohexane	12.29	23000	T J N

Client Sample ID: **VO-B7-S**

Lab Sample ID: 480-100656-4 Date Sampled: 05/24/2016 1150
Client Matrix: Solid % Moisture: 8.4 Date Received: 05/25/2016 0900

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	480-303993	Instrument ID:	HP5973X
Prep Method:	3550C	Prep Batch:	480-303732	Lab File ID:	X00905319.D
Dilution:	10			Initial Weight/Volume:	30.64 g
Analysis Date:	05/27/2016 1231			Final Weight/Volume:	1 mL
Prep Date:	05/26/2016 0738			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Biphenyl		ND		270	1800
bis (2-chloroisopropyl) ether		ND		360	1800
2,4,5-Trichlorophenol		ND		490	1800
2,4,6-Trichlorophenol		ND		360	1800
2,4-Dichlorophenol		ND		190	1800
2,4-Dimethylphenol		ND		440	1800
2,4-Dinitrophenol		ND		8400	18000
2,4-Dinitrotoluene		ND		370	1800
2,6-Dinitrotoluene		ND		210	1800
2-Chloronaphthalene		ND		300	1800
2-Chlorophenol		ND		330	1800
2-Methylnaphthalene		450	J	360	1800
2-Methylphenol		ND		210	1800
2-Nitroaniline		ND		270	3500
2-Nitrophenol		ND		510	1800
3,3'-Dichlorobenzidine		ND		2100	3500
3-Nitroaniline		ND		500	3500
4,6-Dinitro-2-methylphenol		ND		1800	3500
4-Bromophenyl phenyl ether		ND		260	1800
4-Chloro-3-methylphenol		ND		450	1800
4-Chloroaniline		ND		450	1800
4-Chlorophenyl phenyl ether		ND		220	1800
4-Methylphenol		ND		210	3500
4-Nitroaniline		ND		950	3500
4-Nitrophenol		ND		1300	3500
Acenaphthene		1200	J	270	1800
Acenaphthylene		240	J	240	1800
Anthracene		3800		450	1800
Atrazine		ND		630	1800
Benzaldehyde		ND		1400	1800
Benzo[a]anthracene		7000		180	1800
Benzo[a]pyrene		5800		270	1800
Benzo[b]fluoranthene		7100		290	1800
Benzo[g,h,i]perylene		3800		190	1800
Benzo[k]fluoranthene		ND		240	1800
Bis(2-chloroethoxy)methane		ND		380	1800
Bis(2-chloroethyl)ether		ND		240	1800
Bis(2-ethylhexyl) phthalate		ND		620	1800
Butyl benzyl phthalate		ND		300	1800
Caprolactam		ND		550	1800
Carbazole		2000		210	1800
Chrysene		7800		410	1800
Di-n-butyl phthalate		ND		310	1800
Di-n-octyl phthalate		ND		210	1800
Dibenz(a,h)anthracene		ND		320	1800
Dibenzofuran		840	J	210	1800

Client: Stantec Consulting Services Inc | Job Number: 480-100656-1

Client Sample ID: **VO-B7-S**

Lab Sample ID: 480-100656-4 | Date Sampled: 05/24/2016 1150
Client Matrix: Solid | % Moisture: 8.4 | Date Received: 05/25/2016 0900

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	480-303993	Instrument ID:	HP5973X
Prep Method:	3550C	Prep Batch:	480-303732	Lab File ID:	X00905319.D
Dilution:	10			Initial Weight/Volume:	30.64 g
Analysis Date:	05/27/2016 1231			Final Weight/Volume:	1 mL
Prep Date:	05/26/2016 0738			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Diethyl phthalate		ND		240	1800
Dimethyl phthalate		ND		210	1800
Fluoranthene		18000		190	1800
Fluorene		1500	J	210	1800
Hexachlorobenzene		ND		250	1800
Hexachlorobutadiene		ND		270	1800
Hexachlorocyclopentadiene		ND		250	1800
Hexachloroethane		ND		240	1800
Indeno[1,2,3-cd]pyrene		3300		220	1800
Isophorone		ND		380	1800
N-Nitrosodi-n-propylamine		ND		310	1800
N-Nitrosodiphenylamine		ND		1500	1800
Naphthalene		560	J	240	1800
Nitrobenzene		ND		200	1800
Pentachlorophenol		ND		1800	3500
Phenanthrene		15000		270	1800
Phenol		ND		280	1800
Pyrene		14000		210	1800

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol	108		39 - 146
2-Fluorobiphenyl	71		37 - 120
2-Fluorophenol	63		18 - 120
Nitrobenzene-d5	68		34 - 132
p-Terphenyl-d14	74		65 - 153
Phenol-d5	68		11 - 120

Client: Stantec Consulting Services Inc Job Number: 480-100656-1

Client Sample ID: VO-B7-S

Lab Sample ID: 480-100656-4 Date Sampled: 05/24/2016 1150
Client Matrix: Solid % Moisture: 8.4 Date Received: 05/25/2016 0900

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	480-303993	Instrument ID:	HP5973X
Prep Method:	3550C	Prep Batch:	480-303732	Lab File ID:	X00905319.D
Dilution:	10			Initial Weight/Volume:	30.64 g
Analysis Date:	05/27/2016 1231			Final Weight/Volume:	1 mL
Prep Date:	05/26/2016 0738			Injection Volume:	1 uL

Tentatively Identified Compounds **Number TIC's Found: 6**

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
	Unknown	1.85	3500	T J
	Unknown	1.96	2100	T J
	Unknown	11.16	1500	T J
	Unknown	11.62	1600	T J
	Unknown	12.33	5400	T J
	Unknown	12.60	2600	T J

Client: Stantec Consulting Services Inc | Job Number: 480-100656-1

Client Sample ID: **VO-B7-S**

Lab Sample ID: 480-100656-4 | Date Sampled: 05/24/2016 1150
Client Matrix: Solid | % Moisture: 8.4 | Date Received: 05/25/2016 0900

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	480-304626	Instrument ID:	HP5973X
Prep Method:	3550C	Prep Batch:	480-304485	Lab File ID:	X00905358.D
Dilution:	20			Initial Weight/Volume:	30.44 g
Analysis Date:	06/02/2016 0338	Run Type:	RE	Final Weight/Volume:	1 mL
Prep Date:	06/01/2016 0731			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acetophenone		ND		500	3700

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol	168	X	39 - 146
2-Fluorobiphenyl	75		37 - 120
2-Fluorophenol	57		18 - 120
Nitrobenzene-d5	71		34 - 132
p-Terphenyl-d14	78		65 - 153
Phenol-d5	62		11 - 120

Client: Stantec Consulting Services Inc | Job Number: 480-100656-1

Client Sample ID: **VO-B7-S**

Lab Sample ID: 480-100656-4 | Date Sampled: 05/24/2016 1150
Client Matrix: Solid | % Moisture: 8.4 | Date Received: 05/25/2016 0900

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	480-304626	Instrument ID:	HP5973X
Prep Method:	3550C	Prep Batch:	480-304485	Lab File ID:	X00905358.D
Dilution:	20			Initial Weight/Volume:	30.44 g
Analysis Date:	06/02/2016 0338	Run Type:	RE	Final Weight/Volume:	1 mL
Prep Date:	06/01/2016 0731			Injection Volume:	1 uL

Tentatively Identified Compounds **Number TIC's Found: 2**

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
	Unknown	1.83	4500	T J
630-06-8	Hexatriacontane	12.58	3900	T J N

Client Sample ID: **VO-B1-S**

Lab Sample ID: 480-100656-5 Date Sampled: 05/24/2016 1530
Client Matrix: Solid % Moisture: 13.1 Date Received: 05/25/2016 0900

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	480-303993	Instrument ID:	HP5973X
Prep Method:	3550C	Prep Batch:	480-303732	Lab File ID:	X00905320.D
Dilution:	5.0			Initial Weight/Volume:	30.08 g
Analysis Date:	05/27/2016 1257			Final Weight/Volume:	1 mL
Prep Date:	05/26/2016 0738			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Biphenyl		380	J	140	980
bis (2-chloroisopropyl) ether		ND		200	980
2,4,5-Trichlorophenol		ND		260	980
2,4,6-Trichlorophenol		ND		200	980
2,4-Dichlorophenol		ND		100	980
2,4-Dimethylphenol		ND		240	980
2,4-Dinitrophenol		ND		4500	9500
2,4-Dinitrotoluene		ND		200	980
2,6-Dinitrotoluene		ND		110	980
2-Chloronaphthalene		ND		160	980
2-Chlorophenol		ND		180	980
2-Methylnaphthalene		1300		200	980
2-Methylphenol		ND		110	980
2-Nitroaniline		ND		140	1900
2-Nitrophenol		ND		280	980
3,3'-Dichlorobenzidine		ND		1100	1900
3-Nitroaniline		ND		270	1900
4,6-Dinitro-2-methylphenol		ND		980	1900
4-Bromophenyl phenyl ether		ND		140	980
4-Chloro-3-methylphenol		ND		240	980
4-Chloroaniline		ND		240	980
4-Chlorophenyl phenyl ether		ND		120	980
4-Methylphenol		ND		110	1900
4-Nitroaniline		ND		510	1900
4-Nitrophenol		ND		680	1900
Acenaphthene		ND		140	980
Acenaphthylene		170	J	130	980
Anthracene		ND		240	980
Atrazine		ND		340	980
Benzaldehyde		ND		770	980
Benzo[a]anthracene		510	J	98	980
Benzo[a]pyrene		190	J	140	980
Benzo[b]fluoranthene		ND		150	980
Benzo[g,h,i]perylene		ND		100	980
Benzo[k]fluoranthene		ND		130	980
Bis(2-chloroethoxy)methane		ND		210	980
Bis(2-chloroethyl)ether		ND		130	980
Bis(2-ethylhexyl) phthalate		ND		330	980
Butyl benzyl phthalate		ND		160	980
Caprolactam		ND		290	980
Carbazole		ND		110	980
Chrysene		930	J	220	980
Di-n-butyl phthalate		ND		170	980
Di-n-octyl phthalate		ND		110	980
Dibenz(a,h)anthracene		ND		170	980
Dibenzofuran		130	J	110	980

Client: Stantec Consulting Services Inc Job Number: 480-100656-1

Client Sample ID: VO-B1-S

Lab Sample ID: 480-100656-5 Date Sampled: 05/24/2016 1530
Client Matrix: Solid % Moisture: 13.1 Date Received: 05/25/2016 0900

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	480-303993	Instrument ID:	HP5973X
Prep Method:	3550C	Prep Batch:	480-303732	Lab File ID:	X00905320.D
Dilution:	5.0			Initial Weight/Volume:	30.08 g
Analysis Date:	05/27/2016 1257			Final Weight/Volume:	1 mL
Prep Date:	05/26/2016 0738			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Diethyl phthalate		ND		130	980
Dimethyl phthalate		ND		110	980
Fluoranthene		540	J	100	980
Fluorene		380	J	110	980
Hexachlorobenzene		ND		130	980
Hexachlorobutadiene		ND		140	980
Hexachlorocyclopentadiene		ND		130	980
Hexachloroethane		ND		130	980
Indeno[1,2,3-cd]pyrene		ND		120	980
Isophorone		ND		210	980
N-Nitrosodi-n-propylamine		ND		170	980
N-Nitrosodiphenylamine		ND		790	980
Naphthalene		540	J	130	980
Nitrobenzene		ND		110	980
Pentachlorophenol		ND		980	1900
Phenanthrene		1500		140	980
Phenol		ND		150	980
Pyrene		780	J	110	980

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol	62		39 - 146
2-Fluorobiphenyl	54		37 - 120
2-Fluorophenol	35		18 - 120
Nitrobenzene-d5	48		34 - 132
p-Terphenyl-d14	52	X	65 - 153
Phenol-d5	43		11 - 120

Client: Stantec Consulting Services Inc | Job Number: 480-100656-1

Client Sample ID: **VO-B1-S**

Lab Sample ID: 480-100656-5 | Date Sampled: 05/24/2016 1530
Client Matrix: Solid | % Moisture: 13.1 | Date Received: 05/25/2016 0900

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	480-303993	Instrument ID:	HP5973X
Prep Method:	3550C	Prep Batch:	480-303732	Lab File ID:	X00905320.D
Dilution:	5.0			Initial Weight/Volume:	30.08 g
Analysis Date:	05/27/2016 1257			Final Weight/Volume:	1 mL
Prep Date:	05/26/2016 0738			Injection Volume:	1 uL

Tentatively Identified Compounds **Number TIC's Found: 20**

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
	Unknown	5.59	3000	T J
	Unknown	5.88	3300	T J
1678-93-9	Cyclohexane, butyl-	6.73	4000	T J N
99-87-6	Benzene, 1-methyl-4-(1-methylethyl)-	7.51	4600	T J N
	Unknown	8.45	3300	T J
	Unknown	9.19	3700	T J
	Unknown	9.87	7900	T J
	Unknown	10.40	4900	T J
	Unknown	10.55	4500	T J
	Unknown	10.65	4200	T J
3892-00-0	Pentadecane, 2,6,10-trimethyl-	10.89	14000	T J N
1921-70-6	Pentadecane, 2,6,10,14-tetramethyl-	11.16	35000	T J N
	Unknown	11.25	6900	T J
	Unknown	11.37	3500	T J
1795-16-0	Cyclohexane, decyl-	11.49	3900	T J N
638-36-8	Hexadecane, 2,6,10,14-tetramethyl-	11.62	27000	T J N
	Unknown	11.67	5800	T J
	Unknown	11.85	4400	T J
	Unknown	12.28	5100	T J
3178-24-3	Cyclohexane, 1,1'-(1,3-propanediyl)bis-	12.31	12000	T J N

Client: Stantec Consulting Services Inc | Job Number: 480-100656-1

Client Sample ID: **VO-B1-S**

Lab Sample ID: 480-100656-5 | Date Sampled: 05/24/2016 1530
Client Matrix: Solid | % Moisture: 13.1 | Date Received: 05/25/2016 0900

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	480-304626	Instrument ID:	HP5973X
Prep Method:	3550C	Prep Batch:	480-304485	Lab File ID:	X00905359.D
Dilution:	10			Initial Weight/Volume:	30.19 g
Analysis Date:	06/02/2016 0405	Run Type:	RE	Final Weight/Volume:	1 mL
Prep Date:	06/01/2016 0731			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acetophenone		ND		260	1900

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol	109		39 - 146
2-Fluorobiphenyl	72		37 - 120
2-Fluorophenol	45		18 - 120
Nitrobenzene-d5	78		34 - 132
p-Terphenyl-d14	69		65 - 153
Phenol-d5	59		11 - 120

Client: Stantec Consulting Services Inc | Job Number: 480-100656-1

Client Sample ID: **VO-B1-S**

Lab Sample ID: 480-100656-5 | Date Sampled: 05/24/2016 1530
Client Matrix: Solid | % Moisture: 13.1 | Date Received: 05/25/2016 0900

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	480-304626	Instrument ID:	HP5973X
Prep Method:	3550C	Prep Batch:	480-304485	Lab File ID:	X00905359.D
Dilution:	10			Initial Weight/Volume:	30.19 g
Analysis Date:	06/02/2016 0405	Run Type:	RE	Final Weight/Volume:	1 mL
Prep Date:	06/01/2016 0731			Injection Volume:	1 uL

Tentatively Identified Compounds **Number TIC's Found: 20**

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
1678-93-9	Cyclohexane, butyl-	6.73	4300	T J N
493-02-7	Naphthalene, decahydro-, trans-	7.04	4100	T J N
1000155-85-6	cis-Decalin, 2-syn-methyl-	7.53	5900	T J N
	Unknown	8.44	4300	T J
582-16-1	Naphthalene, 2,7-dimethyl-	9.70	5000	T J N
	Unknown	9.86	10000	T J
	Unknown	10.59	7100	T J
	Unknown	10.64	6200	T J
3892-00-0	Pentadecane, 2,6,10-trimethyl-	10.88	18000	T J N
1921-70-6	Pentadecane, 2,6,10,14-tetramethyl-	11.16	47000	T J N
	Unknown	11.24	8000	T J
	Unknown	11.36	4800	T J
	Unknown	11.48	8800	T J
638-36-8	Hexadecane, 2,6,10,14-tetramethyl-	11.61	37000	T J N
	Unknown	11.66	7900	T J
1000143-61-3	N-(4-Methoxyphenyl)-2-hydroxyimino-aceta	11.84	6200	T J N
	Unknown	12.27	3900	T J
3178-24-3	Cyclohexane, 1,1'-(1,3-propanediyl)bis-	12.30	9900	T J N
1000197-14-1	4b,8-Dimethyl-2-isopropylphenanthrene, 4	12.61	36000	T J N
	Unknown	12.67	3800	T J

Client Sample ID: **VO-B2-S**

Lab Sample ID: 480-100656-6 Date Sampled: 05/24/2016 1445
Client Matrix: Solid % Moisture: 31.1 Date Received: 05/25/2016 0900

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	480-303993	Instrument ID:	HP5973X
Prep Method:	3550C	Prep Batch:	480-303732	Lab File ID:	X00905321.D
Dilution:	5.0			Initial Weight/Volume:	30.30 g
Analysis Date:	05/27/2016 1324			Final Weight/Volume:	1 mL
Prep Date:	05/26/2016 0738			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Biphenyl		ND		180	1200
bis (2-chloroisopropyl) ether		ND		240	1200
2,4,5-Trichlorophenol		ND		330	1200
2,4,6-Trichlorophenol		ND		240	1200
2,4-Dichlorophenol		ND		130	1200
2,4-Dimethylphenol		ND		290	1200
2,4-Dinitrophenol		ND		5600	12000
2,4-Dinitrotoluene		ND		250	1200
2,6-Dinitrotoluene		ND		140	1200
2-Chloronaphthalene		ND		200	1200
2-Chlorophenol		ND		220	1200
2-Methylnaphthalene		ND		240	1200
2-Methylphenol		ND		140	1200
2-Nitroaniline		ND		180	2400
2-Nitrophenol		ND		340	1200
3,3'-Dichlorobenzidine		ND		1400	2400
3-Nitroaniline		ND		340	2400
4,6-Dinitro-2-methylphenol		ND		1200	2400
4-Bromophenyl phenyl ether		ND		170	1200
4-Chloro-3-methylphenol		ND		300	1200
4-Chloroaniline		ND		300	1200
4-Chlorophenyl phenyl ether		ND		150	1200
4-Methylphenol		ND		140	2400
4-Nitroaniline		ND		640	2400
4-Nitrophenol		ND		850	2400
Acenaphthene		ND		180	1200
Acenaphthylene		ND		160	1200
Anthracene		ND		300	1200
Atrazine		ND		420	1200
Benzaldehyde		ND		970	1200
Benzo[a]anthracene		450	J	120	1200
Benzo[a]pyrene		ND		180	1200
Benzo[b]fluoranthene		ND		190	1200
Benzo[g,h,i]perylene		ND		130	1200
Benzo[k]fluoranthene		ND		160	1200
Bis(2-chloroethoxy)methane		ND		260	1200
Bis(2-chloroethyl)ether		ND		160	1200
Bis(2-ethylhexyl) phthalate		ND		420	1200
Butyl benzyl phthalate		ND		200	1200
Caprolactam		ND		370	1200
Carbazole		ND		140	1200
Chrysene		930	J	270	1200
Di-n-butyl phthalate		ND		210	1200
Di-n-octyl phthalate		ND		140	1200
Dibenz(a,h)anthracene		ND		220	1200
Dibenzofuran		ND		140	1200

Client: Stantec Consulting Services Inc | Job Number: 480-100656-1

Client Sample ID: **VO-B2-S**

Lab Sample ID: 480-100656-6 | Date Sampled: 05/24/2016 1445
Client Matrix: Solid | % Moisture: 31.1 | Date Received: 05/25/2016 0900

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	480-303993	Instrument ID:	HP5973X
Prep Method:	3550C	Prep Batch:	480-303732	Lab File ID:	X00905321.D
Dilution:	5.0			Initial Weight/Volume:	30.30 g
Analysis Date:	05/27/2016 1324			Final Weight/Volume:	1 mL
Prep Date:	05/26/2016 0738			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Diethyl phthalate		ND		160	1200
Dimethyl phthalate		ND		140	1200
Fluoranthene		340	J	130	1200
Fluorene		160	J	140	1200
Hexachlorobenzene		ND		170	1200
Hexachlorobutadiene		ND		180	1200
Hexachlorocyclopentadiene		ND		170	1200
Hexachloroethane		ND		160	1200
Indeno[1,2,3-cd]pyrene		ND		150	1200
Isophorone		ND		260	1200
N-Nitrosodi-n-propylamine		ND		210	1200
N-Nitrosodiphenylamine		ND		990	1200
Naphthalene		ND		160	1200
Nitrobenzene		ND		140	1200
Pentachlorophenol		ND		1200	2400
Phenanthrene		ND		180	1200
Phenol		ND		190	1200
Pyrene		720	J	140	1200

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol	100		39 - 146
2-Fluorobiphenyl	83		37 - 120
2-Fluorophenol	67		18 - 120
Nitrobenzene-d5	77		34 - 132
p-Terphenyl-d14	74		65 - 153
Phenol-d5	71		11 - 120

Client: Stantec Consulting Services Inc | Job Number: 480-100656-1

Client Sample ID: **VO-B2-S**

Lab Sample ID: 480-100656-6 | Date Sampled: 05/24/2016 1445
Client Matrix: Solid | % Moisture: 31.1 | Date Received: 05/25/2016 0900

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	480-303993	Instrument ID:	HP5973X
Prep Method:	3550C	Prep Batch:	480-303732	Lab File ID:	X00905321.D
Dilution:	5.0			Initial Weight/Volume:	30.30 g
Analysis Date:	05/27/2016 1324			Final Weight/Volume:	1 mL
Prep Date:	05/26/2016 0738			Injection Volume:	1 uL

Tentatively Identified Compounds **Number TIC's Found: 20**

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
	Unknown	1.83	2000	T J
	Unknown	1.95	3200	T J
	Unknown	9.49	1200	T J
	Unknown	9.79	1900	T J
	Unknown	9.87	4300	T J
	Unknown	10.05	1400	T J
	Unknown	10.09	1400	T J
	Unknown	10.40	3500	T J
2883-02-5	n-Nonylcyclohexane	10.48	3900	T J N
	Unknown	10.55	2700	T J
	Unknown	10.60	2100	T J
	Unknown	10.65	3000	T J
6703-81-7	Heneicosane, 11-cyclopentyl-	10.83	1700	T J N
3892-00-0	Pentadecane, 2,6,10-trimethyl-	10.89	8500	T J N
1921-70-6	Pentadecane, 2,6,10,14-tetramethyl-	11.17	18000	T J N
	Unknown	11.25	4700	T J
	Unknown	11.30	1800	T J
	Unknown	11.37	2500	T J
638-36-8	Hexadecane, 2,6,10,14-tetramethyl-	11.62	14000	T J N
630-06-8	Hexatriacontane	11.95	6600	T J N

Client: Stantec Consulting Services Inc | Job Number: 480-100656-1

Client Sample ID: **VO-B2-S**

Lab Sample ID: 480-100656-6 | Date Sampled: 05/24/2016 1445
Client Matrix: Solid | % Moisture: 31.1 | Date Received: 05/25/2016 0900

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	480-304626	Instrument ID:	HP5973X
Prep Method:	3550C	Prep Batch:	480-304485	Lab File ID:	X00905360.D
Dilution:	10			Initial Weight/Volume:	30.66 g
Analysis Date:	06/02/2016 0432	Run Type:	RE	Final Weight/Volume:	1 mL
Prep Date:	06/01/2016 0731			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acetophenone		ND		330	2400

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol	114		39 - 146
2-Fluorobiphenyl	77		37 - 120
2-Fluorophenol	55		18 - 120
Nitrobenzene-d5	66		34 - 132
p-Terphenyl-d14	74		65 - 153
Phenol-d5	60		11 - 120

Client: Stantec Consulting Services Inc | Job Number: 480-100656-1

Client Sample ID: **VO-B2-S**

Lab Sample ID: 480-100656-6 | Date Sampled: 05/24/2016 1445
Client Matrix: Solid | % Moisture: 31.1 | Date Received: 05/25/2016 0900

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	480-304626	Instrument ID:	HP5973X
Prep Method:	3550C	Prep Batch:	480-304485	Lab File ID:	X00905360.D
Dilution:	10			Initial Weight/Volume:	30.66 g
Analysis Date:	06/02/2016 0432	Run Type:	RE	Final Weight/Volume:	1 mL
Prep Date:	06/01/2016 0731			Injection Volume:	1 uL

Tentatively Identified Compounds **Number TIC's Found: 10**

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
	Unknown	1.85	2300	T J
	Unknown	1.97	3800	T J
	Unknown	9.86	3700	T J
	Unknown	10.59	2400	T J
	Unknown	10.64	3300	T J
3892-00-0	Pentadecane, 2,6,10-trimethyl-	10.88	6200	T J N
1921-70-6	Pentadecane, 2,6,10,14-tetramethyl-	11.16	13000	T J N
	Unknown	11.24	7000	T J
	Unknown	11.36	2800	T J
	Unknown	11.94	7000	T J

Client: Stantec Consulting Services Inc | Job Number: 480-100656-1

Client Sample ID: **VO-B3-S**

Lab Sample ID: 480-100656-7 | Date Sampled: 05/24/2016 1400
Client Matrix: Solid | % Moisture: 6.7 | Date Received: 05/25/2016 0900

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	480-304626	Instrument ID:	HP5973X
Prep Method:	3550C	Prep Batch:	480-304485	Lab File ID:	X00905361.D
Dilution:	1.0			Initial Weight/Volume:	30.36 g
Analysis Date:	06/02/2016 0458	Run Type:	RE	Final Weight/Volume:	1 mL
Prep Date:	06/01/2016 0731			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acetophenone		ND		24	180

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol	100		39 - 146
2-Fluorobiphenyl	76		37 - 120
2-Fluorophenol	61		18 - 120
Nitrobenzene-d5	72		34 - 132
p-Terphenyl-d14	72		65 - 153
Phenol-d5	63		11 - 120

Client: Stantec Consulting Services Inc | Job Number: 480-100656-1

Client Sample ID: **VO-B3-S**

Lab Sample ID: 480-100656-7 | Date Sampled: 05/24/2016 1400
Client Matrix: Solid | % Moisture: 6.7 | Date Received: 05/25/2016 0900

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	480-304626	Instrument ID:	HP5973X
Prep Method:	3550C	Prep Batch:	480-304485	Lab File ID:	X00905361.D
Dilution:	1.0			Initial Weight/Volume:	30.36 g
Analysis Date:	06/02/2016 0458	Run Type:	RE	Final Weight/Volume:	1 mL
Prep Date:	06/01/2016 0731			Injection Volume:	1 uL

Tentatively Identified Compounds **Number TIC's Found: 20**

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
	Unknown	1.90	570	T J
994-05-8	Butane, 2-methoxy-2-methyl-	1.95	2600	T J N
79-00-5	Ethane, 1,1,2-trichloro-	3.53	280	T J N
	Unknown	4.45	570	T J
79-34-5	Ethane, 1,1,2,2-tetrachloro-	5.51	570	T J N
109-09-1	Pyridine, 2-chloro-	5.69	870	T J N
629-50-5	Tridecane	8.79	240	T J N
629-59-4	Tetradecane	9.47	320	T J N
	Unknown	9.70	170	T J
	Unknown	9.86	390	T J
629-62-9	Pentadecane	10.10	260	T J N
2245-38-7	Naphthalene, 1,6,7-trimethyl-	10.42	160	T J N
829-26-5	Naphthalene, 2,3,6-trimethyl-	10.54	230	T J N
544-76-3	Hexadecane	10.65	550	T J N
3892-00-0	Pentadecane, 2,6,10-trimethyl-	10.88	780	T J N
1921-70-6	Pentadecane, 2,6,10,14-tetramethyl-	11.15	1400	T J N
	Unknown	11.24	280	T J
	Unknown	11.48	240	T J
	Unknown	11.88	220	T J
593-45-3	Octadecane	11.93	440	T J N

Client: Stantec Consulting Services Inc | Job Number: 480-100656-1

Client Sample ID: **VO-B3-S**

Lab Sample ID: 480-100656-7 | Date Sampled: 05/24/2016 1400
Client Matrix: Solid | % Moisture: 6.7 | Date Received: 05/25/2016 0900

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	480-303993	Instrument ID:	HP5973X
Prep Method:	3550C	Prep Batch:	480-303732	Lab File ID:	X00905322.D
Dilution:	5.0			Initial Weight/Volume:	30.31 g
Analysis Date:	05/27/2016 1350			Final Weight/Volume:	1 mL
Prep Date:	05/26/2016 0738			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Biphenyl		ND		130	900
bis (2-chloroisopropyl) ether		ND		180	900
2,4,5-Trichlorophenol		ND		240	900
2,4,6-Trichlorophenol		ND		180	900
2,4-Dichlorophenol		ND		96	900
2,4-Dimethylphenol		ND		220	900
2,4-Dinitrophenol		ND		4200	8800
2,4-Dinitrotoluene		ND		190	900
2,6-Dinitrotoluene		ND		110	900
2-Chloronaphthalene		ND		150	900
2-Chlorophenol		ND		160	900
2-Methylnaphthalene		ND		180	900
2-Methylphenol		ND		110	900
2-Nitroaniline		ND		130	1800
2-Nitrophenol		ND		250	900
3,3'-Dichlorobenzidine		ND		1100	1800
3-Nitroaniline		ND		250	1800
4,6-Dinitro-2-methylphenol		ND		900	1800
4-Bromophenyl phenyl ether		ND		130	900
4-Chloro-3-methylphenol		ND		220	900
4-Chloroaniline		ND		220	900
4-Chlorophenyl phenyl ether		ND		110	900
4-Methylphenol		ND		110	1800
4-Nitroaniline		ND		470	1800
4-Nitrophenol		ND		630	1800
Acenaphthene		ND		130	900
Acenaphthylene		ND		120	900
Anthracene		ND		220	900
Atrazine		ND		310	900
Benzaldehyde		ND		720	900
Benzo[a]anthracene		ND		90	900
Benzo[a]pyrene		ND		130	900
Benzo[b]fluoranthene		ND		140	900
Benzo[g,h,i]perylene		ND		96	900
Benzo[k]fluoranthene		ND		120	900
Bis(2-chloroethoxy)methane		ND		190	900
Bis(2-chloroethyl)ether		ND		120	900
Bis(2-ethylhexyl) phthalate		ND		310	900
Butyl benzyl phthalate		ND		150	900
Caprolactam		ND		270	900
Carbazole		ND		110	900
Chrysene		210	J	200	900
Di-n-butyl phthalate		ND		150	900
Di-n-octyl phthalate		ND		110	900
Dibenz(a,h)anthracene		ND		160	900
Dibenzofuran		ND		110	900

Client: Stantec Consulting Services Inc | Job Number: 480-100656-1

Client Sample ID: **VO-B3-S**

Lab Sample ID: 480-100656-7 | Date Sampled: 05/24/2016 1400
Client Matrix: Solid | % Moisture: 6.7 | Date Received: 05/25/2016 0900

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	480-303993	Instrument ID:	HP5973X
Prep Method:	3550C	Prep Batch:	480-303732	Lab File ID:	X00905322.D
Dilution:	5.0			Initial Weight/Volume:	30.31 g
Analysis Date:	05/27/2016 1350			Final Weight/Volume:	1 mL
Prep Date:	05/26/2016 0738			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Diethyl phthalate		ND		120	900
Dimethyl phthalate		ND		110	900
Fluoranthene		98	J	96	900
Fluorene		ND		110	900
Hexachlorobenzene		ND		120	900
Hexachlorobutadiene		ND		130	900
Hexachlorocyclopentadiene		ND		120	900
Hexachloroethane		ND		120	900
Indeno[1,2,3-cd]pyrene		ND		110	900
Isophorone		ND		190	900
N-Nitrosodi-n-propylamine		ND		150	900
N-Nitrosodiphenylamine		ND		730	900
Naphthalene		ND		120	900
Nitrobenzene		ND		100	900
Pentachlorophenol		ND		900	1800
Phenanthrene		ND		130	900
Phenol		ND		140	900
Pyrene		130	J	110	900

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol	99		39 - 146
2-Fluorobiphenyl	77		37 - 120
2-Fluorophenol	63		18 - 120
Nitrobenzene-d5	71		34 - 132
p-Terphenyl-d14	78		65 - 153
Phenol-d5	67		11 - 120

Client: Stantec Consulting Services Inc | Job Number: 480-100656-1

Client Sample ID: **VO-B3-S**

Lab Sample ID: 480-100656-7 | Date Sampled: 05/24/2016 1400
Client Matrix: Solid | % Moisture: 6.7 | Date Received: 05/25/2016 0900

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	480-303993	Instrument ID:	HP5973X
Prep Method:	3550C	Prep Batch:	480-303732	Lab File ID:	X00905322.D
Dilution:	5.0			Initial Weight/Volume:	30.31 g
Analysis Date:	05/27/2016 1350			Final Weight/Volume:	1 mL
Prep Date:	05/26/2016 0738			Injection Volume:	1 uL

Tentatively Identified Compounds **Number TIC's Found: 8**

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
	Unknown	1.84	2000	T J
	Unknown	1.90	2000	T J
	Unknown	1.96	5100	T J
109-09-1	Pyridine, 2-chloro-	5.69	1700	T J N
	Unknown	9.86	910	T J
3892-00-0	Pentadecane, 2,6,10-trimethyl-	10.89	1700	T J N
	Unknown	11.25	740	T J
54833-48-6	Heptadecane, 2,6,10,15-tetramethyl-	11.94	1700	T J N

Client: Stantec Consulting Services Inc | Job Number: 480-100656-1

Client Sample ID: **VO-B1-S**

Lab Sample ID: 480-100656-5 | Date Sampled: 05/24/2016 1530
Client Matrix: Solid | % Moisture: 13.1 | Date Received: 05/25/2016 0900

8081B Organochlorine Pesticides (GC)

Analysis Method:	8081B	Analysis Batch:	480-304913	Instrument ID:	HP6890-25
Prep Method:	3550C	Prep Batch:	480-304674	Initial Weight/Volume:	30.54 g
Dilution:	20			Final Weight/Volume:	10 mL
Analysis Date:	06/03/2016 1304			Injection Volume:	1 uL
Prep Date:	06/02/2016 0725			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
4,4'-DDD		ND		7.3	38
4,4'-DDE		ND		7.9	38
4,4'-DDT		ND		8.8	38
Aldrin		ND		9.3	38
alpha-BHC		ND		6.8	38
alpha-Chlordane		ND		19	38
beta-BHC		ND		6.8	38
delta-BHC		ND		7.0	38
Dieldrin		ND		9.0	38
Endosulfan I		ND		7.2	38
Endosulfan II		ND		6.8	38
Endosulfan sulfate		ND		7.0	38
Endrin		ND		7.5	38
Endrin aldehyde		ND		9.6	38
gamma-BHC (Lindane)		ND		6.9	38
Endrin ketone		ND		9.3	38
gamma-Chlordane		ND		12	38
Heptachlor		ND		8.2	38
Heptachlor epoxide		ND		9.7	38
Methoxychlor		ND		7.7	38
Toxaphene		ND		220	380

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	0	X	32 - 136
Tetrachloro-m-xylene	0	X	30 - 124

Client: Stantec Consulting Services Inc | Job Number: 480-100656-1

Client Sample ID: **VO-B1-S**

Lab Sample ID: 480-100656-5 | Date Sampled: 05/24/2016 1530
Client Matrix: Solid | % Moisture: 13.1 | Date Received: 05/25/2016 0900

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082A	Analysis Batch:	480-303915	Instrument ID:	HP6890-6
Prep Method:	3550C	Prep Batch:	480-303838	Initial Weight/Volume:	2.85 g
Dilution:	1.0			Final Weight/Volume:	10 mL
Analysis Date:	05/27/2016 0324			Injection Volume:	1 uL
Prep Date:	05/26/2016 1203			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
PCB-1016		ND		0.040	0.20
PCB-1221		ND		0.040	0.20
PCB-1232		ND		0.040	0.20
PCB-1242		ND		0.040	0.20
PCB-1248		ND		0.040	0.20
PCB-1254		ND		0.095	0.20
PCB-1260		ND		0.095	0.20

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	64		60 - 154
DCB Decachlorobiphenyl	89		65 - 174

Client: Stantec Consulting Services Inc | Job Number: 480-100656-1

Client Sample ID: **VO-B1-S**

Lab Sample ID: 480-100656-5 | Date Sampled: 05/24/2016 1530
Client Matrix: Solid | % Moisture: 13.1 | Date Received: 05/25/2016 0900

6010C Metals (ICP)

Analysis Method:	6010C	Analysis Batch:	480-304476	Instrument ID:	ICAP2
Prep Method:	3050B	Prep Batch:	480-303850	Lab File ID:	I2053116A-4.asc
Dilution:	1.0			Initial Weight/Volume:	+0.4785 g
Analysis Date:	05/31/2016 1341			Final Weight/Volume:	50 mL
Prep Date:	05/31/2016 1033				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		4540	B	5.3	12.0
Antimony		ND		0.48	18.0
Arsenic		1.5	J	0.48	2.4
Barium		21.6		0.13	0.60
Beryllium		0.18	J	0.034	0.24
Cadmium		0.094	J	0.036	0.24
Calcium		35500	B	4.0	60.1
Chromium		7.8		0.24	0.60
Cobalt		3.3		0.060	0.60
Copper		7.3		0.25	1.2
Iron		8680	B	4.2	12.0
Lead		5.3		0.29	1.2
Magnesium		10900	B	1.1	24.1
Manganese		298	B	0.038	0.24
Nickel		7.4		0.28	6.0
Potassium		1390		24.1	36.1
Selenium		ND		0.48	4.8
Silver		ND		0.24	0.72
Sodium		234		15.6	168
Thallium		ND		0.36	7.2
Vanadium		13.2		0.13	0.60
Zinc		25.5		0.77	2.4

7471B Mercury (CVAA)

Analysis Method:	7471B	Analysis Batch:	480-304077	Instrument ID:	LEEMAN3
Prep Method:	7471B	Prep Batch:	480-303860	Lab File ID:	J05276S1.PRN
Dilution:	1.0			Initial Weight/Volume:	+0.6585 g
Analysis Date:	05/27/2016 1041			Final Weight/Volume:	50 mL
Prep Date:	05/26/2016 0700				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		ND		0.0085	0.021

General Chemistry

Client Sample ID: **VO-B4-S**

Lab Sample ID: 480-100656-1 Date Sampled: 05/24/2016 0900
Client Matrix: Solid Date Received: 05/25/2016 0900

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	16.7		%	0.1	0.1	1.0	Moisture
Analysis Batch: 480-304206	Analysis Date: 05/28/2016 1430						DryWt Corrected: N
Percent Solids	83.3		%	0.1	0.1	1.0	Moisture
Analysis Batch: 480-304206	Analysis Date: 05/28/2016 1430						DryWt Corrected: N

General Chemistry

Client Sample ID: **VO-B5-S**

Lab Sample ID: 480-100656-2 Date Sampled: 05/24/2016 1015
Client Matrix: Solid Date Received: 05/25/2016 0900

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	18.5		%	0.1	0.1	1.0	Moisture
Analysis Batch: 480-304206	Analysis Date: 05/28/2016 1430						DryWt Corrected: N
Percent Solids	81.5		%	0.1	0.1	1.0	Moisture
Analysis Batch: 480-304206	Analysis Date: 05/28/2016 1430						DryWt Corrected: N

General Chemistry

Client Sample ID: **VO-B6-S**

Lab Sample ID: 480-100656-3 Date Sampled: 05/24/2016 1115
Client Matrix: Solid Date Received: 05/25/2016 0900

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	15.4		%	0.1	0.1	1.0	Moisture
Analysis Batch: 480-304206	Analysis Date: 05/28/2016 1430						DryWt Corrected: N
Percent Solids	84.6		%	0.1	0.1	1.0	Moisture
Analysis Batch: 480-304206	Analysis Date: 05/28/2016 1430						DryWt Corrected: N

General Chemistry

Client Sample ID: **VO-B7-S**

Lab Sample ID: 480-100656-4 Date Sampled: 05/24/2016 1150
Client Matrix: Solid Date Received: 05/25/2016 0900

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	8.4		%	0.1	0.1	1.0	Moisture
Analysis Batch: 480-304206	Analysis Date: 05/28/2016 1430						DryWt Corrected: N
Percent Solids	91.6		%	0.1	0.1	1.0	Moisture
Analysis Batch: 480-304206	Analysis Date: 05/28/2016 1430						DryWt Corrected: N

General Chemistry

Client Sample ID: VO-B1-S

Lab Sample ID: 480-100656-5 Date Sampled: 05/24/2016 1530
Client Matrix: Solid % Moisture: 13.1 Date Received: 05/25/2016 0900

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Cyanide, Total	1.5		mg/Kg	0.52	1.1	1.0	9012B
Analysis Batch: 480-304742	Analysis Date: 06/02/2016 1140						DryWt Corrected: Y
Prep Batch: 480-304591	Prep Date: 06/01/2016 1455						
Cyanide, Amenable	ND		mg/Kg	0.56	1.2	1.0	SM 4500 CN G
Analysis Batch: 480-305296	Analysis Date: 06/06/2016 1640						DryWt Corrected: Y

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	13.1		%	0.1	0.1	1.0	Moisture
Analysis Batch: 480-304206	Analysis Date: 05/28/2016 1430						DryWt Corrected: N
Percent Solids	86.9		%	0.1	0.1	1.0	Moisture
Analysis Batch: 480-304206	Analysis Date: 05/28/2016 1430						DryWt Corrected: N

General Chemistry

Client Sample ID: **VO-B2-S**

Lab Sample ID: 480-100656-6 Date Sampled: 05/24/2016 1445
Client Matrix: Solid Date Received: 05/25/2016 0900

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	31.1		%	0.1	0.1	1.0	Moisture
Analysis Batch: 480-304206	Analysis Date: 05/28/2016 1430						DryWt Corrected: N
Percent Solids	68.9		%	0.1	0.1	1.0	Moisture
Analysis Batch: 480-304206	Analysis Date: 05/28/2016 1430						DryWt Corrected: N

General Chemistry

Client Sample ID: **VO-B3-S**

Lab Sample ID: 480-100656-7 Date Sampled: 05/24/2016 1400
Client Matrix: Solid Date Received: 05/25/2016 0900

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	6.7		%	0.1	0.1	1.0	Moisture
Analysis Batch: 480-304206	Analysis Date: 05/28/2016 1430						DryWt Corrected: N
Percent Solids	93.3		%	0.1	0.1	1.0	Moisture
Analysis Batch: 480-304206	Analysis Date: 05/28/2016 1430						DryWt Corrected: N

DATA REPORTING QUALIFIERS

Client: Stantec Consulting Services Inc Job Number: 480-100656-1

Lab Section	Qualifier	Description
GC/MS VOA		
	B	Compound was found in the blank and sample.
	J	Indicates an Estimated Value for TICs
	*	ISTD response or retention time outside acceptable limits
	N	Presumptive evidence of material.
	T	Result is a tentatively identified compound (TIC) and an estimated value.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
	H	Sample was prepped or analyzed beyond the specified holding time
GC/MS Semi VOA		
	J	Indicates an Estimated Value for TICs
	N	Presumptive evidence of material.
	T	Result is a tentatively identified compound (TIC) and an estimated value.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
	X	Surrogate is outside control limits
GC Semi VOA		
	X	Surrogate is outside control limits
Metals		
	B	Compound was found in the blank and sample.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

QUALITY CONTROL RESULTS

Client: Stantec Consulting Services Inc Job Number: 480-100656-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Analysis Batch:480-303905					
MB 480-303931/2-A	Method Blank	T	Solid	8260C	480-303931
480-100656-2	VO-B5-S	T	Solid	8260C	480-303931
480-100656-5	VO-B1-S	T	Solid	8260C	480-303931
480-100656-6	VO-B2-S	T	Solid	8260C	480-303931
Analysis Batch:480-303910					
LCS 480-303913/1-A	Lab Control Sample	T	Solid	8260C	480-303913
MB 480-303913/2-A	Method Blank	T	Solid	8260C	480-303913
480-100656-1	VO-B4-S	T	Solid	8260C	480-303913
Prep Batch: 480-303913					
LCS 480-303913/1-A	Lab Control Sample	T	Solid	5035A	
MB 480-303913/2-A	Method Blank	T	Solid	5035A	
480-100656-1	VO-B4-S	T	Solid	5035A	
Prep Batch: 480-303931					
LCS 480-303931/1-A	Lab Control Sample	T	Solid	5035A	
MB 480-303931/2-A	Method Blank	T	Solid	5035A	
480-100656-2	VO-B5-S	T	Solid	5035A	
480-100656-3	VO-B6-S	T	Solid	5035A	
480-100656-5	VO-B1-S	T	Solid	5035A	
480-100656-5DL	VO-B1-S	T	Solid	5035A	
480-100656-6	VO-B2-S	T	Solid	5035A	
Analysis Batch:480-303981					
LCS 480-303931/1-A	Lab Control Sample	T	Solid	8260C	480-303931
480-100656-3	VO-B6-S	T	Solid	8260C	480-303931
480-100656-5DL	VO-B1-S	T	Solid	8260C	480-303931
Analysis Batch:480-304122					
LCS 480-304148/2-A	Lab Control Sample	T	Solid	8260C	480-304148
LCSD 480-304148/3-A	Lab Control Sample Duplicate	T	Solid	8260C	480-304148
MB 480-304148/1-A	Method Blank	T	Solid	8260C	480-304148
480-100656-1DL	VO-B4-S	T	Solid	8260C	480-304148
Prep Batch: 480-304148					
LCS 480-304148/2-A	Lab Control Sample	T	Solid	5035A	
LCSD 480-304148/3-A	Lab Control Sample Duplicate	T	Solid	5035A	
MB 480-304148/1-A	Method Blank	T	Solid	5035A	
480-100656-1DL	VO-B4-S	T	Solid	5035A	

Client: Stantec Consulting Services Inc Job Number: 480-100656-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Analysis Batch:480-304224					
LCS 480-304227/1-A	Lab Control Sample	T	Solid	8260C	480-304227
MB 480-304227/2-A	Method Blank	T	Solid	8260C	480-304227
480-100656-4	VO-B7-S	T	Solid	8260C	480-304227
480-100656-7	VO-B3-S	T	Solid	8260C	480-304227
Prep Batch: 480-304227					
LCS 480-304227/1-A	Lab Control Sample	T	Solid	5035A	
MB 480-304227/2-A	Method Blank	T	Solid	5035A	
480-100656-4	VO-B7-S	T	Solid	5035A	
480-100656-7	VO-B3-S	T	Solid	5035A	

Report Basis
T = Total

Client: Stantec Consulting Services Inc Job Number: 480-100656-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS Semi VOA					
Prep Batch: 480-303732					
LCS 480-303732/2-A	Lab Control Sample	T	Solid	3550C	
MB 480-303732/1-A	Method Blank	T	Solid	3550C	
480-100656-1	VO-B4-S	T	Solid	3550C	
480-100656-2	VO-B5-S	T	Solid	3550C	
480-100656-3	VO-B6-S	T	Solid	3550C	
480-100656-4	VO-B7-S	T	Solid	3550C	
480-100656-5	VO-B1-S	T	Solid	3550C	
480-100656-6	VO-B2-S	T	Solid	3550C	
480-100656-7	VO-B3-S	T	Solid	3550C	
Analysis Batch:480-303993					
LCS 480-303732/2-A	Lab Control Sample	T	Solid	8270D	480-303732
MB 480-303732/1-A	Method Blank	T	Solid	8270D	480-303732
480-100656-1	VO-B4-S	T	Solid	8270D	480-303732
480-100656-2	VO-B5-S	T	Solid	8270D	480-303732
480-100656-3	VO-B6-S	T	Solid	8270D	480-303732
480-100656-4	VO-B7-S	T	Solid	8270D	480-303732
480-100656-5	VO-B1-S	T	Solid	8270D	480-303732
480-100656-6	VO-B2-S	T	Solid	8270D	480-303732
480-100656-7	VO-B3-S	T	Solid	8270D	480-303732
Prep Batch: 480-304485					
LCS 480-304485/2-A	Lab Control Sample	T	Solid	3550C	
MB 480-304485/1-A	Method Blank	T	Solid	3550C	
480-100656-1RE	VO-B4-S	T	Solid	3550C	
480-100656-2RE	VO-B5-S	T	Solid	3550C	
480-100656-3RE	VO-B6-S	T	Solid	3550C	
480-100656-4RE	VO-B7-S	T	Solid	3550C	
480-100656-5RE	VO-B1-S	T	Solid	3550C	
480-100656-6RE	VO-B2-S	T	Solid	3550C	
480-100656-7RE	VO-B3-S	T	Solid	3550C	
Analysis Batch:480-304626					
LCS 480-304485/2-A	Lab Control Sample	T	Solid	8270D	480-304485
MB 480-304485/1-A	Method Blank	T	Solid	8270D	480-304485
480-100656-1RE	VO-B4-S	T	Solid	8270D	480-304485
480-100656-2RE	VO-B5-S	T	Solid	8270D	480-304485
480-100656-3RE	VO-B6-S	T	Solid	8270D	480-304485
480-100656-4RE	VO-B7-S	T	Solid	8270D	480-304485
480-100656-5RE	VO-B1-S	T	Solid	8270D	480-304485
480-100656-6RE	VO-B2-S	T	Solid	8270D	480-304485
480-100656-7RE	VO-B3-S	T	Solid	8270D	480-304485

Client: Stantec Consulting Services Inc

Job Number: 480-100656-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Report Basis					
T = Total					
GC Semi VOA					
Prep Batch: 480-303838					
LCS 480-303838/2-A	Lab Control Sample	T	Solid	3550C	
MB 480-303838/1-A	Method Blank	T	Solid	3550C	
480-100656-5	VO-B1-S	T	Solid	3550C	
Analysis Batch:480-303915					
LCS 480-303838/2-A	Lab Control Sample	T	Solid	8082A	480-303838
MB 480-303838/1-A	Method Blank	T	Solid	8082A	480-303838
480-100656-5	VO-B1-S	T	Solid	8082A	480-303838
Prep Batch: 480-304674					
LCS 480-304674/2-A	Lab Control Sample	T	Solid	3550C	
MB 480-304674/1-A	Method Blank	T	Solid	3550C	
480-100656-5	VO-B1-S	T	Solid	3550C	
Analysis Batch:480-304913					
LCS 480-304674/2-A	Lab Control Sample	T	Solid	8081B	480-304674
MB 480-304674/1-A	Method Blank	T	Solid	8081B	480-304674
480-100656-5	VO-B1-S	T	Solid	8081B	480-304674

Report Basis
T = Total

Client: Stantec Consulting Services Inc Job Number: 480-100656-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 480-303850					
LCSSRM 480-303850/2-A	LCS-Certified Reference Material	T	Solid	3050B	
MB 480-303850/1-A	Method Blank	T	Solid	3050B	
480-100656-5	VO-B1-S	T	Solid	3050B	
Prep Batch: 480-303860					
LCSSRM 480-303860/2-A ^5	LCS-Certified Reference Material	T	Solid	7471B	
MB 480-303860/1-A	Method Blank	T	Solid	7471B	
480-100656-5	VO-B1-S	T	Solid	7471B	
Analysis Batch:480-304077					
LCSSRM 480-303860/2-A ^5	LCS-Certified Reference Material	T	Solid	7471B	480-303860
MB 480-303860/1-A	Method Blank	T	Solid	7471B	480-303860
480-100656-5	VO-B1-S	T	Solid	7471B	480-303860
Analysis Batch:480-304476					
LCSSRM 480-303850/2-A	LCS-Certified Reference Material	T	Solid	6010C	480-303850
MB 480-303850/1-A	Method Blank	T	Solid	6010C	480-303850
480-100656-5	VO-B1-S	T	Solid	6010C	480-303850

Report Basis
T = Total

Client: Stantec Consulting Services Inc Job Number: 480-100656-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:480-304206					
480-100656-1	VO-B4-S	T	Solid	Moisture	
480-100656-2	VO-B5-S	T	Solid	Moisture	
480-100656-3	VO-B6-S	T	Solid	Moisture	
480-100656-4	VO-B7-S	T	Solid	Moisture	
480-100656-5	VO-B1-S	T	Solid	Moisture	
480-100656-6	VO-B2-S	T	Solid	Moisture	
480-100656-7	VO-B3-S	T	Solid	Moisture	
Prep Batch: 480-304591					
LCSSRM 480-304591/2-A ^2	LCS-Certified Reference Material	T	Solid	9012B	
MB 480-304591/1-A	Method Blank	T	Solid	9012B	
480-100656-5	VO-B1-S	T	Solid	9012B	
Analysis Batch:480-304742					
LCSSRM 480-304591/2-A ^2	LCS-Certified Reference Material	T	Solid	9012B	480-304591
MB 480-304591/1-A	Method Blank	T	Solid	9012B	480-304591
480-100656-5	VO-B1-S	T	Solid	9012B	480-304591
Analysis Batch:480-305296					
480-100656-5	VO-B1-S	T	Solid	SM 4500 CN G	

Report Basis
T = Total

Client: Stantec Consulting Services Inc

Job Number: 480-100656-1

Surrogate Recovery Report

8260C Volatile Organic Compounds by GC/MS

Client Matrix: Solid

Lab Sample ID	Client Sample ID	DCA %Rec	BFB %Rec	TOL %Rec	DBFM %Rec
480-100656-1	VO-B4-S	100	105	94	101
480-100656-4	VO-B7-S	90	111	86	93
480-100656-7	VO-B3-S	88	79	102	87
MB 480-303913/2-A		99	112	96	100
MB 480-304227/2-A		83	119	89	89
LCS 480-303913/1-A		99	112	96	103
LCS 480-304227/1-A		84	120	91	89

Surrogate	Acceptance Limits
DCA = 1,2-Dichloroethane-d4 (Surr)	64-126
BFB = 4-Bromofluorobenzene (Surr)	72-126
TOL = Toluene-d8 (Surr)	71-125
DBFM = Dibromofluoromethane (Surr)	60-140

Client: Stantec Consulting Services Inc

Job Number: 480-100656-1

Surrogate Recovery Report

8260C Volatile Organic Compounds by GC/MS

Client Matrix: Solid

Lab Sample ID	Client Sample ID	DCA %Rec	BFB %Rec	TOL %Rec	DBFM %Rec
480-100656-1 DL	VO-B4-S DL	100	113	100	101
480-100656-2	VO-B5-S	97	110	96	98
480-100656-3	VO-B6-S	97	114	100	99
480-100656-5	VO-B1-S	102	109	99	96
480-100656-5 DL	VO-B1-S DL	101	118	100	104
480-100656-6	VO-B2-S	99	109	99	100
MB 480-303931/2-A		100	108	98	101
MB 480-304148/1-A		94	112	99	95
LCS 480-303931/1-A		95	107	98	95
LCS 480-304148/2-A		93	107	98	96
LCSD 480-304148/3-A		92	112	97	93

Surrogate	Acceptance Limits
DCA = 1,2-Dichloroethane-d4 (Surr)	53-146
BFB = 4-Bromofluorobenzene (Surr)	49-148
TOL = Toluene-d8 (Surr)	50-149
DBFM = Dibromofluoromethane (Surr)	60-140

Client: Stantec Consulting Services Inc

Job Number: 480-100656-1

Surrogate Recovery Report

8270D Semivolatile Organic Compounds (GC/MS)

Client Matrix: Solid

Lab Sample ID	Client Sample ID	TBP %Rec	FBP %Rec	2FP %Rec	NBZ %Rec	TPH %Rec	PHL %Rec
480-100656-1	VO-B4-S	99	81	66	65	80	66
480-100656-1 RE	VO-B4-S RE	142	73	50	53	81	56
480-100656-2	VO-B5-S	111	85	73	80	80	74
480-100656-2 RE	VO-B5-S RE	102	71	38	51	68	42
480-100656-3	VO-B6-S	112	68	52	59	66	53
480-100656-3 RE	VO-B6-S RE	242X	82	51	91	87	57
480-100656-4	VO-B7-S	108	71	63	68	74	68
480-100656-4 RE	VO-B7-S RE	168X	75	57	71	78	62
480-100656-5	VO-B1-S	62	54	35	48	52X	43
480-100656-5 RE	VO-B1-S RE	109	72	45	78	69	59
480-100656-6	VO-B2-S	100	83	67	77	74	71
480-100656-6 RE	VO-B2-S RE	114	77	55	66	74	60
480-100656-7	VO-B3-S	99	77	63	71	78	67
480-100656-7 RE	VO-B3-S RE	100	76	61	72	72	63
MB 480-303732/1-A		85	73	63	68	83	66
MB 480-304485/1-A		91	76	64	71	78	67
LCS 480-303732/2-A		95	73	57	67	83	60
LCS 480-304485/2-A		94	73	62	69	75	63

Surrogate	Acceptance Limits
TBP = 2,4,6-Tribromophenol	39-146
FBP = 2-Fluorobiphenyl	37-120
2FP = 2-Fluorophenol	18-120
NBZ = Nitrobenzene-d5	34-132
TPH = p-Terphenyl-d14	65-153
PHL = Phenol-d5	11-120

Client: Stantec Consulting Services Inc

Job Number: 480-100656-1

Surrogate Recovery Report

8081B Organochlorine Pesticides (GC)

Client Matrix: Solid

Lab Sample ID	Client Sample ID	DCB2 %Rec	TCX2 %Rec
480-100656-5	VO-B1-S	0X	0X
MB 480-304674/1-A		73	57
LCS 480-304674/2-A		74	88

Surrogate	Acceptance Limits
DCB = DCB Decachlorobiphenyl	32-136
TCX = Tetrachloro-m-xylene	30-124

Client: Stantec Consulting Services Inc

Job Number: 480-100656-1

Surrogate Recovery Report

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Matrix: Solid

Lab Sample ID	Client Sample ID	TCX1 %Rec	DCB1 %Rec
480-100656-5	VO-B1-S	64	89
MB 480-303838/1-A		116	125
LCS 480-303838/2-A		131	138

Surrogate	Acceptance Limits
TCX = Tetrachloro-m-xylene	60-154
DCB = DCB Decachlorobiphenyl	65-174

Method Blank - Batch: 480-303913

Method: 8260C
Preparation: 5035A

Lab Sample ID:	MB 480-303913/2-A	Analysis Batch:	480-303910	Instrument ID:	HP5973F
Client Matrix:	Solid	Prep Batch:	480-303913	Lab File ID:	F6712.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5.04 g
Analysis Date:	05/26/2016 2107	Units:	ug/Kg	Final Weight/Volume:	5 mL
Prep Date:	05/26/2016 1707				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
1,1,1-Trichloroethane	ND		0.36	5.0
1,1,2,2-Tetrachloroethane	ND		0.80	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.1	5.0
1,1,2-Trichloroethane	ND		0.64	5.0
1,1-Dichloroethane	ND		0.61	5.0
1,1-Dichloroethene	ND		0.61	5.0
1,2,4-Trichlorobenzene	ND		0.30	5.0
1,2,4-Trimethylbenzene	ND		0.95	5.0
1,2-Dibromo-3-Chloropropane	ND		2.5	5.0
1,2-Dichlorobenzene	ND		0.39	5.0
1,2-Dichloroethane	ND		0.25	5.0
1,2-Dichloropropane	ND		2.5	5.0
1,3,5-Trimethylbenzene	ND		0.32	5.0
1,3-Dichlorobenzene	ND		0.25	5.0
1,4-Dichlorobenzene	ND		0.69	5.0
2-Butanone (MEK)	ND		1.8	25
2-Hexanone	ND		2.5	25
4-Isopropyltoluene	ND		0.40	5.0
4-Methyl-2-pentanone (MIBK)	ND		1.6	25
Acetone	10.6	J	4.2	25
Benzene	ND		0.24	5.0
Bromoform	ND		2.5	5.0
Bromomethane	ND		0.45	5.0
Carbon disulfide	ND		2.5	5.0
Carbon tetrachloride	ND		0.48	5.0
Chlorobenzene	ND		0.65	5.0
Dibromochloromethane	ND		0.63	5.0
Chloroethane	ND		1.1	5.0
Chloroform	ND		0.31	5.0
Chloromethane	ND		0.30	5.0
cis-1,2-Dichloroethene	ND		0.63	5.0
Cyclohexane	ND		0.69	5.0
Bromodichloromethane	ND		0.66	5.0
Dichlorodifluoromethane	ND		0.41	5.0
Ethylbenzene	ND		0.34	5.0
1,2-Dibromoethane	ND		0.64	5.0
Isopropylbenzene	ND		0.75	5.0
Methyl acetate	ND		3.0	5.0
Methyl tert-butyl ether	ND		0.49	5.0
Methylcyclohexane	ND		0.75	5.0
Methylene Chloride	5.83		2.3	5.0
m,p-Xylene	ND		0.83	9.9
Naphthalene	ND		0.66	5.0
n-Butylbenzene	ND		0.43	5.0
N-Propylbenzene	ND		0.40	5.0

Client: Stantec Consulting Services Inc

Job Number: 480-100656-1

Method Blank - Batch: 480-303913

Method: 8260C
Preparation: 5035A

Lab Sample ID:	MB 480-303913/2-A	Analysis Batch:	480-303910	Instrument ID:	HP5973F
Client Matrix:	Solid	Prep Batch:	480-303913	Lab File ID:	F6712.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5.04 g
Analysis Date:	05/26/2016 2107	Units:	ug/Kg	Final Weight/Volume:	5 mL
Prep Date:	05/26/2016 1707				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
o-Xylene	ND		0.65	5.0
sec-Butylbenzene	ND		0.43	5.0
Tetrachloroethene	ND		0.67	5.0
Toluene	ND		0.38	5.0
trans-1,2-Dichloroethene	ND		0.51	5.0
trans-1,3-Dichloropropene	ND		2.2	5.0
Trichloroethene	ND		1.1	5.0
Trichlorofluoromethane	ND		0.47	5.0
Vinyl chloride	ND		0.61	5.0
Xylenes, Total	ND		0.83	9.9
cis-1,3-Dichloropropene	ND		0.71	5.0
Styrene	ND		0.25	5.0
tert-Butylbenzene	ND		0.52	5.0

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	99	64 - 126
4-Bromofluorobenzene (Surr)	112	72 - 126
Toluene-d8 (Surr)	96	71 - 125
Dibromofluoromethane (Surr)	100	60 - 140

Method Blank TICs- Batch: 480-303913

Cas Number	Analyte	RT	Est. Result (ug/	Qual
	Tentatively Identified Compound		None	

Client: Stantec Consulting Services Inc

Job Number: 480-100656-1

Lab Control Sample - Batch: 480-303913

Method: 8260C
Preparation: 5035A

Lab Sample ID:	LCS 480-303913/1-A	Analysis Batch:	480-303910	Instrument ID:	HP5973F
Client Matrix:	Solid	Prep Batch:	480-303913	Lab File ID:	F6710.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5.14 g
Analysis Date:	05/26/2016 2015	Units:	ug/Kg	Final Weight/Volume:	5 mL
Prep Date:	05/26/2016 1707				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
1,1,1-Trichloroethane	48.6	52.1	107	77 - 121	
1,1,2,2-Tetrachloroethane	48.6	44.0	91	80 - 120	
1,1,2-Trichloro-1,2,2-trifluoroethane	48.6	46.4	95	60 - 140	
1,1,2-Trichloroethane	48.6	45.7	94	78 - 122	
1,1-Dichloroethane	48.6	45.9	94	73 - 126	
1,1-Dichloroethene	48.6	44.7	92	59 - 125	
1,2,4-Trichlorobenzene	48.6	45.9	94	64 - 120	
1,2,4-Trimethylbenzene	48.6	44.3	91	74 - 120	
1,2-Dibromo-3-Chloropropane	48.6	50.3	103	63 - 124	
1,2-Dichlorobenzene	48.6	44.5	92	75 - 120	
1,2-Dichloroethane	48.6	49.4	101	77 - 122	
1,2-Dichloropropane	48.6	43.5	90	75 - 124	
1,3,5-Trimethylbenzene	48.6	44.9	92	74 - 120	
1,3-Dichlorobenzene	48.6	45.3	93	74 - 120	
1,4-Dichlorobenzene	48.6	45.1	93	73 - 120	
2-Butanone (MEK)	243	295	121	70 - 134	
2-Hexanone	243	265	109	59 - 130	
4-Isopropyltoluene	48.6	46.1	95	74 - 120	
4-Methyl-2-pentanone (MIBK)	243	240	99	65 - 133	
Acetone	243	327	135	61 - 137	
Benzene	48.6	45.9	94	79 - 127	
Bromoform	48.6	49.6	102	68 - 126	
Bromomethane	48.6	56.2	116	37 - 149	
Carbon disulfide	48.6	43.6	90	64 - 131	
Carbon tetrachloride	48.6	55.4	114	75 - 135	
Chlorobenzene	48.6	46.2	95	76 - 124	
Dibromochloromethane	48.6	52.5	108	76 - 125	
Chloroethane	48.6	51.3	105	69 - 135	
Chloroform	48.6	47.8	98	80 - 118	
Chloromethane	48.6	42.8	88	63 - 127	
cis-1,2-Dichloroethene	48.6	47.0	97	81 - 117	
Cyclohexane	48.6	44.1	91	65 - 106	
Bromodichloromethane	48.6	51.2	105	80 - 122	
Dichlorodifluoromethane	48.6	47.6	98	57 - 142	
Ethylbenzene	48.6	46.6	96	80 - 120	
1,2-Dibromoethane	48.6	49.2	101	78 - 120	
Isopropylbenzene	48.6	45.1	93	72 - 120	
Methyl acetate	243	241	99	55 - 136	
Methyl tert-butyl ether	48.6	47.5	98	63 - 125	
Methylcyclohexane	48.6	46.6	96	60 - 140	
Methylene Chloride	48.6	52.4	108	61 - 127	

Client: Stantec Consulting Services Inc

Job Number: 480-100656-1

Lab Control Sample - Batch: 480-303913

Method: 8260C
Preparation: 5035A

Lab Sample ID:	LCS 480-303913/1-A	Analysis Batch:	480-303910	Instrument ID:	HP5973F
Client Matrix:	Solid	Prep Batch:	480-303913	Lab File ID:	F6710.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5.14 g
Analysis Date:	05/26/2016 2015	Units:	ug/Kg	Final Weight/Volume:	5 mL
Prep Date:	05/26/2016 1707				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
m,p-Xylene	48.6	45.7	94	70 - 130	
Naphthalene	48.6	47.0	97	38 - 137	
n-Butylbenzene	48.6	44.6	92	70 - 120	
N-Propylbenzene	48.6	44.1	91	70 - 130	
o-Xylene	48.6	45.0	93	70 - 130	
sec-Butylbenzene	48.6	45.1	93	74 - 120	
Tetrachloroethene	48.6	50.5	104	74 - 122	
Toluene	48.6	42.8	88	74 - 128	
trans-1,2-Dichloroethene	48.6	47.1	97	78 - 126	
trans-1,3-Dichloropropene	48.6	49.2	101	73 - 123	
Trichloroethene	48.6	48.2	99	77 - 129	
Trichlorofluoromethane	48.6	56.3	116	65 - 146	
Vinyl chloride	48.6	47.8	98	61 - 133	
cis-1,3-Dichloropropene	48.6	49.0	101	82 - 120	
Styrene	48.6	45.5	94	80 - 120	
tert-Butylbenzene	48.6	44.5	92	73 - 120	

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	99	64 - 126
4-Bromofluorobenzene (Surr)	112	72 - 126
Toluene-d8 (Surr)	96	71 - 125
Dibromofluoromethane (Surr)	103	60 - 140

Method Blank - Batch: 480-303931

Method: 8260C
Preparation: 5035A

Lab Sample ID:	MB 480-303931/2-A	Analysis Batch:	480-303905	Instrument ID:	HP5973N
Client Matrix:	Solid	Prep Batch:	480-303931	Lab File ID:	N3891.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5.08 g
Analysis Date:	05/26/2016 2253	Units:	ug/Kg	Final Weight/Volume:	10 mL
Prep Date:	05/26/2016 1852				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
1,1,1-Trichloroethane	ND		27	98
1,1,2,2-Tetrachloroethane	ND		16	98
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		49	98
1,1,2-Trichloroethane	ND		21	98
1,1-Dichloroethane	ND		30	98
1,1-Dichloroethene	ND		34	98
1,2,4-Trichlorobenzene	ND		37	98
1,2,4-Trimethylbenzene	ND		27	98
1,2-Dibromo-3-Chloropropane	ND		49	98
1,2-Dichlorobenzene	ND		25	98
1,2-Dichloroethane	ND		40	98
1,2-Dichloropropane	ND		16	98
1,3,5-Trimethylbenzene	ND		30	98
1,3-Dichlorobenzene	ND		26	98
1,4-Dichlorobenzene	ND		14	98
2-Butanone (MEK)	ND		290	490
2-Hexanone	ND		200	490
4-Isopropyltoluene	ND		33	98
4-Methyl-2-pentanone (MIBK)	ND		31	490
Acetone	ND		400	490
Benzene	ND		19	98
Bromoform	ND		49	98
Bromomethane	ND		22	98
Carbon disulfide	ND		45	98
Carbon tetrachloride	ND		25	98
Chlorobenzene	ND		13	98
Dibromochloromethane	ND		48	98
Chloroethane	ND		20	98
Chloroform	ND		68	98
Chloromethane	ND		23	98
cis-1,2-Dichloroethene	ND		27	98
Cyclohexane	ND		22	98
Bromodichloromethane	ND		20	98
Dichlorodifluoromethane	ND		43	98
Ethylbenzene	ND		29	98
1,2-Dibromoethane	ND		17	98
Isopropylbenzene	ND		15	98
Methyl acetate	ND		47	98
Methyl tert-butyl ether	ND		37	98
Methylcyclohexane	ND		46	98
Methylene Chloride	86.8	J	19	98
m,p-Xylene	ND		55	200
Naphthalene	ND		33	98
n-Butylbenzene	ND		29	98
N-Propylbenzene	ND		26	98

Client: Stantec Consulting Services Inc

Job Number: 480-100656-1

Method Blank - Batch: 480-303931

Method: 8260C
Preparation: 5035A

Lab Sample ID:	MB 480-303931/2-A	Analysis Batch:	480-303905	Instrument ID:	HP5973N
Client Matrix:	Solid	Prep Batch:	480-303931	Lab File ID:	N3891.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5.08 g
Analysis Date:	05/26/2016 2253	Units:	ug/Kg	Final Weight/Volume:	10 mL
Prep Date:	05/26/2016 1852				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
o-Xylene	ND		13	98
sec-Butylbenzene	ND		36	98
Tetrachloroethene	ND		13	98
Toluene	ND		26	98
trans-1,2-Dichloroethene	ND		23	98
trans-1,3-Dichloropropene	ND		9.7	98
Trichloroethene	ND		27	98
Trichlorofluoromethane	ND		46	98
Vinyl chloride	ND		33	98
Xylenes, Total	ND		55	200
cis-1,3-Dichloropropene	ND		24	98
Styrene	ND		24	98
tert-Butylbenzene	ND		27	98

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	100	53 - 146
4-Bromofluorobenzene (Surr)	108	49 - 148
Toluene-d8 (Surr)	98	50 - 149
Dibromofluoromethane (Surr)	101	60 - 140

Method Blank TICs- Batch: 480-303931

Cas Number	Analyte	RT	Est. Result (ug/	Qual
	Tentatively Identified Compound		None	

Lab Control Sample - Batch: 480-303931

Method: 8260C
Preparation: 5035A

Lab Sample ID:	LCS 480-303931/1-A	Analysis Batch:	480-303981	Instrument ID:	HP5973N
Client Matrix:	Solid	Prep Batch:	480-303931	Lab File ID:	N3920.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5.03 g
Analysis Date:	05/27/2016 1030	Units:	ug/Kg	Final Weight/Volume:	10 mL
Prep Date:	05/26/2016 1852				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
1,1,1-Trichloroethane	2490	2850	115	68 - 130	
1,1,2,2-Tetrachloroethane	2490	2590	104	73 - 119	
1,1,2-Trichloro-1,2,2-trifluoroethane	2490	2950	119	10 - 179	
1,1,2-Trichloroethane	2490	2750	111	81 - 115	
1,1-Dichloroethane	2490	2670	107	78 - 121	
1,1-Dichloroethene	2490	2580	104	48 - 133	
1,2,4-Trichlorobenzene	2490	2150	87	70 - 140	
1,2,4-Trimethylbenzene	2490	2500	101	77 - 127	
1,2-Dibromo-3-Chloropropane	2490	2070	83	56 - 122	
1,2-Dichlorobenzene	2490	2370	95	78 - 125	
1,2-Dichloroethane	2490	2500	101	74 - 127	
1,2-Dichloropropane	2490	2760	111	81 - 115	
1,3,5-Trimethylbenzene	2490	2530	102	79 - 119	
1,3-Dichlorobenzene	2490	2520	101	82 - 114	
1,4-Dichlorobenzene	2490	2490	100	81 - 113	
2-Butanone (MEK)	12400	12400	100	54 - 149	
2-Hexanone	12400	13500	109	59 - 127	
4-Isopropyltoluene	2490	2500	101	82 - 119	
4-Methyl-2-pentanone (MIBK)	12400	13100	105	74 - 120	
Acetone	12400	9780	79	47 - 141	
Benzene	2490	2690	108	77 - 125	
Bromoform	2490	2860	115	48 - 125	
Bromomethane	2490	2220	89	39 - 149	
Carbon disulfide	2490	2340	94	40 - 136	
Carbon tetrachloride	2490	3020	122	54 - 135	
Chlorobenzene	2490	2630	106	76 - 126	
Dibromochloromethane	2490	2800	113	64 - 118	
Chloroethane	2490	2510	101	23 - 164	
Chloroform	2490	2600	105	78 - 118	
Chloromethane	2490	2240	90	61 - 124	
cis-1,2-Dichloroethene	2490	2490	100	79 - 124	
Cyclohexane	2490	3000	121	49 - 129	
Bromodichloromethane	2490	2750	111	71 - 121	
Dichlorodifluoromethane	2490	2390	96	10 - 150	
Ethylbenzene	2490	2530	102	78 - 124	
1,2-Dibromoethane	2490	2700	109	81 - 119	
Isopropylbenzene	2490	2730	110	76 - 119	
Methyl acetate	12400	13600	110	71 - 123	
Methyl tert-butyl ether	2490	2560	103	67 - 137	
Methylcyclohexane	2490	2950	119	50 - 130	
Methylene Chloride	2490	2680	108	75 - 118	

Client: Stantec Consulting Services Inc

Job Number: 480-100656-1

Lab Control Sample - Batch: 480-303931

Method: 8260C
Preparation: 5035A

Lab Sample ID:	LCS 480-303931/1-A	Analysis Batch:	480-303981	Instrument ID:	HP5973N
Client Matrix:	Solid	Prep Batch:	480-303931	Lab File ID:	N3920.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5.03 g
Analysis Date:	05/27/2016 1030	Units:	ug/Kg	Final Weight/Volume:	10 mL
Prep Date:	05/26/2016 1852				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
m,p-Xylene	2490	2670	108	77 - 125	
Naphthalene	2490	1950	78	65 - 142	
n-Butylbenzene	2490	2400	96	81 - 119	
N-Propylbenzene	2490	2770	112	76 - 118	
o-Xylene	2490	2420	97	80 - 124	
sec-Butylbenzene	2490	2520	101	79 - 118	
Tetrachloroethene	2490	2770	112	73 - 133	
Toluene	2490	2600	105	75 - 124	
trans-1,2-Dichloroethene	2490	2640	106	74 - 129	
trans-1,3-Dichloropropene	2490	2750	111	73 - 118	
Trichloroethene	2490	2840	114	75 - 131	
Trichlorofluoromethane	2490	2890	116	29 - 158	
Vinyl chloride	2490	2560	103	59 - 124	
cis-1,3-Dichloropropene	2490	2780	112	75 - 121	
Styrene	2490	2630	106	84 - 119	
tert-Butylbenzene	2490	2480	100	78 - 118	

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	95	53 - 146
4-Bromofluorobenzene (Surr)	107	49 - 148
Toluene-d8 (Surr)	98	50 - 149
Dibromofluoromethane (Surr)	95	60 - 140

Method Blank - Batch: 480-304148

Method: 8260C
Preparation: 5035A

Lab Sample ID:	MB 480-304148/1-A	Analysis Batch:	480-304122	Instrument ID:	HP5973N
Client Matrix:	Solid	Prep Batch:	480-304148	Lab File ID:	N3951.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5.08 g
Analysis Date:	05/27/2016 2318	Units:	ug/Kg	Final Weight/Volume:	10 mL
Prep Date:	05/27/2016 1939				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
1,1,1-Trichloroethane	ND		27	98
1,1,2,2-Tetrachloroethane	ND		16	98
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		49	98
1,1,2-Trichloroethane	ND		21	98
1,1-Dichloroethane	ND		30	98
1,1-Dichloroethene	ND		34	98
1,2,4-Trichlorobenzene	ND		37	98
1,2,4-Trimethylbenzene	ND		27	98
1,2-Dibromo-3-Chloropropane	ND		49	98
1,2-Dichlorobenzene	ND		25	98
1,2-Dichloroethane	ND		40	98
1,2-Dichloropropane	ND		16	98
1,3,5-Trimethylbenzene	ND		30	98
1,3-Dichlorobenzene	ND		26	98
1,4-Dichlorobenzene	ND		14	98
2-Butanone (MEK)	ND		290	490
2-Hexanone	ND		200	490
4-Isopropyltoluene	ND		33	98
4-Methyl-2-pentanone (MIBK)	ND		31	490
Acetone	ND		400	490
Benzene	ND		19	98
Bromoform	ND		49	98
Bromomethane	ND		22	98
Carbon disulfide	ND		45	98
Carbon tetrachloride	ND		25	98
Chlorobenzene	ND		13	98
Dibromochloromethane	ND		48	98
Chloroethane	ND		20	98
Chloroform	ND		68	98
Chloromethane	ND		23	98
cis-1,2-Dichloroethene	ND		27	98
Cyclohexane	ND		22	98
Bromodichloromethane	ND		20	98
Dichlorodifluoromethane	ND		43	98
Ethylbenzene	ND		29	98
1,2-Dibromoethane	ND		17	98
Isopropylbenzene	ND		15	98
Methyl acetate	ND		47	98
Methyl tert-butyl ether	ND		37	98
Methylcyclohexane	ND		46	98
Methylene Chloride	ND		19	98
m,p-Xylene	ND		55	200
Naphthalene	ND		33	98
n-Butylbenzene	ND		29	98
N-Propylbenzene	ND		26	98

Client: Stantec Consulting Services Inc

Job Number: 480-100656-1

Method Blank - Batch: 480-304148

Method: 8260C
Preparation: 5035A

Lab Sample ID:	MB 480-304148/1-A	Analysis Batch:	480-304122	Instrument ID:	HP5973N
Client Matrix:	Solid	Prep Batch:	480-304148	Lab File ID:	N3951.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5.08 g
Analysis Date:	05/27/2016 2318	Units:	ug/Kg	Final Weight/Volume:	10 mL
Prep Date:	05/27/2016 1939				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
o-Xylene	ND		13	98
sec-Butylbenzene	ND		36	98
Tetrachloroethene	ND		13	98
Toluene	ND		26	98
trans-1,2-Dichloroethene	ND		23	98
trans-1,3-Dichloropropene	ND		9.7	98
Trichloroethene	ND		27	98
Trichlorofluoromethane	ND		46	98
Vinyl chloride	ND		33	98
Xylenes, Total	ND		55	200
cis-1,3-Dichloropropene	ND		24	98
Styrene	ND		24	98
tert-Butylbenzene	ND		27	98

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	94	53 - 146
4-Bromofluorobenzene (Surr)	112	49 - 148
Toluene-d8 (Surr)	99	50 - 149
Dibromofluoromethane (Surr)	95	60 - 140

Method Blank TICs- Batch: 480-304148

Cas Number	Analyte	RT	Est. Result (ug/	Qual
	Tentatively Identified Compound		None	

Client: Stantec Consulting Services Inc Job Number: 480-100656-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 480-304148

Method: 8260C
Preparation: 5035A

LCS Lab Sample ID:	LCS 480-304148/2-A	Analysis Batch:	480-304122	Instrument ID:	HP5973N
Client Matrix:	Solid	Prep Batch:	480-304148	Lab File ID:	N3948.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5.09 g
Analysis Date:	05/27/2016 2157	Units:	ug/Kg	Final Weight/Volume:	10 mL
Prep Date:	05/27/2016 1939				5 mL
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 480-304148/3-A	Analysis Batch:	480-304122	Instrument ID:	HP5973N
Client Matrix:	Solid	Prep Batch:	480-304148	Lab File ID:	N3949.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5.25 g
Analysis Date:	05/27/2016 2224	Units:	ug/Kg	Final Weight/Volume:	10 mL
Prep Date:	05/27/2016 1939				5 mL
Leach Date:	N/A				

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
1,1,1-Trichloroethane	119	115	68 - 130	7	20		
1,1,2,2-Tetrachloroethane	101	102	73 - 119	3	20		
1,1,2-Trichloro-1,2,2-trifluoroethane	129	124	10 - 179	8	20		
1,1,2-Trichloroethane	110	114	81 - 115	1	20		
1,1-Dichloroethane	111	105	78 - 121	8	20		
1,1-Dichloroethene	110	109	48 - 133	4	20		
1,2,4-Trichlorobenzene	87	95	70 - 140	5	20		
1,2,4-Trimethylbenzene	98	100	77 - 127	0	20		
1,2-Dibromo-3-Chloropropane	79	81	56 - 122	1	20		
1,2-Dichlorobenzene	95	95	78 - 125	3	20		
1,2-Dichloroethane	102	98	74 - 127	7	20		
1,2-Dichloropropane	106	110	81 - 115	1	20		
1,3,5-Trimethylbenzene	101	103	79 - 119	0	20		
1,3-Dichlorobenzene	97	98	82 - 114	2	20		
1,4-Dichlorobenzene	98	100	81 - 113	2	20		
2-Butanone (MEK)	81	86	54 - 149	2	20		
2-Hexanone	97	103	59 - 127	2	20		
4-Isopropyltoluene	98	103	82 - 119	2	20		
4-Methyl-2-pentanone (MIBK)	98	101	74 - 120	1	20		
Acetone	65	70	47 - 141	4	20		
Benzene	110	107	77 - 125	6	20		
Bromoform	117	121	48 - 125	0	20		
Bromomethane	97	96	39 - 149	5	20		
Carbon disulfide	109	108	40 - 136	4	20		
Carbon tetrachloride	125	121	54 - 135	6	20		
Chlorobenzene	111	109	76 - 126	6	20		
Dibromochloromethane	113	110	64 - 118	6	20		
Chloroethane	107	105	23 - 164	5	20		
Chloroform	105	103	78 - 118	6	20		
Chloromethane	97	94	61 - 124	6	20		
cis-1,2-Dichloroethene	104	100	79 - 124	7	20		
Cyclohexane	128	125	49 - 129	6	20		
Bromodichloromethane	107	107	71 - 121	3	20		
Dichlorodifluoromethane	97	98	10 - 150	3	20		
Ethylbenzene	105	103	78 - 124	5	20		

Client: Stantec Consulting Services Inc Job Number: 480-100656-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 480-304148

Method: 8260C
Preparation: 5035A

LCS Lab Sample ID:	LCS 480-304148/2-A	Analysis Batch:	480-304122	Instrument ID:	HP5973N
Client Matrix:	Solid	Prep Batch:	480-304148	Lab File ID:	N3948.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5.09 g
Analysis Date:	05/27/2016 2157	Units:	ug/Kg	Final Weight/Volume:	10 mL
Prep Date:	05/27/2016 1939				5 mL
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 480-304148/3-A	Analysis Batch:	480-304122	Instrument ID:	HP5973N
Client Matrix:	Solid	Prep Batch:	480-304148	Lab File ID:	N3949.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5.25 g
Analysis Date:	05/27/2016 2224	Units:	ug/Kg	Final Weight/Volume:	10 mL
Prep Date:	05/27/2016 1939				5 mL
Leach Date:	N/A				

Analyte	% Rec. LCS	% Rec. LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
1,2-Dibromoethane	108	111	81 - 119	1	20		
Isopropylbenzene	107	109	76 - 119	1	20		
Methyl acetate	102	100	71 - 123	5	20		
Methyl tert-butyl ether	103	99	67 - 137	6	20		
Methylcyclohexane	122	119	50 - 130	5	20		
Methylene Chloride	108	105	75 - 118	6	20		
m,p-Xylene	110	106	77 - 125	6	20		
Naphthalene	76	82	65 - 142	5	20		
n-Butylbenzene	97	102	81 - 119	3	20		
N-Propylbenzene	108	110	76 - 118	1	20		
o-Xylene	103	100	80 - 124	6	20		
sec-Butylbenzene	99	104	79 - 118	2	20		
Tetrachloroethene	118	114	73 - 133	7	20		
Toluene	112	109	75 - 124	6	20		
trans-1,2-Dichloroethene	110	109	74 - 129	4	20		
trans-1,3-Dichloropropene	109	107	73 - 118	5	20		
Trichloroethene	118	113	75 - 131	7	20		
Trichlorofluoromethane	126	115	29 - 158	12	20		
Vinyl chloride	115	110	59 - 124	7	20		
cis-1,3-Dichloropropene	104	105	75 - 121	2	20		
Styrene	110	109	84 - 119	4	20		
tert-Butylbenzene	95	100	78 - 118	1	20		

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	93	92	53 - 146
4-Bromofluorobenzene (Surr)	107	112	49 - 148
Toluene-d8 (Surr)	98	97	50 - 149
Dibromofluoromethane (Surr)	96	93	60 - 140

Method Blank - Batch: 480-304227

Method: 8260C
Preparation: 5035A

Lab Sample ID:	MB 480-304227/2-A	Analysis Batch:	480-304224	Instrument ID:	HP5973F
Client Matrix:	Solid	Prep Batch:	480-304227	Lab File ID:	F6736.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5.03 g
Analysis Date:	05/29/2016 1634	Units:	ug/Kg	Final Weight/Volume:	5 mL
Prep Date:	05/29/2016 1408				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
1,1,1-Trichloroethane	ND		0.36	5.0
1,1,2,2-Tetrachloroethane	ND		0.81	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.1	5.0
1,1,2-Trichloroethane	ND		0.65	5.0
1,1-Dichloroethane	ND		0.61	5.0
1,1-Dichloroethene	ND		0.61	5.0
1,2,4-Trichlorobenzene	ND		0.30	5.0
1,2,4-Trimethylbenzene	ND		0.95	5.0
1,2-Dibromo-3-Chloropropane	ND		2.5	5.0
1,2-Dichlorobenzene	ND		0.39	5.0
1,2-Dichloroethane	ND		0.25	5.0
1,2-Dichloropropane	ND		2.5	5.0
1,3,5-Trimethylbenzene	ND		0.32	5.0
1,3-Dichlorobenzene	ND		0.26	5.0
1,4-Dichlorobenzene	ND		0.70	5.0
2-Butanone (MEK)	ND		1.8	25
2-Hexanone	ND		2.5	25
4-Isopropyltoluene	ND		0.40	5.0
4-Methyl-2-pentanone (MIBK)	ND		1.6	25
Acetone	10.6	J	4.2	25
Benzene	ND		0.24	5.0
Bromoform	ND		2.5	5.0
Bromomethane	ND		0.45	5.0
Carbon disulfide	ND		2.5	5.0
Carbon tetrachloride	ND		0.48	5.0
Chlorobenzene	ND		0.66	5.0
Dibromochloromethane	ND		0.64	5.0
Chloroethane	ND		1.1	5.0
Chloroform	ND		0.31	5.0
Chloromethane	ND		0.30	5.0
cis-1,2-Dichloroethene	ND		0.64	5.0
Cyclohexane	ND		0.70	5.0
Bromodichloromethane	ND		0.67	5.0
Dichlorodifluoromethane	ND		0.41	5.0
Ethylbenzene	ND		0.34	5.0
1,2-Dibromoethane	ND		0.64	5.0
Isopropylbenzene	ND		0.75	5.0
Methyl acetate	ND		3.0	5.0
Methyl tert-butyl ether	ND		0.49	5.0
Methylcyclohexane	ND		0.76	5.0
Methylene Chloride	ND		2.3	5.0
m,p-Xylene	ND		0.83	9.9
Naphthalene	ND		0.67	5.0
n-Butylbenzene	ND		0.43	5.0
N-Propylbenzene	ND		0.40	5.0

Client: Stantec Consulting Services Inc

Job Number: 480-100656-1

Method Blank - Batch: 480-304227

Method: 8260C
Preparation: 5035A

Lab Sample ID:	MB 480-304227/2-A	Analysis Batch:	480-304224	Instrument ID:	HP5973F
Client Matrix:	Solid	Prep Batch:	480-304227	Lab File ID:	F6736.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5.03 g
Analysis Date:	05/29/2016 1634	Units:	ug/Kg	Final Weight/Volume:	5 mL
Prep Date:	05/29/2016 1408				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
o-Xylene	ND		0.65	5.0
sec-Butylbenzene	ND		0.43	5.0
Tetrachloroethene	ND		0.67	5.0
Toluene	ND		0.38	5.0
trans-1,2-Dichloroethene	ND		0.51	5.0
trans-1,3-Dichloropropene	ND		2.2	5.0
Trichloroethene	ND		1.1	5.0
Trichlorofluoromethane	ND		0.47	5.0
Vinyl chloride	ND		0.61	5.0
Xylenes, Total	ND		0.83	9.9
cis-1,3-Dichloropropene	ND		0.72	5.0
Styrene	ND		0.25	5.0
tert-Butylbenzene	ND		0.52	5.0

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	83	64 - 126
4-Bromofluorobenzene (Surr)	119	72 - 126
Toluene-d8 (Surr)	89	71 - 125
Dibromofluoromethane (Surr)	89	60 - 140

Method Blank TICs- Batch: 480-304227

Cas Number	Analyte	RT	Est. Result (ug/	Qual
544-10-5	1-Chlorohexane	8.09	1.24	J
	Tentatively Identified Compound		None	

Lab Control Sample - Batch: 480-304227

Method: 8260C
Preparation: 5035A

Lab Sample ID:	LCS 480-304227/1-A	Analysis Batch:	480-304224	Instrument ID:	HP5973F
Client Matrix:	Solid	Prep Batch:	480-304227	Lab File ID:	F6734.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5.06 g
Analysis Date:	05/29/2016 1543	Units:	ug/Kg	Final Weight/Volume:	5 mL
Prep Date:	05/29/2016 1408				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
1,1,1-Trichloroethane	49.4	50.6	103	77 - 121	
1,1,2,2-Tetrachloroethane	49.4	44.1	89	80 - 120	
1,1,2-Trichloro-1,2,2-trifluoroethane	49.4	47.1	95	60 - 140	
1,1,2-Trichloroethane	49.4	46.9	95	78 - 122	
1,1-Dichloroethane	49.4	46.7	95	73 - 126	
1,1-Dichloroethene	49.4	46.3	94	59 - 125	
1,2,4-Trichlorobenzene	49.4	47.6	96	64 - 120	
1,2,4-Trimethylbenzene	49.4	44.4	90	74 - 120	
1,2-Dibromo-3-Chloropropane	49.4	51.3	104	63 - 124	
1,2-Dichlorobenzene	49.4	45.3	92	75 - 120	
1,2-Dichloroethane	49.4	47.8	97	77 - 122	
1,2-Dichloropropane	49.4	44.4	90	75 - 124	
1,3,5-Trimethylbenzene	49.4	44.8	91	74 - 120	
1,3-Dichlorobenzene	49.4	46.0	93	74 - 120	
1,4-Dichlorobenzene	49.4	45.9	93	73 - 120	
2-Butanone (MEK)	247	276	112	70 - 134	
2-Hexanone	247	263	106	59 - 130	
4-Isopropyltoluene	49.4	45.6	92	74 - 120	
4-Methyl-2-pentanone (MIBK)	247	239	97	65 - 133	
Acetone	247	312	126	61 - 137	
Benzene	49.4	45.8	93	79 - 127	
Bromoform	49.4	49.6	100	68 - 126	
Bromomethane	49.4	57.8	117	37 - 149	
Carbon disulfide	49.4	44.9	91	64 - 131	
Carbon tetrachloride	49.4	53.0	107	75 - 135	
Chlorobenzene	49.4	47.3	96	76 - 124	
Dibromochloromethane	49.4	53.2	108	76 - 125	
Chloroethane	49.4	56.1	114	69 - 135	
Chloroform	49.4	46.9	95	80 - 118	
Chloromethane	49.4	43.1	87	63 - 127	
cis-1,2-Dichloroethene	49.4	47.5	96	81 - 117	
Cyclohexane	49.4	44.5	90	65 - 106	
Bromodichloromethane	49.4	49.8	101	80 - 122	
Dichlorodifluoromethane	49.4	43.7	88	57 - 142	
Ethylbenzene	49.4	47.0	95	80 - 120	
1,2-Dibromoethane	49.4	49.2	100	78 - 120	
Isopropylbenzene	49.4	44.9	91	72 - 120	
Methyl acetate	247	238	96	55 - 136	
Methyl tert-butyl ether	49.4	47.8	97	63 - 125	
Methylcyclohexane	49.4	46.4	94	60 - 140	
Methylene Chloride	49.4	49.4	100	61 - 127	

Client: Stantec Consulting Services Inc

Job Number: 480-100656-1

Lab Control Sample - Batch: 480-304227

Method: 8260C
Preparation: 5035A

Lab Sample ID:	LCS 480-304227/1-A	Analysis Batch:	480-304224	Instrument ID:	HP5973F
Client Matrix:	Solid	Prep Batch:	480-304227	Lab File ID:	F6734.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5.06 g
Analysis Date:	05/29/2016 1543	Units:	ug/Kg	Final Weight/Volume:	5 mL
Prep Date:	05/29/2016 1408				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
m,p-Xylene	49.4	46.5	94	70 - 130	
Naphthalene	49.4	47.7	96	38 - 137	
n-Butylbenzene	49.4	44.9	91	70 - 120	
N-Propylbenzene	49.4	44.1	89	70 - 130	
o-Xylene	49.4	46.8	95	70 - 130	
sec-Butylbenzene	49.4	45.3	92	74 - 120	
Tetrachloroethene	49.4	51.1	103	74 - 122	
Toluene	49.4	43.0	87	74 - 128	
trans-1,2-Dichloroethene	49.4	47.9	97	78 - 126	
trans-1,3-Dichloropropene	49.4	49.3	100	73 - 123	
Trichloroethene	49.4	47.6	96	77 - 129	
Trichlorofluoromethane	49.4	54.5	110	65 - 146	
Vinyl chloride	49.4	50.2	102	61 - 133	
cis-1,3-Dichloropropene	49.4	47.8	97	82 - 120	
Styrene	49.4	46.5	94	80 - 120	
tert-Butylbenzene	49.4	44.8	91	73 - 120	

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	84	64 - 126
4-Bromofluorobenzene (Surr)	120	72 - 126
Toluene-d8 (Surr)	91	71 - 125
Dibromofluoromethane (Surr)	89	60 - 140

Method Blank - Batch: 480-303732

Method: 8270D
Preparation: 3550C

Lab Sample ID:	MB 480-303732/1-A	Analysis Batch:	480-303993	Instrument ID:	HP5973X
Client Matrix:	Solid	Prep Batch:	480-303732	Lab File ID:	X00905312.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.09 g
Analysis Date:	05/27/2016 0925	Units:	ug/Kg	Final Weight/Volume:	1 mL
Prep Date:	05/26/2016 0738			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Biphenyl	ND		25	170
bis (2-chloroisopropyl) ether	ND		34	170
2,4,5-Trichlorophenol	ND		46	170
2,4,6-Trichlorophenol	ND		34	170
2,4-Dichlorophenol	ND		18	170
2,4-Dimethylphenol	ND		41	170
2,4-Dinitrophenol	ND		780	1700
2,4-Dinitrotoluene	ND		35	170
2,6-Dinitrotoluene	ND		20	170
2-Chloronaphthalene	ND		28	170
2-Chlorophenol	ND		31	170
2-Methylnaphthalene	ND		34	170
2-Methylphenol	ND		20	170
2-Nitroaniline	ND		25	330
2-Nitrophenol	ND		48	170
3,3'-Dichlorobenzidine	ND		200	330
3-Nitroaniline	ND		47	330
4,6-Dinitro-2-methylphenol	ND		170	330
4-Bromophenyl phenyl ether	ND		24	170
4-Chloro-3-methylphenol	ND		42	170
4-Chloroaniline	ND		42	170
4-Chlorophenyl phenyl ether	ND		21	170
4-Methylphenol	ND		20	330
4-Nitroaniline	ND		89	330
4-Nitrophenol	ND		120	330
Acenaphthene	ND		25	170
Acenaphthylene	ND		22	170
Anthracene	ND		42	170
Atrazine	ND		59	170
Benzaldehyde	ND		130	170
Benzo[a]anthracene	ND		17	170
Benzo[a]pyrene	ND		25	170
Benzo[b]fluoranthene	ND		27	170
Benzo[g,h,i]perylene	ND		18	170
Benzo[k]fluoranthene	ND		22	170
Bis(2-chloroethoxy)methane	ND		36	170
Bis(2-chloroethyl)ether	ND		22	170
Bis(2-ethylhexyl) phthalate	ND		58	170
Butyl benzyl phthalate	ND		28	170
Caprolactam	ND		51	170
Carbazole	ND		20	170
Chrysene	ND		38	170
Di-n-butyl phthalate	ND		29	170
Di-n-octyl phthalate	ND		20	170
Dibenz(a,h)anthracene	ND		30	170

Client: Stantec Consulting Services Inc

Job Number: 480-100656-1

Method Blank - Batch: 480-303732

Method: 8270D
Preparation: 3550C

Lab Sample ID:	MB 480-303732/1-A	Analysis Batch:	480-303993	Instrument ID:	HP5973X
Client Matrix:	Solid	Prep Batch:	480-303732	Lab File ID:	X00905312.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.09 g
Analysis Date:	05/27/2016 0925	Units:	ug/Kg	Final Weight/Volume:	1 mL
Prep Date:	05/26/2016 0738			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Dibenzofuran	ND		20	170
Diethyl phthalate	ND		22	170
Dimethyl phthalate	ND		20	170
Fluoranthene	ND		18	170
Fluorene	ND		20	170
Hexachlorobenzene	ND		23	170
Hexachlorobutadiene	ND		25	170
Hexachlorocyclopentadiene	ND		23	170
Hexachloroethane	ND		22	170
Indeno[1,2,3-cd]pyrene	ND		21	170
Isophorone	ND		36	170
N-Nitrosodi-n-propylamine	ND		29	170
N-Nitrosodiphenylamine	ND		140	170
Naphthalene	ND		22	170
Nitrobenzene	ND		19	170
Pentachlorophenol	ND		170	330
Phenanthrene	ND		25	170
Phenol	ND		26	170
Pyrene	ND		20	170

Surrogate	% Rec	Acceptance Limits
2,4,6-Tribromophenol	85	39 - 146
2-Fluorobiphenyl	73	37 - 120
2-Fluorophenol	63	18 - 120
Nitrobenzene-d5	68	34 - 132
p-Terphenyl-d14	83	65 - 153
Phenol-d5	66	11 - 120

Method Blank TICs- Batch: 480-303732

Cas Number	Analyte	RT	Est. Result (ug/	Qual
79-34-5	Ethane, 1,1,2,2-tetrachloro-	5.53	217	T J N
	Unknown	1.70	1260	T J
	Unknown	1.97	2870	T J
	Unknown	1.84	338	T J
	Unknown	4.48	355	T J
	Unknown	1.92	925	T J

Lab Control Sample - Batch: 480-303732

Method: 8270D
Preparation: 3550C

Lab Sample ID:	LCS 480-303732/2-A	Analysis Batch:	480-303993	Instrument ID:	HP5973X
Client Matrix:	Solid	Prep Batch:	480-303732	Lab File ID:	X00905313.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.07 g
Analysis Date:	05/27/2016 0952	Units:	ug/Kg	Final Weight/Volume:	1 mL
Prep Date:	05/26/2016 0738			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Biphenyl	1660	1220	73	71 - 120	
bis (2-chloroisopropyl) ether	1660	816	49	44 - 120	
2,4,5-Trichlorophenol	1660	1330	80	59 - 126	
2,4,6-Trichlorophenol	1660	1350	81	59 - 123	
2,4-Dichlorophenol	1660	1220	74	52 - 120	
2,4-Dimethylphenol	1660	1180	71	36 - 120	
2,4-Dinitrophenol	3330	3050	92	35 - 146	
2,4-Dinitrotoluene	1660	1360	82	55 - 125	
2,6-Dinitrotoluene	1660	1320	79	66 - 128	
2-Chloronaphthalene	1660	1190	71	57 - 120	
2-Chlorophenol	1660	1020	61	38 - 120	
2-Methylnaphthalene	1660	1170	70	47 - 120	
2-Methylphenol	1660	1020	61	48 - 120	
2-Nitroaniline	1660	1240	75	61 - 130	
2-Nitrophenol	1660	1180	71	50 - 120	
3,3'-Dichlorobenzidine	3330	2450	74	48 - 126	
3-Nitroaniline	1660	1130	68	61 - 127	
4,6-Dinitro-2-methylphenol	3330	3090	93	49 - 155	
4-Bromophenyl phenyl ether	1660	1410	85	58 - 131	
4-Chloro-3-methylphenol	1660	1280	77	49 - 125	
4-Chloroaniline	1660	916	55	49 - 120	
4-Chlorophenyl phenyl ether	1660	1330	80	63 - 124	
4-Methylphenol	1660	1070	64	50 - 119	
4-Nitroaniline	1660	1210	72	63 - 128	
4-Nitrophenol	3330	3070	92	43 - 137	
Acenaphthene	1660	1220	73	53 - 120	
Acenaphthylene	1660	1250	75	58 - 121	
Anthracene	1660	1390	83	62 - 129	
Atrazine	3330	2770	83	60 - 164	
Benzaldehyde	3330	1560	47	21 - 120	
Benzo[a]anthracene	1660	1340	81	65 - 133	
Benzo[a]pyrene	1660	1410	85	64 - 127	
Benzo[b]fluoranthene	1660	1380	83	64 - 135	
Benzo[g,h,i]perylene	1660	1340	81	50 - 152	
Benzo[k]fluoranthene	1660	1400	84	58 - 138	
Bis(2-chloroethoxy)methane	1660	1050	63	61 - 133	
Bis(2-chloroethyl)ether	1660	901	54	45 - 120	
Bis(2-ethylhexyl) phthalate	1660	1350	81	61 - 133	
Butyl benzyl phthalate	1660	1330	80	61 - 129	
Caprolactam	3330	2330	70	54 - 133	
Carbazole	1660	1360	82	59 - 129	

Client: Stantec Consulting Services Inc

Job Number: 480-100656-1

Lab Control Sample - Batch: 480-303732

Method: 8270D
Preparation: 3550C

Lab Sample ID:	LCS 480-303732/2-A	Analysis Batch:	480-303993	Instrument ID:	HP5973X
Client Matrix:	Solid	Prep Batch:	480-303732	Lab File ID:	X00905313.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.07 g
Analysis Date:	05/27/2016 0952	Units:	ug/Kg	Final Weight/Volume:	1 mL
Prep Date:	05/26/2016 0738			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Chrysene	1660	1360	82	64 - 131	
Di-n-butyl phthalate	1660	1400	84	58 - 130	
Di-n-octyl phthalate	1660	1340	80	62 - 133	
Dibenz(a,h)anthracene	1660	1350	81	54 - 148	
Dibenzofuran	1660	1260	76	56 - 120	
Diethyl phthalate	1660	1360	82	66 - 126	
Dimethyl phthalate	1660	1330	80	65 - 124	
Fluoranthene	1660	1430	86	62 - 131	
Fluorene	1660	1300	78	63 - 126	
Hexachlorobenzene	1660	1470	88	60 - 132	
Hexachlorobutadiene	1660	1170	71	45 - 120	
Hexachlorocyclopentadiene	1660	1050	63	31 - 120	
Hexachloroethane	1660	899	54	41 - 120	
Indeno[1,2,3-cd]pyrene	1660	1360	82	56 - 149	
Isophorone	1660	1110	67	56 - 120	
N-Nitrosodi-n-propylamine	1660	1010	61	46 - 120	
N-Nitrosodiphenylamine	1660	1330	80	20 - 119	
Naphthalene	1660	1080	65	46 - 120	
Nitrobenzene	1660	1060	63	49 - 120	
Pentachlorophenol	3330	2900	87	33 - 136	
Phenanthrene	1660	1380	83	60 - 130	
Phenol	1660	983	59	36 - 120	
Pyrene	1660	1420	86	51 - 133	

Surrogate	% Rec	Acceptance Limits
2,4,6-Tribromophenol	95	39 - 146
2-Fluorobiphenyl	73	37 - 120
2-Fluorophenol	57	18 - 120
Nitrobenzene-d5	67	34 - 132
p-Terphenyl-d14	83	65 - 153
Phenol-d5	60	11 - 120

Method Blank - Batch: 480-304485

Method: 8270D
Preparation: 3550C

Lab Sample ID:	MB 480-304485/1-A	Analysis Batch:	480-304626	Instrument ID:	HP5973X
Client Matrix:	Solid	Prep Batch:	480-304485	Lab File ID:	X00905338.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.04 g
Analysis Date:	06/01/2016 1849	Units:	ug/Kg	Final Weight/Volume:	1 mL
Prep Date:	06/01/2016 0731			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Acetophenone	ND		23	170

Surrogate	% Rec	Acceptance Limits
2,4,6-Tribromophenol	91	39 - 146
2-Fluorobiphenyl	76	37 - 120
2-Fluorophenol	64	18 - 120
Nitrobenzene-d5	71	34 - 132
p-Terphenyl-d14	78	65 - 153
Phenol-d5	67	11 - 120

Method Blank TICs- Batch: 480-304485

Cas Number	Analyte	RT	Est. Result (ug/	Qual
79-34-5	Ethane, 1,1,2,2-tetrachloro-	5.49	397	T J N
79-00-5	Ethane, 1,1,2-trichloro-	3.51	203	T J N
	Unknown	1.81	230	T J
	Unknown	1.94	3000	T J
	Unknown	1.67	315	T J
	Unknown	4.44	442	T J
	Unknown	1.90	779	T J

Client: Stantec Consulting Services Inc

Job Number: 480-100656-1

Lab Control Sample - Batch: 480-304485

Method: 8270D
Preparation: 3550C

Lab Sample ID:	LCS 480-304485/2-A	Analysis Batch:	480-304626	Instrument ID:	HP5973X
Client Matrix:	Solid	Prep Batch:	480-304485	Lab File ID:	X00905339.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.26 g
Analysis Date:	06/01/2016 1915	Units:	ug/Kg	Final Weight/Volume:	1 mL
Prep Date:	06/01/2016 0731			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Acetophenone	1650	1100	66	66 - 120	

Surrogate	% Rec	Acceptance Limits
2,4,6-Tribromophenol	94	39 - 146
2-Fluorobiphenyl	73	37 - 120
2-Fluorophenol	62	18 - 120
Nitrobenzene-d5	69	34 - 132
p-Terphenyl-d14	75	65 - 153
Phenol-d5	63	11 - 120

Client: Stantec Consulting Services Inc

Job Number: 480-100656-1

Method Blank - Batch: 480-304674

Method: 8081B
Preparation: 3550C

Lab Sample ID:	MB 480-304674/1-A	Analysis Batch:	480-304913	Instrument ID:	HP6890-25
Client Matrix:	Solid	Prep Batch:	480-304674	Lab File ID:	25_03-122.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.47 g
Analysis Date:	06/03/2016 0948	Units:	ug/Kg	Final Weight/Volume:	10 mL
Prep Date:	06/02/2016 0725			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Result	Qual	MDL	RL
4,4'-DDD	ND		0.32	1.6
4,4'-DDE	ND		0.34	1.6
4,4'-DDT	ND		0.38	1.6
Aldrin	ND		0.40	1.6
alpha-BHC	ND		0.30	1.6
alpha-Chlordane	ND		0.82	1.6
beta-BHC	ND		0.30	1.6
delta-BHC	ND		0.31	1.6
Dieldrin	ND		0.39	1.6
Endosulfan I	ND		0.32	1.6
Endosulfan II	ND		0.30	1.6
Endosulfan sulfate	ND		0.31	1.6
Endrin	ND		0.32	1.6
Endrin aldehyde	ND		0.42	1.6
gamma-BHC (Lindane)	ND		0.30	1.6
Endrin ketone	ND		0.40	1.6
gamma-Chlordane	ND		0.52	1.6
Heptachlor	ND		0.36	1.6
Heptachlor epoxide	ND		0.42	1.6
Methoxychlor	ND		0.33	1.6
Toxaphene	ND		9.6	16

Surrogate	% Rec	Acceptance Limits
DCB Decachlorobiphenyl	73	32 - 136
Tetrachloro-m-xylene	57	30 - 124

Client: Stantec Consulting Services Inc

Job Number: 480-100656-1

Lab Control Sample - Batch: 480-304674

Method: 8081B
Preparation: 3550C

Lab Sample ID:	LCS 480-304674/2-A	Analysis Batch:	480-304913	Instrument ID:	HP6890-25
Client Matrix:	Solid	Prep Batch:	480-304674	Lab File ID:	25_03-123.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.07 g
Analysis Date:	06/03/2016 1008	Units:	ug/Kg	Final Weight/Volume:	10 mL
Prep Date:	06/02/2016 0725			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
4,4'-DDD	16.6	12.8	77	52 - 138	
4,4'-DDE	16.6	11.3	68	52 - 131	
4,4'-DDT	16.6	14.7	88	50 - 131	
Aldrin	16.6	9.45	57	35 - 120	
alpha-BHC	16.6	9.46	57	49 - 120	
alpha-Chlordane	16.6	11.2	67	40 - 133	
beta-BHC	16.6	9.99	60	52 - 127	
delta-BHC	16.6	10.2	61	45 - 123	
Dieldrin	16.6	12.7	77	50 - 131	
Endosulfan I	16.6	11.6	70	43 - 121	
Endosulfan II	16.6	12.8	77	48 - 134	
Endosulfan sulfate	16.6	11.9	72	46 - 144	
Endrin	16.6	13.3	80	46 - 134	
Endrin aldehyde	16.6	12.1	73	31 - 137	
gamma-BHC (Lindane)	16.6	10.6	64	50 - 120	
Endrin ketone	16.6	13.9	83	44 - 140	
gamma-Chlordane	16.6	10.9	66	52 - 129	
Heptachlor	16.6	12.1	73	51 - 121	
Heptachlor epoxide	16.6	10.7	65	52 - 129	
Methoxychlor	16.6	18.0	108	50 - 149	

Surrogate	% Rec	Acceptance Limits
DCB Decachlorobiphenyl	74	32 - 136
Tetrachloro-m-xylene	88	30 - 124

Method Blank - Batch: 480-303838

Method: 8082A
Preparation: 3550C

Lab Sample ID:	MB 480-303838/1-A	Analysis Batch:	480-303915	Instrument ID:	HP6890-6
Client Matrix:	Solid	Prep Batch:	480-303838	Lab File ID:	6_04-136.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	2.74 g
Analysis Date:	05/26/2016 2041	Units:	mg/Kg	Final Weight/Volume:	10 mL
Prep Date:	05/26/2016 1203			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Result	Qual	MDL	RL
PCB-1016	ND		0.036	0.18
PCB-1221	ND		0.036	0.18
PCB-1232	ND		0.036	0.18
PCB-1242	ND		0.036	0.18
PCB-1248	ND		0.036	0.18
PCB-1254	ND		0.085	0.18
PCB-1260	ND		0.085	0.18

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	116	60 - 154
DCB Decachlorobiphenyl	125	65 - 174

Lab Control Sample - Batch: 480-303838

Method: 8082A
Preparation: 3550C

Lab Sample ID:	LCS 480-303838/2-A	Analysis Batch:	480-303915	Instrument ID:	HP6890-6
Client Matrix:	Solid	Prep Batch:	480-303838	Lab File ID:	6_04-137.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	2.96 g
Analysis Date:	05/26/2016 2057	Units:	mg/Kg	Final Weight/Volume:	10 mL
Prep Date:	05/26/2016 1203			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
PCB-1016	1.69	2.27	134	51 - 185	
PCB-1260	1.69	2.24	133	61 - 184	

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	131	60 - 154
DCB Decachlorobiphenyl	138	65 - 174

Client: Stantec Consulting Services Inc

Job Number: 480-100656-1

Method Blank - Batch: 480-303850

Method: 6010C
Preparation: 3050B

Lab Sample ID:	MB 480-303850/1-A	Analysis Batch:	480-304476	Instrument ID:	ICAP2
Client Matrix:	Solid	Prep Batch:	480-303850	Lab File ID:	I2053116A-4.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	+0.5021 g
Analysis Date:	05/31/2016 2003	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	05/31/2016 1033				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Aluminum	10.92		4.4	10
Antimony	ND		0.40	14.9
Arsenic	ND		0.40	2.0
Barium	ND		0.11	0.50
Beryllium	ND		0.028	0.20
Cadmium	ND		0.030	0.20
Calcium	83.96		3.3	49.8
Chromium	ND		0.20	0.50
Cobalt	ND		0.050	0.50
Copper	ND		0.21	1.0
Iron	13.32		3.5	10
Lead	ND		0.24	1.0
Magnesium	33.64		0.92	19.9
Manganese	0.462		0.032	0.20
Nickel	ND		0.23	5.0
Potassium	ND		19.9	29.9
Selenium	ND		0.40	4.0
Silver	ND		0.20	0.60
Sodium	ND		12.9	139
Thallium	ND		0.30	6.0
Vanadium	ND		0.11	0.50
Zinc	ND		0.64	2.0

Client: Stantec Consulting Services Inc

Job Number: 480-100656-1

LCS-Certified Reference Material - Batch: 480-303850

Method: 6010C
Preparation: 3050B

Lab Sample ID:	LCSSRM 480-303850/2-A	Analysis Batch:	480-304476	Instrument ID:	ICAP2
Client Matrix:	Solid	Prep Batch:	480-303850	Lab File ID:	I2053116A-4.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	+0.5065 g
Analysis Date:	05/31/2016 1219	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	05/31/2016 1033				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Aluminum	7930	8798	110.9	39.0 - 161.4	
Antimony	105	69.86	66.5	20.4 - 254.3	
Arsenic	98.5	84.00	85.3	69.3 - 145.2	
Barium	308	257.2	83.5	74.0 - 126.0	
Beryllium	66.0	56.15	85.1	73.6 - 126.4	
Cadmium	146	127.1	87.1	73.3 - 126.7	
Calcium	6610	5650	85.5	74.1 - 125.9	
Chromium	182	155.7	85.6	70.9 - 129.7	
Cobalt	162	160.1	98.8	74.1 - 125.3	
Copper	106	90.98	85.8	74.5 - 125.5	
Iron	14400	14180	98.5	35.6 - 163.9	
Lead	130	124.8	96.0	72.5 - 126.9	
Magnesium	2640	2387	90.4	64.4 - 136.0	
Manganese	410	352.2	85.9	76.3 - 123.9	
Nickel	149	149.8	100.5	73.2 - 126.8	
Potassium	2550	2558	100.3	60.8 - 138.8	
Selenium	154	128.6	83.5	67.5 - 132.5	
Silver	40.9	33.46	81.8	66.0 - 133.7	
Sodium	2480	2295	92.5	65.3 - 134.3	
Thallium	175	175.4	100.2	68.6 - 130.9	
Vanadium	96.7	89.63	92.7	64.4 - 135.5	
Zinc	191	161.6	84.6	69.6 - 130.4	

Method Blank - Batch: 480-303860

Method: 7471B
Preparation: 7471B

Lab Sample ID:	MB 480-303860/1-A	Analysis Batch:	480-304077	Instrument ID:	LEEMAN3
Client Matrix:	Solid	Prep Batch:	480-303860	Lab File ID:	J05276S1.PRN
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	+0.6179 g
Analysis Date:	05/27/2016 1006	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	05/26/2016 0700				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Mercury	ND		0.0079	0.019

LCS-Certified Reference Material - Batch: 480-303860

Method: 7471B
Preparation: 7471B

Lab Sample ID:	LCSSRM 480-303860/2-A	Analysis Batch:	480-304077	Instrument ID:	LEEMAN3
Client Matrix:	Solid	Prep Batch:	480-303860	Lab File ID:	J05276S1.PRN
Dilution:	5.0	Leach Batch:	N/A	Initial Weight/Volume:	+0.1402 g
Analysis Date:	05/27/2016 1007	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	05/26/2016 0700				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	7.10	6.56	92.4	51.3 - 149.3	

Client: Stantec Consulting Services Inc

Job Number: 480-100656-1

Method Blank - Batch: 480-304591

Method: 9012B
Preparation: 9012B

Lab Sample ID:	MB 480-304591/1-A	Analysis Batch:	480-304742	Instrument ID:	LACHAT2
Client Matrix:	Solid	Prep Batch:	480-304591	Lab File ID:	OM_6-2-2016_11-25-13
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.5393 g
Analysis Date:	06/02/2016 1128	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	06/01/2016 1455				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Cyanide, Total	ND		0.45	0.93

LCS-Certified Reference Material - Batch: 480-304591

Method: 9012B
Preparation: 9012B

Lab Sample ID:	LCSSRM 480-304591/2-A	Analysis Batch:	480-304742	Instrument ID:	LACHAT2
Client Matrix:	Solid	Prep Batch:	480-304591	Lab File ID:	OM_6-2-2016_11-25-13
Dilution:	2.0	Leach Batch:	N/A	Initial Weight/Volume:	0.5054 g
Analysis Date:	06/02/2016 1156	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	06/01/2016 1455				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Cyanide, Total	39.6	50.46	127.4	33.3 - 195.2	

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Laura Best	Lab PM: VanDette, Ryan T	Carrier Tracking No(s): waybill 810283188587	COC No: 480-83617-20485.2
Client Contact: Mr. Thomas Wells	Phone: (585)301-0166	E-Mail: ryan.vandette@testamericainc.com		Page: Page ~~2 of 2~~ (LB) 1 of 1
Company: Stantec Consulting Services Inc				Job #:
Address: 61 Commercial Street	Due Date Requested:			
City: Rochester	TAT Requested (days): std 10d			
State, Zip: NY, 14614				
Phone: 585-413-5625(Tel) 585-424-5951(Fax)	PO #: Purchase Order not required			
Email: tom.wells@stantec.com	WO #: 10137			
Project Name: Former Vacuum Oil Works	Project #: 48014042			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL
B - NaOH
C - Zn Acetate
D - Nitric Acid
E - NaHSO4
F - MeOH
G - Amchlor
H - Ascorbic Acid
M - Hexane
N - None
O - AsNaO2
P - Na2O4S
Q - Na2SO3
R - Na2S2O3
S - H2SO4
T - TSP Dodecahydrate

480-100656 Chain of Custody

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8270D, Moisture	8260C - Volatiles - Terracore	6010C, 7471B, 8081B, 8082A	9012B - Total and Amenable	Total Nu	Special Instructions/Note:
			Preservation Code:				N	N	N	N		
VO-B4-S	5/24/16	09:00	G	Solid			X	X			6	
~~Extra~~ (LB) VO-B5-S	5/24/16	10:15	G	Solid			X	X			6	
VO-B6-S	5/24/16	11:15	G	Solid			X	X			6	
VO-B7-S	5/24/16	11:50	G	Solid			X	X			6	~~Can hold~~ (LB)
VO-B1-S	5/24/16	15:30	G	S			X	X	X	X	8	may contain product PID = 383ppm
VO-B2-S	5/24/16	14:45	G	S			X	X			6	
VO-B3-S	5/24/16	14:00	G	S			X	X			6	
			~~FB~~ (LB)									

Laura Best 5/24/16

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements: NYSDEC ASP category A deliverables; NYSDECEQUIS EDD

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	Laura Best	5/24/16 18:00	Stantec	FEDEX		
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 5/25/16 0900	Company
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 3.0 #1

06/09/2016

Login Sample Receipt Checklist

Client: Stantec Consulting Services Inc

Job Number: 480-100656-1

Login Number: 100656
List Number: 1
Creator: Kolb, Chris M

List Source: TestAmerica Buffalo

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	terra core vials placed into frozen storage on 05/25/16 @ 1500
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	stantec
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 480-100804-1

Job Description: Former Vacuum Oil Works - Water

For:
Stantec Consulting Services Inc
61 Commercial Street
Rochester, NY 14614

Attention: Mr. Thomas D Wells

Approved for release.
Rebecca M Jones
Project Management Assistant I
6/8/2016 11:08 AM

Designee for
Ryan T VanDette, Project Manager II
10 Hazelwood Drive, Amherst, NY, 14228-2298
(716)504-9830
ryan.vandette@testamericainc.com
06/08/2016

The test results in this report meet all NELAP requirements for analytes for which accreditation is required or available. Any exceptions to the NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. All questions regarding this test report should be directed to the TestAmerica Project Manager who has signed this report.

TestAmerica Buffalo NELAC Certifications: CADPH 01169CA, FLDOH E87672, ILEPA 200003, KSDOH E-10187, LADEQ 30708, MDH 036-999-337, NHELAP 2973, NJDEP NY455, NHDOH 10026, ORELAP NY200003, PADEP 68-00281, TXCEQ T-104704412-10-1

Job Narrative
480-100804-1

Comments
No additional comments.

Receipt
The samples were received on 5/27/2016 10:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.8º C.

GC/MS VOA
Method(s) 8260C: The following volatiles samples were diluted due to foaming at the time of purging during the original sample analysis: VO-MW1-W (480-100804-1) and VO-MW2-W (480-100804-2). Elevated reporting limits (RLs) are provided.

Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 480-305188 recovered above the upper control limit for Trichlorofluoromethane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: VO-MW1-W (480-100804-1) and VO-MW2-W (480-100804-2).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA
Method(s) 8270D: The laboratory control sample (LCS) for preparation batch 480-304384 and analytical batch 480-304689 recovered outside control limits for the following analyte: Benzaldehyde. This analyte was biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method(s) 8270D: The continuing calibration verification (CCV) associated with batch 480-304689 recovered outside acceptance criteria, low biased, for 2,2'-Oxybis(1-chloropropane), Bis(2-chloroethyl)ether, Butyl benzyl phthalate, Di-n-octyl phthalate, N-Nitrosodi-n-propylamine and Pentachlorophenol. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Since the associated samples were non-detect for this analyte, the data have been reported.

Method(s) 8270D: The following samples were diluted due to the nature of the sample matrix : VO-MW1-W (480-100804-1) and VO-MW2-W (480-100804-2). As such, surrogate recoveries are below the calibration range, and elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

EXECUTIVE SUMMARY - Detections

Client: Stantec Consulting Services Inc Job Number: 480-100804-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
480-100804-1	**VO-MW1-W**					
1,2,4-Trimethylbenzene		12		10	ug/L	8260C
Methylcyclohexane		34		10	ug/L	8260C
Naphthalene		8.2	J	10	ug/L	8260C

METHOD SUMMARY

Client: Stantec Consulting Services Inc | Job Number: 480-100804-1

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Volatile Organic Compounds by GC/MS	TAL BUF	SW846 8260C	
Purge and Trap	TAL BUF		SW846 5030C
Semivolatile Organic Compounds (GC/MS)	TAL BUF	SW846 8270D	
Liquid-Liquid Extraction (Separatory Funnel)	TAL BUF		SW846 3510C

Lab References:

TAL BUF = TestAmerica Buffalo

Method References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: Stantec Consulting Services Inc

Job Number: 480-100804-1

Method	Analyst	Analyst ID
SW846 8260C	Fortain, Gerald V	GVF
SW846 8270D	Wolf, Leah M	LMW

SAMPLE SUMMARY

Client: Stantec Consulting Services Inc

Job Number: 480-100804-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
480-100804-1	VO-MW1-W	Water	05/26/2016 1040	05/27/2016 1000
480-100804-2	VO-MW2-W	Water	05/26/2016 1110	05/27/2016 1000

SAMPLE RESULTS

Client: Stantec Consulting Services Inc | Job Number: 480-100804-1

Client Sample ID: **VO-MW1-W**

Lab Sample ID: 480-100804-1 | Date Sampled: 05/26/2016 1040
Client Matrix: Water | Date Received: 05/27/2016 1000

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-305188	Instrument ID:	HP5973N
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	N4218.D
Dilution:	10			Initial Weight/Volume:	5 mL
Analysis Date:	06/06/2016 1228			Final Weight/Volume:	5 mL
Prep Date:	06/06/2016 1228				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		8.2	10
1,1,2,2-Tetrachloroethane	ND		2.1	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		3.1	10
1,1,2-Trichloroethane	ND		2.3	10
1,1-Dichloroethane	ND		3.8	10
1,1-Dichloroethene	ND		2.9	10
1,2,4-Trichlorobenzene	ND		4.1	10
1,2,4-Trimethylbenzene	12		7.5	10
1,2-Dibromo-3-Chloropropane	ND		3.9	10
1,2-Dichlorobenzene	ND		7.9	10
1,2-Dichloroethane	ND		2.1	10
1,2-Dichloropropane	ND		7.2	10
1,3,5-Trimethylbenzene	ND		7.7	10
1,3-Dichlorobenzene	ND		7.8	10
1,4-Dichlorobenzene	ND		8.4	10
2-Butanone (MEK)	ND		13	100
2-Hexanone	ND		12	50
4-Isopropyltoluene	ND		3.1	10
4-Methyl-2-pentanone (MIBK)	ND		21	50
Acetone	ND		30	100
Benzene	ND		4.1	10
Bromoform	ND		2.6	10
Bromomethane	ND		6.9	10
Carbon disulfide	ND		1.9	10
Carbon tetrachloride	ND		2.7	10
Chlorobenzene	ND		7.5	10
Dibromochloromethane	ND		3.2	10
Chloroethane	ND		3.2	10
Chloroform	ND		3.4	10
Chloromethane	ND		3.5	10
cis-1,2-Dichloroethene	ND		8.1	10
Cyclohexane	ND		1.8	10
Bromodichloromethane	ND		3.9	10
Dichlorodifluoromethane	ND		6.8	10
Ethylbenzene	ND		7.4	10
1,2-Dibromoethane	ND		7.3	10
Isopropylbenzene	ND		7.9	10
Methyl acetate	ND		13	25
Methyl tert-butyl ether	ND		1.6	10
Methylcyclohexane	34		1.6	10
Methylene Chloride	ND		4.4	10
m,p-Xylene	ND		6.6	20
Naphthalene	8.2	J	4.3	10
n-Butylbenzene	ND		6.4	10
N-Propylbenzene	ND		6.9	10
o-Xylene	ND		7.6	10

Client: Stantec Consulting Services Inc | Job Number: 480-100804-1

Client Sample ID: **VO-MW1-W**

Lab Sample ID: 480-100804-1 | Date Sampled: 05/26/2016 1040
Client Matrix: Water | Date Received: 05/27/2016 1000

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-305188	Instrument ID:	HP5973N
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	N4218.D
Dilution:	10			Initial Weight/Volume:	5 mL
Analysis Date:	06/06/2016 1228			Final Weight/Volume:	5 mL
Prep Date:	06/06/2016 1228				

Analyte	Result (ug/L)	Qualifier	MDL	RL
sec-Butylbenzene	ND		7.5	10
Tetrachloroethene	ND		3.6	10
Toluene	ND		5.1	10
trans-1,2-Dichloroethene	ND		9.0	10
trans-1,3-Dichloropropene	ND		3.7	10
Trichloroethene	ND		4.6	10
Trichlorofluoromethane	ND		8.8	10
Vinyl chloride	ND		9.0	10
Xylenes, Total	ND		6.6	20
cis-1,3-Dichloropropene	ND		3.6	10
Styrene	ND		7.3	10
tert-Butylbenzene	ND		8.1	10

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	97		66 - 137
4-Bromofluorobenzene (Surr)	111		73 - 120
Toluene-d8 (Surr)	97		71 - 126
Dibromofluoromethane (Surr)	102		60 - 140

Client: Stantec Consulting Services Inc | Job Number: 480-100804-1

Client Sample ID: **VO-MW1-W**

Lab Sample ID: 480-100804-1 | Date Sampled: 05/26/2016 1040
Client Matrix: Water | Date Received: 05/27/2016 1000

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-305188	Instrument ID:	HP5973N
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	N4218.D
Dilution:	10			Initial Weight/Volume:	5 mL
Analysis Date:	06/06/2016 1228			Final Weight/Volume:	5 mL
Prep Date:	06/06/2016 1228				

Tentatively Identified Compounds **Number TIC's Found: 1**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
526-73-8	Benzene, 1,2,3-trimethyl-	10.99	25	T J N

Client: Stantec Consulting Services Inc | Job Number: 480-100804-1

Client Sample ID: **VO-MW2-W**

Lab Sample ID: 480-100804-2 | Date Sampled: 05/26/2016 1110
Client Matrix: Water | Date Received: 05/27/2016 1000

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-305188	Instrument ID:	HP5973N
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	N4219.D
Dilution:	10			Initial Weight/Volume:	5 mL
Analysis Date:	06/06/2016 1255			Final Weight/Volume:	5 mL
Prep Date:	06/06/2016 1255				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		8.2	10
1,1,2,2-Tetrachloroethane	ND		2.1	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		3.1	10
1,1,2-Trichloroethane	ND		2.3	10
1,1-Dichloroethane	ND		3.8	10
1,1-Dichloroethene	ND		2.9	10
1,2,4-Trichlorobenzene	ND		4.1	10
1,2,4-Trimethylbenzene	ND		7.5	10
1,2-Dibromo-3-Chloropropane	ND		3.9	10
1,2-Dichlorobenzene	ND		7.9	10
1,2-Dichloroethane	ND		2.1	10
1,2-Dichloropropane	ND		7.2	10
1,3,5-Trimethylbenzene	ND		7.7	10
1,3-Dichlorobenzene	ND		7.8	10
1,4-Dichlorobenzene	ND		8.4	10
2-Butanone (MEK)	ND		13	100
2-Hexanone	ND		12	50
4-Isopropyltoluene	ND		3.1	10
4-Methyl-2-pentanone (MIBK)	ND		21	50
Acetone	ND		30	100
Benzene	ND		4.1	10
Bromoform	ND		2.6	10
Bromomethane	ND		6.9	10
Carbon disulfide	ND		1.9	10
Carbon tetrachloride	ND		2.7	10
Chlorobenzene	ND		7.5	10
Dibromochloromethane	ND		3.2	10
Chloroethane	ND		3.2	10
Chloroform	ND		3.4	10
Chloromethane	ND		3.5	10
cis-1,2-Dichloroethene	ND		8.1	10
Cyclohexane	ND		1.8	10
Bromodichloromethane	ND		3.9	10
Dichlorodifluoromethane	ND		6.8	10
Ethylbenzene	ND		7.4	10
1,2-Dibromoethane	ND		7.3	10
Isopropylbenzene	ND		7.9	10
Methyl acetate	ND		13	25
Methyl tert-butyl ether	ND		1.6	10
Methylcyclohexane	ND		1.6	10
Methylene Chloride	ND		4.4	10
m,p-Xylene	ND		6.6	20
Naphthalene	ND		4.3	10
n-Butylbenzene	ND		6.4	10
N-Propylbenzene	ND		6.9	10
o-Xylene	ND		7.6	10

Client: Stantec Consulting Services Inc | Job Number: 480-100804-1

Client Sample ID: **VO-MW2-W**

Lab Sample ID: 480-100804-2 | Date Sampled: 05/26/2016 1110
Client Matrix: Water | Date Received: 05/27/2016 1000

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-305188	Instrument ID:	HP5973N
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	N4219.D
Dilution:	10			Initial Weight/Volume:	5 mL
Analysis Date:	06/06/2016 1255			Final Weight/Volume:	5 mL
Prep Date:	06/06/2016 1255				

Analyte	Result (ug/L)	Qualifier	MDL	RL
sec-Butylbenzene	ND		7.5	10
Tetrachloroethene	ND		3.6	10
Toluene	ND		5.1	10
trans-1,2-Dichloroethene	ND		9.0	10
trans-1,3-Dichloropropene	ND		3.7	10
Trichloroethene	ND		4.6	10
Trichlorofluoromethane	ND		8.8	10
Vinyl chloride	ND		9.0	10
Xylenes, Total	ND		6.6	20
cis-1,3-Dichloropropene	ND		3.6	10
Styrene	ND		7.3	10
tert-Butylbenzene	ND		8.1	10

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	103		66 - 137
4-Bromofluorobenzene (Surr)	110		73 - 120
Toluene-d8 (Surr)	99		71 - 126
Dibromofluoromethane (Surr)	101		60 - 140

Client: Stantec Consulting Services Inc | Job Number: 480-100804-1

Client Sample ID: **VO-MW2-W**

Lab Sample ID: 480-100804-2 | Date Sampled: 05/26/2016 1110
Client Matrix: Water | Date Received: 05/27/2016 1000

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-305188	Instrument ID:	HP5973N
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	N4219.D
Dilution:	10			Initial Weight/Volume:	5 mL
Analysis Date:	06/06/2016 1255			Final Weight/Volume:	5 mL
Prep Date:	06/06/2016 1255				

Tentatively Identified Compounds **Number TIC's Found: 0**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Tentatively Identified Compound		None	

Client: Stantec Consulting Services Inc | Job Number: 480-100804-1

Client Sample ID: **VO-MW1-W**

Lab Sample ID: 480-100804-1 | Date Sampled: 05/26/2016 1040
Client Matrix: Water | Date Received: 05/27/2016 1000

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	480-304689	Instrument ID:	HP5973Y
Prep Method:	3510C	Prep Batch:	480-304384	Lab File ID:	Y0126050.D
Dilution:	50			Initial Weight/Volume:	258.8 mL
Analysis Date:	06/02/2016 1247			Final Weight/Volume:	1 mL
Prep Date:	05/31/2016 1428			Injection Volume:	2 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Biphenyl	ND		32	240
bis (2-chloroisopropyl) ether	ND		25	240
2,4,5-Trichlorophenol	ND		23	240
2,4,6-Trichlorophenol	ND		29	240
2,4-Dichlorophenol	ND		25	240
2,4-Dimethylphenol	ND		24	240
2,4-Dinitrophenol	ND		110	480
2,4-Dinitrotoluene	ND		22	240
2,6-Dinitrotoluene	ND		19	240
2-Chloronaphthalene	ND		22	240
2-Chlorophenol	ND		26	240
2-Methylnaphthalene	ND		29	240
2-Methylphenol	ND		19	240
2-Nitroaniline	ND		20	480
2-Nitrophenol	ND		23	240
3,3'-Dichlorobenzidine	ND		19	240
3-Nitroaniline	ND		23	480
4,6-Dinitro-2-methylphenol	ND		110	480
4-Bromophenyl phenyl ether	ND		22	240
4-Chloro-3-methylphenol	ND		22	240
4-Chloroaniline	ND		28	240
4-Chlorophenyl phenyl ether	ND		17	240
4-Methylphenol	ND		17	480
4-Nitroaniline	ND		12	480
4-Nitrophenol	ND		73	480
Acenaphthene	ND		20	240
Acenaphthylene	ND		18	240
Acetophenone	ND		26	240
Anthracene	ND		14	240
Atrazine	ND		22	240
Benzaldehyde	ND	*	13	240
Benzo(a)anthracene	ND		17	240
Benzo(a)pyrene	ND		23	240
Benzo(b)fluoranthene	ND		16	240
Benzo(g,h,i)perylene	ND		17	240
Benzo(k)fluoranthene	ND		35	240
Bis(2-chloroethoxy)methane	ND		17	240
Bis(2-chloroethyl)ether	ND		19	240
Bis(2-ethylhexyl) phthalate	ND		110	240
Butyl benzyl phthalate	ND		48	240
Caprolactam	ND		110	240
Carbazole	ND		14	240
Chrysene	ND		16	240
Di-n-butyl phthalate	ND		15	240
Di-n-octyl phthalate	ND		23	240
Dibenz(a,h)anthracene	ND		20	240

Client: Stantec Consulting Services Inc | Job Number: 480-100804-1

Client Sample ID: **VO-MW1-W**

Lab Sample ID: 480-100804-1 | Date Sampled: 05/26/2016 1040
Client Matrix: Water | Date Received: 05/27/2016 1000

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	480-304689	Instrument ID:	HP5973Y
Prep Method:	3510C	Prep Batch:	480-304384	Lab File ID:	Y0126050.D
Dilution:	50			Initial Weight/Volume:	258.8 mL
Analysis Date:	06/02/2016 1247			Final Weight/Volume:	1 mL
Prep Date:	05/31/2016 1428			Injection Volume:	2 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Dibenzofuran	ND		25	480
Diethyl phthalate	ND		11	240
Dimethyl phthalate	ND		17	240
Fluoranthene	ND		19	240
Fluorene	ND		17	240
Hexachlorobenzene	ND		25	240
Hexachlorobutadiene	ND		33	240
Hexachlorocyclopentadiene	ND		28	240
Hexachloroethane	ND		28	240
Indeno(1,2,3-cd)pyrene	ND		23	240
Isophorone	ND		21	240
N-Nitrosodi-n-propylamine	ND		26	240
N-Nitrosodiphenylamine	ND		25	240
Naphthalene	ND		37	240
Nitrobenzene	ND		14	240
Pentachlorophenol	ND		110	480
Phenanthrene	ND		21	240
Phenol	ND		19	240
Pyrene	ND		16	240

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol	142	X	52 - 132
2-Fluorobiphenyl	74		48 - 120
2-Fluorophenol	39		20 - 120
Nitrobenzene-d5	66		46 - 120
p-Terphenyl-d14	74		67 - 150
Phenol-d5	26		16 - 120

Client: Stantec Consulting Services Inc Job Number: 480-100804-1

Client Sample ID: VO-MW1-W

Lab Sample ID: 480-100804-1 Date Sampled: 05/26/2016 1040
Client Matrix: Water Date Received: 05/27/2016 1000

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	480-304689	Instrument ID:	HP5973Y
Prep Method:	3510C	Prep Batch:	480-304384	Lab File ID:	Y0126050.D
Dilution:	50			Initial Weight/Volume:	258.8 mL
Analysis Date:	06/02/2016 1247			Final Weight/Volume:	1 mL
Prep Date:	05/31/2016 1428			Injection Volume:	2 uL

Tentatively Identified Compounds **Number TIC's Found: 8**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Unknown	2.18	370	T J
	Unknown	8.00	86	T J
	Unknown	8.11	82	T J
	Unknown	8.79	93	T J
3892-00-0	Pentadecane, 2,6,10-trimethyl-	8.88	86	T J N
629-59-4	Tetradecane	9.48	180	T J N
	Unknown	9.77	82	T J
1000197-14-1	4b,8-Dimethyl-2-isopropylphenanthrene, 4	10.33	390	T J N

Client: Stantec Consulting Services Inc | Job Number: 480-100804-1

Client Sample ID: **VO-MW2-W**

Lab Sample ID: 480-100804-2 | Date Sampled: 05/26/2016 1110
Client Matrix: Water | Date Received: 05/27/2016 1000

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	480-304689	Instrument ID:	HP5973Y
Prep Method:	3510C	Prep Batch:	480-304384	Lab File ID:	Y0126051.D
Dilution:	50			Initial Weight/Volume:	264.3 mL
Analysis Date:	06/02/2016 1317			Final Weight/Volume:	1 mL
Prep Date:	05/31/2016 1428			Injection Volume:	2 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Biphenyl	ND		31	240
bis (2-chloroisopropyl) ether	ND		25	240
2,4,5-Trichlorophenol	ND		23	240
2,4,6-Trichlorophenol	ND		29	240
2,4-Dichlorophenol	ND		24	240
2,4-Dimethylphenol	ND		24	240
2,4-Dinitrophenol	ND		100	470
2,4-Dinitrotoluene	ND		21	240
2,6-Dinitrotoluene	ND		19	240
2-Chloronaphthalene	ND		22	240
2-Chlorophenol	ND		25	240
2-Methylnaphthalene	ND		28	240
2-Methylphenol	ND		19	240
2-Nitroaniline	ND		20	470
2-Nitrophenol	ND		23	240
3,3'-Dichlorobenzidine	ND		19	240
3-Nitroaniline	ND		23	470
4,6-Dinitro-2-methylphenol	ND		100	470
4-Bromophenyl phenyl ether	ND		21	240
4-Chloro-3-methylphenol	ND		21	240
4-Chloroaniline	ND		28	240
4-Chlorophenyl phenyl ether	ND		17	240
4-Methylphenol	ND		17	470
4-Nitroaniline	ND		12	470
4-Nitrophenol	ND		72	470
Acenaphthene	ND		19	240
Acenaphthylene	ND		18	240
Acetophenone	ND		26	240
Anthracene	ND		13	240
Atrazine	ND		22	240
Benzaldehyde	ND	*	13	240
Benzo(a)anthracene	ND		17	240
Benzo(a)pyrene	ND		22	240
Benzo(b)fluoranthene	ND		16	240
Benzo(g,h,i)perylene	ND		17	240
Benzo(k)fluoranthene	ND		35	240
Bis(2-chloroethoxy)methane	ND		17	240
Bis(2-chloroethyl)ether	ND		19	240
Bis(2-ethylhexyl) phthalate	ND		100	240
Butyl benzyl phthalate	ND		47	240
Caprolactam	ND		100	240
Carbazole	ND		14	240
Chrysene	ND		16	240
Di-n-butyl phthalate	ND		15	240
Di-n-octyl phthalate	ND		22	240
Dibenz(a,h)anthracene	ND		20	240

Client Sample ID: **VO-MW2-W**

Lab Sample ID: 480-100804-2 Date Sampled: 05/26/2016 1110
Client Matrix: Water Date Received: 05/27/2016 1000

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	480-304689	Instrument ID:	HP5973Y
Prep Method:	3510C	Prep Batch:	480-304384	Lab File ID:	Y0126051.D
Dilution:	50			Initial Weight/Volume:	264.3 mL
Analysis Date:	06/02/2016 1317			Final Weight/Volume:	1 mL
Prep Date:	05/31/2016 1428			Injection Volume:	2 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Dibenzofuran	ND		24	470
Diethyl phthalate	ND		10	240
Dimethyl phthalate	ND		17	240
Fluoranthene	ND		19	240
Fluorene	ND		17	240
Hexachlorobenzene	ND		24	240
Hexachlorobutadiene	ND		32	240
Hexachlorocyclopentadiene	ND		28	240
Hexachloroethane	ND		28	240
Indeno(1,2,3-cd)pyrene	ND		22	240
Isophorone	ND		20	240
N-Nitrosodi-n-propylamine	ND		26	240
N-Nitrosodiphenylamine	ND		24	240
Naphthalene	ND		36	240
Nitrobenzene	ND		14	240
Pentachlorophenol	ND		100	470
Phenanthrene	ND		21	240
Phenol	ND		18	240
Pyrene	ND		16	240

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol	199	X	52 - 132
2-Fluorobiphenyl	124	X	48 - 120
2-Fluorophenol	62		20 - 120
Nitrobenzene-d5	110		46 - 120
p-Terphenyl-d14	107		67 - 150
Phenol-d5	53		16 - 120

Client: Stantec Consulting Services Inc Job Number: 480-100804-1

Client Sample ID: **VO-MW2-W**

Lab Sample ID: 480-100804-2 Date Sampled: 05/26/2016 1110
Client Matrix: Water Date Received: 05/27/2016 1000

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	480-304689	Instrument ID:	HP5973Y
Prep Method:	3510C	Prep Batch:	480-304384	Lab File ID:	Y0126051.D
Dilution:	50			Initial Weight/Volume:	264.3 mL
Analysis Date:	06/02/2016 1317			Final Weight/Volume:	1 mL
Prep Date:	05/31/2016 1428			Injection Volume:	2 uL

Tentatively Identified Compounds **Number TIC's Found: 13**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Unknown	2.19	460	T J
	Unknown	6.92	180	T J
	Unknown	7.57	120	T J
621-36-3	m-Tolylacetic acid	7.61	110	T J N
	Unknown	7.70	120	T J
	Unknown	7.86	140	T J
	Unknown	7.89	180	T J
	Unknown	8.02	120	T J
	Unknown	8.11	150	T J
	Unknown	8.16	92	T J
	Unknown	8.35	96	T J
1921-70-6	Pentadecane, 2,6,10,14-tetramethyl-	9.10	110	T J N
638-36-8	Hexadecane, 2,6,10,14-tetramethyl-	9.48	96	T J N

DATA REPORTING QUALIFIERS

Client: Stantec Consulting Services Inc Job Number: 480-100804-1

Lab Section	Qualifier	Description
GC/MS VOA		
	J	Indicates an Estimated Value for TICs
	N	Presumptive evidence of material.
	T	Result is a tentatively identified compound (TIC) and an estimated value.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
GC/MS Semi VOA		
	J	Indicates an Estimated Value for TICs
	*	LCS or LCSD is outside acceptance limits.
	N	Presumptive evidence of material.
	T	Result is a tentatively identified compound (TIC) and an estimated value.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
	X	Surrogate is outside control limits

QUALITY CONTROL RESULTS

Client: Stantec Consulting Services Inc

Job Number: 480-100804-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Analysis Batch:480-305188					
LCS 480-305188/5	Lab Control Sample	T	Water	8260C	
MB 480-305188/7	Method Blank	T	Water	8260C	
480-100804-1	VO-MW1-W	T	Water	8260C	
480-100804-2	VO-MW2-W	T	Water	8260C	

Report Basis
T = Total

GC/MS Semi VOA					
Prep Batch: 480-304384					
LCS 480-304384/2-A	Lab Control Sample	T	Water	3510C	
MB 480-304384/1-A	Method Blank	T	Water	3510C	
480-100804-1	VO-MW1-W	T	Water	3510C	
480-100804-2	VO-MW2-W	T	Water	3510C	
Analysis Batch:480-304689					
LCS 480-304384/2-A	Lab Control Sample	T	Water	8270D	480-304384
MB 480-304384/1-A	Method Blank	T	Water	8270D	480-304384
480-100804-1	VO-MW1-W	T	Water	8270D	480-304384
480-100804-2	VO-MW2-W	T	Water	8270D	480-304384

Report Basis
T = Total

Client: Stantec Consulting Services Inc

Job Number: 480-100804-1

Surrogate Recovery Report

8260C Volatile Organic Compounds by GC/MS

Client Matrix: Water

Lab Sample ID	Client Sample ID	DCA %Rec	BFB %Rec	TOL %Rec	DBFM %Rec
480-100804-1	VO-MW1-W	97	111	97	102
480-100804-2	VO-MW2-W	103	110	99	101
MB 480-305188/7		99	113	97	100
LCS 480-305188/5		98	109	97	98

Surrogate	Acceptance Limits
DCA = 1,2-Dichloroethane-d4 (Surr)	66-137
BFB = 4-Bromofluorobenzene (Surr)	73-120
TOL = Toluene-d8 (Surr)	71-126
DBFM = Dibromofluoromethane (Surr)	60-140

Client: Stantec Consulting Services Inc Job Number: 480-100804-1

Surrogate Recovery Report

8270D Semivolatile Organic Compounds (GC/MS)

Client Matrix: Water

Lab Sample ID	Client Sample ID	TBP %Rec	FBP %Rec	2FP %Rec	NBZ %Rec	TPH %Rec	PHL %Rec
480-100804-1	VO-MW1-W	142X	74	39	66	74	26
480-100804-2	VO-MW2-W	199X	124X	62	110	107	53
MB 480-304384/1-A		96	71	45	71	89	34
LCS 480-304384/2-A		108	78	56	77	88	41

Surrogate	Acceptance Limits
TBP = 2,4,6-Tribromophenol	52-132
FBP = 2-Fluorobiphenyl	48-120
2FP = 2-Fluorophenol	20-120
NBZ = Nitrobenzene-d5	46-120
TPH = p-Terphenyl-d14	67-150
PHL = Phenol-d5	16-120

Method Blank - Batch: 480-305188

Method: 8260C
Preparation: 5030C

Lab Sample ID:	MB 480-305188/7	Analysis Batch:	480-305188	Instrument ID:	HP5973N
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N4217.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	06/06/2016 1146	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	06/06/2016 1146				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
1,1,1-Trichloroethane	ND		0.82	1.0
1,1,2,2-Tetrachloroethane	ND		0.21	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.31	1.0
1,1,2-Trichloroethane	ND		0.23	1.0
1,1-Dichloroethane	ND		0.38	1.0
1,1-Dichloroethene	ND		0.29	1.0
1,2,4-Trichlorobenzene	ND		0.41	1.0
1,2,4-Trimethylbenzene	ND		0.75	1.0
1,2-Dibromo-3-Chloropropane	ND		0.39	1.0
1,2-Dichlorobenzene	ND		0.79	1.0
1,2-Dichloroethane	ND		0.21	1.0
1,2-Dichloropropane	ND		0.72	1.0
1,3,5-Trimethylbenzene	ND		0.77	1.0
1,3-Dichlorobenzene	ND		0.78	1.0
1,4-Dichlorobenzene	ND		0.84	1.0
2-Butanone (MEK)	ND		1.3	10
2-Hexanone	ND		1.2	5.0
4-Isopropyltoluene	ND		0.31	1.0
4-Methyl-2-pentanone (MIBK)	ND		2.1	5.0
Acetone	ND		3.0	10
Benzene	ND		0.41	1.0
Bromoform	ND		0.26	1.0
Bromomethane	ND		0.69	1.0
Carbon disulfide	ND		0.19	1.0
Carbon tetrachloride	ND		0.27	1.0
Chlorobenzene	ND		0.75	1.0
Dibromochloromethane	ND		0.32	1.0
Chloroethane	ND		0.32	1.0
Chloroform	ND		0.34	1.0
Chloromethane	ND		0.35	1.0
cis-1,2-Dichloroethene	ND		0.81	1.0
Cyclohexane	ND		0.18	1.0
Bromodichloromethane	ND		0.39	1.0
Dichlorodifluoromethane	ND		0.68	1.0
Ethylbenzene	ND		0.74	1.0
1,2-Dibromoethane	ND		0.73	1.0
Isopropylbenzene	ND		0.79	1.0
Methyl acetate	ND		1.3	2.5
Methyl tert-butyl ether	ND		0.16	1.0
Methylcyclohexane	ND		0.16	1.0
Methylene Chloride	ND		0.44	1.0
m,p-Xylene	ND		0.66	2.0
Naphthalene	ND		0.43	1.0
n-Butylbenzene	ND		0.64	1.0
N-Propylbenzene	ND		0.69	1.0

Client: Stantec Consulting Services Inc

Job Number: 480-100804-1

Method Blank - Batch: 480-305188

Method: 8260C
Preparation: 5030C

Lab Sample ID:	MB 480-305188/7	Analysis Batch:	480-305188	Instrument ID:	HP5973N
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N4217.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	06/06/2016 1146	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	06/06/2016 1146				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
o-Xylene	ND		0.76	1.0
sec-Butylbenzene	ND		0.75	1.0
Tetrachloroethene	ND		0.36	1.0
Toluene	ND		0.51	1.0
trans-1,2-Dichloroethene	ND		0.90	1.0
trans-1,3-Dichloropropene	ND		0.37	1.0
Trichloroethene	ND		0.46	1.0
Trichlorofluoromethane	ND		0.88	1.0
Vinyl chloride	ND		0.90	1.0
Xylenes, Total	ND		0.66	2.0
cis-1,3-Dichloropropene	ND		0.36	1.0
Styrene	ND		0.73	1.0
tert-Butylbenzene	ND		0.81	1.0

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	99	66 - 137
4-Bromofluorobenzene (Surr)	113	73 - 120
Toluene-d8 (Surr)	97	71 - 126
Dibromofluoromethane (Surr)	100	60 - 140

Method Blank TICs- Batch: 480-305188

Cas Number	Analyte	RT	Est. Result (ug/	Qual
	Tentatively Identified Compound		None	

Client: Stantec Consulting Services Inc

Job Number: 480-100804-1

Lab Control Sample - Batch: 480-305188

Method: 8260C
Preparation: 5030C

Lab Sample ID:	LCS 480-305188/5	Analysis Batch:	480-305188	Instrument ID:	HP5973N
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N4215.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	06/06/2016 1052	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	06/06/2016 1052				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
1,1,1-Trichloroethane	25.0	27.4	110	73 - 126	
1,1,2,2-Tetrachloroethane	25.0	22.0	88	70 - 126	
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	28.0	112	52 - 148	
1,1,2-Trichloroethane	25.0	23.9	96	76 - 122	
1,1-Dichloroethane	25.0	24.9	99	71 - 129	
1,1-Dichloroethene	25.0	25.8	103	58 - 121	
1,2,4-Trichlorobenzene	25.0	21.4	86	70 - 122	
1,2,4-Trimethylbenzene	25.0	21.5	86	76 - 121	
1,2-Dibromo-3-Chloropropane	25.0	20.3	81	56 - 134	
1,2-Dichlorobenzene	25.0	21.5	86	80 - 124	
1,2-Dichloroethane	25.0	23.2	93	75 - 127	
1,2-Dichloropropane	25.0	26.2	105	76 - 120	
1,3,5-Trimethylbenzene	25.0	21.8	87	77 - 121	
1,3-Dichlorobenzene	25.0	21.2	85	77 - 120	
1,4-Dichlorobenzene	25.0	21.6	86	75 - 120	
2-Butanone (MEK)	125	118	94	57 - 140	
2-Hexanone	125	124	99	65 - 127	
4-Isopropyltoluene	25.0	22.1	88	73 - 120	
4-Methyl-2-pentanone (MIBK)	125	121	96	71 - 125	
Acetone	125	101	81	56 - 142	
Benzene	25.0	25.0	100	71 - 124	
Bromoform	25.0	27.2	109	52 - 132	
Bromomethane	25.0	23.7	95	55 - 144	
Carbon disulfide	25.0	24.9	100	59 - 134	
Carbon tetrachloride	25.0	27.9	111	72 - 134	
Chlorobenzene	25.0	24.0	96	72 - 120	
Dibromochloromethane	25.0	24.6	98	75 - 125	
Chloroethane	25.0	25.7	103	69 - 136	
Chloroform	25.0	23.2	93	73 - 127	
Chloromethane	25.0	21.1	84	68 - 124	
cis-1,2-Dichloroethene	25.0	22.8	91	74 - 124	
Cyclohexane	25.0	28.4	113	59 - 135	
Bromodichloromethane	25.0	24.9	100	80 - 122	
Dichlorodifluoromethane	25.0	21.2	85	59 - 135	
Ethylbenzene	25.0	22.7	91	77 - 123	
1,2-Dibromoethane	25.0	24.4	97	77 - 120	
Isopropylbenzene	25.0	22.4	90	77 - 122	
Methyl acetate	125	128	103	74 - 133	
Methyl tert-butyl ether	25.0	24.7	99	64 - 127	
Methylcyclohexane	25.0	27.2	109	61 - 138	
Methylene Chloride	25.0	25.4	102	57 - 132	

Client: Stantec Consulting Services Inc

Job Number: 480-100804-1

Lab Control Sample - Batch: 480-305188

Method: 8260C
Preparation: 5030C

Lab Sample ID:	LCS 480-305188/5	Analysis Batch:	480-305188	Instrument ID:	HP5973N
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N4215.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	06/06/2016 1052	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	06/06/2016 1052				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
m,p-Xylene	25.0	23.3	93	76 - 122	
Naphthalene	25.0	19.4	77	66 - 125	
n-Butylbenzene	25.0	21.4	85	71 - 128	
N-Propylbenzene	25.0	22.0	88	75 - 127	
o-Xylene	25.0	22.2	89	76 - 122	
sec-Butylbenzene	25.0	21.9	88	74 - 127	
Tetrachloroethene	25.0	25.0	100	74 - 122	
Toluene	25.0	23.4	94	80 - 122	
trans-1,2-Dichloroethene	25.0	25.6	103	73 - 127	
trans-1,3-Dichloropropene	25.0	23.6	94	72 - 123	
Trichloroethene	25.0	25.7	103	74 - 123	
Trichlorofluoromethane	25.0	28.7	115	62 - 152	
Vinyl chloride	25.0	24.8	99	65 - 133	
cis-1,3-Dichloropropene	25.0	24.5	98	74 - 124	
Styrene	25.0	23.8	95	70 - 130	
tert-Butylbenzene	25.0	21.9	88	75 - 123	

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	98	66 - 137
4-Bromofluorobenzene (Surr)	109	73 - 120
Toluene-d8 (Surr)	97	71 - 126
Dibromofluoromethane (Surr)	98	60 - 140

Method Blank - Batch: 480-304384

Method: 8270D
Preparation: 3510C

Lab Sample ID:	MB 480-304384/1-A	Analysis Batch:	480-304689	Instrument ID:	HP5973Y
Client Matrix:	Water	Prep Batch:	480-304384	Lab File ID:	Y0126046.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	250 mL
Analysis Date:	06/02/2016 1049	Units:	ug/L	Final Weight/Volume:	1 mL
Prep Date:	05/31/2016 1428			Injection Volume:	2 uL
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Biphenyl	ND		0.65	5.0
bis (2-chloroisopropyl) ether	ND		0.52	5.0
2,4,5-Trichlorophenol	ND		0.48	5.0
2,4,6-Trichlorophenol	ND		0.61	5.0
2,4-Dichlorophenol	ND		0.51	5.0
2,4-Dimethylphenol	ND		0.50	5.0
2,4-Dinitrophenol	ND		2.2	10
2,4-Dinitrotoluene	ND		0.45	5.0
2,6-Dinitrotoluene	ND		0.40	5.0
2-Chloronaphthalene	ND		0.46	5.0
2-Chlorophenol	ND		0.53	5.0
2-Methylnaphthalene	ND		0.60	5.0
2-Methylphenol	ND		0.40	5.0
2-Nitroaniline	ND		0.42	10
2-Nitrophenol	ND		0.48	5.0
3,3'-Dichlorobenzidine	ND		0.40	5.0
3-Nitroaniline	ND		0.48	10
4,6-Dinitro-2-methylphenol	ND		2.2	10
4-Bromophenyl phenyl ether	ND		0.45	5.0
4-Chloro-3-methylphenol	ND		0.45	5.0
4-Chloroaniline	ND		0.59	5.0
4-Chlorophenyl phenyl ether	ND		0.35	5.0
4-Methylphenol	0.851	J	0.36	10
4-Nitroaniline	ND		0.25	10
4-Nitrophenol	ND		1.5	10
Acenaphthene	ND		0.41	5.0
Acenaphthylene	ND		0.38	5.0
Acetophenone	ND		0.54	5.0
Anthracene	ND		0.28	5.0
Atrazine	ND		0.46	5.0
Benzaldehyde	ND		0.27	5.0
Benzo(a)anthracene	ND		0.36	5.0
Benzo(a)pyrene	ND		0.47	5.0
Benzo(b)fluoranthene	ND		0.34	5.0
Benzo(g,h,i)perylene	ND		0.35	5.0
Benzo(k)fluoranthene	ND		0.73	5.0
Bis(2-chloroethoxy)methane	ND		0.35	5.0
Bis(2-chloroethyl)ether	ND		0.40	5.0
Bis(2-ethylhexyl) phthalate	ND		2.2	5.0
Butyl benzyl phthalate	ND		1.0	5.0
Caprolactam	ND		2.2	5.0
Carbazole	ND		0.30	5.0
Chrysene	ND		0.33	5.0
Di-n-butyl phthalate	ND		0.31	5.0
Di-n-octyl phthalate	ND		0.47	5.0

Client: Stantec Consulting Services Inc

Job Number: 480-100804-1

Method Blank - Batch: 480-304384

Method: 8270D
Preparation: 3510C

Lab Sample ID:	MB 480-304384/1-A	Analysis Batch:	480-304689	Instrument ID:	HP5973Y
Client Matrix:	Water	Prep Batch:	480-304384	Lab File ID:	Y0126046.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	250 mL
Analysis Date:	06/02/2016 1049	Units:	ug/L	Final Weight/Volume:	1 mL
Prep Date:	05/31/2016 1428			Injection Volume:	2 uL
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Dibenz(a,h)anthracene	ND		0.42	5.0
Dibenzofuran	ND		0.51	10
Diethyl phthalate	ND		0.22	5.0
Dimethyl phthalate	ND		0.36	5.0
Fluoranthene	ND		0.40	5.0
Fluorene	ND		0.36	5.0
Hexachlorobenzene	ND		0.51	5.0
Hexachlorobutadiene	ND		0.68	5.0
Hexachlorocyclopentadiene	ND		0.59	5.0
Hexachloroethane	ND		0.59	5.0
Indeno(1,2,3-cd)pyrene	ND		0.47	5.0
Isophorone	ND		0.43	5.0
N-Nitrosodi-n-propylamine	ND		0.54	5.0
N-Nitrosodiphenylamine	ND		0.51	5.0
Naphthalene	ND		0.76	5.0
Nitrobenzene	ND		0.29	5.0
Pentachlorophenol	ND		2.2	10
Phenanthrene	ND		0.44	5.0
Phenol	ND		0.39	5.0
Pyrene	ND		0.34	5.0

Surrogate	% Rec	Acceptance Limits
2,4,6-Tribromophenol	96	52 - 132
2-Fluorobiphenyl	71	48 - 120
2-Fluorophenol	45	20 - 120
Nitrobenzene-d5	71	46 - 120
p-Terphenyl-d14	89	67 - 150
Phenol-d5	34	16 - 120

Client: Stantec Consulting Services Inc

Job Number: 480-100804-1

Method Blank TICs- Batch: 480-304384

Cas Number	Analyte	RT	Est. Result (ug/	Qual
107-92-6	Butanoic acid	3.69	3.78	T J N
77-93-0	Ethyl citrate	8.89	3.28	T J N
106-42-3	p-Xylene	4.51	5.17	T J N
	Unknown	11.93	11.4	T J
	Unknown	12.97	14.3	T J
	Unknown	15.53	14.9	T J
	Unknown	2.21	148	T J
	Unknown	14.18	15.9	T J
	Unknown	4.16	2.56	T J
	Unknown	10.59	21.0	T J
	Unknown	12.31	24.2	T J
	Unknown	12.70	3.06	T J
	Unknown	11.71	3.20	T J
	Unknown	13.87	3.65	T J
	Unknown	11.41	32.0	T J
	Unknown	9.72	5.54	T J
	Unknown	11.07	6.28	T J

Client: Stantec Consulting Services Inc

Job Number: 480-100804-1

Lab Control Sample - Batch: 480-304384

Method: 8270D
Preparation: 3510C

Lab Sample ID:	LCS 480-304384/2-A	Analysis Batch:	480-304689	Instrument ID:	HP5973Y
Client Matrix:	Water	Prep Batch:	480-304384	Lab File ID:	Y0126047.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	250 mL
Analysis Date:	06/02/2016 1118	Units:	ug/L	Final Weight/Volume:	1 mL
Prep Date:	05/31/2016 1428			Injection Volume:	2 uL
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Biphenyl	16.0	13.8	86	30 - 140	
bis (2-chloroisopropyl) ether	16.0	10.7	67	28 - 136	
2,4,5-Trichlorophenol	16.0	15.4	96	65 - 126	
2,4,6-Trichlorophenol	16.0	15.5	97	64 - 120	
2,4-Dichlorophenol	16.0	16.1	101	64 - 120	
2,4-Dimethylphenol	16.0	13.0	81	57 - 120	
2,4-Dinitrophenol	32.0	30.1	94	42 - 153	
2,4-Dinitrotoluene	16.0	16.5	103	65 - 154	
2,6-Dinitrotoluene	16.0	16.4	103	74 - 134	
2-Chloronaphthalene	16.0	13.8	86	41 - 124	
2-Chlorophenol	16.0	12.7	79	48 - 120	
2-Methylnaphthalene	16.0	14.5	91	34 - 122	
2-Methylphenol	16.0	12.2	76	39 - 120	
2-Nitroaniline	16.0	14.5	91	67 - 136	
2-Nitrophenol	16.0	15.5	97	59 - 120	
3,3'-Dichlorobenzidine	32.0	36.4	114	33 - 140	
3-Nitroaniline	16.0	14.5	91	28 - 130	
4,6-Dinitro-2-methylphenol	32.0	34.7	108	64 - 159	
4-Bromophenyl phenyl ether	16.0	16.2	101	71 - 126	
4-Chloro-3-methylphenol	16.0	15.0	94	64 - 120	
4-Chloroaniline	16.0	12.9	80	10 - 130	
4-Chlorophenyl phenyl ether	16.0	16.1	101	71 - 122	
4-Methylphenol	16.0	12.0	75	39 - 120	
4-Nitroaniline	16.0	14.5	90	47 - 130	
4-Nitrophenol	32.0	26.2	82	16 - 120	
Acenaphthene	16.0	14.2	89	60 - 120	
Acenaphthylene	16.0	14.0	87	63 - 120	
Acetophenone	16.0	13.9	87	45 - 120	
Anthracene	16.0	14.3	89	58 - 148	
Atrazine	32.0	37.3	117	56 - 179	
Benzaldehyde	32.0	46.7	146	30 - 140	*
Benzo(a)anthracene	16.0	14.6	91	55 - 151	
Benzo(a)pyrene	16.0	14.8	92	60 - 145	
Benzo(b)fluoranthene	16.0	15.0	94	54 - 140	
Benzo(g,h,i)perylene	16.0	15.8	99	66 - 152	
Benzo(k)fluoranthene	16.0	15.0	94	51 - 153	
Bis(2-chloroethoxy)methane	16.0	13.2	83	50 - 128	
Bis(2-chloroethyl)ether	16.0	11.6	72	51 - 120	
Bis(2-ethylhexyl) phthalate	16.0	14.3	90	53 - 158	
Butyl benzyl phthalate	16.0	14.5	91	58 - 163	
Caprolactam	32.0	10.9	34	14 - 130	

Client: Stantec Consulting Services Inc

Job Number: 480-100804-1

Lab Control Sample - Batch: 480-304384

Method: 8270D
Preparation: 3510C

Lab Sample ID:	LCS 480-304384/2-A	Analysis Batch:	480-304689	Instrument ID:	HP5973Y
Client Matrix:	Water	Prep Batch:	480-304384	Lab File ID:	Y0126047.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	250 mL
Analysis Date:	06/02/2016 1118	Units:	ug/L	Final Weight/Volume:	1 mL
Prep Date:	05/31/2016 1428			Injection Volume:	2 uL
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Carbazole	16.0	14.5	90	59 - 148	
Chrysene	16.0	14.5	91	69 - 140	
Di-n-butyl phthalate	16.0	15.6	98	58 - 149	
Di-n-octyl phthalate	16.0	13.8	86	55 - 167	
Dibenz(a,h)anthracene	16.0	15.1	94	57 - 148	
Dibenzofuran	16.0	14.9	93	49 - 137	
Diethyl phthalate	16.0	15.9	99	59 - 146	
Dimethyl phthalate	16.0	17.4	109	59 - 141	
Fluoranthene	16.0	15.8	99	55 - 147	
Fluorene	16.0	14.8	93	55 - 143	
Hexachlorobenzene	16.0	15.8	99	14 - 130	
Hexachlorobutadiene	16.0	15.8	99	14 - 130	
Hexachlorocyclopentadiene	16.0	12.0	75	13 - 130	
Hexachloroethane	16.0	12.0	75	14 - 130	
Indeno(1,2,3-cd)pyrene	16.0	15.5	97	69 - 146	
Isophorone	16.0	13.2	82	48 - 133	
N-Nitrosodi-n-propylamine	16.0	12.3	77	56 - 120	
N-Nitrosodiphenylamine	16.0	13.9	87	25 - 125	
Naphthalene	16.0	13.7	86	35 - 130	
Nitrobenzene	16.0	13.3	83	45 - 123	
Pentachlorophenol	32.0	24.2	76	39 - 136	
Phenanthrene	16.0	14.2	89	57 - 147	
Phenol	16.0	7.46	47	17 - 120	
Pyrene	16.0	14.3	90	58 - 136	

Surrogate	% Rec	Acceptance Limits
2,4,6-Tribromophenol	108	52 - 132
2-Fluorobiphenyl	78	48 - 120
2-Fluorophenol	56	20 - 120
Nitrobenzene-d5	77	46 - 120
p-Terphenyl-d14	88	67 - 150
Phenol-d5	41	16 - 120

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: L. Best	Lab PM: VanDette, Ryan T	Carrier Tracking No(s):	COC No: 480-83839-20486.1
Client Contact: Mr. Thomas Wells	Phone: (585)301-0166	E-Mail: ryan.vandette@testamericainc.com		Page: Page 1 of 1
Company: Stantec Consulting Services Inc		Analysis Requested		Job #:
Address: 61 Commercial Street	Due Date Requested:			Preservation Codes: A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)
City: Rochester	TAT Requested (days): 10d			
State, Zip: NY, 14614				Other:
Phone: 585-413-5625(Tel) 585-424-5951(Fax)	PO #: Purchase Order not required			
Email: tom.wells@stantec.com	WO #: 10137			
Project Name: Former Vacuum Oil Works	Project #: 48014042			
Site:	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8270D - (MOD) TCL SVOA - OLM04.2 + up to 20 TICs: ETCL + CP-51	8260C - (MOD) TCL list OLM04.2 + TCL + CP-51 + 6 up to 10 TICs	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	A		
VO-MW1-W	5/26/16	10:40	G	Water			X	X	5	* may contain petro. product
VO-MW2-W	5/26/16	11:10	G	Water			X	X	5	* may contain petro product

Xavia Best 5/26/16

480-100804 Chain of Custody

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological	☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify)	Special Instructions/QC Requirements: NYSDEC CP-51 Category A Deliverables; NYSDEC EQuIS

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	Xavia Best	5/26/16 13:45	Stantec	FEDEX		
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
				C Wallace	5/27/16 1000	TAB
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:
		FI 2.8

Login Sample Receipt Checklist

Client: Stantec Consulting Services Inc

Job Number: 480-100804-1

Login Number: 100804

List Source: TestAmerica Buffalo

List Number: 1

Creator: Hulbert, Michael J

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	STANTEC
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

Appendix C
Investigation Derived Waste Manifest

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
	1	585-436-5660	16-0892

GENERATOR

5. Generator's Name and Mailing Address
JOHN K ASSOCIATES
5739 DEMITRIOS WAY
AVON NY 14414
Generator's Phone: 585 261-3515

Generator's Site Address (if different than mailing address)
JOHN K ASSOCIATES
920 EXCHANGE STREET
ROCHESTER NY 14608

6. Transporter 1 Company Name: SUN ENVIRONMENTAL — U.S. EPA ID Number: NYR000176958

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address
INDUSTRIAL OIL TANK SERVICE CORP.
120 DRY RD.
ORISKANY NY 13204
Facility's Phone: 315 736.6080 — U.S. EPA ID Number: NYR000005298

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	NON RCRA, NON DOT REGULATED SOLIDS,NOS(PETROLEUM IMPACTED SOIL-GAS)	001	DM	00300	P	
2.	NON RCRA, NON DOT REGULATED LIQUIDS,NOS(PETROLEUM IMPACTED WATER-GAS)	001	DM	00050	G	
3.	NON RCRA, NON DOT REGULATED MATERIALS,NOS(PETROLEUM IMPACTED DEBRIS,NOS(PADS, SLEEVES,BAILERS-GAS)	002	DM	00200	P	
4.						

13. Special Handling Instructions and Additional Information
JOB# STAN.1002-1111 STANTEC

14. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: MICHAEL D PAPAPANU — Signature — Month 7 Day 28 Year 16

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Reuben Bumpus — Signature — Month 8 Day 4 Year 16

Transporter 2 Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name: MICHAEL R. MARKS — Signature — Month 08 Day 17 Year 16

169-BLS-C 5 11979 (Rev. 9/09)

DESIGNATED FACILITY TO GENERATOR